ANCIENT AZTEC HERBAL REMEDIES

Introduction and Caution

Since ancient times the Aztecs used plants and herbs to cure numerous diseases and afflictions; in reality modern farmacopia uses the natural plant and herbs of our earth in the elaboration of the medicines, tonics and all matter of prescribed and over the counter drugs we use.

Today; Natural medicine in it`s simplest form is less risky and more economical to aleve the pains and sufferings humans have that dont require surgery

I urge you to read the following pages, you never know there could be a cure for your ailment in your garden, cuboard or pantry.
Follow me into the Fantastic world of plants and herbs.

(All information is from the book "Ancient Aztec Medicinal Remedies", Library, Internet Resources and Family.)

CAUTION!

Just because herbs are natural substances doesn't mean that they can be used indiscriminately. Herbs can be strong medicine. Before trying any herbal remedy, be sure that you know what it does, how it is used, and any possible side effects. Never exceed the recommended dose. A doctor should monitor the use of any medicinal herb, making sure it does not conflict with medications already prescribed, and will not worsen conditions already known. Also, the sensitivity or allergic reaction can best be handled by a doctor.

As a general rule, new medical problems can occur from ingesting herbal remedies, but the potential for an allergic or toxic reaction is always there. In addition, about 1% of all plants are poisonous. Therefore, it is not recommended that people gather their own herbs unless they are skilled botanists. **Pregnant women should take herbs only under the direction of a knowledgeable physician or midwife.** Some herbs are contradicted in certain diseases and/or conditions. **Parents should check with a qualified health care practitioner before giving herbs to children.**

The information given on this site is for educational purposes only. Used as a reference; not as a means of diagnosis and/or treatment, it can act as a guide, but only with the cooperation and advise of medical supervision. It is not within the scope of any collection of information to perform the medical duties of the health care profession.

Think of the body as a test tube in a chemistry lab. Anything that is put into that test tube, or taken out, will cause a reaction. If the reaction is desirable, fine. But if it is not desirable, it should be changed with the help of medical advice. Even water causes a change in body chemistry.

Some people think that herbal tea is good, simply because it is a natural product. This is not only foolish, but dangerous. Every herbal tea should be weighed against possible complications, side effects, etc., before taking on a daily basis. Everyone knows that a great many modern day medications originated from herbs. Even aspirin was originally discovered from willow tea. The herbs in herbal teas should be known and checked against any medication, whether by prescription or over-the-counter, for compatibility and/or side effects. Sometimes taking herbal tea indiscriminately can cause unwanted or unnecessary conditions or illnesses, even death. Always consult medical advise before using herbal tea or herbs in any form.

The honey referred to in the information given on this site is natural honey of the local region. The honey commercially obtained has been distilled and does not have the minute amounts of local natural flora.

As already stated, herbs are powerful drugs. They should always be used with care and under medical supervision.

Abedul-Birch	**Acebo-Holly**	**Aciete de Oliva-Olive**	**Achicoria-Chicory**	**Achiote-Annatto**	**Ahuahuete-Cypress**	**Ajenjo-Wormwood**	**Ajo-Garlic**	**Ajonjoli-Sesame**	**Albahaca-Basil**
Alcanfor-Camphor	**Amapola-Poppy**	Apio-Celery	Arnica-Arnica	Arrayan-Myrrh	Avena-Oats	Aguacate-Avocado	Axocopaque-Gaultheria	Azahar-Limeflower	Berros-Watercress
Boldo-Boldo	Borrage-Borage	Cactus-Cactus	Calabaza-Pumpkin	Cabellitos de Elote-Corn Hairs	Capulin-Wildcherry	Cafe-Coffee	Cascara Sagrada-Sacred Bark	Cebada-Barley	Cebolla-Onion
Cedro-Cedar	Cedron-Cedron	Cempasuchil-Marigold	Centeno-Rye	Cilantro-Coriander	Ciruela-Prune	Clavel-Carnation	Col-Cole	Cola de Caballo-Horsetail	Contrayerba-Isoplexis
Costomate-	Crameria-	Cuachalala	Cuajilote	Cuasia-Quassia	Chayote-	Chicalote-	Cuatecomate-Musictree	Damiana-Damiana	Diente de Leon-Dandelion
Doradilla-Resurrection Fern	Epazote	Espinacas-Spinach	Eucalipto-Eucalyptus	Flor de Manita	Floripondio-Angel Trumpet	Fresno-Ash	Gobernadora-Creosote Bush	Gordo Lobo-Mullein	Granado-Pomegranate

Guayabo-Guava	Guamuchil-	Hierba del Angel-Angel Weed	Hierba del Gato-Catnip	Yerbabuena-Mint	Golondrina-Groundfig Spurge	Yerba de San Nicolas-Broom Snakeweed	Yerba del Pollo-Khakiweed	Hinojo-Fennel	Hoja Santa-Rootbeer Plant
	Hojita de Sen	Itamo Real		Jalapa-Jalap	Jicama-Mexican Potato	Laurel-Bay	Lechuga-Lettuce	Lenteja-Lentil	Limon-Lemon
Agave - Maguey	Malva-Mallow			Mamey-Sapote	Manzano-Apple	Manzanilla-Chamomile	Marrubio-Horehound	Matarique	Melon
Membrillo-Quince	**Mezquite**		Nabo-Turnip	Naranja-Orange	Nogal-Pecan	Nopal-Prickly Pear	**Oregano**	Ortiga - Nettle	Arbol de Brasil-Brasil Wood
Papa-Potato	Papaya	Perejil-Parsley	Pinguica	Piña-Pineapple	Platano-Banana	Rábano-Radish	**Romero - Rosemary**	Ruda - Rue	Anis Verde-Pimpinella
Cancerino-Heal All	Salvado Wheat Bran	Salvia Sage	Simonillo Flea Bane	Taray Tamarisk	Tejocote Mexican Hawthorn	Te Limon Lemon Grass Tea	Tepozan Butterfly Bush	Tila Linden	Toronjil Mexican Giant Hyssop
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Abedul - Birch

(*Betula*)

Betula is the botanical name for a group of deciduous (leaf-losing) trees and shrubs, commonly known as the Birches. They are natives of Europe, Asia and North America. Birches are very attractive, with their white or beautifully colored bark, which peels off in thin, papery fragments. Birch trees have simple (whole - not divided into separate pieces) leaves arranged alternately on the branch, with toothed and sometimes lobed edges.

The leaves usually grow in pairs on short spur-like growths on the second-year branches. The flowers are produced in catkins in early spring before the leaves; male flowers grow in thin, pendant catkins and the female flowers are born in smaller and rather erect catkins on growth of the previous season. Male and female flowers grow on the same tree and are noticeable, but are nothing spectacular.

The fruits consist of a central axis to which many, little scales are attached. The seeds are winged and are scattered by the breeze. Birches grow naturally in cold climates and are very hardy; they withstand a substantial amount of exposure.

B. lenta ,the Black or Cherry Birch, has reddish-brown bark that has the smell and taste of wintergreen. The leaves grow from 2 to 4 inches long and are ovate to oblong in shape, with pointed tips and rounded or heart-shaped bases. They are dark green on top and a paler yellowish-green underneath. They give off the scent of wintergreen when crushed. This tree grows from 50 to 60 feet high.

B. populifolia, the Gray Birch, is a small tree, only growing 20 to 30 feet high. The bark

In some northern countries, Birch wood is used for fuel. Birch tar and oil used in the medical practice are obtained by distillation of the wood of the common Birch.

The Black Birch, **B. lenta**, is one source of oil of wintergreen, which is used for medicinal purposes. This tree also yields sap, which is fermented to make Birch beer. The bark can be used for roofing houses and sheds and some is used for canoes. At one time, the bark was used by the North American Indians for making fancy articles and pictures were painted on its surface. Bark has also been used for writing paper.

Abedul Properties Useful to Aztec's

The Aztec's would use Birch as a Diuretic!

Aztec Method of Use

They would boil about 10 grams of bark to 1 liter of water which would be administered to the ill whenever they asked for water or as a daily drink for the non ill people.

More About Abedul Here

Acebo - Holly

(*ilex*)

Description:

This group consists of about 400 evergreen and deciduous trees and shrubs as well as numerous hybrids and cultivars. These attractive plants are commonly known as Holly. Hollies range from compact dwarfs to large trees that can reach a height of up to 50 feet. Hollies are valued for their beautiful leaves, which may be glossy green, gold, bluish-green or reddish-purple and are sometimes variegated or edged with cream, yellow, or silvery white.

Some leaves are usually prickly while others don't have any spines at all. Hollies are also appreciated for their pretty berries, which may be red, yellow, orange, or black. Most Hollies are dioecious, meaning male and female flowers are produced on different plants. For the females to produce berries there must be a male plant near by.

When choosing your plants, be careful when checking which ones are male and female, because some male plants have feminine names and some female plants have masculine names.

I. altaclarensis var.

Belgica Aurea is an attractive, female, large shrub or medium-sized tree covered with lightly spined, 3- to 4-inch, green leaves, which are mottled with light green and gray and edged with pale yellow or white. Another female variety of altaclarensis, called Lawsoniana, is a large shrub or medium tree that has very pretty, large, usually spineless leaves. The leaves are dappled with dark green, pale green and yellow. Any plain green shoots should be removed in order to preserve the variegation.

I. aquifolium
(English Holly) is a large shrub or small tree, capable of reaching 60 to 70 feet high in optimum conditions. This variety has glossy green leaves and bears bright red berries. Its berry-laden branches are in great demand during Christmas. There are numerous evergreen hybrids of this species that have varying shapes and colors; some, such as *I. aquifolium* 'Argentea Marginata Pendula' (Perry's Weeping Silver Holly), have pendulous branches covered with dark leaves edged with pale yellow. Most of this specie's varieties will flourish in industrial and coastal districts, but will not tolerate extreme heat and drought. These plants will form excellent hedges.

I. crenata var.
Mariesii is a dwarf, female, slow-growing shrub that almost doesn't resemble a holly at all. This variety forms a rigid, upright shrub up to 61/2 feet high that is excellent for growing in a container or for bonsai. It is covered with rounded, green leaves and in the winter, large, black berries.

Acebo Graphic Courtesy of Nomura (99-01-03)

Properties of Holly Favored by Aztec's

Used as a Fever Reducer and to Promote Perspiration

Aztec Method of Use

The Aztecs would boil 15 to 30 grams of fresh Holly Leaves in 1/2 liter of water for 15 min. and then drink 3 to 4 cups a day

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Olive Oil or Aceite de Oliva

Olive Oil is a great source of nourishment because of the great quantities of vitamins, iron, sodium
and potassium it contains.

Olive Oil Properties Favored by Aztec's

Olive oil is used to Combat Constipation,
Hepatic Infections,
Detoxify Body Poisons and Against Diarrhea and Straining at Stool or Urinating.

Aztec's Method of Use

1. **For Constipation:**
   Take 1 tablespoon of Olive Oil at bedtime or better yet on an empty stomach.
2. **For Hepatic Infections:**
   1 teaspoon of Olive Oil mixed with 5 drops of lemon juice on an empty stomach and

before bedtime.

3. **For blood poisoning:**
   Take great quantities of Olive Oil until poison is expelled.
4. **For diarrhea and Stool-Urination Straining:**
   Mix 1 teaspoon of Olive Oil, 1 teaspoon of red wine, 1 teaspoon of rosewater and take 2 times a day, 1 in the morning and 1 at bedtime.

Achicoria - Chicory - Radicchio

(*C. intybus*)

Description:

Cichorium intybus is commonly known as Chicory and Radicchio, it is grown for its leafy shoots known as Witloof. This plant resembles Cos or Romaine Lettuce in its growth, being upright in nature. The heads are erect, loosely wrapped, and dark green. The foliage has a slightly bitter taste. Italian Chicory has deeply notched leaves and long stems.

Leaf Chicory is more popular in Europe than in the U.S.; a variety is cultivated for the creamy white buds known as Belgian Endive or Witloof Chicory. There is even a variety *(Magdeburg)* grown for its roots, which are roasted and ground as a coffee additive. Chicory is a hardy perennial; if your let it live over winter, it will shoot up tall stems of pretty light blue flowers in the summer.

Radicchio is a variety of Leaf Chicory that resembles a small red cabbage. It forms a compact head of dark red or magenta leaves, which are veined in white. The size ranges from a large Radish to a large Grapefruit. If this plant is left over winter, it will produce spikes of beautiful, bright blue flowers in the summer just as the Leaf Chicory.

Escarole or Curly Endive (*C. endiva*) - C. endiva is another vegetable commonly known as Escarole or Curly Endive. They are generally the same thing, but Endive has cut and curled foliage and Escarole has smooth, wide leaves. Restaurants often use Endive to line salad bowls or mix with lettuce. The leaves are chewier and more substantial than those of lettuce.

Chicory Properties Favored by Aztec's

Fever Reducer, Aperitif, Digestive, Antiinflamatory and Childrens Laxative

Aztec Method of Use

1. **For intermittent fever:**
   Boil 5 to 7 grams of leaves in 1/2 liter of water and take a teaspoon of the liquid every 2 to 3 hours.
2. **For help in digestion and as an aperitif:**
   Make an infusion of 15 to 30 grams of dried root(dry in the shade) boiled in 1/2 liter of water(Until It Gets Half Way); take 1 cup before each meal.
3. **For inflammation of throat and chest:**
   Make syrup of equal parts of sugar and Chicory juice and take a teaspoon every 2 to 3 hours.
4. **As a Childrens Laxative:**
   Take 8 to 10 grams of chicory juice before bedtime.

Achiote- Annatto

(bixácea)

(Del Náhuatl or Aztec: achíotl)

Other Names:
Annatto,
Lipstick Tree
Country of Origin:
Tropical America

The name Achiote is by origin Aztec (*achiot!*)and the southern indigenous people named it *pumacua* or *chacuanguarica*.

Description:
A small tree with a round head, generally grown as an ornamental because of its lovely flowers of various colors. The seeds of the flower have a reddish powder which is used as a vegetable tint for soaps, rice, margarine, cheese and many other products. It is believed to come from Brazil but was carried throughout Central and South America by the Indians, who used the

coloring as body paint, and by women, who used it as lipstick. The dye contains Vitamin C.

Annatto Properties Favored by Aztec's

For sunstroke, Jaundice, Tonsillitis, Oral Excoriations, Burns, Leprosy, Asthma, Pleuresia(Inflammation of the membrane that covers the lungs), Sleep Apnia, rectal disorders and headaches.

1. **For sunstroke the Aztec indians would make a powder of the seeds in the following way:**
   The Achiote seeds are simmered for several hours and right afterwards they are rubbed together vigoursly until they release the dye contained in them., then let sit in a dish until the sediment collects, it is red, which must be put in the sun to dry, the powder is formed, it is now mixed with coconut oil and the paste or ointment that is made is applied to the forehead, neck and sinus areas on head.
2. **For tonsillitis and oral excorations:**
   They would take a pinch of the aforementioned powder and mix it with a teaspoon of vinegar to a cup of rice water and with the resulting liquid gargle 3 to 4 times a day.
3. **For burns and leprosy:**
   A paste is formed with the mentioned powder mixed with olive oil and is applied to the affected area.
4. **For Pleuresia and Apnia:**
   A pinch of the above mentioned powder mixed in a cup of lettuce water and taken on an empty stomach.
5. **For Rectal Discomforts:**
   A enema is made with the boiled leaves.
6. **For neurologic in nature headaches:**
   The leaves are applied on the temple area.

Ahuehuete - Mexican Baldcypress - Sabino

(*Taxodiaceae*)

Synonyms :

Taxodium mucronatum Ten.

Taxodium montezumae Decaisne

T. mexicanum Carr.

Common Names :

Montezuma baldcypress, Ahuehuete, Pentamon, Cipres, Sabino, Yucu, Ndatura.

Introduction

General Botanical Characteristics:

Montezuma baldcypress is a large, native, semideciduous to evergreen tree. Mature height usually ranges from 60 to 100 feet (18-30 m), but the oldest trees can be much taller:

a record height of 170 feet (51.8 m) has been reported for the Tree of Montezuma (Chapultepec Park, Mexico City) which was estimated as 700 years old.

The Montezuma baldcypress is better known for its massive, convoluted trunk than for its height. El Arbol del Tule (Oaxaca, Mexico), an individual at least 1,000 years old and possibly much older, is more than 50 feet (15 m) in diameter and has a circumference of 117.6 feet

(35.84 m). Perimeter measures that include the bays and promontories of the buttressed trunk exceed 150 feet (45 m).

Montezuma baldcypress has a broad, spreading crown with strong, horizontal branches and delicate, weeping branchlets. The leaves are 0.24 to 0.48 inch (6-12 mm) long. The staminate strobili are borne in long, slender spikes. The ovulate cones are subglobose and 0.59 to 0.98 inch (1.5-2.5 cm) in diameter. The bark is shreddy. The roots of trees growing in standing water often send up conical projections ("knees") . Trees that experience periodic drying out, such as those growing along stream courses, apparently do not form knees .

The Aztec's Use of Ahuehuete

The boiled leaf brew is used for varicose vains and hemorrhoid, also as tonic for the heart especially problems with the mitral valve, for the lung, liver and kidney congestions, favors the elimination of retained liquids in the body (edema), lowers hypertension, relieves cough, difficulty in breathing and diarrhea. Applied as a poultice it favors the healing (much faster and cleaner scar) of wounds.

Aztec's Method of Use

Take for 3 to 4 days the brew made from 3 grams of leaves to 100 grams of water.
To help heal exposed ulcers and wounds, place a poultice over the affected area of the body.

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My Privacy Policy

Ajenjo-Wormwood

(*Absinthium*)

Introduction to Wormwood:

Called Absinthium by the Romans for the Latin word absinthial meaning "bitter". The name Wormwood may have come from the Anglo-Saxon word wermode meaning "waremood" or "mind preserver", or the Greek word apsinthion meaning "undrinkable" (because of its bitter taste).

The Greeks dedicated wormwood to the goddess Artemisia. They claimed it counteracted the poisons of hemlock, mushrooms, and sea dragons! The bitterness is thought to be found in the Bible, Proverbs 5, under A. *herba-alba* or *A. Judaica.*

Hippocrates prescribed it for jaundice, rheumatism, anemia, and menstrual pains. Wormwood has been used medicinally to expel intestinal worms for over 3500 years.

Absinthium, the plant's specific name, denotes the traditional and most celebrated use of wormwood -- in the potent French drink, Absinthe, reputedly first prepared by witches.

The plant, via the Old English wermod (spirit mother) and the German wermut, gives its name to vermouth and is still used as a flavoring.

Biological name:
Artemisia Absintium.
Description:
Approximately 4 feet in height. Dark green in color, leaves are covered in silky, grayish hairs and have downy undersides. Shrub and bushes are very coarse, known to spread and sprawl, and are very aromatic. The leaves and roots exude a substance that restricts the growth of many neighboring plants. Known to grow wild on roadsides and waste ground.
Perennial:
Grows from mid-summer to mid-autumn.
Habitat:
Native to the Mediterranean and central Europe. Introduced to North America from Newfoundland, and now naturalized in many parts of the northeastern United States and Canada.
Constituents:
Rich in essential oils including thujone bitters (*absinthum*), absinthol, thujyl, bitter sesquiterpene lactones (absinthin, etc), flavonoids, azulenes, and glycosides.
Related Herbs:
Related to Mugwort (*A. vulgaris*), Southernwood (*A. abrotanum*), Tarragon(*A. dracunculus*)and the sagebrushes of American desert country. Similar garden attractions are Roman Wormwood (*A. pontica*) and Old Woman (*A. maritima*).A quiterpene lactone in Sweet Wormwood (A. annua) call Quighaaosu has successfully cured thousands of Chinese with malaria.

Wormwood properties Used by Aztec's.

1. Stimulates the appetite,
2. helps digestion,
3. expels intestinal parasites,
4. promotes menstruation in weak women,
5. fights abnormal and white discharge and externally it is used for infected wounds or exposed ulcers.

Aztec Method of Use.

Make a brew using 3 to 5 grams of wormwood to 1/2 liter of water then drink 1/2 glass before meals.

To rid the body of intestinal parasites: Prepare a brew of 2 grams of Wormwood leaves, 2 grams of Savin to 1 liter of water, boil for 10 min., strain then add 2 drops of Castor oil. With this remedy apply daily as enema.

For cleaning exposed ulcers and infected wounds: Make an infusion of 25 grams of the plant to 1/2 liter of water.

Ajo-Garlic

(*Allium sativum*)

Description:

Garlic(*Allium sativum*) is a member of the Amaryllis family (*Amaryllidaceae*), which also includes leeks, onions, and shallots. It is a perennial with an underground bulb (head) composed of pungent bulblets commonly called cloves.

Approximately 90 percent of the garlic grown in the United States is grown in California. California Early and California Late are the two major commercial varieties.

California Early has white skins and is planted in December for harvest in July and August. The largest garlic variety, Elephant Garlic, has a very mild-flavored clove and is a close relative of the leek.

The pungent flavor of garlic is caused by a chemical reaction that occurs when the garlic cells are broken. The flavor is most intense shortly after cutting or chopping. This chemical reaction cannot occur after garlic is cooked, which is why roasted garlic is sweet rather than pungent.

BOTULISM WARNING

Regardless of its flavor potency, garlic is a low-acid vegetable. The pH of a clove of garlic typically ranges from 5.3 to 6.3. As with all low-acid vegetables, garlic will support the growth and subsequent toxin production of the bacterium *Clostridium botulinum* when given the right conditions. These conditions include improper home canning and improper preparation and storage of fresh herb and garlic-in-oil mixtures. Moisture, room temperature, lack of oxygen, and low-acid conditions all favor the growth of *Clostridium botulinum*. When growing, this bacterium produces an extremely potent toxin that causes the illness botulism. If untreated, death can result within a few days of consuming the toxic food.

Aztec Use of Garlic

Garlic Properties:
Aperitif,
helps in digestion,
helps renal and liver functions,
stops the putrid fermentation in the intestines,
helps relieve constipation and improves urination,
helps in the formation of red blood cells and fights anemia,
its a powerful disinfectant and microbicide,
improves circulation and avoids bronchial afflictions,
useful for diabetics,
rheumatics and hyperactives,
tones the lungs and cures asthma,
bronchopnumonia and apnia,
calms coughs and relieves diphtheria and whooping cough attacks,
also helps in the removal of intestinal parasites,
relieves neurological pains,
headaches,
insomnia,
hysteria and depression,
helps in removing scabbies,
arteriosclerosis,
gout,
varicose
Acts as a rubefaction that inhibits the venom in mosquito,
scorpion,
bee,
hornet and wasp stings.

Prevents tuberculosis and fevers and some people claim it is also good against malaria and rabies,
it regenerates the skin in case of light burns,
softens and removes calluses,
removes thirst and sour mouth.

Aztec's Methods of Use

The various properties of Garlic are much more efficient if eaten raw, since heat makes it lose its usefulness, nevertheless, if the garlic is undigested on certain occasions provokes disagreeable and odorous belching. To avoid this first crush 3 garlic cloves and swallow without chewing halfway thru meals, with the final result of not irritating the stomach lining and and ease its way to the intestines. Other forms of eating garlic are in salads, boiled in milk or combined in water, lemon juice in tincture ect.

To Stimulate the Appetite and Digestion: Grind 3 Garlic cloves with a little water and eat raw, before or during meals.

For Anemia: Prepare a salad with radish, lettuce, tomato and raw crushed Garlic, add a little oil and salt to taste.

To Improve Blood Circulation: Eat 2 to 3 crushed Garlic cloves before breakfast.

To Lower Arterial Blood Pressure in Persons with Hypertension: Mince well 1 clove of Garlic and swallow with water for several days.

In Cases of Asthma, Difficulty in Breathing, Cough, Whooping cough, Diphtheria and Bronchial afflictions: Boil in 1/2 liter of water, 8 Garlic cloves, peeled and crushed, add a little bit of oregano, strain then add 2 spoonfuls of bee honey and from this take 1 teaspoonful once an hour until better avoiding any and all cold drinks or food.

For the same symptoms but to get better faster you can also do this: Boil in 1/2 liter of milk, 1/2 a head of Garlic and 2 carrots, sweeten to taste with bee honey and take 1 warm glass of the remedy before bedtime.

To Rid the Body of Intestinal Parasites: Mince a head of Garlic, heat in 1/4 liter of milk, Do Not Boil! Let stand for 3 to 4 hours, strain and drink before breakfast or on an empty stomach for 9 to 10 days in which case the parasites will be gone.

To Cure the Welt that Appears Around the Neck Area Especially in Summer: Take a clove of Garlic, cut in half and rub vigorously on the affected area, after approximately 3 hours add a little bit of lemon juice to the affected area 3 times a day and continue to follow the remedy until the welt is gone.

For Rheumatism: Take 2 Garlic cloves, open in half, and rub vigorously on the painful area until the Garlic juice appears. Do this same treatment several times a day avoiding water(as in baths) or cold environments.

For Mosquito, Scorpion, Bee, Hornet and Wasp stings: Crush 1 garlic clove and apply the remedy on the affected area while gently rubbing it in. The Pain Will Stop!

For Malaria: Take 3 whole Garlic cloves and a glass of milk each morning.

For Fevers: Boil 1/2 kilo of Garlic in liter of water then mix in 1/2 kilo of sugar, let stand, strain, then drink one spoonful before each meal.

For Rabies: Drink several times a day the infusion made with 100 grams of Garlic cut into little pieces to 1/2 liter of water, let sit for 1 day, wring and sweeten to taste with sugar or bee honey.

For Mild Burns: Take 3 or 4 Garlic cloves, crush, mix with oil(cooking oil)and apply to the burn.

For Callusses: Make a paste of Garlic and honey, apply to the callus for several days,the callus will soften then disappear. **To Remove Thirst Instantly:** Take a head of Garlic, blend in 1 liter of water and drink as a regular daily drink whenever thirsty.

To Remove that Certain Bad Breath almost Everyone Has in the Morning: Take 1 raw Garlic clove, crush, strain into a glass of water with the juice of 2 lemons and kiss your bad breath away.

For Athletes Foot: Dust feet with Garlic powder and wear clean socks all the time.

There are other methods to take advantage of Garlic`s curative properties,"Garlic Tincture" which is prepared the following way: Crush 2 Garlic heads and macerate in 250 grams of pure alcohol until the tincture is formed. Next is the description of the therapeutic effects from the use of this tincture(condensed excerpt from Dr. Helle of Berlin Germany).

1. 20 drops of Garlic tincture to 1/2 glass of water will attack uric acid which in turn relieves pain from arthritis, rheumatism and sciatic gout.
2. 20 drops of said tincture to 1/2 glass of water benefits the digestive apparatus relieving constipation and strain to the bowels.
3. 20 drops of the tincture in 1/2 glass of water will in a short while relieve hypertension.
4. 20 drops of the tincture in 1/2 glass of water will stimulate the hepatic(liver) function.
5. 20 drops of the tincture in 1/2 glass of water will relieve the palpitations, difficulty in breathing and the anguish most cardiac patients suffer.
6. 20 drops of the tincture in 1/2 glass of water aleves continuous fatigue, neurologies, headaches, insomnia, hysteria, depression and muscular rigidity.
7. 20 drops of the tincture in 1/2 glass of water cures varicose and hemorrhoid.

Albahaca-Basil

(*Ocimum basilicum*) & (*O. americanum*)

Common Names:

1. Albahaca - (*O. micranthum* in Honduras and Salvador),
2. (*O. basilicum* in Guatemala)
3. Balanoi -- (*O. basilicum* in the Philippines)
4. Chahchabram Chiu Ts'Eng T'A Dama-Kasseh --(*Ocimum spp.*) in Ethiopia
5. Feslegen Hung que -- (*O. basilicum in Vietnam*)
6. I Tzu Ts'Ao Lo Le Mreas preou -- (*O. basilicum* in Cambodia)
7. Msubasha -- (*O. Suave*) Tanzania
8. Ofgahng -- (*Ocimum spp.*) in Ethiopia
9. Raihan Al Malik, Raihana, and Rainan Saint Josephwort Selaseh, Selasih, Selaseh hitam, and Selaseh jantan Sweet basil -- U.S. Taibedle -- (*Ocimum spp.*) in Ethiopia

Introduction and Description (*Ocimum basilicum* common basil), (*O. americanum*), and (*O. micranthum*) are members of the family Lamiaceae. These

plants, as well as oils from them, have received lots of attention for their potential medicinal properties. Of these plants, *O. basilicum* is the most widely used. It is used in cosmetics, liqueurs, medicines, and perfumes.

Most *Ocimum spp.* can be grown and found throughout the world. However, they are not native to all areas. For example, *O. micranthum* originated in Central America. It grows to a height of approximately 50cm. The leaves are oval and slightly toothed, and the flowers are white or purple. O. basilicum looks very similar, but grows a bit taller (50-80cm).

Properties of Albahaca-Basil

Stimulant, Removes Cold Sores, useful for persons suffering from shortness of breath, cures humming or ringing of ears and temporary deafness, regulates menstruation, rids the body of certain intestinal parasites, destroys bad odors and macerated in alcohol and rubbed on the body will relieve pain from cramps, twists, sprains, rheumatism and headaches.

Aztec's Method of Use

To stimulate the body:
Make an infusion of 20 leaves of basil to 200 grams of water then drink 3 to 4 cups a day.
For Cold Sores:
Boil 40 grams of Basil leaves to 200 grams of water and gargle 3 times a day.
For Shortness of Breath:
Boil 12 leaves of Basil in 1/2 liter of water for 5 min., cool, strain, then drink one glass on an empty stomach and one before bedtime.
For Humming or Ringing of the Ears and Temporary Deafness:
Crush and Grind some Basil leaves then soak it up with a small piece of cotton the place in ear, change regularly until symptoms are gone.
To Regulate Menstruation: Prepare an Infusion of 100 grams of Basil leaves to 1 liter of water,then drink 4 cups a day.
To rid certain types of Intestinal Parasites: Boil 10 grams of Basil leaves to 100 grams of water then drink 1 glass daily on an empty stomach.
To rid your home of Bad Odors:
Put a couple of Basil branches in the room or habitation you want to get rid of the odor.

For Rheumatic pain, Headaches, twists and sprains:
Macerate for 8 days the mixture of equal parts of Basil, Ruta and Rosemary, with this rub on the affected area, day and/or night covering well afterwards.

Alcamfor-Camphor

(*Cinnamomum camphora*)

Description and Introduction

Character:
Evergreen, arching vase, spreading form; dense canopy
Size:
Large (Height: 50 - 90'; spread: 50+').
Growth Rate:
Slow/moderate
Foliage:
Smooth, ovate-elliptical, pink, red or bronze when young. Drops foliage heavily in March, immediately regrows. Bark black in rain.
Flowers-Fruits-Bark:
Strong smelling yellow flowers in May, black berries in May.

The Camphor tree (*Cinnamomum camphora*), also known as Camphor laurel, is an exotic that has been widely cultivated for more than a century as a shade and ornamental tree in Florida and elsewhere. This is the aromatic tree from which camphor was derived (used in medicines and mothballs), until camphor oil began to be made artificially in the 1920s.

The camphor quickly grows into a good-looking shade tree which is frequented by berry-eating birds. Camphor laurel is native to China and Japan where it has been commercially used for its timber and essential oils for hundreds of years.

Introduction to Alcanfor

Alcanfor or Camphor is a white, hot, crystalin solid that is obtained from the boiled and crushed branches, trunk and roots from the camphor tree. It is soluble in alcohol, olive oil but not water.

Alcamfor Properties Favored by Aztec's.

Useful in relieving pain originating from bumps, sprains, twists, contusions, rheumatism, gout and back pain.

Aztec's Method of Use.

Dissolve a little piece of Alcamfor(about the size of a garbanzo bean) in 1/2 liter of 90 proof alcohol or olive oil then rub vigorously on the affected area.

Amapola-Poppy

(*papaver*)

Description:

These hardy perennial, annual and biennial plants are native of eastern Asia, North America and Europe. They are commonly known as Poppies. Their foliage is mostly basal; the leaves are coarsely toothed and grow up to 6 inches long.

Their height ranges from 1 to 4 feet and they produce pretty single or double flowers atop long, thin stems. The flowers have glistening petals and they grow from 2 to 6 inches across. They come in all colors except blue.

1. *P. nudicaule*, the Iceland Poppy, comes in yellow, coral and pink.
2. The leaves of *P. somniferum*, the Opium Poppy, are blue-green and the flowers come in shades of white, pink, red or purple.
3. *P. alpinum*, the Alpine Poppy, are great for the rock garden, as they only grow about 6 inches high.
4. *P. rhoeas*, the Shirley Poppy, Corn Poppy, Flanders Poppy, or Field Poppy, comes in scarlet, salmon, pink and white. Picking off the dead flowers will increase blooming, but

prevents the formation of seed heads valued for drying.

Poppy Graphic

Properties of Amapola Favored by Aztec's

Used for Sleeplessness, as an Analgesic, Dysentery, Diarrhea, Whooping Cough, Asthma and Antiperetic.

Aztec's Methods of Use

For sleeplessness, pain reducer, fever reducer, cough and asthma:
Prepare a herbal tea using 4 grams of Poppy leaves to 200 grams of water,
boil for 15 min., let stand then take a teaspoon once an hour until better.
For dysentery and diarrhea:
Take the Poppy plant head cut into 4 pieces, remove seeds, boil for 5 min.,
1 portion to 1 liter of water, let stand, strain then, when still warm, use as a enema.

Apio-Celery

(*Apium graveolens L.*)

Description:

Apium - This is the botanical name for Celery, Leaf Celery (also called French Celery or Chinese Celery) and Celeriac (also called Knob Celery, Celery Root, or Turnip-rooted Celery).

0. Celery (*A. graveolens* variety *dulce*) This is a popular vegetable that grows wild in Europe. It is a bushy, mounded plant; what you see in the grocery stores are only the center parts of the plant, the tough, outer stalks are trimmed off. There are three different colors that varieties may come in: Golden, green and a rare reddish-green color. In its second year, this plant would produce small, yellowish flowers atop a 2- to 3-foot stem.
1. Leaf Celery (*A. graveolens* variety *secalinum*) Also called French Celery or Chinese Celery, is grown for its pretty, fragrant leaves. It is a biennial that's grown as a long-season annual. This herb was used centuries ago in Europe and the Orient, where its ancestor was known as "smallage". It has thin, rounded stalks that grow up to a foot high. They have a strong flavor and usually become stringy as they age.
2. Celeriac (*A. graveolens* variety *rapaceum*) This is a variety of Celery. The edible, swollen root grows from 2 to 4 inches across. It isn't as popular as Celery, but is used in stews and

soups. The plants have open growth, with Celery-like leaves growing on thin stems from the root. Celeriac root tastes something like Celery, but stronger.

Celery Properties Favored by Aztec's

Diuretic, Digestive, Expectorant, Relieves Upset Stomach and for Varicose Vains.

Aztec's Method of Use

For Chest Colds:
They would drink 3 to 4 cups of a boiled mixture of 15 to 25 grams of celery root to 1/2 liter of milk.
As a Diuretic:
They would drink a boiled brew made from the mixture of 15 to 25 grams of celery root in 1/2 liter of water.
For Varicose Vains:
Boil for 5 min. 2 stalks of celery cut into pieces in 1 liter of water,then let sit for several hours then add the juice of 3 juicy lemons and take as a daily beverage.

More will be added as I keep my ongoing research into these Ancient Aztec Remedies.

Arnica

(*Arnica montana*)

Arnica is also commonly called "Leopard's Bane". The Arnica plant has a bright yellow, daisy-like flower that blooms around July. Preparations made from the flowering heads have been used in homeopathic medicine for hundreds of years. It is popular in Germany and over 100 drug preparations are made from the plant. Arnica is a perennial that is protected in parts of Europe.

The active components in arnica are sesquiterpene lactones, which are known to reduce inflammation and decrease pain. Other active principals are thymol (an essential oil), flavonoids, inulin, carotenoids and tannins.
Arnica works by stimulating the activity of white blood cells that perform much of the digestion of congested blood, and by dispersing trapped, disorganized fluids from bumped and bruised tissue, joints and muscles.

Arnica is known to stimulate blood circulation and can raise blood pressure, especially in the coronary arteries. The plant is used externally for arthritis, burns, ulcers, eczema and acne. It has

anti-bacterial and anti-inflammatory qualities that can reduce pain and swelling, improving wound healing.

Arnica Properties Favored by Aztec's

To combat Bronchitis, Fever, Hemorrhoids, Bumps, Wounds, As an Analgesic, Antirheumatic and for weak Nerves and Muscles.

Aztec Method of Use

For Bronchitis:
Take a spoonful of a brew made with 2.5 grams of flowers to 1 liter of water.
For Malaria, to lower fever and for weak nerves and muscles:
Boil 8 grams of flowers and leaves to 1 liter of water then drink 1 cup of the brew 4 times a day.
To cure Hemorrhoids:
Boil 25 grams of Arnica in 1 liter of water and with this bathe the affected area and lastly pat with iodine and alcohol.
For bumps, wounds, exposed ulcers and rheumatism:
Make a tincture of 20 branches of Arnica and rub the affected area; the tincture should be made in this way. Macerate the branches for 15 days in 1 liter of alcohol.

Arrayan or Myrrhis

(*Myrcianthes leucoxyla*)

Description:
Common names for M. odorata include Sweet Cicely, British Myrrh and Sweet Chervil. This lovely perennial has fern like foliage and produces many bunches of white flowers atop 2- to 3-foot, hollow stems. The flowers and leaves smell and taste like Anise. This plant grows wild in many parts of Europe.

Aztec's Use of Arrayan

Arrayan used as a tonic for upset stomach, useful for diarrhea and dysentery, used to treat vaginal diseases such as (VAGINOSIS BACTERIANA) abnormal vaginal discharge, control of abnormal menstrual flow and genital warts.

Aztec's Method of Use

For Upset Stomach: Make a brew prepared with 10 grams of Arrayan leaves in 1 liter of water then drink daily. This same brew is used for vaginal washing.

To induce the fall and cleaning of the belly button on a newborn:
Dry Arrayan leaves, polvorize them and apply on wound.

Avena-Oats

Description and Introduction

History:

Oats have been noticed by the ancient Greek and Roman writers; at present they are cultivated in nearly all northern temperate latitudes. Their native country is unknown, though they are stated to be indigenous in Sicily and in a certain Chilean island.

When the seed is stripped of all its teguments, including its innermost, silky, fibrous covering it constitutes groats; and when this is ground into fine meal or flour it is called prepared groats. When the seed is kiln-dried, stripped of its husk and delicate outer skin, and then coarsely ground it constitutes the oatmeal of Scotland, a common, farinaceous article of food for laboring people and children (C).

Many forms of "rolled oats" are now a general article of commerce, forming excellent cereal foods. Oats are largely in America as food for horses and cattle. American oatmeal is said to be inferior to the foreign preparations.

This plant is a nerve-tonic, stimulant, and antispasmodic. It ranks among the most important

restoratives for conditions depending upon nervous prostration, and for the nervous exhaustion consequent upon typhoid and other low fevers, and the accidental disorders arising from these complaints, as weak heart, spermatorrhoea, insomnia, etc. In enfeebled states of the heart muscle it acts as a good tonic to improve the energy of the organ, and is recommended by Prof Webster to prevent relapsing cardiac rheumatism.

In this condition it is not thought to be specially antirheumatic, but rather to strengthen that debility upon which the rheumatic diathesis depends, so that the patient is less subject to atmospheric and other impressions.

In spermatorrhoea it is adapted to those cases of debility following a dynamic diseases, or in simple spermatorrhoea when not due to self-abuse.

The atonic state gives rise to a nervous erethism or an enervated condition favorable to nocturnal losses. In cases depending wholly or partially upon prostatic irritation it is of less value, but aids staphisagria, sabal, salix nigra aments, and other indicated remedies Spasmodic conditions of the neck of the bladder are said to be relieved by it.

A few years ago it was much lauded as a remedy to assist the morphine-consumer to throw off the habit, and to sustain the nervous system while undergoing that ordeal. We have, however, found it to exert but little good in this direction. A strong tincture may be prepared by crushing or pounding to a pulp the entire oat-plant when the grain is "in the milk," covering with strong alcohol and allowing it to macerate 14 days. The dose is from 10 to 30 drops in hot water; specific avena, 1 to 20 drops every 2 or 3 hours; Keith's concentrated tincture, 1 to 25 drops. This remedy was introduced by B. Keith Co.

Specific Indications and Uses.

Nerve tonic,
stimulant,
and antispasmodic.
Spasmodic and nervous disorders,
with exhaustion;
cardiac weakness;
nervous debility of convalescence;
spermatorrhoea from the nervous erethism of debility;
tensive articular swellings.

Avena Properties Favored by Aztec's

Pectorals(bronchitis and colds), Diuretic, Emolient(softens tumors and abscesses), for side

pain as in the flanks or behind the rib cage and also used as a nutritional supplement for children and convalecsing patients.

Aztec Method of Use

For Bronchitis and Colds:

Take 1 tablespoon every 2 hours of the mixture made using 50 grams of Oats in 1/2 liter of water.

As a Diuretic:

Drink as a daily drink or whenever thirsty the same mixture as above.

To dissolve Tumors and Abscesses:

Apply a poultice made of milk, oats, a tablespoon of bee honey,
some lemon juice drops and a small piece of Camphor, let dry on the wound then remove slowly with warm water as to not cause too much discomfort, do this regularly until better.

For pain in the flanks or side:

Smear on the affected part a mixture made with Oats and Vinegar.

To Nourish Children and Convalescents:

Prepare a Pap of Oats and Milk.

Aguacate - Avocado

(Pers'ea)

Description:

These small trees are mostly natives of South and Central America, but are also found in Mexico, deep southwestern United States the Canary Islands and in southeast Asia.

P. Borbonia (the Bull Bay or Red Bay) is a native of the United States from Delaware to Florida and is sometimes planted for ornament.

P. palustris is found from North Carolina to Florida and Texas. The species of Persea grown for ornament will grow easily in any type of soil. They have large, leathery leaves, but if grown indoors, their leaves are much thinner and unless they are severely pruned back they'll grow on top of a tall, thin trunk.

Persea americana, commonly known as the Avocado, can be grown outdoors only in the warmest parts of the U.S., such as southern Florida, southern California, and the **Rio Grande Valley of Texas**.

The extent to which they are sensitive to the cold varies between the different kinds. Trees belonging to the West Indian variety are the most sensitive; they are hurt if the temperature drops to 27 degrees and killed if it drops to 24 degrees. The Guatemalan varieties will die if the temperature drops to 21 degrees and certain Mexican varieties can stand temperatures as low as 18 degrees.

More Avocado Info

Aztec's use of Avocado

The Aztec's would use Aguacate as an Aphrodisiac, against Dandruff, Scabs, Menstrual Cramps and Hemorrhage, Cough, Dysentery, Gout, Peritonitis (An inflammation of the peritoneum, the membrane that lines the wall of the abdomen and covers the organs.), Intestinal Worms and for Lice and Nits.

How the Aztecs would use the Avocado as an Aphrodisiac:
The Pulp of the Avocado is a magnificent aphrodisiac as it enhances the tone of the sexual organs which in turn enhances sexual appetite.

For Dandruff and Scabs:
Grind the Avocado seed and mix with Castor Oil, then with the paste rub well on the skin likewise for the head but cover with plastic(**Do Not Cover Nose or Mouth**) or flannel and leave on overnight and wash off the following morning.

For Menstrual cramps, Hemorrhage and Cough:
Drink one cup of 2 Avocado leaves boiled in 1/4 liter of water.

For Dysentery:
Grind Avocado seed into powder then roast the powder then take 1 gram of powder on an empty stomach.

For Rheumatic Pains and Gout: Rub the affected part with a dry towel to activate circulation then rub a little Avocado seed extract and cover with a flannel cloth. The Extract is made by slicing 4 Avocado seeds into small pieces and let macerate in alcohol for several days.

For Peritonitis:
Boil for 5 minutes in 2 liters of water, 1 Avocado seed cut into tiny pieces, 2 branches of Chamomile and 1 Prickly Pear Cheese; strain, and use as enema as hot as can be tolerated.

To get Rid of Intestinal Worms and Parasites:

Drink a 1 cup infusion made of the skin or rind of the Avocado that has been left to soak in hot water for several minutes

To get rid of Lice and Nits:

Boil 5 Avocado seeds in 1/4 liter of water that have been minced with 2 Rue branches, wash hair with the liquid rubbing well then cover head with towel and the lice will be removed.

Axocopaque - Gaultheria

(Gaulthe'ria)

Description:

This group consists of 150 fragrant, evergreen shrubs native to the Andes, North America, Australasia, and eastern Asia. These shrubs produce tufts of shiny or leathery, oval leaves and, in late spring or early summer, pendant, white, bell-shaped flowers. The flowers are followed by fleshy, red or black fruit.

G. procumbens (Checkerberry; Teaberry; Wintergreen) is a hardy, creeping shrub that forms mats of dark green leaves that turn purple in the autumn. The white to pink-tinged flowers are followed in the fall, by fragrant, edible, bright red berries.

G. shallon(Salal; Shallon) is a small, vigorous growing shrub that grows from 5 to 6 feet high in good conditions or, in poor soil and sun, forms a low, spreading mat. This plant has leathery, dark green leaves up to 4 inches long and 21/2 inches wide. From late spring to early summer, clusters of pinkish-white flowers are produced at the ends of the branches. They are followed by large clusters of edible purplish-black berries, which birds find delicious.

G. hispidula (Creeping Pearlberry) is a dwarf, creeping shrub that only grows 2 or 3 inches high. It is great for growing as a groundcover in natural or bog gardens. Its tiny, white flowers appear in late spring and are followed by white berries, 1/4-inch across in

the fall.

Properties of Axocopaque Used by the Aztec's

For Rheumatic pain, Laxative and Diuretic.

Aztec Method of Use

For Rheumatism: Make a brew using 6 leaves of Axocopaque in 1/4 liter of water, add lemon juice, drink this after meals, also rub the affected areas with the tincture of leaves that have been macerated in pure alcohol.

As a Diuretic and Laxative: Take 1/2 hour before breakfast the infusion made with 8 leaves of Axocopaque to 1/2 liter of water

Azahar-Keylime

(*Citrus aurantiifolia*)

Introduction and Description

Common Name: Lime, Acid Lime, Sour Lime
ENGLISH: Lime, Common lime, Acid lime, Mexican lime, West Indian lime, Sour lime, Large lime, Key lime.
Botanical Name: Citrus aurantiifolia, C. lima, C. acida, C. medica
Family : Rutaceae
Appearance: A shrub or small tree
Distribution: Cultivated nearly all over India, particularly in Andhra Pradesh, Maharashtra, Karnataka, Assam, Bihar, Utar Pradesh, Punjab, West Bengal, Madhya Pradesh and Rajasthan
Medicinal parts: Fruits, leaves, roots and Flowers.

Description:

These plants are native to the southern and southeastern mainland of Asia and the bordering Malayan islands. They are small, spiny shrubs or trees with alternate, usually evergreen, leaves, which are shiny and leathery and dotted with oil glands. The stems are mostly winged and jointed with the leaves and there is usually a spine on the twigs at the attachment of each stem.

Their flowers smell sweet and they have five petals that are white and some kinds have purple staining the outer surfaces. The fruits are spherical or egg-shaped and have 8-14 juicy sections containing large, white or greenish seed leaves (cotyledons).

These trees are cultivated in orchards or groves and in gardens where the climate and soil are suitable and as greenhouse plants. Florida and California produce an abundant supply of Citrus fruits. Citrus trees require a minimum winter temperature of 45-50 degrees. Citrus fruits are prized for their health values.
Oils, pectin, flavorings, perfumes and other by-products are secured from their flowers and fruits. Citrus is used as a group name for the fruits of theses plants as well as for certain fruits now classified in groups other than Citrus.

Only eight are important horticultural plants
Lime(*C. aurantifolia*) -This evergreen tree is small, spiny and irregularly branched. Its small, elliptic to oblong leaves are pale green. The white flowers are small and produced in axillary clusters. The fruit is small, roundish and thin-skinned. The pulp is greenish and in sections of about ten. The juice is acid with a distinctive flavor. The Lime is a native of the East Indies and has spread all over the world in tropical and near tropical regions. It was brought to America by the Spaniards and became widely scattered throughout the West Indies. It was taken to Florida and in the southern parts has become naturalized. From Mexico, it was carried into California. While most Limes are acid, there also are sweet kinds grown and used in some of the areas where the acid ones are grown. Limes are gathered when fully grown, but still green, and shipped very soon after. The fruit is used in much the same way as Lemon.

Important! Azahar is the name of the flower described in this remedy.

Aztec Use of Azahar

Azahar Properties:

Digestive(Stimulates the Appetite), Nervous Tension, Distress, Calms Wrath or Anger and Helps Relieve Insomnia.

Aztec's Method of Use

As an Aperitif: Make a syrup using 1 liter of Azahar water(Azahar water is made by boiling 3 to 5 grams of flowers in water for 10 to 15 min.) 1 1/2 kilo of sugar and 2 spoonfuls of Rum, boil until it aquires consistency(gets thick) then take 1 tablespoon after meals.
For nervous Tension and Insomnia: Take 3 cups a day the last one before bedtime of an infusion made with 1 spoonful of Azahar flowers to 1/4 liter of water; let stand a while then sweeten to taste with bee honey or brown sugar.

Berros-Watercress

(*Nastur'tium*)

These hardy, aquatic perennials are natives of Asia and Europe and are naturalized in North America. They are found growing in cool, flowing streams.N. officinale,the Watercress, forms mats of glossy green leaves that are divided into many leaflets and rounded clusters of white, four-petaled flowers from March to November.

The leaves of this plant have a peppery taste and are used in salads and as garnishes. Nasturtiums can be grown on the edges of ponds, in streams or waterfalls.

Watercress Properties

Stimulant,
Diuretic,
Scurvy,
Chest Afflictions,
Purifier
and to inhibit Hepetatic Infections.

Aztec Method of Use

As a Stimulant: Eat Watercress in a salad or better yet crush the Watercress, mix in lemon juice then sweeten to taste. This same juice may be given to children to get rid of certain intestinal parasites.

As a Diuretic: Drink as a daily drink the boiled mixture consisting of 100 grams of leaves and stems to 1/2 liter of water

To prevent Scurvy: Drink on an empty stomach a boiled mixture consisting of 50 grams of leaves to 1/4 liter of water. This same mixture used as a gargle will relieve a sore throat and as a mouth wash will prevent gingivitis.

For Chest Afflictions(chest colds,bronchitis and respiratory track infections): Drink slowly a warm glass of a mixture made of 100 grams of Watercress juice(Crush the leaves well till juice is extracted)ad milk and bee honey to taste.

For the treatment of Tumors, Ulcers and Lynfatic seizures: Apply a poultice of crushed cold Watercress leaves over the infected area.

To Remove Spots or Red Birthmarks from the Face: Apply Watercress juice to the said spots or birthmark.

For Hepetatic Infections(gall stones): Mince well a handful of Watercress, let sit overnight, and in the morning take a tablespoon with olive oil. This treatment is done daily until the patient gets well avoiding excessive salt, liquor and spicy food.

Boldo

(Peumus boldo)

Botanic Name: Peumus boldo
Common Name: Boldo, Boldu, Boldus
Family: Monimiaceae
Parts Used: Leaves
Habitat: Chile
On dry sunny slopes in lightly wooded country in Chile.
Constituents: Volatile oils, Alkaloids (including boldine) Glycosides (boldoglucin)and Resin Tannins
Actions: Cholagogue, Hepatic, Bitter, Analgesic, Urinary antiseptic, Diuretic, Sedative
Applications: Gallstones, Gall-bladder infection , Billiary colic, Hepatic related pain, Urinary infections, Cystitis, Visceral pain due to problems in liver or gall-bladder, Rheumatic conditions, Body Systems, Digestive, (accessory organs of digestion), Urinary Infections, Combinations Gall Bladder and Liver – Chionanthus virginicus, Berberis aquifolium.

Cautions

A low dosage herb thus care must be taken when administering BHP Gallstones with

pain.

Aztec Use of Boldo

Drink 3 glasses a day, 1 in the morning, 1 at lunch and 1 before bedtime of a mixture made of 5 grams of Boldo to 1 liter of water.

For Gall Stones: Drink 4 cups a day before meals of a boiled mixture of 2 fingers worth of Boldo, 1 gram of Resurrection fern, 1 small branch of Wormwood and 1 leaf of Chinese Radish to 1 liter of water.

Borraja-Borage

(*Bora'go*)

Description:

These hardy annual and perennial herbs are natives of southern Europe and Asia Minor. They grow up to 3 feet high. Their silvery leaves are fuzzy and coarse and the drooping, five-petaled, blue flowers are starry looking. These plants are favored by beekeepers and not only are they grown for their beauty, but for their economic value as well.

B. officinalis(the common Borage) is grown for its leaves, which are used in flavoring, and its flowers, which are used in potpourri.

Borage has been used medicinally and in the preparation of various cordials and cups. It is thought to have an exhilarating effect. The young leaves are used in salads to which they add a cool, Cucumber flavor. The flowers are used as a garnish and were once preserved and candied.

Properties of Borage Used by Aztecs

Diuretic, Sudorific, Diseases of the Respitory Track, Useful in the Treatment of Measles, Chicken Pox, Scarlet Fever, since its sudorific properties cause the excretion of

bodily fluids avoiding complications.

Aztec Method of Use

Drink 3 to 4 cups a day of a mixture made of 20 to 25 grams of leaves and flowers to 1/2 liter of water.

For Respitory Illnesses: Drink 1 cup of the above infusion with the juice of 2 lemons and sweeten to taste with bee honey.

For Bilious fevers, Relief for Ardorous Urinary Track Infections: Take 3 glasses a day of the boiled mixture of 10 grams of leaves, 25 grams of bee honey to half a liter of water.

Cactus

(*Opun'tia*)

Description:

Opuntia is the largest group of Cacti with over 360 species ranging from Canada to Chile and Argentina. This group also includes several edible kinds. These plants are commonly known as Bunny Ears, Cholla, Prickly Pear, Barbary Fig, Tuna and Indian Fig.

Opuntia is usually separated into two groups.
The first group is **Platyopuntia**;
those belonging to this group have round flattened joints, called pads. They are commonly known as Prickly Pears because they produce the spiny, usually edible, fruits. Some are grown for their edible pads called nopales or nopalitos. The spines of these pads must be singed off before they can be prepared for eating.
The second group is **Cylindropuntia**;
those belonging to this group have long, cylindrical joints and are commonly called Chollas. The sizes of Opuntias vary. They can be just a few inches and spreading, or grow 100 feet high and tree-like. Most kinds of these plants are covered with sharp, barbed spines that are difficult to remove without lacerating the skin.
An interesting characteristic of these plants is the **glochids**. These are small, barbed spines produced at the base of the large spines. They can be very irritating if not handled carefully. The

flowers, which are borne from spring to fall, are shaped like cups or saucers. They are produced singly on the upper parts of the joints. They have many petals and they average 3 inches in diameter. They are usually yellow but can come in purple, orange or red.

O. lindheimeri is a pretty variety that grows up to 4 feet high with a spread of up to 10 feet. This spreading plant grows only two or three pads high. The pads are covered with cushions of golden brown glochids. In the summer, bright orange or dark red flowers are produced at the edges of the pads; these are followed by purple fruits.

O. tunicata is an interesting plant that grows up to 3 feet high with a spread of 6 feet. Young plants have few spines, but older plants are densely covered in barbed spines that have a silvery radiance in bright light. In the summer, gold to pink flowers and greenish-yellow fruits decorate this plant.

O. microdasys is a spineless variety, though it is covered with tufts of irritating, barbed glochids. The flowers of this plant and its varieties are ordinarily yellow.

Cactus Properties Used by the Aztec's

As a Tonic for the Heart, Chest Angina, Heart Murmur, Arithmia, Ti redness, Mental Depression, Promotes Arterial Pressure thereby acting as a diuretic and increasing the amount of urine

Aztec Methods of Use

Drink on empty stomach the mixture made of 50 grams of the meaty pads, chopped into little pieces without the spines to one liter of water. Boil until the water gets half way in the pot or about 20 min. (Drink Daily)

Also Visit
Nopal for more Info and Cactus Spines Getting Scraped Off Cactus being cooked Cactus Virgen

Calabaza-Pumpkin

Fam.(*curcurbita*)

Description:

This is a group of popular, annual climbing or trailing plants that belong to the Cucumber family, Cucurbitaceae. The first one that will be described is the Pumpkin.

No Halloween or Thanksgiving would be complete without the beautiful, glowing orange Pumpkins that signal the harvest season and the drawing near of winter. Two different varieties will be described below; ***C. pepo***, the popular small- to medium-size Pumpkins that are used to make jack-o'-lanterns or pies, and ***C. maxima***, which is really a giant variety of winter Squash usually grown for the "Biggest Pumpkin" contests.

C. pepo (Pumpkin) - Jack-o'-lantern and sugar Pumpkins grow on sprawling, prostrate vines with prickly stems and leafstalks and huge, lobed, triangular leaves. These Pumpkins are closely related to several kinds of Squash. The usually weigh from 2 to 20 pounds, rarely more. Some miniature varieties only weigh 1 or 2 pounds. Besides those being grown for decoration or for their edible flesh, are "naked-seeded" varieties, which have hull-less, edible seeds.

C. maxima (Mammoth Pumpkin) - These Pumpkins are closely related to Hubbard and other winter Squashes. The prostrate, annual vines are clothed with blunt, round or heart-shaped leaves and yellow flowers. The fruits are huge and pinkish-orange or grayish and usually pear-shaped, often bulging where they touch the ground.

Squashes are generally divided into two groups. One group is the Summer Squash, which have soft skins and are eaten when young. The other group is the Winter Squash; these can be stored in the winter because they have hard, protective shells. These are all warm-weather, annual vines with large, lobed foliage and yellow blossoms.

Summer Squash (*C. pepo*) - There is a wide variety of shapes and sizes in this group. Included are the following:
Smooth, yellow straightnecks; warty, yellow crooknecks; slender, medium to dark green, club-shaped Zucchini with golden-yellow varieties; smooth-skinned variously shaped fruits called vegetable marrows; and white or green, top- or disk-shaped scallop or patty pan Squashes with scalloped rims. Their isn't much difference in the flavors of the varieties, but there is some difference in the texture of the cooked flesh. Vegetable marrows are eaten, often along with the blossoms, when very young.

Winter Squash (*C. pepo*, *c. maxima* *C. moschata*) - The 3 species in this group cover a large range of sizes, shapes and flavors.
C. maxima has large, long, Banana Squashes in pink, bluish gray or orange.
Buttercup is medium-sized, dark green, drum- or top-shaped, and blotched with gray.

Boston marrow may be medium to large, bulbous, orange-skinned and shaped like a teardrop.

Turk's turban has green, turban-shaped fruits that are brightly striped with red, white, or orange and a "naval" at the blossom end.

Hubbard is medium-sized, green, blue-gray, or golden, with bumpy skin.

C. moschata includes the tan-skinned **Butternut Squash**, these are long, cylindrical fruits with a bulbous base and orange interior.

Cushaws resemble large, striped Butternut Squash with curved necks.

C. pepo includes the small- to medium-sized **Acorn Squash**, which are deeply ribbed, dark green or golden colored. The **Vegetable Spaghetti Squash** also belongs to this group. These oval, smooth fruits are ivory to golden-yellow colored and their flesh cooks

to spaghetti-like strands.

Properties of Pumpkin used by Aztecs

Useful in Fighting: Worms, Tapeworm, Hemorrhoids, Nervousness and Used as a Cerebral Tonic.

Aztec Method of Use

To obtain the best results in the expulsion of tapeworms and worms,
The ill patient must not eat for 24 hours,
then before bed take a laxative of 30 grams of castor oil;
the following day, grind 30 grams of Pumpkin seeds without the husks or shell,
sweeten with sugar to taste, and eat with a half glass of milk.
After 2 hours, take another laxative made with 30 grams of castor oil or sodium sulfate.
Some therapists recommend dividing the treatment into 2 days,
the first, on an empty stomach, take 50 grams of Pumpkin seeds husked,
grounded up and sweetened, with a glass of milk;
the following day the same but add a dose of 40 grams of castor oil.

In case you do not get satisfactory results, repeat the operation but

Only After 2(two) Months Have Passed.

Still on the subject of tapeworm and worms, some people prefer to prepare an orgeat using 100 grams of Pumpkin seeds, whole, 5 grams of fresh apple mint, and 1 quart of cold milk and brown sugar or bee honey to taste. Liquify the ingredients in a blender and drink daily in the morning instead of a breakfast,do this for 3 days and on the last day, 1 hour after dose has been taken,ingest a laxative of 60 grams of castor oil.

This treatment is for adults and children over 8 years old,
for children that are 4 to 7 years old give half of the described treatment,
and for children that are 1 to 3 years old give 1/4 of the above described treatment.
Likewise feed the patient fresh foods,in preference fruits and juices avoiding spicy or hot foods.
For **Cerebral Tonicity, Hemorrhoids and Nervousness**, it is recommended to eat cooked pumpkin.
If Raw Pumpkin is placed over a burn it will calm the pain and promote rapid healing

Corn Hairs or Cabellitos de Elote

Corn hairs or whiskers sell very well in Mexican and Latin American countries due to their great therapeutic value especially in renal infirmities.

Properties of Corn Hairs Favored by Aztec Indians

Diuretic and helps dissolve kidney and bladder stones.

Aztec Method of Use

Drink daily the boiled mixture made of 15 grams of corn hairs to 1 liter of water; if you add alfalfa or barley it will strengthen the curative process.

Do not take if Cystitis is present

Capulin - Wild Cherry

(*Prunus serotina, Prunus capuli*)

Spanish Name: Capulin
Botanical Name: Prunus serotina, Prunus capuli
Other Name: Capolinquahuitl(**Aztec**), Black cherry.
Properties: Sedative, expectorant, antispasmodic.
Preparation: Fresh leaf infusion / Tea
Indications: Cough, diarrhea, fever, intestinal inflammation
Side Effects: Warning:(Caution against large doses or long term use of Bark. The Seeds Can Be TOXIC If Ingested)
Comments: An extract from the bark of wild cherry is an ingredient in some OTC cough syrups. The simmered bark has been traditionally used to treat coughs and colds.

Capulin Properties Favored by Aztec's

For Dysentery, Antispasmodic, Nervousness and Pain.

Aztec Method of Use

For Dysentery and as an Antispasmodic: Take 100 grams a day(1/10 part of a liter) divided in 2 the boiled mixture of 25 grams of Wildcherry bark to 1/2 liter of water.

For Nervousness and Pains(Colic or Neurological): Take a tablespoon every 2 hours of the decoccion of 4 fresh Wildcherry leaves to 1/4 liter of water.

To Relieve the Pain caused by Tumors and Abscesses: Apply a Poultice over the Affected Area.

Cafe - Coffee

(*Coffea*)

Class of the coffee plant: Dicotyledoneae
Subclass of the coffee plant: Sympetalae or Metachlamydeae
Order of the coffee plant: Rubiales
Family of the coffee plant: Rubiaceae
Genus of the coffee plant: Coffea
Some Species of the coffee plant: Coffea Arabica, Coffea Robusta

The genus, Coffea, which the common coffee tree belongs, contains about 25 species. Coffea Arabica is the largest cultivated coffea but other commercially known are Coffea Liberica, Coffea Stenophylla, Coffea Excelsa, and Coffea Canephora (Robusta). By far, Coffea Arabica and Coffea Robusta are the species of coffee plant most commonly cultivated. The other species of coffee plants are not cultivated commercially. There are indoor coffee plants grown for aesthetics because the plant can do well indoors where it is carefully cared for.

The coffee plant originally grew in African tropical forests. Some varieties of coffee plant typically grow over 30 feet. But, in cultivation, for ease of picking of the coffee berry, the coffee

tree is seldom allowed over 15 feet. The Arabica coffee plant is typically smaller than the Robusta coffee plant. Coffea Robusta is a shrub type plant. The Robusta coffee plant grows similar to a bush, in that it has several trunks. Although, the coffee plant may have one trunk, it tends to have more. Additionally, this characteristic of trunking is different among the various coffee species.

Coffea Arabica is a tree type plant. The Arabica coffee plant drives a straight up trunk with branches paired off outward and lower branches tend to droop downward.

Aztec's Use of Coffee

Properties of Coffee: Stimulates Intelligence Faculties, Lowers the action of alcoholic beverages, Fortifies the stomach, Helps digestion and lowers fever.

Aztec's Method of Use

Drink after meals,sweeten to taste.

To lower Fever: Drink the decoccion of 5 grams of Untoasted coffee beans to a half liter of water, add a couple of drops of lemon juice and sweeten to taste.

Cascara Sagrada- Sacred Bark

(*Rhamnus purshiani cortex*)

Common names: Cascara Sagrada, Sacred bark

Parts used and where grown: Cascara is a small to medium-size tree native to the provinces and states of the Pacific coast, including British Columbia, Washington, Oregon, Northern California and Mexico. The bark of the tree is removed, cut into small pieces, and dried for one year before being used medicinally. Fresh bark has an emetic or vomit-inducing property and therefore is not used.

Historical or traditional use (may or may not be supported by scientific studies): Northern California Indians introduced this herb, which they called sacred bark, to sixteenth-century Spanish explorers. Being much milder in its laxative action than the Herb Buckthorn, Cascara Sagrada became popular in Europe as a treatment for constipation. Cascara Sagrada has been part of the U.S. Pharmacopoeia since 1890.1

Active constituents: Cascara bark is high in hydroxyanthraquinone glycosides called cascarosides. Resins, tannins, and lipids make up the bulk of the other bark ingredients. Cascarosides have a cathartic action, inducing the large intestine to increase its muscular

contraction (peristalsis), resulting in bowel movement.

How much is usually taken? Only the dried form of cascara should be used. Capsules providing 20–30 mg of cascarosides per day can be used; however, the smallest amount necessary to maintain soft stool should be used. As a tincture, 1–5 ml per day is generally taken. It is important to drink eight 6-ounce glasses of water throughout the day. Cascara should be taken for a maximum of eight to ten days.

Are there any side effects or interactions? Women who are pregnant or lactating and children under the age of twelve should not use cascara without the advice of a physician. Those with an intestinal obstruction, Crohn's Disease, Appendicitis, or Abdominal Pain should not employ this herb. Long-term use or abuse of cascara may cause a loss of electrolytes (especially the mineral potassium) or weaken the colon. Loss of potassium may potentiate the action of digitalis-like medications with Fatal Consequences

Cascara Sagrada Properties Used by Aztec's

Lowers fever due to scurvy, useful as a laxative and for bile duct problems.

Aztec Method of Use

Drink 1 cup 3 times a day after meals of the mixture made with 10 grams of Cascara Sagrada to 1/2 liter of water.

Cebada - Barley

(*Hordeum vulgare*)

Barley is a commonly grown grain used as a feed grain for malting, food, and sometimes for forage. It belongs to the grass family Poaceae (Gramineae) which also includes wheat, barley, Oats, Rice, Rye, Maize, Millets, and Sorghum.

Gramineae also include plants such as bamboo, sugarcane, and pasture grasses supporting grazing animals. Barley is a main component in brewing malts today, a change from the brewing malts of the past where it used to be made from malted peas, beans, potato flakes, potato starch, couch grass rhizomes.

The first known use of barley in the rising of agriculture was found from physical dating deposits of barley using the radio-carbon method. From this method, it was found that the first use of barley occurred in 7000BC in the early settlements of Kurdistan at altitudes between 2000 - 4000 feet. Emmer wheat and two-rowed barley were grown and both were derived directly from the wild in that region.

Barley is a hardy species that can be grown under a wide variety of climatic conditions ranging from the Arctic to desert areas. Today, it is also quite successful in North America, Including

Mexico, Western Europe, North Africa and parts of Asia where it is a staple food grain. In Canada, most of the barley produced is grown in the rich, black soils of Alberta, Saskatchewan, and Manitoba.

Barley is a well-known grain cultivated throughout the ages. As a food grain, it has been mentioned in the bible 37 times for its uses. As a spiritual use, it was used in festivals as it was barley that ripened first in the harvest of the grains and its sheaf was used to celebrate the Festival of Fruits. A quote in **Leviticus (23:9) states "...bring the first sheaf of the harvest to the priest on the day before the Sabbath. He will wave it before the Lord in a gesture of offering"** .

Barley Properties Favored by Aztec's

Diuretic, Digestive, Coolant, Calmative, Febrifuge, Constipation Relief and used for Diseases of the Respitory Apparatus (Pleuresia, Pneumonia)

Aztec Method of Use

Drink daily the mixture of 150 grams of Barley to 1 and 1/2 liter of water, as soon as it boils,empty the water and add the same amount of water again; boil for 10 min; let stand then add lemon and sugar to taste.

Onion - Cebolla

(*A. cepa*)

The Onion is a hardy, biennial native of western Asia. There are many varieties, which vary considerably in shape, coloring and size. They are commonly raised every year from seeds, either sown outdoors or inside, but they are often grown from small bulbs called Onion sets. These are raised from seeds sown in the summer of the previous year and if cultivated properly, will form good-sized bulbs by the end of the season. Onions grown this way, however, aren't as good as those from first-year seedling plants and they don't keep as well.

Onion sets are great for producing an early crop of Scallions. (These are young Onions that haven't developed a bulb yet, though the base may be swollen. Scallions are pulled and eaten in salads and as greens. The term is also given to young Shallots and Leeks.)

There are other types of Onion that are sometimes grown in gardens. One is the Potato Onion, which forms single bulbs or a cluster of bulbs beneath the soil.
The Top, Tree or Egyptian Onion is interesting in that it produces small bulbs at the tops of stems above the ground. The bulbs of these are usually used for pickling.
Another kind is the Welsh or Perennial Onion; it doesn't produce true bulbs, but instead is

cultivated for the use of its stems and leaves, which are mainly used for flavoring.

Cebolla Properties Favored by Aztec's

Cures Measles, **Promotes and Enhances Sexual Performance**, Digestive, Anti rheumatic, useful for Diseases of the Respiratory Track (Asthma, Bronchitis, Cough, Colds, Laryngitis.), It is of great use to people who drink great quantities of alcohol, It is a Aperitif, Cures Infectious Diseases, for Variocose, Cramps, Neurological Pain, Helps to avoid Apnia, Eliminates Dandruff, Cleans and Removes Spots and Blemishes on the Skin, Helps the Body in Removing Abscesses and Tumors.

Aztec Method of Use

For Measles: Slice 2 medium Onions and boil for 5 min. in 1/2 liter of water, sweeten with sugar loaf (piloncillo),let cool then incorporate the juice of 8 lemons; from this give the patient a tablespoonful every 2 hours for 2 days avoiding cold drafts.

To Enhance Sexual Capacity: Eat on an empty stomach 1/4 part of a medium onion seasoned with Olive Oil and Lemon Juice, eat as a salad.

As a Digestive aid and Anti rheumatic: Boil in 1/2 liter of water , half an apple cut into pieces, some Malva and Borage leaves, remove from heat, sweeten with bee honey and add a tablespoon of onion juice, drink hot at any time of day but preferably at bedtime.

For Respiratory Track Diseases: Drink the same remedy as above except add the juice of one whole Lemon.

For Apnia(Difficulty in Breathing): Mince well 5 to 6 onions, add warm cooking oil, and then apply as a poultice over the chest, throat and lung area, change the poultice constantly.

To Cure a Cough in Adults or Whooping Cough in Children: Mince 2 Onions, place on a plate, add 50 grams of sugar, Mix well and let stand overnight, the following day take a teaspoon of the mixture every 1/2 hour until healthy. At the same time give the patient a cup of Linden Flower Tea or Orange Leaf Tea or Borage Leaf Tea or Fennel Tea (any one will do),to fortify the lungs.

For People that Drink Great Quantities of Alcoholic Beverages: Finely mince 3 onions, wring or squeeze in a linen or cotton cloth, then mix the extracted juice in equal parts with lemon juice and a little water. Drink daily on an empty stomach and Do Not sweeten.

Onion Soup Cures Infectious Diseases and Opens Up the Appetite.

For Varicose, Cramps and Neurological Pain: Rub Vigorously the affected area every night with a slice of onion or onion juice.

To Lower Fevers and as an Antidote for Poisoning: Add to a hot tea, the juice of an onion and lemon juice, drink several cups a day.

To Avoid Dizzy Spells: Place half an Onion in each armpit.

To Eliminate Dandruff on Hairy Skin or the Scalp: Rub Onion juice on affected area twice a week.

To Clean and Remove Spots and Blemishes on the Skin: Rub upwards the juice of onion and of lemon juice in equal parts.

To Age or Mature Abscesses or Tumors: Add raw Onion as a poultice over affected area.

Cedro - Cedar

Description:

These evergreen trees are commonly known as Cedar or Cypress trees. They are originally from the Himalayas, the Syrian and Atlas Mountains, and Cyprus. They are different from other cone-bearing trees in their needles, which are produced in thick clusters on very short growths and surround terminal shoots at irregular intervals. The flowers are produced early in fall when the pollen-bearing cones are very noticeable.

It takes 2 years for the seeds to completely ripen; the cones fall to pieces at that time.

C. libani, the Lebanon Cedar, is a native of the Syrian Mountains and is popular because of its remarkable appearance and Biblical associations. The leading shoot of this tree is sometimes slow growing, but once it does, growth is rapid. It has a conical shape when young, gradually forming a flat-topped and tiered, mature tree. The leaves are green or grayish-green and ¾ to 1½ inches long.

C. atlantica, the Atlas Cedar, comes from the mountains of North Africa and grows from 100 to 120 feet in height. It grows faster than the Lebanon Cedar when young. The leaves are ¾ to 1½ inches long, green or grayish-green, and densely cover young branchlets. The wood of the true Cedars is oily, sweet-scented and very durable.

The wood of **C. Deodara** is widely used for building purposes, for furniture and railroad ties. The scent of the wood of all species wards off attacks from insects and clothing, stored in closets or chests made of this wood, is usually safe from moths.

Aztec Use of Cedar and it`s Properties.

Reduces Fever due to Malaria.

Aztec Method of Use

Drink 2 to 3 cups a day of the decoccion made from 50 grams of Cedar bark boiled for 1/2 hour in 2 liters of water. Boil on low flame or heat.

Cedron

(*N.O. Simarubaceae*)

Botanical: Simaba Cedron (PLANCH.)
Family: N.O. Simarubaceae
Synonym--- Cedron seeds.
Part Used--- Seeds.
Habitat--- Columbia, Mexico and Central America.
Description---A small tree, a native of New Grenada, remarkable for the properties of its seed. It has large pinnated leaves with over twenty narrow elliptical leaflets and large panicles of flowers, 3 to 4 feet long; the fruit is about the size of a swan's egg, and contains only one fruit, four of the cells being barren. The Cedron of commerce is not unlike a large blanched almond - it is often yellowish, hard and compact, but can be easily cut, it is intensely bitter, not unlike Quassia in taste and has no odor.

The Cedron of commerce is obtained from the seed. Cedron has always been used in Central

America as a remedy for snake-bite, and first came into notice in Britain in 1699.

Medicinal Action and Uses--- It has been found of considerable value in New Grenada as a febrifuge in intermittent fever, and is also recommended as an anti periodic. There is almost a superstitious belief in its efficacy in eradicating poison, and the natives always carry some of the seeds on their person.
For snake-bites, a small quantity is scraped off, mixed with water and applied to the wound, and then about 2 grains are put into brandy or into water and taken internally. Every part of the plant, including the seed, is intensely bitter.
Constituents--- A crystalline substance called Cedrin was separated by Lowry, but this has been disputed.
Dosages--- Of the crude drug, 5 to 15 grains. Of powdered seeds, 1 to 10 grains. The infusion, which is taken in tablespoonful doses, is made with 1 OZ. of the herb to 1 pint of boiling water. Hyperdermically, Cedrin has been given, 1/15 of a grain.

The powdered bark is used to kill vermin.

Other Species--- The Simaruba versicolor has similar properties.

Cedron Properties Used by Aztec's

Antispasmodic, Regulates Menstruation, Opens Up the Appetite and Favors Digestion.

Aztec Method of Use.

Drink 3 to 4 cups a day of an infusion made with 20 Cedron leaves to 1/2 liter of water.(Drink after Meals)

Cempasuchil-Marigold

(*Tagetes spp.*)

Family: Compositae/Aster Common Names: marigoldaceae (daisy/aster family)
Other Names: Flor del Muerto,Cempasuchil
Plant Description: Annual herbs, gland-dotted and aromatic; leaves opposite or alternate above, pinnately lobed and appearing divided, the lobes narrow and toothed; flowers in slender heads, yellow and orange or with red.

Hundreds of types of marigolds have been developed for the garden over the last few hundred years. This plant was brought from the new world to Europe in the 16th century and plant hybridizers have been busy with it ever since.

Marigolds are categorized into three groups: French, African and triploid marigolds. The French marigolds
(*Tagetes patula*) are small bushy plants that are about 6 to 12 inches in height. The flowers are up to 2 inches across and are composed of a dense arrangement of "rays" that come in yellow, orange and a unique bronze color.
The French marigolds bloom non-stop until cut down by frost. The African marigolds (also called American marigolds),

***Tagetes erecta*,**
Location Despite its name, T. erecta,
the African marigold, is native to Mexico and Central America. The French marigold,
T. patula, is also from this region. Marigolds have naturalized in many other warm climate areas as well.

Marigold Properties Used by Aztec's

Vermifuge (Intestinal Parasite Remover),
Emolient (Softens tumors and abscesses),
Cures Gastralgias and is an Antiinflamatory

Aztec Method of Use

Take 3 cups a day of the mixture of a pinch of Marigold flowers(dried or powdered) to 1 liter of water.
As an Emolient: Apply Marigold flowers to the affected zone in poultice form.

Centeno-Rye-Rye grass

(*Secale cereale*)
Cereal plant

Important chiefly in central and N Europe. The GRAIN, or seed, is used for pumpernickel and the lighter-colored rye bread (made from a mixture of rye and wheat flour), as a stock feed, and in the distillation of whiskey and gin.

The plant, which grows well in areas where the soil is too poor and the climate too cool for wheat, is also grown for hay and pasturage and as green manure and a COVER CROP. Russia leads in world production. ERGOT, a fungus infection, is poisonous and can make rye unsafe for use.

Rye grass

short-lived perennial, leafy, tufted plant belonging to the family Gramineae (grass family). Two species are grown in the United States, Italian rye grass (Lolium multiflorum), the leading hay grass of Europe, and English, or perennial, rye grass (L. perenne).

In parts of the United States where winters are mild, both are sowed, often mixed with other

grains, for pasturage.
Italian rye grass is much used for lawns in warmer regions of the United States. Perennial rye grass was probably the first of all perennial grasses to be cultivated pure for forage. Poison rye grass, or darnel (L. temulentum), reputed to be poisonous, grows in grain fields and waste places; it is thought to be the tare of the Bible.

Common Name: Blue Rye Grass
Botanical Name: Elymus condensatus
Family: Poaceae
Height: Up to 3 feet
Width: Same as height
Growth Rate: Moderate
Sunlight: Full sun to Partial shade
Water: Light to Moderate irrigation
Soil: Any
Diseases/Pests: None
Description: A clumping evergreen herbacious perennial. Leaves are a silvery-gray color. Blue flowers are produced on stalks up to three feet above the foliage. Native to: San Miguel Island
ANNUAL RYEGRASS **(Lolium rigidum)**
Description:
Erect plant, up to 90cm in height. Shiny hairless leaves. Stems are reddish-purple toward the base of the plant. Leaves have auricles present, distinguishing it from phalaris.
Problem: Competes with pasture and crops.

Properties of Centeno valued by the Aztec's

Food, Laxative and Cures Headaches.

Aztec Method of Use

With the Rye grains brew a coffee similar to real coffee but with one advantage "No Caffeine" which is recommended for people with cardiac problems. This coffee is good for people suffering from headaches or constipation.
Prepare in the following way: Remove the shell casing of the Rye grain, wash the grains in water then boil until tender, then dry in sunlight then toast over fire and add sugar.
This infusion is made the same way regular coffee is made. The milled Rye flour is very nutritious and bread is made with it that has a very agreeable taste and odor,useful in the formation of fiber in the intestines which in turn helps fight constipation.

Cilantro-Coriander

(*Coriandrum sativum*)

Family: Umbelliferae
Native of Mediterranean region
Appearance: The foliage (called "Cilantro") looks like parsley but has an exceptional sweet-musky flavor. Produces pale pink flowers during the summer; these ripen into the sweetly aromatic coriander seed. The plant, in flower, can reach three feet high.

Botanical Source. Coriander is an annual, smooth herb, with a tapering root, and a round, erect stem, 12 or 18 inches high, more or less branched, leafy, round, and striated. The leaves are compound; the lower ones pinnate, on long, slender petioles, their leaflets wedge-shaped, or fan-shaped, acutely notched; upper leaves multifid, in fine, linear segments. The flowers are white, often with a reddish tint, disposed in compound, terminal, stalked umbels, of rarely more than 4 or 5 rays; the partial rays being more numerous. The calyx is 5-toothed, acute, unequal, and permanent. Petals obovate, emarginate, with inflexed lobes, the exterior radiating and bifid. The fruit is spherical, a line and a half in diameter, somewhat coriaceous, carminative, and aromatic. The seed is excavated in front and has a loose skin.

History. Coriander is an Italian plant, but introduced in all the warmer portions of Europe and temperate parts of Asia and Mexico. Flowering from May to July, and maturing its fruit early in the latter part of summer. Occasionally it is found in cultivation in the United States, South American States, Mexico and **The Rio Grande Valley of Texas.** When the fresh plant is bruised, it emits a disagreeable, bedbug-like odor, but by desiccation the fruit acquires its peculiar aromatic odor. The pleasant flavor is owing to a volatile oil, which

may be procured by distillation. Alcohol takes up the active properties of the seed, water only partially.

The Romans, who combined it with cumin and vinegar, rubbed it into meat as a preservative brought coriander to Northern Europe. Coriander has been cultivated for over 3,000 years. Seeds have been found in tombs from the 21st Egyptian dynasty (1085-945BC) The herb is mentioned in the Old Testament--"when the children of Israel were returning to their homeland from slavery in Egypt, they ate manna in the wilderness and the manna was as coriander seeds"--and it is still one of the traditional bitter herbs to be eaten at the Passover when the Jewish people remember that journey.

The Chinese once believed it bestowed immortality and in the Middle Ages it was put in love potions as an aphrodisiac. Its name is said to be derived from koris, Greek for "bedbug" since the plant smelled strongly of the insect.

Medicinal Coriander is good for the digestive system, reducing flatulence, stimulating the appetite and aiding the secretions of gastric juices. Bruised seed can be applied externally as a poultice to relieve painful joints and rheumatism. Coriander seed is used in some soaps and in toilet waters to add fragrance. Whole or ground seed is added to potpourri to blend the scents and Coriander oils is used in perfumes.

Coriander Properties Used by Aztec's

Stomachic, Digestive, Eliminates odorous and unpleasant gases from the digestive track which lead to belching and flatulence, Fortifies the Lungs, Gives Energy and is Useful for relieving colic.

Aztec Method of Use

Cilantro (coriander) should be washed and disinfected very well since it usually contains many amoebas. It may be used in salads, soups, garnishes, Pico de Gallo, ect,ect.

Ciruela-Prune

(*Prunus*)

By definition, a prune is a dried plum. All prunes are plums, but not all plums are prunes. Prunes can be dried without fermenting while still containing the pits. This is not true of other varieties of plums. It should be noted that when we plant an orchard, we plant a prune orchard.

Description: Prunus is the botanical name for a large group of deciduous and evergreen trees and shrubs. These popular plants are greatly valued for their delicious, edible fruits, gorgeous spring blossoms and some, for their colorful foliage; some varieties are grown for decoration alone, since all do not produce edible fruits. Numerous varieties have been developed from the wild forms; some were bred for maximum fruit production and better quality fruit while others were bred for larger and more abundant blossoms; some varieties can survive in different climates than others can. They are among the most beautiful trees and shrubs. Included in this group are the Almond, Apricot, Cherry, Nectarine, Peach and Plum trees. Most of the species need to be grown in Temperate regions though some, such as the evergreen kinds, need to be grown in mild climates.

Plum (*P. domestica*) - The Plum is widely cultivated throughout the U.S., since there are varieties suitable for growing in every state. Plums are extensively grown for commerce in Oregon, Washington, California and Idaho. Trees may have erect or spreading growth, depending on the variety. The leaves vary in shape, also, but are usually egg-shaped with finely serrated edges. The fruits are oval or round having smooth, thin skin. The flesh may be purple, blue, red, green or yellow, also depending on the variety.

There are more than 2,000 varieties of Plums available. Many Plums bear fruit as soon as three years after planting. Plums may be eaten fresh, preserved in jellies or jams, dried as prunes, juiced, or fermented as a liqueur. Plums come from three different backgrounds: American, European, and Japanese.
They are also grown in Mexico,central and south america.

Japanese plums (*P. salicina*) have sweet flesh that is somewhat tart near the pit. Japanese plums are usually clingstone, which means the flesh sticks to the pit. These plums grow well where peaches flourish, tolerate heat and need only a short period of winter dormancy. However, these trees bloom at the first touch of warm weather, making them susceptible to damage from late spring frosts. Most of these trees require an American or Japanese pollinator, but if your garden is small, look for a self-fruitful hybrid, such as 'Catalina'.

European plums(*P. domestica*) are hardier than Japanese plums. European varieties include the late-season prune plums, which are great for drying and eating fresh, and the Gage types, small, greenish fruits valued for their light sweetness. European plums are ordinarily freestone, which means the flesh easily separates from the stone, making canning easy. Many varieties of the European plum will bear fruit with only one tree planted, though the crop will be heavier with a pollinator. European plums also bloom later than Japanese plums, making them ideal for regions with fickle spring weather. However, these plums ripen late (from September to October), so if your growing season is short, these plums aren't for you.

American plums include the beach Plum (*P. maritima*), the Canada Plum (*P. nigra*), the American plum (*P. americana*), and the Sierra or Klamath plum (*P. subcordata*). Most of these plums are very cold hardy and tolerate heat and drought. The small plums of these trees vary in quality from one tree to another, but are delicious eaten fresh as well as in jellies, preserves, wines, and liqueurs. The flowers of these trees have a wonderful scent and the branches may be clipped for indoor decoration.

There are varieties of Plums that are grown for ornament rather than their fruits. Single flowered varieties will bear edible, but small fruits, but the showy double-flowered varieties won't produce any. *P. cerasifera* (Cherry Plum, Myrobalan Plum) is a hardy, small, deciduous tree producing a ton of small, white, single flowers in early spring. Mature trees will sometimes produce red cherry-plums. A variety of P. cerasifera, 'Hessei', is a medium-sized, shrubby tree with light green leaves that gradually turn to bronze-purple with white to yellowish or pink margins. Pure white flowers are borne in mid-spring. Another hardy variety, atropurpurea, is a beautiful variety grown for decoration. It reaches a height from 15 to 20 feet and has dark reddish-purple foliage.

Properties of "Prune" Used by Aztec's

Nutritive, Laxative, Cures Acid Reflux (heartburn), Cures Nervousness and Irritability.

Aztec Method of Use

Eat daily at any time, preferably on an empty stomach.

Clavel-Carnation

(Dianthus caryophyllus L.)

Introduction The carnation is most famous for its use as a cut flower in the florists' trade, but also performs well in the garden as a bedding plant. The carnation is a member of the Caryophyllaceae, or pink, family. The modern carnation was first developed in Europe.

Carnations were cultivated over 2,000 years ago. Modern varieties were developed first in France in 1840, and further work was done in the United States in 1855.
The name for carnation is derived from the Latin term "carnatio," meaning fleshiness.
"Caryophyllus" means pink and refers to the color of the blooms of the original wild species.

Graphic Courtesy of www.thegardenhelper.com Carnation Graphic

Properties of Carnation Used by Aztec's

Tonics, Pectoral and Diuretic

Aztec Method of Use

For Chest Diseases: Take a tablespoon every three hours of the syrup made from carnation flower petals and sugar to taste.

For Diuretic affects: Take 3 to 4 cups a day made from the boiled mixture of 5 grams of Carnation flower petals to 1/2 liter of water.

Contrayerba-Isoplexis

(*Scrophulariaceae*)

Other common or vulgar names: Contrahierba, , Cresta de Gallo, Barbadilla, Cabaiahuache, Isoplexis canariensis
Family: Scrophulariaceae
Native: Canary Islands

If you have more documentation on this plant please e-mail me Here. All Information hereby given is from the book "Ancient Aztec Remedies" (Antiguo Recetario Medicinal Azteca) since there is not much info on this particular plant, I will provide only the end results of my research.

Contrayerba Properties Used by Aztec's

Tonic, Stimulant, Promotes Perspiration, Used for Snake Bites, to Accelerate the Development of Chicken Pox and Measles for Faster Healing and to Clean Ulcers and Rebellious Sores.

Aztec Method of Use

Drink 1 cup in the morning on an empty stomach and 1 before bed of the mixture made with 50 grams of the root to 1/2 liter of water. This same mixture is used externally for Ulcers and Sores.

Costomate

Genus: Physalis
Family: Solanaceae.
Common names: downy ground-cherry, ground-cherry, husk-tomato, strawberry-tomato, alkékenge doux, alquequenje-amarelo, capulí, tomate verde, muyaca
Economic importance: Human food: fruit
Distributional range: Native: Northern America: Mexico; United States [mainly s.e.] Southern America: Antigua and Barbuda - Antigua; Argentina [mostly n.]; Belize; Bolivia; Brazil; Colombia; Costa Rica; Cuba; Dominica; Ecuador; El Salvador; French Guiana; Guadeloupe; Guatemala; Guyana; Hispañiola; Honduras; Jamaica; Martinique; Nicaragua; Panama; Paraguay; Peru; Puerto Rico; Suriname; Venezuela
Other: widely naturalized elsewhere

I have researched this plant and I have several references to it that go by other names and families.
I will give all related information below.

Copalchi Is a plant that pertains to the Solanaceae family, it grows in the temperate zones of the republic of Mexico, it`s usable part is the root that resembles a yam or sweet potato.

Properties of Copalchi

antidiahrrea, intestinal gas and diuretic.

Aztec Method of Use

3 cups a day of the boiled mixture of 50 grams of root to 1/2 liter of water.

Copalchi de Jojutla Also goes by the names: Palo Amargo, Quina de Michoacan, Corteza de Jojutla and Campanilla.
Copalchi de Jojutla is a plant that belongs to the rubiacea family it is native to Mexico, its bark is bitter and has aromatic white flowers.

Properties of Copalchi de Jojutla,
Tonic, Fights Malaria, Typhus, Dispepsia, Gastroenteritis, Augments the Urine Quantity, Removes Albumen from Urine and Edema.

Aztec Method of Use

They would drink 3 times a day the infusion of 25 grams of bark to 1/2 liter of water or better yet, 1 gram of powdered bark dissolved in a little water, 3 times a day.

Crameria

(*Krameria Triandra Ruiz y Pavon*)

Crameria is also known by these names: Ratinia and Raiz de Ciruelilla, it grows in semi tropic and temperate zones of Mexico.

It has a main ingredient (a resin) that is used for medicinal properties and the name of the resin is cramerina

Crameria Properties Favored by Aztec's

Used in the treatment of Diarrhea, Dysentery, Enteritis, Intestinal Hemorrhage, Unusual Uterine Hemorrhage Outside of the Menstrual Cycle, Renal Congestion with Hemorrhage, Hemorrhoid, Swelling of the Gums, and to clean Ulcers or Fissures on the Mammary Glands.

Aztec Method of Use

Take 3 times a day the boiled mixture consisting of 15 to 17 grams of root to 1/2 liter of water. "Drink before meals".
For Hemorrhoids: Prepare an enema with 20 grams of root to 1 liter of water.
For Estomatitis: Gargle with the same mixture as above
For Ulcers on the Mammary Glands: Wash or clean the ulcer with a decoccion of the same proportions as above.

Cuachalala or Chalalate

(*Ampbypteryngium adstingens*)

Schiede ex Schech.

Fam. julianaceae

This plant is found in several regions in Mexico and is reported to have been used in the treatment of ulcers, stomach cancer, gastritis and cutaneous lesions.

Cuachalala Graphic

Properties of Cuachalalate Favored by Aztec Indians

Efficient against Typhoid, Gastric Ulcers, Helps Treat Misaligned Cervix also Used for Vaginal Wash .

Method of Use

The Aztecs would make a brew of 20 to 22 grams of the cortex to a half liter of water and drink a cup on an empty stomach or as a daily drink.

For exterior Vaginal Cleansing: use the same concoction every 3 days.

Cuajilote

(*Parmentiera edulis D.C.*)

Common name: Turi
Spanish common name: Cuajilote
Additional common names Mexico: Cuachilote, Chote, Guetoxiga, Kat, Turi
Aztec name: Quauhxilotl
Scientific name: Parmentiera edulis D.C.
Family: Bignoniaceae
Botanical characteristics and habitat: Tree of the lower deciduous forests of the Mexican states of Morelos, Guerrero, Michoacán, Oaxaca and Puebla. It reaches heights of 13 to 30 feet (4 to 9 meters); its stem is thick and woody with many branches; each leaf is divided into five light green leaflets; leaves are winged and sessile and there are two thorns at each leaf base. Its flowers are solitary or clustered; they are greenish cream in color and grow directly from the stem or on the tips of the branches. Fruits are 8 to 12 inches long (20 to 30 cm) and look like greenish-yellow cucumbers. The fruit is juicy and has a sweet flavor.
Properties: Anti diabetic, hydrops, pectoral.
Uses in traditional medicine: Turi has been part of the traditional medicine pharmacopoeia of indigenous Mexican communities since ancient times. Its Náhuatl name means "tree with corn-shaped fruit" (cuahuitl-xilot).
Its Latin scientific name comes from the military pharmacist Parmentier, who was responsible for introducing the potato in France. This plant is used in Mexico for kidney ailments, kidney stones, urinary tract infections, colds, inflammation of the outer ear,

cough and digestive problems. The flowers may be infused with other plants and are used for respiratory problems accompanied by cough. This plant is classified as cold and moist.

Cuajilote Properties Favored by Aztec's

Useful against Renal Diseases, Dropsy, Gastric Indigestion, Cold's, and Inflammation of the Outer Ear that could lead to Deafness.

Aztec Method of Use

Drink Daily the Brew made from 50 grams of Cuajilote Leaves to 1 Liter of Water.
For Outer Ear Inflammation: Soak a Cotton ball in the mixture described above and insert into the Ear Canal.

Precautions & Contradictions: There are no cases of serious human toxic reactions known due to the traditional therapeutic use of this plant. Consult your doctor.

Cuasia - Quassia

(*Picrasma excelsa*)

1. **Common Names:** Quassia, Bitter Wood, Picrasma, Jamaican Quassia, Surinam Quassia, Quassia Amara, Amargo, Surinam Wood, and Ruda.
2. **Scientific Names:** Quassia is a collective term for two herbs: Picrasma excelsa and Quassia amara L.
3. **Family:** Simaroubaceae.

Quassia wood is used for the digestive system. It is a bitter tonic and Stomachic. In small doses it increases the appetite and is recommended to treat the formation of acid substances during digestion.

What Is Quassia? The pale yellow, intensely bitter-tasting wood of the West Indian quassia tree is granulated to prepare a medicinal remedy. Clusters of small, rose-colored flowers and long pinnate leaves grow on this tall tree. The wood of the Surinam quassia, Quassia amara L., a smaller tree that grows in Colombia, Argentina, Guyana, Mexico and Panama, is also used.

What it Is Used For?: West Indian natives familiar with this tree reportedly carved "quassia cups" out of the wood, added hot water, and let these stand long enough that the extremely bitter resin in the wood would be drawn into the water. They then sipped the mixture when indigestion or other stomach upsets developed or the appetite needed a boost. Quassia became a common European bitter tonic for similar conditions once it was imported to the continent in the 1700s. Although it is little used for these purposes today, quassia does appear in a number of prepared stomach-soothing and bile-stimulating herbal formulas. The extract, quassin, has been similarly used, and a number of contemporary herbalists recommend it for stimulating liver, gall bladder,

kidney, and other internal "juices." Homeopaths prescribe minute dosages of quassia for a variety of ailments.

The use of oral and rectal (enema) formulations for intestinal worms, once quite popular, has become dated. Topical quassia formulations such as lotions are sometimes applied to combat body lice. Many aperitifs, liqueurs, and tonic wines contain this bitter wood. It also serves as a flavoring in foods and beverages. Gardeners regard it as an effective insect repellent and pesticide.

Properties Used by Aztec's

Aperitif, Digestive, Tonic, Helps in the secretion of Bile, Diuretic and Laxative.

Aztec Method of Use

Drink 2 cups a day, 1 in the morning and one at bedtime of the maceration of 5 to 10 grams of Quassia wood to 1/2 liter of water, let rest for 12 hours, then it will be ready to take.

Chayote

(*Sechium edule sw.*)

Description: This is a semi-hardy perennial vine native to South America. It can grow up to 15 feet in the mid-South and up to 30 feet in the Southwest. The Chayote produces waxy-green, pear shaped fruits. Some are spiny and some are ridged. Other common names that is goes by includes Mirliton, Christophine and Vegetable Pear. In climates where they can survive the winter, the tuberous roots grow large and can be eaten candied, boiled, or roasted.

Chayote properties Used by Aztecs

Used for Arteriosclerosis and Renal stones

Aztec Method of Use

Drink daily whenever thirsty the mixture of 3 to 5 leaves boiled in 1 liter of water.

Chicalote

Also known by Prickle Poppy, Argemone mexicana and Chicotl / Chillazotl(Aztec).

This Mexican desert poppy shares some properties with the Chinese opium poppy. In Aztec traditions, some diseases were thought to be the result of angry gods. This plant was sacred to Tlaloc, the Aztec god of rain and water, and water related diseases such as rheumatism and palsy were treated with this herb to appease him.

Properties: Sedative, Antispasmodic, analgesic, laxative.
Preparation: Seed to be eaten or mix with water as a laxative drink, Infusion of the leaves as sedative, the sap as topical analgesic.
Indications: Skin Lesions, Burns, Cough, Migraine, Generalized Aches and Pains.
Side Effects: The dried leaves are smoked as an aphrodisiac in Mexico, with possible risk of side effects of vomiting and diarrhea!

Properties of Chicalote used by Aztec's

Hypnotic and Calmative, Used Against Insomnia, Fights Cough in Children also for Seizures and Convulsions.

Aztec Method of Use

For Cough, Convulsions and Seizures: Drink 1 cup before bedtime the powdered mixture of 50 grams of seeds and leaves to 1/2 liter of water boiled for 15 min.

For Hypnotic Effects and as a Calmative: Drink before bed 1 cup of the infusion of 14 grams of flowers to 1/2 liter of water.

For Diarrhea: Boil Chicalote leaves with rice, grind and toast then drink the mixture as a daily drink.

Cuatecomate-Music Tree

(*Crescentia alata*)

In the rain forests, these roundish fruits (gourds) turn from emerald to yellow, then to brown at maturity. They are dried, polished, and used as the percussion instrument "maraca." Makes an interesting house plant.

Properties of Cuatecomate Used by Aztec's

Useful in the Treatment of Pectoral Afflictions such as Chronic Bronchitis, Asthma, Dilation of Bronchial Tubes with Mucus, Amoeba Dysentery, Chronic Diarrhea and some Liver Afflictions, it is also Recommended for Loss of Hair and Favors it`s Re-Growth.

Aztec Method of Use

For Bronchial afflictions: Eat 4 to 5 fruits, but first from where the fruit meets the branch, make a cavity in the gourd and fill with white sherry wine, do not remove the seeds, let macerate for 48 hours , then drink a small cup of the extracted liquid 3 times a day and before meals.
For Diarrhea and Dysentery: Drink 1 to 2 cups per day of the boiled mixture consisting of 75 grams of leaves to 1/2 liter of water.
For the Hair: Rub hair vigorously with the same mixture as above.

Damiana

(*Turnera diffusa var.aphrodisiaca*)

Family: Turneraceae
Common names: Damiana, Damiane, Oreganilla
Description: A potent mood altering herb. A small, perennial shrub bearing light green leaves whose under sides are covered in dense hairs. Yellow flowers.
Properties/Actions: Aphrodisiac, Anti depressant, Diuretic, Emmemagogue, Hormonal, Laxative, Nervine, Stimulant, Stomachic, Tonic .
Native to: Southwestern United States and Mexico.
Traditional/medicinal uses: The tops and leaves are harvested while the plant is in flower to assure a high alkaloid content. Care must be taken to cure/dry the plant materials in the shade at a low temperature so that the more volatile constituents are not lost.
Methods of ingestion: As a tea.
Health hazards: None known.
Phytochemicals Include: Albuminoids, Alpha-copaene, Alpha-pinene, Arbutin, Ascorbic-acid, Beta-pinene, Cineole, Chlorophyll, Chromium, Damianin, Magnesium, Manganese, Niacin, Potassium, Resin, Riboflavin, Selenium, Tannins, Thiamin, Thymol, Zinc.

Damiana is a small shrub with aromatic leaves found throughout Mexico, Central and South America and the West Indies. The botanical name of the plant describes its use as an aphrodisiac. For more than 100 years, Damiana's use has been associated with improving sexual function in both males and females. Damiana acts as an anti depressant, tonic, diuretic, to treat coughs and as a mild laxative. It is said to relieve headaches, control bed-wetting, and stimulate muscular contractions of the intestinal tract. Damiana is a stimulating nerve tonic used for

debility, depression and lethargy. The leaves are used in Germany to relieve stress and for its tonic action on the hormonal and central nervous system.

Herbal Definition: Emmemagogue: An emmenagogue is an herb which promotes mensuration.

Damiana Properties Used by Aztecs

Diuretic, Astringent(used in cases of diarrhea), Tonic(used in cases of weakness due to excessive alcohol drinking or sexual activity), Favors Digestion and Promotes the Appetite, Used with Success in Cases of Impotence and Sexual Neurastenia Provoked by Nervous Depression, Cures Headaches Due to Excessive Drinking. (as in hangover - La Cruda).

Aztec Method of Use

Drink 1 cup after meals of the mixture consisting of 32 grams of fresh leaves boiled for 15 min. in 1 liter of water.

Diente de Leon - Dandelion

(T. officinale)

Description:

T. officinale is the common and sometimes pesky, perennial weed in northern yards known as the Dandelion. The Dandelion (Also known as Swine's Snout, Priest's Crown and Telltime.) develops a deep, thick taproot from which a rosette of long, narrow, serrated, shiny dark green or brownish leaves arise. The hollow flower stalks grow directly from the root and each leafless stalk produces a single, golden yellow blossom, which produces an abundance of pollen and nectar. When the flower has reached its prime, it closes up and the dead petals fall off. Eventually the seeds mature and form snowy white puff balls, which will be blown off to be dispersed by the wind.

The young Dandelion leaves, especially if blanched, can be used to make salads either alone or along with other salad greens; older leaves will be too bitter. The young leaves can also be boiled as a vegetable.

Properties of Dandelion Favored by the Aztec's

Augments the quantity of red blood cells in the liver and spleen, recommended for convalecsing patients of infectious diseases, pretuberculosis and anemics. It also possesses diuretic and sudorific properties.

Aztec Method of Use

Boil 120 grams of stems, leaves and roots in 1/2 liter of water, drink for several days on an empty stomach.

Doradilla-Resurrection Fern

(*Pleopeltis polypodioides*)

Polypody Family

-Polypodiaceae Description: A small evergreen perennial with large rhizomes greater than 2 cm long. Leaves are scattered and jointed, 3-15 cm long, blades are oblong to triangular. Petioles are 1.5-7 cm long

Spores: July-September
Habitat: Moist woods and stream banks

Doradilla Properties Favored by Aztec's

Diuretic, Used against Renal Stones, Cystitis (inflammation of the urinary bladder) and Liver Infections.

Aztec Method of Use

Drink as a daily drink the boiled mixture of 120 grams of the plant to 1 liter of water, strain and sweeten to taste.

Epazote

Family: Chenopodiaceae
Genus: Chenopodium
Species: ambrosioides
Common Names: Erva-de-Santa Maria, Epazote, Wormseed, Apasote, Chenopode, Feuilles A Vers, Herbe A Vers, Meksika Cayi, Paico, Pazote, Semen Contra, Semin Contra, Simon Contegras

Here are more synonyms I found: pharm Herba, Chenopodii ambrosioidis, Welriekende ganzenvoet, Amerikaans wormzaad, Wormkruid, Wormzaad, Méxican tea, West Indian goosefoot, Jerusalem parsley, Hedge mustard, Sweet pigweed, Ürt-hanemalts, Saitruunasavikka, Méxicanischer Traubentee, Méxicanisches Teekraut, Karthäusertee, Jesuitentee, Wohlriechender Gänsefuß Mirhafû, Kadavoma, Katuayamodakam, Sitronmelde, Komosa pizmowa, Mastruz, Yerba de Santa Maria, Citronmålla.

Used plant part: Leaf and flowers of epazote.

Leaves. They are best used fresh, but since the fresh herb is available only for those with their own garden, the dried herb is also common. Its aroma is still satisfactory. The seeds contain even more essential oil (about 1%) and are chiefly used because of their vermifuge powers (see below).

Plant family: Chenopodiaceae (goose-foot family).

Main constituents: Essential oil with ascaridol (up to 70%), limonene and p-cymene, furthermore numerous other monoterpenes and monoterpene derivatives (alpha-pinene, myrcene, p-cymene, terpinene, thymol, campher and trans-isocarveol).

Ascaridol is rather an uncommon constituent of spices; another plant owing much of its character to this monoterpene peroxide is boldo.

Origin: The plant is indigenous in Central and Southern México, but is today a common neophyte in Europe and the U.S.

Etymology: The English genus name, goose-foot, is a translation of the scientific genus name Chenopodium: Greek cheén "goose" and poús "foot"; it is motivated by the the three-lobed leaf shape characteristic of several plants belonging to this group. Méxican origin or association with missionary orders (e.g., the Jesuits) gave rise to several of the popular names in English and German. A very closely related variety (*var. anthelmitica*) is cultivated in the Southern States of the US for its potency against intestinal worms; thus the name wormseed for the plant. To prevent confusion, the variety used in the kitchen (*var. ambrosioides*) is usually called epazote in English. This name is taken from Nahuatl, the tongue spoken by the Aztecs before the arrival of the Spanish; it is still a minority language in México and in use among the Indios living around México City. The name is due to the strong smell of the herb, which many find disagreeable (epatl "skunk" and tzotl "sweat").

Epazote (flowering tip) Epazote's strong taste is characteristic of the Mayan cuisine in the South of México and Guatemala. Center of epazote usage in México is the Yucatán peninsula. The herb is used fresh in soups, salads and meat dishes; it appears in the recipe for mole verde, a Méxican herb sauce (see Méxican pepper-leaf). The most common usage is, however, in bean dishes, especially Méxican re fried black beans (frijoles refritos). These are basically pinto beans, which are cooked with epazote and other spices (garlic, onion, cumin and dried Méxican chiles and/or paprika). After cooking, they are fried in some pig lard until a smooth puree. Re fried beans are often served in Tex-Mex-style restaurants. The dried herb is considered inferior to the fresh one, but outside Central America and the southern parts of the US, fresh epazote may be hard to find. A common substitute are coriander or long coriander leaves, even in México.

Aztec Use of Epazote

Augments the secretion of all intestinal glands, increases bile, favors the expulsion of intestinal parasites and favors menstruation.

CAUTION if pregnant or if hepatic or renal disease is present!

May be used even if pregnant in small amounts with food since only half a leaf is used for a pound of beans.

Aztec Method of Use

Drink 1 cup on an empty stomach for 3 to 4 days of the boiled mixture consisting of 5 grams of stems and leaves to 1/2 liter of water.

Due to its irritating properties due not take for too many days since it will provoke diarrhea and or colic.

Espinacas-Spinach

(*S. oleracea*)

Description:

This plant is a very popular vegetable known as Spinach. Its tender, dark green leaves are great in salads and cooked. Described below is the common garden Spinach (S. oleracea). There are two other plants often grown in place of Spinach. These are Malabar Spinach and New Zealand Spinach (Basella Alba and Tetragonia tetragonioides,respectively).

Spinach grows quickly and loves cool weather. This annual forms clumps of long-stemmed leaves that can grow up to 12 inches long and 18 inches wide at maturity, but Spinach is usually harvested earlier. The main differences among Spinach hybrids and open-pollinated varieties are in their resistance to bolting and diseases, leaf texture and how fast they mature.

Properties of Spinach Used by Aztec's

Fights Constipation, Tones the Body, Recommended for Weak Persons, Rickets, or Anemics, Used as an Emolient(softens tissue), also Recommended for People with Rheumatism, Arthritis and Neurologies.

Aztec Method of Use

To Tone the Body: Drink 1/2 glass of Spinach juice daily on an empty stomach.
For Rheumatism, Arthritis, and Neurologies: Eat raw spinach in salads, or cooked.

To Soften Tissues and Cure Hemorrhoids: Make a poultice of raw crushed spinach leaves and apply to affected area.

Eucalipto-Eucalyptus

(Eucalyp'tus)

Description:

This group consists of more than 400, quick-growing, tender, evergreen trees and some shrubs native to Tasmania and Australia. These unique trees can grow to gigantic proportions; some species can reach heights over 400 feet in their native habitats and up to 200 feet in California.

Eucalyptus Trees, also popularly known as Gum trees because some species exude a gum, are fragrant and normally pest-resistant. These trees have leathery, smooth, lance-shaped leaves, which have a more rounded shape when young. Their puffball-like flowers may be red or orange and are very attractive to bees. They have no petals, but instead, numerous stamens arising from a capsule-like calyx, which give them their fluffy appearance.

The attractive, colorful bark of the stems and trunks of the Eucalyptus may be dappled in gray, green, russet, or cream and may peel in sheets. Besides the decorative qualities of the trees, Eucalyptus are valued for their timber, the important oils of the leaves and shoots, tannin, which is taken from the bark of some varieties, and a resinous substance known as kino.

E. parvifolia: is a beautiful, medium-sized species that has beautifully colored, peeling bark. At maturity, the leaves are small, slender, and blue-green. This species tolerates alkaline soil.

E. citriodora: (Lemon-scented gum) is a large, quick-growing tree with smooth, white bark and lemon-scented leaves.

E.coccifera: (Tasmanian snow gum) is a large tree with bloomy (bloom is a powdery,

waxy substance sometimes covering plants) leaves and stems, not evident in young plants. The bark peels to reveal a white trunk.

E. ficifolia: (Red flowering gum) is a medium-sized plant with clusters of beautiful, feathery, red flowers up to a foot long.

E. pauciflora: subsp. niphophila (Snow gum) is a small, fairly slow-growing tree that is covered in large, leathery, grayish-green leaves. The multi-colored trunk has been compared to the skin of a python with its green, gray, and cream bark.

Eucalyptus Graphic

Properties of Eucalyptus Used by Aztec's

Fights Diseases of the Respiratory Track, such as Asthma and Difficulty in Breathing, Also

Colds,
Coughs,
Laryngitis,
Chest Colds,
Dry Cough and Tuberculosis.
It is also recommended for Persons Suffering from Diabetes,
also Used as an Aperitif and Helps Digestion.

Aztec Method of Use

For Diseases of the Respiratory Track: Drink 3 cups a day of the boiled mixture of 30 grams of leaves to 1 liter of water, it is also recommended to inhale the steam from a wide mouth container with the leaves inside it.

To Cure Diabetes: Drink 3 cups a day for 1 week of the infusion of 4 leaves to 1 liter of water.

For Coughs: Drink 1 cup before bed of the mixture of 20 eucalyptus leaves, 10 grams of cinnamon and 30 leaves of purple bougainvillea to 1/2 liter of water; let warm then sweeten with bee honey.

Flor de Manita-Chiranthodendron

The generic name - Chiranthodendron - is a combination of Greek words meaning "hand-flower-tree." Larreátegui notes that this was the name used by the Spanish botanists in Sessé's expedition, which studied the tree in 1787. The trivial name pentadactylon means "five-fingered." The tree flowers in winter, when the branches are otherwise bare. It was well-known long before the Spanish arrived in the 1500s; in the Aztec language Nahuatl it is called Macpalxochicuahuitl ("hand-flower-tree"). In Spanish it is called Árbol de las manitas ("tree of the little hands"), flor de manita ("flower of the little hand"), and manita or mano de león ("little hand, or hand, of a lion"); and in English, the hand-flower tree or Mexican hand plant (Hortus Third).

As Larreátegui explains, the tree was known from a single specimen growing since time immemorial in Toluca in the Valley of Mexico. The Indians revered it and used it in medicines for relieving pain and inflammation, according to the Badianus Manuscript, an Aztec herbal now in the Vatican Library, and early Spanish commentaries, notably Hernandez's Quatro Libros de la Naturaleza y Virtutes de las Plantas y Animales...en la Nueva España first published in 1615. Following their beliefs about what would please the gods, the Aztecs picked every flower on the Toluca tree each year to prevent it from germinating and producing others of its kind, although it is reported that there were a few others cultivated in gardens or presented as royal gifts.

The Toluca tree was visited and studied by Sessé and Mociño, Cervantes, and Humboldt and Bonpland on their several botanical expeditions during this period. The species is a large forest tree in the Sterculiaceae (Cacao) family and is now known to be abundant in wet mixed oak-

pine and deciduous mountain forests through Mexico and Guatemala.

Link to Pictures and more info on Flor de Manita

Properties of Flor de Manita Used by Aztec's

Cures Cardiac Diseases

Astec Method of Use

Divide the flor de manita into 4 parts, then boil 1/4 of the flower with 1/4 magnolia flower, 1/4 pitahaya flower in 1/4 liter of water; strain then drink 1 cup on an empty stomach. Avoid quarrels, displeasures, strong emotions, intense exercise and agitations. If the patient suffers from sharp pain or palpitations; rub some wine near the heart area.

Floripondio-Angel Trumpet

(Datura arborea L.)

(synonymous with D. blanca), Reina de la noche, Angel Trumpet (family- Solanaceae)

Small tree that occurs along the ocean to about 1300 m in altitude. Its white flowers give off a strong perfume at night. Due to this perfume, this tree is considered intoxicating and divine in some parts of the world.

Angel Trumpet Links Link 1 Link 2

Used to cure Rheumatism, Worms, Inflammation, Colds, Fever, Erysipelas, Cramps and Infections.

Used to cure Asthma and Hemorrhoids. Also used as a Vermicide and as a Cataplasm to Relieve Pain.

This tree is known to occur in Costa Rica but is not very common and is thus not believed to be an indigenous plant.

Properties of Floripondio Used by Aztec's

Antispasmodic, Sciatica, Anticolic, Hepatic, Coughs as in Asthma, Calms Epileptic Convulsions, Eclampsia and Huntington disease.

Aztec Method of Use

This plant should be used with caution since it contains Atropine, a natural and principal active ingredient of it`s leaves which will cause vertigo, hallucinations and delirium with convulsions. Only use 1 to 2 leaves to 100 grams of water.

Fresno - Ash

(Frax'inus)

Description:

These hardy, deciduous trees are commonly known as Ash Trees. Most of the Ashes are natives of the Northern Hemisphere. These quick-growing trees are suitable for growing in yards and along roads; they will survive in almost any soil in wind-swept areas and near the sea.

Ashes produce compound leaves with toothed leaflets that turn yellow and purple colors in autumn. Most of these trees produce unnoticeable, greenish-yellow, male and female flowers on separate trees. These are borne in early spring and, on female trees, are followed by clusters of winged seeds.

F. americana (White Ash) is a native of North America. This variety grows from 70 to 90 feet high and forms a rounded head of branches. The dull green leaves are 8 to 15 inches long and consist of 5 to 9, oval or oblong lance-shaped leaflets.

F. ornus (Flowering Ash or Manna Ash) is originally from southern Europe. This tree, unlike most of the others, bears attractive, downy, 3- to 5-inch panicles of fragrant, white flowers in the spring or early summer. Each blossom contains both male and female parts, therefore, all trees of this variety produce seeds. Its glossy green leaves are 8 to 10 inches long. This type grows from 25 to 35 feet high.

The wood of various kinds of Ashes is valued in the lumber business. It is strong, elastic and easily worked. It is used to make tool handles, railroad ties, furniture, etc....

Great Ash Tree Link Fresno in my back yard

Properties of Ash Used by Aztec's

Used to fight Rheumatism, Deafness, Lowers Fever, Increases Urine and Perspiration.

Aztec Method of Use

For Rheumatism: Boil for 1 min. 45 grams of ash leaves, 15 grams of mint leaves and 3 large cups of water. Filter and drink 3 cups a day 1 hour before meals.

For deafness: Make a fire, cut a thick green branch of ash and place in fire, allow part of branch to hang over the edge so you can collect the distilled liquid that will seep out of the branch, use a plate to collect the liquid, then add liquid to a small jar, cover well, place in double boiler for a couple of minutes, place several drops of the liquid in affected ear then place a piece of cotton soaked in same liquid in ear only before bedtime.

To lower fever and increase sweat and urine: Drink 3 cups a day for several days the mixture of ash and mint mentioned above.

Gobernadora - Creosote Bush

(Larrea tridentata)

Common names: Chapparral, Creosote bush, Cresotum

Therapeutic Actions:

Anti-bacterial, Anti-fungal, Anti-inflammatory, Anti-neoplastic, Anti-oxidant, Decreases histamine, and SRSA from Lung tissue, Decreases prostaglandin, and thrombaxane synthesis by inhibiting cyclooxygenase, HETE and lukotriene synthesis are reduced by inhibition of lipoxygenase, Inhibits contractile response within lung parencyma

Description

After a rain these plants give off a musty, resinous odor which is the basis of the Mexican name, hediondilla (freely translated, "little stinker"). Also known as gobernadora.(lady governor, governors wife) A member of the Caltrop Family.

This many-branched shrub can grow to 10' but most are under 6'. Creosote blooms periodically with peaks in March-April and November-December. Flowers are yellow, 5-petaled; followed by a globe-shaped, fuzzy white capsule. Its varnish-like coating on leaves slows evaporation and conserves water. Parts of the plants were used medicinally by Native Americans. Resin from branches was used as glue.

Gobernadora Site

Properties of Gobernadora Beneficial to Aztec's

Dissolves Kidney and Bile Duct Stones, Used to Fight Rheumatism and Favors the Rapid Healing of Wounds.

Aztec Method of Use

To Dissolve Stones: Boil 5 grams of leaves to 1/4 liter of water, drink 1 to 2 cups a day.
For Rheumatic Pain: Rub on the affected area the same mixture described above.
For Rapid Healing of Wounds: Foment warm on affected area the same mixture as above.

Gordo Lobo-Mullein

(Verbascum thapsus L.)

Figwort Family -Scrophulariaceae,
Common Mullein -Verbascum thapsus L.

Description:

-Common mullein is an erect, stout, soft woolly biennial which reproduces by seeds. The entire plant is covered by matted layers of short hairs which are forked and starlike. The large woolly stem, usually unbranched, is 2 to 6 feet high and very leafy. The leaves form a woolly rosette on the ground for the first year, from which the stem arises the second year. The stem leaves are alternate, the basal ones 6 to 18 inches long, with the upper ones gradually becoming smaller. They are crowded on the stem, nearly oblong, the tips roundish, and the upper leaves more pointed. The leaves are stalkless, but the bases are attached to the stem, and continue down it to the next leaf, thus the stem is 4-winged. The margins are smooth or slightly wavy.

The flowers are greenish yellow, stalkless, 5-lobed, and 3/4 to 1 inch across. They are crowded on a long thick spike at the top of the plant, 1 to 3 feet long, and 3/4 to 1 1/4 inches thick, sometimes with 1 to several short spikes at the base. The woolly eggshaped seedpods, about 1/4 inch in diameter, contain innumerable tiny seeds. These are dark brown, less than 1/25 inch long, rodshaped with 1 end pointed, and a pitted and ridged surface.

Distribution

-Common mullein is a naturalized weed from Europe, growing in dry disturbed soil in waste places, along roadsides, railroad embankments, old dwellings, or fields. On the pinyon, juniper,

and ponderosa pine ranges it is a conspicuous weed along sheep driveways, old bedgrounds, and corrals, and is of no value as forage. Widespread in northern and central Arizona from Apache to Mohave counties and abundant in many areas, southward to the Chiricahua Mountains in Cochise County; 4,500 to 8,000 feet elevation; flowering June to October, grows on stony ground and hot climates in Mexico.

Mullein Pics and Info

Gordo Lobo Properties Used by Aztecs

Calms Cough, Sneezing, Sore Throat, Fights Diarrhea, Dysentery, Diphtheria also a Light Intestinal Antiseptic,
Also Works Well in Healing Burns, Sores and wounds on the Skin.

Aztec Method of Use

For Sore Throat: Boil 2 Gordo Lobo branches to 1/2 liter of water, gargle the mixture.
For Burns, Sores and Wounds: Apply leaves as cataplasm over the affected skin.
For All Other Afflictions: Boil 50 grams of flowers and leaves in 1 liter of water, drink 3 cups a day before meals.

Granado-Pomegranate

(*Punica granatum*)

Botanical Name: Punica granatum (LINN.)

Family: N.O. Lythraceae

Synonyms: Grenadier, Cortex granati, Ecorce de Granade, Granatwurzelrinde, Melogranato, Malicorio, Scorzo del Melogranati, Cortezade Granada.

Parts Used: The root, bark, the fruits, the rind of the fruit, the flowers.

Habitat: Western Asia. Now grows widely in Mediterranean countries, China, Japan and Mexico.

History: The Latin name of the tree was Malus punica, or Punicum Malum, the Lybian or Carthaginian apple; while the name of granatum was bestowed on account of its many seeds. Having no close relations, the tree has been placed by various authorities in different orders, some giving it an order of its own, Granateae.

Description: It is a small tree, not more than 15 feet high, with pale, brownish bark. The buds and young shoots are red, the leaves opposite, lanceolate, entire, thick, glossy and almost evergreen. The flowers are large and solitary, the crimson petals alternating with the lobes of the calyx. The fruit is the size of an orange, having a thick, reddish-yellow rind, an acid pulp, and large quantities of seeds.

The dried root bark is found in quills 3 to 4 inches long. It is yellowish-grey and wrinkled

outside, the inner bark being smooth and yellow. It has a short fracture, little odor and a slightly astringent taste.

The rind of the fruit is in curved, brittle fragments, rough and yellowish-brown outside, paler and pitted within. It is called Malicorium. The fruit is used for dessert, and in the East the juice is included in cooling drinks. The flowers yield a red dye, and with leaves and seeds were used by the Ancients as astringent medicines and to remove worms.

The Pomegranate is mentioned in the Papyrus Ebers. It is still used by the Jews in some ceremonials, and as a design has been used in architecture and needlework from the earliest times. It formed part of the decoration of the pillars of King Solomon's Temple, and was embroidered on the hem of the High-Priest's ephod.

There are three kinds of Pomegranates:
one very sour, the juice of which is used instead of verjuice, or unripe grape juice; the other two moderately sweet or very sweet. These are (in Syria) eaten as dessert after being cut open, seeded, strewn with sugar and sprinkled with rosewater. A wine is extracted from the fruits, and the seeds are used in syrups and preservatives.

The bark is used in tanning and dyeing giving the yellow hue to Morocco leather. The barks of three wild Pomegranates are said to be used in Java:
the red-flowered merah, the white-flowered poetih, and the black-flowered hitam.

Constituents: The chief constituent of the bark (about 22 per cent) is called punicotannic acid. It also contains gallic acid, mannite, and four alkaloids, Pelletierine, Methyl-Pelletierine, Pseudo-Pelletierine, and IsoPelletierine.

The liquid pelletierine boils at 125 degrees C., and is soluble in water, alcohol, ether and chloroform. The drug deteriorates with age. The rind contains tannic acid, sugar and gum. Pelletierine Tannate is a mixture of the tannates of the alkaloids obtained from the bark of the root and stem, and represents the taenicidal properties.

Medicinal Action and Uses: The seeds are demulcent. The fruit is a mild astringent and refrigerant in some fevers, and especially in biliousness, and the bark is used to remove tapeworm. In India the rind is used in diarrhea and chronic dysentery, often combined with opium. It is used as an injection in leucorrhoea, as a gargle in sore throat in its early stages, and in powder for intermittent fevers. The flowers have similar properties. The root-bark

was recommended as a vermifuge by Celsus, Dioscorides and Pliny. It may be used fresh or dried.

Pomegranate Link Granada in my backyard

Properties in Pomegranate Used by Aztec's

The roots are used to get rid of tapeworm, the rind is used to fortify the gums and help heal cold sores, the pulp is efficient in healing tonsillitis, respiratory track afflictions, cases of diphtheria and sexual weakness.

Aztec Method of Use

For Tapeworm: Soak 60 grams of root then boil in 1 liter of water, boil until water gets half way in container, from this mixture, drink half before bedtime, then drink the rest upon awakening. After 1 hour take a laxative of sodium sulfate or 45 grams of castor oil. If the tapeworm is not removed repeat the process the following week.

This treatment must not be taken by pregnant women, lactating mothers or children under the age of 10.

For mouth sores, mouth ulcers and cold sores: Boil the rind and gargle 3 times a day.

For Tonsillitis, respiratory afflictions,diphtheria and sexual weakness: Take 2 to 3 spoonfuls of the juice of Pomegranate mixed with bee honey

Guayabo-Guava

(*Psidium guajava*)

The common guava has the scientific name Psidium guajava and is part of the myrtle and eucalyptus family. The tree is small, with copper-colored bark. It has leaves with many veins, and white or cream-colored flowers. The fruit of the common guava varies in size and shape, but it is usually 4 - 8 centimeters (1½ - 3 inches) long.

As the guava ripens, the outside skin changes color from green to light green or yellow. The flesh of the fruit may be white, yellow, pink or red. Inside the fruit are many stone-like seeds.

Another kind of guava is the Cattley guava, also called strawberry or cherry guava. It is quite different from the common guava and has the scientific name Psidium cattleianum. The leaves of the Cattley guava are smaller, shinier, and darker green than those of the common guava. The fruit is also small, rarely growing to more than 4 centimeters (1½ inches) long. It is usually red or reddish purple. Inside are several large, nut-like seeds. Both kinds of guava trees usually bear their fruit during the hot, rainy season.

Guayabo in my back yard

Properties Used by Aztec's

Used to Combat Diarrhea,
Used to Tone the Hair,
Avoids it`s Fallout and Conserves it`s Color,

also Used to Rid the Body of Certain Intestinal Parasites.

Aztec Method of Use

For Diarrhea: Boil 30 grams of leaves to 1 liter of water, drink 3 cups a day of this mixture or another form is to boil 3 guava leaves + 3 chirimoya leaves to 1/4 liter of water then drink 1 glass a day.

For Hair Toneification and to Prevent it`s Loss and to Conserve it`s Color: Massage the above mixture into scalp.

To Rid the Body of Certain Intestinal Parasites: Eat Guava fruit on an empty stomach.

Guamuchil-

(*Acacia Pringlei*)

Pithecollobium dulce, Pithecollobium lanceolatum, Goldmania foetida, Pithecollobium unguis

Varieties: A. armata; A. baileyana var. Purpurea; A. dealbata; A. longifolia; A. mucronata; A. pravissima; A. retinodes; A. riceana.

Description: This group consists of about 1,000 species that are found in tropical and subtropical regions, especially in Australia, Africa and Mexico. These evergreens should not be confused with the trees and shrubs commonly known as acacia, which belong to the group Robinia. These tender evergreens are totally different and are commonly known as Mimosas and Wattles. The Australian types are called Wattles because their lumber was used by early settlers in the wattle-and-daub method of building homes.

The attractive leaves of these plants are usually bipinnate, giving them a feathery appearance. Some, however, are phyllodes; these are expanded, flattened leaf stems that carry out the same functions of true leaves. Wattles mostly bear flowers in the winter or spring. The tiny yellow flowers are produced in small, fluffy, round- or bottlebrush-shaped clusters.

A. armata (Kangaroo Thorn) is a large, thorny, dense shrub with small, slender, dark green phyllodes. In the spring, the length of the branches are clothed with tons of yellow flowers.

A. baileyana var. Purpurea is a large shrub or small tree with pretty, feathery leaves that

are deep purple when young, contrasting beautifully with the older, blue-green leaves.

A. pravissima (Ovens Wattle) forms a small tree or large shrub with blue-green, triangular phyllodes. Each phyllode is equipped with a single thorn on its under side. Tons of small clusters of yellow flowers are borne early in the spring. Some of these plants are valued for their timber such as

A. homalophylla (Myall Wood),

A. melanoxylon (Australian Blackwood),

A. decurrens dealbata (Silver Wattle),

and **A. acuminata** (Raspberry Jam Wood).

The hard, durable wood from some is used in different countries for building purposes, making furniture, tool handles and much more. Some Acacias are valued for the tannin in their bark or wood. Gum Arabic is a gum that exudes from the stems and branches of **A. nilotica**; this plant is found wild in the dry areas of tropical Africa and India. This gum is used for dyeing and printing. A perfume is obtained from the flowers of **A. Farnesiana**. This plant is grown commercially in southern France.

Properties Used by Aztec's

Calms Teeth and Ear Aches, Cures Indigestion, Useful in Case of Abortion and Diarrhea.

Aztec Method of Use

To Calm Teeth a Ear Pain and for Diarrhea: Take 3 to for cups of the boiled mixture consisting of 40 grams of the root cortex to 1 liter of water.

For Indigestion: Eat the leaves with salt and pepper.

To Stop Abortion: Blend in Palm leaves to the mixture mentioned above for indigestion.

Hierba del Angel - Angel Weed

(*Calliandra anomala*)

Common Name: CABEZA DE ANGEL
Family: fabaceae
Range: Guatemala, Mexico, Southern Mexico
Action: Hypnotic Used to Treat: Cholera, Condyloma, Cough, Diarrhea, Fever, Inappetence, Inflammation, Malaria
Body Area: chest, eye.

Hierba del Angel Properties Used by Aztec's

Ocular Inflammation (conjuntivitis),
Diarrhea,
Dysentery,
Indigestion,
Cough and to Fight Hemorrhage of the Bile Gland.

Aztec Method of Use

For Conjuntivitis: Triturate the flowers, mix with water and apply as eye drops.

For the rest of the ailments: Prepare a tea with 8 grams of leaves to 1/4 of liter water then drink 1 cup on an empty stomach and before each meal.

Hierba del Gato - Catnip

(Nepeta cataria)

Parts used and where grown:

The catnip plant grows in North America and Europe. The leaves and flowers are used as medicine. **Historical or traditional use (may or may not be supported by scientific studies):** Catnip is famous for inducing a delirious, stimulated state in felines. Throughout history, this herb has been used in humans to produce a sedative effect. Catnip tea was a regular beverage in England before the introduction of tea from China. Several other conditions (including cancer, toothache, corns, and hives) have been treated with catnip by traditional herbalists.

Active constituents: The essential oil in catnip contains a monoterpene similar to the valepotriates found in valerian, an even more widely renowned sedative. Animal studies (except those involving cats) have found it to increase sleep. The monoterpenes also help with coughs.

Are there any side effects or interactions? Using reasonable amounts, no side effects with catnip have been noted.

At the time of writing, there were no well-known drug interactions with catnip.

Properties Used by Aztec's

Sedative,

Antispasmodic,
Useful for Convulsions Resulting from Depressive State of Body,
Astenia,
Hysteria in Women such as Palpitations,
Vague Pains in Certain Regions.

Aztec Method of Use

Take 2 cups of the mixture of 25 grams of catnip to 1/4 liter of water.

Yerbabuena-Menta-Mint

(Men'tha)

Description: This is a large group of well-known perennial herbs, which are widely spread over the temperate parts of the world. Mentha includes the Apple Mint, Curly Mint, Pennyroyal, Peppermint, Pineapple Mint, Spearmint and Water or Bog Mint. Following are descriptions of each variety.

- **Apple Mint** (M. suaveolens) - This hardy perennial is a very robust grower. Apple Mint has interesting light green leaves. They are somewhat hairy on the upper surface and downy underneath, with serrated edges. They can grow up to 3 feet high, but should be kept lower.
- **Curly Mint** (M. spicata variety crispii) - This plant is valued more for its intricately curled, fringed leaves than for its fragrance. The foliage is dark green and lightly splotched with a contrasting lighter green. They can grow up to 2 feet high and are invasive. Chefs like Curly Mint for garnishes, but prefer the pleasant flavor of Spearmint and Peppermint.
- **Pennyroyal** (M. pulegium) - This creeping Mint is used once in a while as a ground cover in cool climates. It has many stems, which grow up to 12 inches high and are covered with small, round to oval, dark green leaves. In the summer it produces bluish-lilac blossoms. Pennyroyal has an enjoyable lemony aroma and is used to flavor meat puddings and fish entrees.
- **Peppermint** (M. piperita) - This spreading plant has a sharp, penetrating yet pleasant, mint aroma. It grows 1 to 2 feet high, but can reach 3 feet when in bloom. The lance-shaped leaves are deeply notched when mature and the flowers are usually purple.
- **Pineapple Mint** (M. suaveolens 'Variegata') - Pineapple Mint is a variegated hybrid of Apple Mint with white or cream blotches on its leaves. It does have a slight Pineapple

scent, but the aroma isn't always detectable. This Mint is good for garnishes because the thick leaves are slow to wilt.

- **Spearmint** (M. spicata) - This is considered one of the most popular and versatile garden Mint. Spearmint has a fruity aroma and flavor and blends well in many foods, including salads, sauces, teas and dips. This plant can reach 2 to 3 feet in height when in bloom. It has bright green leaves and purple flowers. Its toothed leaves lack stems, distinguishing this plant from Peppermint.
- **Water** or **Bog Mint** (M. aquatica) - This aggressive Mint is great for growing along the margins of water gardens, though care must be taken that it does not become troublesome. The Bog Mint grows to a height of 2 or 3 feet. It produces pairs of very fragrant, elliptic-shaped, serrated leaves that are usually tinted with purple and shaded with even more purple on their undersides. The leaves grow from reddish colored stems. In the summer, whorls of lilac colored flowers grow at the stem tips. The leaves may be used to flavor salads and teas.

Properties of Mint Used by Aztec's

Fights Gastrointestinal Distress such as Gastritis, Nausea, Soothes Sour stomach, Stimulates Digestion and Reduces Nasal Secretions due to Colds and Flu.

Aztec Method of Use

- Drink 1 cup after meals of the mixture made from 10 grams of Mint leaves to 1/2 liter of water.
- This same remedy is useful in calming gastrointestinal distress such as hicups produced in children that are teething; (Should be given in small spoonfuls)

Golondrina-Groundfig Spurge

(*Euphorbiaceae Euphorbia prostrata*)
Aiton (*E. chamaesyce L.*)

Description- A prostrate annual often forming mats, or sometimes partially erect where competing for light, reproducing only by seeds.

The pinkish to bright red stems have short, spreading, or curved hairs. The opposite leaves, green or purplish green, are hairless above and thinly hairy beneath, 1/8 to 1/3 inch long, with smooth or finely toothed margins. The 2 scalelike stipules, usually present at the base of the leaf stalks, are lacking or very small and inconspicuous in most species of spurge.

The tiny pinkish flowers, consisting of stamens and pistils only, are grouped into small flowerlike clusters. The 3-lobed seedpods are 1/16 inch or less long, hairy only on the 3 angles, the hairs short and usually stiffly spreading or lying close to the surface on some plants. The oblong seeds, about 1/25 inch long, are sharply 4-angled, and have 6 to 8 sharp cross wrinkles on each face.

Distribution- Naturalized from Tropical America, groundfig spurge is one of the worst pests in summer lawns throughout southern Arizona and Texas. Also common along paths, roadsides, cracks in sidewalks, streets, gardens, and flower beds; 100 to 5,500 feet elevation; flowering June to November.

Golondrina Properties Used by Aztecs

Reduces inflammation of the mucus membrane of the esophagus in cases of gastritis,gastroenteritis, colitis and enterocolitis.

In the exterior, useful in reducing inflammation of the tonsils, conjuntivitis (Inflammation of the mucus in the anterior part of the eye), rectitis, vaginitis,hemorrhoids and prostatitis.

Aztec Method of Use

To lower inflammation of the mucus membrane in the digestive tube: Drink 1 cup on an empty stomach of the boiled mixture consisting of 5 to 10 grams of leaves and roots to 1 liter of water.

Exterior Use: Boil 20 to 40 grams of leaves and roots to 1/2 liter of water.

For the tonsils: Gargle the mixture daily.
For Conjuntivitis: Apply mixture as an eye drop.

For rectitis, inflamed hemorrhoids, prostatitis: Use mixture as enema.

For vaginitis: Use liquid as vaginal wash.

Hierba de San Nicolas-Broom Snakeweed

Gutierrezia sarothrae (Pursh) Britt. & Rusby

Other common names:

broomweed, broom snakeweed, matchweed, turpentine-weed, yellow top, kindlingweed, escobilla, yerba-de-vibora, coyaye, yerba del tabardillo, xoxonitzal and yoloxiltic

Synonomy: Gutierrezia euthamiae, G. longifilia, G. diversifolia Greene, G. lepidota Greene, G. linearifolia Lag., G. linoides Greene, G. longipappa S. F. Blake, G. pomariensis (S. L. Welsh) S.L. Welsh, G. tenuis Greene, Solidago sarothrae Pursh, Xanthocephalum sarothrae (Pursh) Shinners, Xanthocephalum tenue (Greene) Shinners, Gutierrezia sarothrae (Pursh) Britton & Rusby var. pomariensis S. L. Welsh, Xanthocephalum sarothrae (Pursh) Shinners var. pomariense (S.L. Welsh) S.L. Welsh.

Latin name meaning: The genus Gutierrezia was named after Piedro Gutierrez, a correspondent of the Madrid Botanical Gardens. Sarothrae is derived from sarotron and sarothrum, Latin for broom.
Family: Asteraceae.
Similar species: Prairie snakeweed or threadleaf snakeweed (Gutierrezia microcephala). The primary difference between prairie snakeweed and broomweed is the number of ray flowers in the flower head. Broomweed has 3 or more ray flower per head compared to one or two in prairie snakeweed.
Distribution: Alberta, Arizona, California, Colorado, Idaho, Kansas, Northwest Territories, Manitoba, Mexico, Montana, Nebraska, New Mexico, New York, North Dakota, Oklahoma, Oregon, Saskatchewan, South Dakota, Texas, Utah, Washington,

Wyoming.

Properties in Broom snakeweed Used by Aztecs

Stimulates glandular secretions which in turn helps the body get rid of germs and toxins in cases of infections;
stimulates sweat glands(lowers fever;)
stimulates urinary system(eliminates toxins in the blood)
and stimulates the digestive juices, produces a laxitive affect also useful if stomach pain is present, in bronchitis and pnumonia because of its disinflammatory properties
also good for its actions on the cardiovascular system.

Aztec Method of Use

Boil 25 grams of the plant to 1/2 liter of water then drink 1 cup 3 times a day.

Hierba del Pollo-Khakiweed

(*Amaranthaceae Alternanthera*) pungens H.B.K.

Prostrate annual or perennial from a thick tap root.
Stems hairy.
Leaves opposite, broadest at the rounded tip, tapering to the petiole.
Leaf margins smooth. Flowers white, in stiff-bracted, almost spiny, heads.
Heads sessile, solitary or two or three clustered at the nodes.
Reproduces by seed.
Found in turf, pastures and along roadsides in sandy soils.
Occurs in Florida, Georgia, Alabama and Texas.
Also found in Cuba, Jamaica, eastern Mexico, Java, India, Kenya, South Africa and Australia.
Native to South America.

Properties in Hierba del Gato Used by Aztecs

Stops hemorrhage,
nasal, dental,
hemorrhage outside the menstrual period,
after birthing or hemorrhage due to an abortion
also in renal or intestinal tuberculosis

Aztec Method of Use

- **For local hemorrhage,such as cuts or deep abrasions:** Apply the leaves on the cut or for a much more stronger remedy boil the leaves first than apply once they are cool to the touch.
- **To stop internal hemorrhage:** Boil 100 grams of leaves to 1 liter of water then drink 1 cup every 2 to 3 hours.
- **For menstrual hemorrhage or hemorrhage outside the menstrual period, after birthing or hemorrhage due to an abortion:** Take the same mixture as above also douch with the mixture and apply a non irritating antiseptic to the vaginal area, (Must be lukewarm to the touch).
- **For Dental Hemorrhage:** Apply leaves directly on the gums.
- **For Intestinal and renal tuberculosis:** Drink the same mixture as above 3 times a day after meals.

Hinojo-Fennel

(*Foeniculum vulgare variety azoricum*),
(*Foeniculum vulgare variety dulce*)

Scientific classification: Fennel belongs to the family Apiaceae (formerly Umbelliferae). It is classified as Foeniculum vulgare. The common fennel is classified as Foeniculum vulgare variety azoricum, and the Florence fennel as Foeniculum vulgare variety dulce.

Fennel, common name for a perennial plant characterized chiefly by its aromatic leaves and seeds. Fennel grows from about 61 to 122 cm (about 24 to 48 in) in height and has small yellow flowers. The common fennel is cultivated in both Europe and America which includes Mexico. Its leaves and seeds are used for flavoring. Another variety, called variously Florence fennel, sweet fennel, Italian fennel, or Cretan fennel, is cultivated in southern Europe.
The bases of the leafstalks of Florence fennel are greatly enlarged and form a bulbous structure, which is bleached by earthing and then eaten raw or cooked. The seed of Florence fennel is used widely in Italy as an aromatic condiment and as a medicine.

Properties in Fennel Used by Aztecs

- Relieves migraine headaches,
- Used as an aperitif,
- for digestion,
- diuretic,
- dislodges intestinal gases,
- increases milk production in lactating women and
- regulates menstruation,

- removes tumors or obstructions in the mammary glands
- also used to fight colds,
- anemia,
- flu symptoms
- and cough

Aztec Method of Use

1. Boil 7 to 10 grams of leaves and fruit to 1/2 liter of water then drink 2 cups a day.
2. **To remove obstructions in the mammary glands:** Apply the well crushed leaves on the affected part in the form of a cataplasm.
3. **For anemia:** Prepare a wine with 25 grams of seeds macerated in 1/2 liter of white wine for 1 week then filter or strain and take 1 spoonful before each meal.
4. **For flu,colds and cough:** Drink 3 to 4 cups of the above mentioned mixture sweetened with bee honey.
5. **For infantile colic:** give small spoonfuls of fennel powder prepared with bee honey and milk.

Hoja Santa-Rootbeer Plant

(*Piper auritum*)

Common names: English: eared pepper, anise piper, rootbeer plant
Spanish: hoja santa, anisillo, hinojo, sabalero, hoja de la estrella, hoja de anis, allacuyo, yerba santa
Aztec: tlanapaquelite
Other: Hawaiian sakau, false sakau, false kava (Pohnpei)

In the wild this plant is usually found on river or creek banks, but it's able to take some drought. It withstands the heat quite well. The leaves of Hoja Santa taste like rootbeer. They're used extensively in Central American and Caribbean cooking. One popular use is to wrap pieces of meat or fish in the leaf while they're cooking.

Properties of Hoja Santa Used by Aztec's

- stimulant,
- analgesic,
- stomachic

and for bronchial afflictions such as

- asthma,
- bronchitis,
- laryngitis and
- Apnia(difficulty in breathing)

Aztec Method of Use

1. **Drink 1 cup after each meal of the infusion made of 1 leaf to 2 cups of water.**
2. **For Bronchial afflictions:** Take 15 to 30 drops of a tincture diluted with a couple of drops of water, prepare tincture with 25 grams of whole plant 1/4 liter of 90 proof alcohol, macerate for a couple of days then filter.

Hojita de Sen - Barbados Pride

(*Caesalpinia pulcherrima*)

Common names:

- Peacock flower
- bead tree
- Barba'dos
- flow'er fence
- dwarf poinciana

And Also a tropical African and Asian tree, Adenanthera pavonina, of the legume family, having feathery foliage and bearing red seeds that are used in beadwork.

Peacock flower is an evergreen shrub or small tree in frost free climates, a deciduous shrub in zone 9, and a returning perennial in zone 8. In the tropics it gets 15-20' tall and its ungainly, wide spreading branches can cover about the same width.

In cultivation peacock flower is usually 8-12' tall, growing that large even after freezing to the ground the previous winter. The stem, branches and petioles are armed with sharp spines and the leaves are fernlike and twice compound, with many small, oval leaflets.

Peacock flower lives up to its name with incredibly showy blossoms of orange and red. The flowers are bowl shaped, 2-3" across, with five crinkled, unequal red and orange petals, and ten prominent bright red stamens that extend way beyond the corolla. The flowers are born in terminal clusters 8-10" tall throughout most of the year in tropical climates and in late summer and fall where frosts occur. There also are types with yellow and types with dark red flowers.

The fruits, typical legumes, are flat, 3-4" long, and when ripe they split open noisily to expose the little brown beans.

Hojita de Sen Graphic URL

Properties of Hojita de Sen favored by the Aztec's

Used for relief of constipation

Aztec Method of Use

- Drink a cup 1/2 hour after the main meal of the brew made from 2 leaves of Hojita de Sen to 1/4 of water.

Once the patient feels better, suspend treatment.

Itamo Real - Mormon Tea

Family: Gnetaceae
Genus: Ephedra
Common names: Mormon Tea, Brigham Tea, Cowboy Tea, Whorehouse Tea, Squaw Tea, Canyon Tea,Desert tea, Brigon tea
Spanish names: Itamo real,Popotillo,Tepopote,Canutillo,Pingo pingo
Indian names: Tuttumpin (Paiute), Tutupivi (Kawaiisu)
Distribution: All of the southwestern United States and Mexico. Found in deserts and on dry mountain sides.
Description: a branched broomlike shrub growing up to 4 feet tall, with slender, jointed stems. The leaves are reduced to scales and grow in opposite pairs or whorls of three and are fused for half their length. Male and female flowers, blooming in March and April, are borne on separate plants in conelike structures. They are followed by small brown to black seeds.

Itamo Real Properties Used by Aztec's

Cures Bronchial and Lung infections(such as:bronchitis,laryngitis, breathing difficulties

and swollen or inflamed Trachea.
Favors Digestion
and
Used to Fight Whooping Cough in Children

Aztec Method of Use

Drink 1 cup 3 times a day of the brew made from 10 grams of Itamo Real leaves to 1 Liter of Water.

Jalapa -Jalap

The tuberous root of Ipomoea jalapa, Nuttall

(Ipomoea purga, Hayne; Ipomoea Schiedeana, Zuccarini; Exogonium jalapa, Baillon; Exogonium purga, Bentham; Convolvulus jalapa, Linné; Convolvulus purga, Wenderoth).

- **Common name:** Jalap
- **Botanical Source:** Jalap has a fleshy, tuberous, pyriform root, with numerous roundish tubercles. The stems are numerous, smooth, brownish, very slightly rough, with a tendency to twist, twinning about surrounding bodies. The leaves are long petioled, the first hastate, the succeeding ones cordate, acuminate, mucronate, smooth, deeply incised at base, and conspicuously veined beneath. Peduncles axillary, 2-flowered, rarely 3, twisted, as long as the petioles. Calyx has no bracts; composed of 5 smooth, obtuse, mucronate sepals. The corolla is funnel-shaped, purple, with a long, somewhat clavate tube, and an undulated limb, with 5 plaits. Stamens 5; filaments smooth, unequal, and longer than the corolla tube; anthers white, oblong-linear, and projecting. Ovary slender, and 2-celled; stigma simple, capitate, and deeply furrowed. Capsule 2-celled; cells 2-seeded; seeds unknown.

- **History:** It is only within comparatively recent years that any certainty has existed in relation to the plant from which jalap root is obtained. It was first spoken of in 1609, as Bryonia mechoacana nigricans, then it was regarded by Ray as Convolvulus Americanus jalapium dictus, after which Tournefort, being deceived by persons who asserted that they had seen the plant growing, referred it to a species of Mirabilis. Balfour placed it as the Exogonium purga, and Linnaeus named it Convolvulus jalapa, and thus much difference of opinion existed until, in 1827, when Dr. J. R. Coxe, of Philadelphia, succeeded in obtaining perfect flowers from roots of the true plant furnished to him from their native soils, and thus first made its true character known to the scientific world.

The name of Ipomoea purga was bestowed upon the plant by Wenderoth and Hayne, but as the authorities of this country have, undoubtedly, the first claim, it may be viewed as fixed that I. jalapa, the name originally given to it by Nuttall, is the official plant.

The jalap plant is found in a deep, rich, vegetable soil, at an elevation of nearly 6000 feet above the level of the sea, growing in Mexico, near Chicanquiaco and Xalapa, from which last named place it is usually exported, and from which it has also obtained its name. It is generally imported in bags, containing 100 or 200 pounds. The root is the official part, and is gathered in all seasons, but principally in March and April, when the young shoots are appearing. The plant may be cultivated in the southern parts of the United States.

In 1866, Dr. D. Hanbury planted a root or tuber of Jalap in a garden, near London, and obtained promising results. It is now successfully grown in Jamaica and in India, especially in the Nilgherry hills of that country.

According to Warden (1887), the jalap tubers of India are not of first quality. Jalap is a very variable drug, much of it being of an inferior quality. The best kind is that known as the Vera Cruz variety. Several related, and often inferior drugs, e. g., Tampico jalap, have appeared on the market.

- **Description:**

  When fresh, the root is black externally, white and milky within, and varies in size according to its age, from that of a walnut to that of a moderate-sized turnip. It is dried in net bags over the fire, sometimes whole, and sometimes in sections. It is often preyed upon by insects which, however, leave its active part untouched, rendering it consequently more energetic. Jalap thus preyed upon is used for procuring the resin, but should not be given internally, except in much smaller doses than for the ordinary root.

  Jalap is rather difficult to polvorize, but if triturated with cream of tartar, sugar of milk, or other hard salt, the process of polvorization is facilitated, and the powder rendered much finer. When in powder, the color is a pale grayish-brown, and when in contact with the mucus membrane of the air-tube, causes coughing and sternutation, with an increased discharge of saliva. Its solvents are water, alcohol, or spirits. Water takes up a small portion of its cathartic principle, but considerable of an amylaceous and mucilaginous extractive matter. Alcohol dissolves the resin, on which its cathartic virtues depend. Ether only partially dissolves it. Diluted alcohol completely extracts its active properties.

- **Action, Medical Uses, and Dosage:** Jalap is an irritant and cathartic, operating energetically, occasioning profuse liquid stools with griping, and sometimes sickness at

stomach, or even vomiting. Large doses produce violent hypercatharsis, sometimes terminating fatally.

When applied to a wound, it is said to induce purgation. Notwithstanding its activity, it is a safe and convenient purgative, much in use among the profession, and is useful in all cases where it is desirable to produce an energetic influence on the bowels, or to obtain large evacuations.

If intestinal inflammations are present it should not be used.

United with the bitartrate of potassium, its hydragogue properties are much increased, and thus it proves beneficial in dropsies, as well as in some forms of scrofula. Jalap, however, is suitable for excitable, active conditions, and may be used where a cooling effect is desired, as when it is necessary to evacuate the bowels in febrile disorders.

Inflammatory conditions of the biliary apparatus are exceptions to the rule that it should not be used in gastro-intestinal inflammations. When the rectum is impacted with a hard, fecal mass, the expulsion of the latter is facilitated by the purgative action of jalap, which greatly augments the intestinal secretions; all cases of constipation, due to dryness of the mucus membranes, through inactivity of the intestinal glands, are relieved by jalap. The dose for this latter purpose may be 5 grains in the morning, repeated for several days. When a stimulating laxative can not be used because of hemorrhoids, jalap may be employed, and it is likewise efficient as a derivative in cerebral disorders.

It is stated that the aqueous extract of jalap, the root having been previously exhausted of its resin by alcohol, will exert no cathartic influence, but will operate as a powerful diuretic, but I have not been able to procure this effect, though having made a trial in several cases (King). Three grains of jalap, taken an hour before each meal, act as a slight nauseant, destroying a desire for food among persons who are apt to eat too freely. If jalap is digested in ether, its nauseous taste and smell will be wholly removed without lessening its cathartic power. A biscuit is sometimes made for those to whom it is extremely nauseous and disagreeable; 5 drachms of jalap, 30 of sugar, and 4 ounces of flour, are made into 15 biscuits after the usual mode; 1 biscuit is a dose. The tendency of jalap to gripe and nauseate, may be obviated by adding to the dose 1 or 2 grains of camphor, or 3 grains of cloves. The dose of powdered jalap is from 10 to 30 grains (the aqueous extract ought not to be used, except as a diuretic)of the tincture, from 1 to 4 fluid drachms; the resin, or alcoholic extract, is given in from 2 to 8-grain doses, being usually rubbed up with sugar, or in emulsion, for the purpose of lessening its disposition to produce painful irritation of the intestinal mucus membrane.

As a hydragogue, 2 drachms of the bitartrate of potassium are added to 10 or 30 grains of polvorize jalap. Convolvulin (*rhodeoretin*) purges violently in 3 or 4-grain doses, and appears to be the active principle of jalap. Specific jalap, 10 to 20 drops every 4 hours for its specific uses. Though not an anthelmintic, jalap is often given to hasten the expulsion of worm, after agents have been given for their stupefaction or destruction.

- **Specific Indications and Uses:** Constipation from deficient secretion of intestinal glands; pain and griping in lower bowel; colic, with stercoraceous vomiting; general gastro-intestinal torpor.
- TAMPICO JALAP: This is the Mexican Purga de Sierra Gorda, and is derived from the Ipomoea simulans, (Hanbury). It much resembles the jalap tuber in appearance, odor, and taste. While it is difficult to distinguish some of the tubers from those of true jalap, most of the Tampico tubers are smaller and more elongated, more corky and shriveled, and show an absence of little scars crosswise the roots so noticeable in true jalap. It yields a resin (10 to 15 per cent). Flückiger obtained 10 per cent of it. It is completely soluble in ether. Spirgatis (1870) named the resin tampicin. It is converted into tampicic acid by means of concentrated alkalies. Acids resolve it into sugar and tampicolic acid , thus showing its glucosidal character, analogously to that of convolvulin. It has purgative properties.

- Mirabilis jalapa (Linné): The tubers of this species, which somewhat resemble jalap, may be distinguished by the presence of needle-like raphides of calcium oxalate.
- Ipomoea turpethum, (R. Brown): Turpeth root. This is the Turbith végétal of the French Codex. It is not very similar in appearance to jalap. It contains a resin (4 per cent), of which turpethin, the ether-soluble portion, a glucosid, behaves like resin of jalap in relation to acids and alkalies. Bases convert it into turpethic acid, methyl-crotonic acid, traces of formic, and methyl-ethyl-acetic acids, etc.
- Ipomoea nil, Roth (Convolvulus nil, Linné; Pharbitis nil, Choisy): Seeds called kaladana in India, and are slightly purgative. They are black, triangular, with a rounded back, and have a sweetish taste, followed by an acrid sensation. They yield pharbitisin (identical with convolvulin) and a volatile oil. The seeds are roasted and given in powder.
- Ipomoea triloba (Pharbitis triloba, Ipomoea hederacea): The seeds of the Japanese plant known as kengashi, yield convolvulin, and are employed like kaladana.
- MECHOACAN: This product, probably of a convolvulaceous plant, comes in gray or whitish circular sections or fragments, somewhat farinaceous, and destitute of the circles of resinous cells. It sometimes occurs as an adulterant of jalap, but its detection is not difficult. It is feebly cathartic.
- ORIZABA ROOT. This is variously known as Woody, Light, or Fusiform jalap, Male jalap, Jalap tops or stalks, and is the Mexican Purgo macho. It is derived from the Ipomoea orizabensis, Ledanois. This root is fusiform, and sometimes occurs in commerce in transverse slices, but more frequently in rectangular blocks. Its longitudinal wrinkles are

deeper than those of jalap. Its color is also lighter. From the latter it may be known by the radiations on transverse section, and by leaving, when fractured, projecting bundles of fibrous vessels. Chemically, it closely resembles jalap. Its chief constituent is jalapin , so named by Mayer (para-rhodeoretin of Kayser), and should not be confounded with the jalapin of Buchner and Herberger, which is convolvulin. Mayer's jalapin differs from convolvulin in that ether and acetone freely dissolve it. Poleck (1892) proposes for it the name orizabin, as Prof. Maisch has done in 1887. Alkalies change it into water-soluble jalapic acid . Diluted acids convert it into sugar and jalapinol , insoluble in water; probably identical with jalapinolic acid , obtainable from scammony resin. Jalapin (orizabin) is oxidized by nitric acid to carbonic, isobutyric, and ipomic acid, the latter an isomer of sebacic acid (compare convolvulin). Jalapin (Mayer's) has been shown by Spirgatis to be identical with scammonin, both in chemical and purgative qualities, a fact more recently confirmed by Th. Poleck.

- Ipomoea pandurata, Meyer (Convolvulus panduratus, Linné): Wild potato.
This plant, likewise known as Wild jalap, Man in the Ground, Mechameck, Man of the Earth, etc., has a perennial, very large, tapering root, with several stems from the same root, from 4 to 8 feet long, round, slender, purplish, smooth or nearly so, trailing or twinning. Leaves 2 or 3 inches long, about the same width, broadly cordate at base, acuminate, entire, or wavy, alternate, sometimes panduriform, smooth, deep-green above, paler beneath, on long petioles. Flowers white, dull-purple toward the base, large, opening in the forenoon; peduncles axillary, longer than the petioles, cymose, branching at the top, several-flowered. Corolla large, campanulate, 2 or 3 inches long. Calyx smooth, 5-parted, naked; sepals ovate-oblong stamens white, the length of the tube; anthers oblong. Style white, thread-like; stigma capitate, bilobed. Capsule oblong, 2-celled, 4-seeded, without intermediate partitions (L.—W.—G.).
- Wild potato is indigenous to the United States, growing in light and sandy soils, from Connecticut and west New York, southward and westward, and flowering from June to August; it rarely grows North, but is found in some parts of South America. The root is the medicinal part, it is very large, being from 2 to 8 feet in length, and from 2 to 4 or 5 inches in diameter, branched at the bottom, brownish-yellow externally, whitish and lactescent internally, furrowed lengthwise, and of a disagreeable odor and bitter, rather acrid taste; about 75 per cent in weight is lost in drying. It is generally met with in transverse, circular sections, which are somewhat tawny externally, whitish with diverging lines internally, and not readily powdered; the powder is somewhat grayish. Water or alcohol extracts its active properties, but diluted alcohol or spirits are its best solvents. It contains resin, bitter-extractive, sugar, starch, gum, a body resembling tannic acid, etc. The resin is purgative. It consists of an acid, and a non acid portion. It is a glucosid, and exists to the extent of 1.5 per cent.

The active principles of this plant are unknown. It possesses mild cathartic properties,

acting gently in doses of from 40 to 60 grains of the powdered root. The infusion taken in wineglassful doses every hour, has been effective in dropsy, strangury, and calculous affections. It seems also to exert an influence over the lungs, liver, and kidneys, without excessive diuresis or catharsis. The saturated tincture is more energetic than the powdered root, decoccion, or extract. It is asserted that the Indians can handle rattlesnakes with impunity after wetting their hands with the milky juice of this root.

Credits and Links:

King's American Dispensary. by Harvey Wickes Felter, M.D., and John Uri Lloyd, Phr. M., Ph. D.:
Jalapa Link 1 Jalapa Link 2 Jalapa Link 3 Jalapa Link 4

Properties of Jalapa Used by Aztec's

Promotes Vomitus and used as a Laxative

Aztec Method of Use

Take 1 to 3 grams of polvorized root dissolved in a little water preferably before bedtime.

Jicama

(*Pachyrrhizus erosus*)

Common Names: Jicama, Mexican Potato, Yam Bean Jicama (pronounced "hecama") is also known as yam bean and Mexican turnip. It is not related to the true yam. The name "jicama" is almost always used in Spanish for any edible root. It is a climbing legume with very long and large tuberous roots, which in 5 months of growth may reach 6-8 feet long and weigh 50 pounds or more. More often, roots are round and beet-shaped with a distinctive taproot.

This is an unusual vegetable that is becoming increasingly popular with American cooks, but has been grown in its native Mexico for centuries. More and more U.S. supermarkets are now carrying this turnip shaped, usually four lobed root. Its skin is a brownish gray, but its flesh is white and crisp. It's flavor resembles that of water chestnuts but is sweeter. Makes a great appetizer and is a very good addition in both taste and texture when added to salads.

Jicamas are actually perennials and produce their large roots after several years of growth. They are commonly found in frost free regions. In Texas, seed can be planted in the early spring and small tubers harvested before the first killing frost of the winter.

- **Availability:** Jicamas are offered in Texas supermarkets but are more popular in South Texas. Most of those on the market are imported from Mexico and South America.

Properties of Jicama used by Aztec's

Refreshes the body and relieves a dry tongue,
Used as a laxative
and fights mange and scabbies

Aztec Method of Use

Eat slices of jicama to fight thirst and dry mouth and tongue
As a laxative: Take a drink of 40 grams of Jicama seed oil before bed or on an empty stomach.
To fight mange or scabbies: Apply over the affected area the tincture made out of 100 grams of powdered Jicama seeds macerated in 80 proof alcohol for 3 days (macerate for 3 days) then filter or strain.
Can be used alone or mixed with equal parts of castor oil, the following day, wash out well with water, soap and a scrubber.

Laurel - Bay - Bay Leaf

(Laurus nobilis)

Common name for the family Lauraceae, trees and shrubs found chiefly in tropical Southeast Asia and America; most are evergreen. The true laurel (Laurus nobilis), also called bay or sweet bay, is native to the Mediterranean, and is the source of bay leaf, a seasoning.

Laurel symbolized victory and merit to the ancients. This large, attractive tree is thickly covered with glossy, narrow dark-green leaves about 2 to 4 inches long and 1 inch wide.The thick, leathery leaves have wavy, somewhat variable margins. The greenish yellow flowers are without petals and not very ornamental. Pruning out the lower limbs and rounding the top creates an elegant appearance. The bark is shiny grey, and the fruit is a dark purple to black one-seeded berry about 1/2 inch long.

Properties of Laurel Used by Aztec's

- Stimulates digestion,
- Stimulates apetite,
- Eliminates intestinal gases,
- Gives tonicity to the nervous system,
- Stimulates the sweat glands,
- Favors expectoration and the
- Fruit is useful as a resolutive and calmative in rheumatic pain.

Aztec Method of Use

Drink 3 cups a day of the boiled mixture consisting of 5 to 10 grams of leaves and shoots to 1/2 liter of water.

To obtain the oil: crush leaves and berries and boil in water for 1/2 hour, let cool, then gather the oil that is floating on the surface(it will have a consistency of lard) which will then be rubbed on the painful area.

Lechuga-Lettuce

(Lactuca sativa)

Lettuce, common name for members of an herbacious genus of the composite family, particularly the garden lettuce. Lettuce is native to temperate regions of Eurasia and North America.

Lettuce is one of the most popular vegetables. All types of lettuce grow best in cool weather. Also does fairly well in midsummer if grown in cool shady area and kept moist. Grows all winter in the south. Lettuce can be grown in containers quite easily. Ideal for salads or garnish, attractive enough for ornamental planting.

Properties of Lettuce Used by Aztec's

- Fights insomnia and nervousness,
- Cleans the intestines,
- Calms thirst,
- Cures constipation,
- Helps with vitamin deficiencies and
- Calms burning sensation while urinating.

Aztec Method of Use

To Fight Insomnia and Nervousness: Drink 1 glass right before bedtime of the boiled mixture consisting of the heart and trunk of lettuce; boil in 1/2 liter of water.
As a Refreshing Drink and to Fight Constipation: Drink as a daily drink,whenever

thirsty the boiled mixture consisting of 75 grams of Lettuce leaves to 1-1/2 liter of water.
For the Rest of the Properties: Eat fresh Lettuce that has been well washed and disinfected with vinegar, salt and a little oil. You may add a few squirts of lemon juice for a real tasty and healthy snack.

Lenteja-Lentil

(*Lens culinaris*)

Lentil, common name for an annual herb, native to southwestern Asia and widely cultivated in temperate regions. It is a straggling plant, rarely exceeding about 46 cm (about 18 in) in height, having pinnate leaves terminating in tendrils. It bears small flowers with white, pale blue, or lilac petals. The fruit is a pod containing lens-shaped seeds, also called lentils, of which two varieties,small brown ones and larger yellow ones,are cultivated for table use.

Lentils, known for their high protein content, are used, when fully ripe, in soups and stews. The lentil plant itself is used as fodder.

- **Scientific classification:** The lentil belongs to the subfamily Papilionoideae
- **Family:** Fabaceae (formerly Leguminosae).
- **It is classified as Lens culinaris.**

Properties of Lentil Used by Aztec's

Strengthens the blood,
Fights scurvy,
Promotes the production of milk in lactating women
and is Useful for persons suffering from weakness or anemia

Aztec Method of Use

Eat in soup or as a side dish with other meals.

Limon-Lemon

(*Citris limon*)

Lemon, common name for a small thorny tree, and for its fruit. Lemon trees are cultivated throughout the tropical and subtropical regions of the world, particularly in Italy, Spain, Portugal, and California. Lemons were first brought from the Middle East to Spain and northern Africa during the Middle Ages. The cultivated lemon is probably a hybrid of two wild species, most likely lime and citron.

Lemon trees grow to be about 3 to 6 m (about 10 to 20 ft) tall and are sparsely covered with foliage. The flower has five sepals, five petals, numerous stamens, and a solitary pistil. The upper surface of each petal is white, and the lower surface is pinkish. Lemon flowers have a sweet odor comparable to, but less marked than, the odor of orange flowers.

The lemon fruit is a pale-yellow, elliptically shaped berry, which usually has a small, nipplelike protuberance at the apex.

Properties of Lemon Used by Aztec's

- Cures and helps fight contraction of smallpox,
- Cures appendicitis,
- Cleans the stomach,
- liver

- and dissolves body fat or grease,
- Useful towards hernias,
- heavy legs,
- hidropsia,
- strengthens the gums and
- cures gingivitis,
- Calms headaches
- and Nervous aches,
- Cures typhus,
- Avoids and fights premature aging,
- Helps avoid baldness and strengthens hair also keeps it healthy,
- Purifies the blood,
- Is recommended for sexual weakness,
- Helps with the bile duct and gall bladder,
- Contains or stops hemorrhage,
- Disinfects all kinds of wounds,
- Cures flu symptoms,
- Promotes the secretion of sweat and urine,
- Cures rheumatism and gout,
- Favors the elimination of certain intestinal parasites,
- Promotes a healthy appetite and gastric juices in the stomach,
- Cures tonsillitis,
- Fights diarrhea and dysentery,
- Smoothes and embalms the skin,
- Normalizes the heart beat,
- Stimulates hepatic function,
- Refreshes and cures thirst
- and Cures chronic insomnia

Lemon should be drunk with a straw to avoid the loss of tooth enamel

Aztec Method of Use

For Smallpox: Drink Lemon juice in a small glass 2 hours before or 3 hours after the main meal.

To cure Appendicitis: Drink on an empty stomach, 1/2 hour before breakfast, the juice of 1 whole lemon; the next day, 2 lemons and consecutively each day until able to drink the juice of 7 lemons a day. After a short rest, (about 3 days), start anew the treatment and follow it until better.

To clean the stomach, liver and to dissolve body fat: Drink daily the juice of 2 Lemons in 1/2 cup of hot water.

To cure Hernias: Rub Lemon juice on the affected area combined with equal parts of Onion juice then compliment with a sun bath.

For Heaviness of the legs and Hidropsia: Drink equal parts of Lemon juice and Onion juice, twice a day. To obtain the Onion juice, slice an onion, collect the juice, strain with a clean handkerchief or metal strainer.

To strengthen gums and cure Gingivitis: Give in a circular motion a massage with the tips of the fingers covered with lemon juice.

To cure Headaches and Nervous Pains: Drink 1 cup of tea, coffee or hot water with the juice of 2 lemons.

To Prevent and Fight Premature Aging: Drink on an empty stomach 1 hour before breakfast the juice of 10 lemons in the space of 3 months, seven days on, seven days off.

To Avoid Baldness and Conserve Strong and Healthy Hair: Rub vigorously on the scalp with the tips of the fingers and the juice of 3 or 4 lemons preferably at night then the next day wash the hair with water and soap avoiding the shower head since this promotes the fallout of the hair.

For Sexual weakness: Drink half a glass of Lemon juice on an empty stomach, 2 hours before breakfast; do this for 3 days.

For a leaking Bile duct and/or Gall bladder: Suck the juice out of a lemon while at the same time eat a piece of bread; in this way the bile will be neutralized and nervousness will disappear.

To stop hemorrhage: Apply Lemon juice directly on the bleeding area; this will promote calcium salt formation leading to quick coagulation.

To disinfects wounds, pustules and exposed ulcers: Apply Lemon juice on the affected region which was previously cleaned with soap and water.

To Cure Flu: Drink on an empty stomach half a glass of Lemon juice with half a glass of strong coffee, as hot as can be tolerated, at night, repeat the process, cover body well avoiding drafts and cold areas.

To stimulate the sweat glands and to promote urination: Drink 1 cup of chamomile or linden flower tea etc, hot with the juice of 2 lemons avoiding drafts and cold areas.

To cure Rheumatism and Gout: Drink for 40 days on an empty stomach, the juice of 7 large lemons, when feeling better, rub the affected areas with a mixture of 1 liter of milk to half a liter of petroleum(fuel oil), empty this mixture into a bottle and heat in a double boiler, when warm, use as suggested taking care to cover the body well and avoid getting wet until the following day.

To Remove Certain Intestinal Parasites: Crush well the several seeds of a lemon

add lots of sugar and eat before bedtime or on an empty stomach until desired results are obtained.

To Promote the Appetite and Increase Gastric juices: Drink the juice of 2 to 3 lemons in half a glass of water, 1/2 hour before meals.

To cure Tonsillitis: Add sodium bicarbonate to lemon juice, gargle 2 to 3 times a day avoiding cold beverages.

To Fight Diarrhea and Dysentery: Drink as a daily drink, whenever thirsty, large quantities of lemon juice sweetened with bee honey or sugar to taste.

To Smoothen, Beautify and Remove Skin Spots: Rub Lemon juice at night on face(avoid the eyes), legs and arms.

To Normalize Cardiac Palpitations: Drink the juice of 2 or 3 lemons dissolved in a glass of cold water, every time as needed.

To Refresh the Body and Remove Thirst: Drink a glass of lemonade prepared with the juice of 2 lemons in 1/4 liter of water sweetened to taste.

To Cure Chronic Insomnia: Drink for 3 consecutive days the juice of 10 lemons; on the fourth night there will be a tranquil sleep.

Agave - Maguey

The Agave , which has also been called the 'century plant', the 'Century Aloe' and the 'American Aloe', obtained it's name from the Greek language--- the word 'agavos' meaning illustrious, an apt description for some magnificent and noble plants. The word is found in a number of instances in classical mythology.

Throughout the history of the New World the agave has been closely associated with mankind in a multitude of ways, both with the original inhabitants of Mesoamerica and subsequently with invaders and conquerors from Europe.
In the pre conquest era the agave was well established as an important feature of everyday life and religion and played an prominent role in the human sacrifice which especially the Aztecs practiced to an extent which horrified even Cortez and his soldiers.

The native Mexican Indians had a complex religion and a formidable array of gods, most of whom appeared to be very bloodthirsty and who needed to be sustained and honored with sacrifices, usually human. They were represented on earth by priests who were at the top of a very rigid class structure and consequently had many privileges, such as control over land and food distribution, jobs, taxes, and supervision over the allocation and consumption of agave juice.

Quetzacoatl, the serpent god, who represented the arts and morality, was the only deity apparently opposed to human sacrifice and paid for his views by being driven out into exile. It was said that his return would coincide with the fall of the Aztec empire.

Maguey Graphic URL

Maguey Properties favored by The Aztec's

The Maguey is used in the treatment of Syphilis,
Accelerates the rapid healing of wounds,
Cures Gonorreah
and is also a strong laxative.

Aztec Method of Use

To Treat Syphillis: Use the fluid extract of the Maguey root, take 10 drops of this extract in the morning in a little water then 10 more drops in the evening. The following day take 20 drops in the morning and 20 in the evening.Do this each day until you reach 200 drops a day once in the morning and again in the evening, divided in half or 100 drops in the morning and 100 at night.

To Accelerate the Healing of Wounds: Use the Maguey balsam which you obtain from wringing the Maguey leaves, then boil the balsam with a little bit of sugar until thick, then soak hankerchives in this fluid and cover the wounds with them.

Malva - Mallow

(*Malva sylvestris L*)/ Cheese flower.

Several species of weedy Malva have been used interchangeably for food, tea, and medicine for thousands of years-among them

- Little Mallow (Malva parviflora L. #3 MALPA),
- Common Mallow (M. neglecta Wallr. # MALNE),
- Round-Leaf Mallow (M. rotundifolia L.),
- and High Mallow (M. sylvestris L. # MALSI).

Malva - Mallow Graphic URL

Malva Properties Favored by The Aztec's

- Useful for Bronchitis
- Tonsillitis
- Gastroenteritis
- Pleuresia (Inflammation of the membrane that covers the lungs)
- Leucorrea or White Discharge
- Inflammation of the Cervix
- Inflamed Hemorrhoids

- Colitis
- Rectitis
- Intestinal Infections
- Cutaneous Diseases
- and to Soften Tumors and Abscess.

Aztec Method of Use

For Bronchitis, Gastroenteritis and Pleuresia: Drink 3 times a day the brew made from 8 to 10 grams of Malva leaves and roots to 1/2 liter of water.

For Tonsillitis: Gargle 3 times a day with the same brew described above.(Avoid Cold Beverages)

For Leucorrea or White Discharge and Inflammation of the Cervix: Wash vagina with the brew made from 50 grams of Malva leaves and roots to 1 liter of water.

For Inflamed Hemorrhoids,Colitis and Rectitis: Employ the same brew described above in rectal washings.

To soften Tumors and/or Abscess and to Cure Skin Disorders: Apply Malva Leaves as a cataplasm over affected area.

Mamey Sapote

(*Pouteria sapota*)

Other common names: sapote, mamey colorado
Scientific name: Pouteria sapota (Jacq.) H.E. Moore & Stearn
Synonyms: Calocarpum sapota (Jacq.) Merr., Calocarpum mammosum (L.) Pierre
Family: Sapotaceae
Relatives in same family: sapodilla, satin leaf, caimito, canistel, abiu, green sapote.
Origin: Mexico and the Central American lowlands.
Distribution: Mamey sapotes have been grown or cultivated in Central America, Mexico, northern South America, and the West Indies for centuries. The first recorded introduction into southern Florida was during the mid-1880s.
Importance: The mamey sapote is an important fruit in Florida (US), Mexico, Central America, and in the West Indies--including the Dominican Republic, Puerto Rico, and Cuba. In the state of Florida, Cuban Americans and Central Americans have helped to establish a small but viable industry. Except for the Americas, this very attractive and excellent fruit is not well-known, probably because its short-lived seeds may have discouraged intercontinental transport in colonial times.

Recently, there is increasing interest in this fruit in other countries (e.g., Australia, Israel, Philippines, Vietnam, Spain, Venezuela).

Click for Mamey Graphic

Mamey Properties Favored by The Aztec's

Used to heal exposed ulcers Also used for curling hair.

Aztec Method of Use

0. **For Exposed Ulcers:** Roast in fire the Mamey seed then crush or mash until it is powder then apply on affected area.
1. **To Curl the Hair:** Pick at the Mamey seed until the oil it contains comes out, then apply oil to scalp or hair area each morning until you get the desired effect.

Manzano - Manzana - Apple

The first trees to produce sweet, flavorful apples similar to those we enjoy today, were located many thousands of years ago near the modern city of Alma-Ata, Kazakhstan.

The Greeks were growing several varieties of apples by the late 300,s BC, and the ancient Romans also grew and loved the fruit. Researchers have even found the charred remains of apples at a Stone Age village in Switzerland.

European settlers brought apple seeds and trees with them to the New World. Records from the Massachusetts Bay Company indicate that apples were being grown in New England as early as 1630.

Apples have appeared in legends in our past.
In the Bible, Adam and Eve are tempted by apples in the Garden of Eden, and in the Swiss story of William Tell, an archer is arrested and then promised his freedom if he can shoot an apple off his son's head with an arrow.

To Learn More about Apples, Click Here!

Properties of Manzano Favored by Aztec's

- Diuretic
- Fights Diahrreah
- Fights Scurvy
- Fights Berri-Berri
- Fights Insomnia

- Good against Intestinal Colds
- Used to fight bad digestion Gout
- and lowers Fever.

Aztec Method of Use

- **Eat 1/4 to 1/2 kilograms of Apples in form of a Pap daily, they may be a little under ripe, ripe and a little over ripe for best effect. Distribute these meals 4 to 5 times a day.**
- **To fight Insomnia:** Eat 1 to 2 apples before going to bed.
- **To Lower Fever:** Boil 250 grams of Apple Root Cortex in 1/2 liter of water- Drink 3 cups daily.

Manzanilla - Chamomile

Synonyms and common names:

Amerale,
Babunnej,
Bayboon,
Camomile,
Chamomile,
False Chamomile,
German Chamomile,
Manzanilla,
German Tea Chamomile,
Hungarian Kami-Ture,
Manzanilla Dulce,
Mayweed,
Papatya,
Scented Mayweed,
Sweet Chamomile,
Wild Chamomile,
Chamomilla chamomilla,
Matricaria Chamomilla var. coronata,
Matricaria Inodora,
Matricaria Perforata,
Matricaria Reticulata,
Matricaria Suaveolens,

Tripleurospermum inodorum,
Tripleurospermum perforatum.

Source:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971-1980. The Scientific Literature on Selected Herbs, and Aromatic and Medicinal Plants of the Temperate Zone. Archon Books, 770 pp., Hamden, CT.

Roman chamomile, Chamaemelum nobile (L.) All ., and German chamomile, Matricaria recutita , are two different species of plant commonly known as the same herb.

Formerly classified as Anthemis nobilis L . and called English or Russian chamomile, Roman chamomile is a creeping, herbacious perennial native to western Europe and North Africa. Reaching a height of about 0.3 meters, the aromatic plant is characterized by downy stems and yellow-disc, white-ray flowers that appear in late spring or early July. Roman chamomile is cultivated in Europe, especially in Belgium, France, and England.

German chamomile, Matricaria recutita L ., is also known as matricaria, wild chamomile, Hungarian chamomile, and sweet false chamomile. This many-branched, erect-growing annual, formerly classified as Matricaria chamomilla L ., reaches a height of about 0.3 meter and has yellow disc white ray flowers. Cultivated in Germany, Hungary, Russia, and several other European countries, German chamomile is native to Europe and western Asia and naturalized in North America. Dried flowers from Roman and German chamomile are employed in herbal teas. Flower heads of Roman chamomile have been used in the manufacture of herb beers. The essential oils are used as agents in alcoholic beverages, confections, desserts, perfumes, and cosmetics. Roman chamomile is often grown as a ground cover or as an ornamental in flower gardens.

As medicinal plants, the chamomiles have been traditionally considered to be antispasmodics, carminatives, diaphoretics, emmenagogues, sedatives, and stomachics.The plants have been used as bitters, tonics, insect repellents, and as a folk remedies against asthma, colic, fevers, inflammations, and cancer. German chamomile has been used to induce sleep and as an anthelmintic.

Roman chamomile is a pharmaceutical aromatic bitter, and chamazulene, obtained from German chamomile, is a pharmaceutical anti-inflammatory and antipyretic agent. Extracts of Roman chamomile have shown antitumor activity and extracts of German chamomile are reported to have antiseptic, antibacterial, and antifungal properties.

Chamomile in tea may cause toxic reactions in individuals sensitive to ragweed or

allergens.
The chamomiles can also cause contact dermititis

Credit for Chamomile Info Here Click for Manzanilla Graphic

Properties of Manzanilla Favored by Aztec's

- Encourages the Appetite since one of Chamomile's properties is the stimulation of Gastric juices,
- calms colic due to indigestion,
- fights Intestinal Gas,
- favors and eases menstruation,
- eases the pain due to menstrual cramps,
- also useful for Leucorrea or white discharge,
- and also used to cure Conjuntivitis(inflammation of the mucus membrane that surrounds the eyeball).

Aztec Method of Use

- **Drink 3 cups a day of the brew made from 10 grams manzanilla leaves and flowers to 1/2 liter of water.**
- **In cases of Leucorrea or White Discharge:** boil 20 grams of Chamomile leaves and flowers to 1/2 liter of water then use as a vaginal wash.
- **In cases of Conjuntivitis:** Apply the same remedy described above but as an eye wash.

Marrubio - Horehound

(*Marrubium vulgare L*).

Family: Lamiaceae (Labiatae), Marrubium vulgare L.

Source: Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971-1980.
The Scientific Literature on Selected Herbs, and Aromatic and Medicinal Plants of the Temperate Zone. Archon Books, 770 pp., Hamden, CT.

Horehound, Marrubium vulgare L. , is a spreading perennial herb native to central and western Asia, southern Europe, and northern Africa and naturalized in parts of North America.

Also known as common horehound, white horehound, and horehound, the plant reaches a height of almost 0.7 meters and is characterized by white, pubescent leaves, woolly stems, and continually blooming white flowers.

Commercial production is centered in France. The name "marrubium" refers to the bitter qualities of the herb, and "hoar" refers to the white pubescence covering the plant.

The chief constituent of horehound is the bitter principle marrubium. Tannins, resins, waxes, and a volatile oil containing monoterpenes and a sesquiterpene have also been isolated from the plant .
The leaves and stems of horehound are often boiled and used in the preparation of candied products, cough drops, and syrups. Extracts of horehound are used in bitters and liqueurs. The plant is also grown for its ornamental value and is attractive to bees.

As a medicinal plant, horehound has traditionally been used against asthma, coughs, colds,

bronchitis, sore throats, and skin irritations. The plant has also been used as a diaphoretic, diuretic, expectorant, laxative, stimulant, stomachic, tonic, and vermifuge.

Horehound has been used in treatment of tumors . The volatile oil is a carminative and expectorant, while the bitter principle results in gastric activity. Consumption of large quantities of horehound can induce diarrhea and nausea.

Learn More About Horehound-Marrubio Here

Properties of Marrubio Favored by Aztec's

- Favors Digestion
- Stimulates the Appetite
- Tones and Stimulates the Body
- Disinflames the Bile Ducts
- Calms Cough
- Favors Menstruation
- Useful to Diabetic Persons
- Prevents Hair Loss
- Also Used to Clean Sores and Exposed Ulcers.

Aztec's Method of Use

- **Boil 25 grams of leaves to 1/2 liter of water, drink 3 cups a day one cup after each meal.**
- **To have a Healthy Head of Hair and to prevent Hair Loss:** Use the same brew described above but add Lemon Juice from 3 to 4 lemons then massage scalp twice a week.
- **To Clean Sores and Exposed Ulcers:** Use the same concoction externally.
- **To Stimulate Menstruation:** Drink 1 to 2 days before menstruating the brew made from 12 grams of Marrubio to 1/2 liter of water.

Matarique

This is the only information I could get on this plant.

Psacalium decompositum (Gray) Rob et Brett.

Common Names: Matarique, Matariqui, Pitcáwi (*tarahumara*).

Es una planta compuesta, de rizoma fibroso, flores blancas, hojas radicales y tallo subleñoso, que crece principalmente en el norte de la Republica Mexicana.

Propiedades:

Cura la Diabetes

El Reumatismo

El Estrñimiento

Neuralgias

y Favorece la Cicatrizacion de las Heridas.

Modo de Empleo

1. Tomar durante 4 a 5 dias una tasa en ayunas del cocimiento de 5 gramos de raiz para un cuarto de litro de agua; se descansa unos dias y se repite el trata miento.
2. **Para Combatir los Dolores Reumaticos:**

Friccionar las partes adoloridas con la tintura alcoholica preparada con cien gramos de la raiz macerados durante 5 dias en medio litro de alcohol 90°; poster iormente, se filtra y se mezcla con medio litro de agua.

3. **Para Favorecer la Cicatrizacion de las Heridas:**
   Aplicar el jugo de la planta sobre la region afectada.

For English Translation Click Here

Melon - Melon

(*Cucumis melo L.*)

- Family Name: Cucurbitaceae
- Common Names: Melon, Cantaloupe
- Description: Round, oval, or obvoid in shape, up to 12 inches long, smooth skin, grooved, ribbed or netted, varieties vary in color.
- Family Characteristics: The Cucurbitaceae contains over 90 genera and 750 species. They are predominately warm season crops of tropical and temperate subtropical origin, many of which thrive in hot and humid conditions. Members of this family are known as vine crops, having a prostrate or climbing nature, and are characterized by tendrils. Most are herbacious annuals, few are perennials, and all are frost sensitive.
- Origin: World-Wide

Melons are known to contribute to a person's health by being a rich source of beta-carotene (for muskmelon), but are less well known for their ascorbic acid, carbohydrate, dietary fiber, potassium, calcium and iron contents. Melons have at least thirty-eight (38) of these chemical compounds with beneficial human biological activities. These compounds are called phytochemicals and can have anti-arthritic, cataract, cold, depressant, glaucomic, migraine, obesity, parkinson, ulcer, properties in addition to cancer-preventive attributes.

One of Many Melon Types

Properties of Melon Favored by Aztec's

- Diuretic,
- Digestive,
- Laxative,
- Recommended for Persons suffering from Bladder and Kidney Problems
- and used against certain types of Intestinal Parasites.

Aztec Method of Use

- **Eat the fruit be it either a natural, in salads or as a drink.**
- **To fight certain types of Intestinal Parasites:**
  Drink on an empty stomach a glass of Melon Horchata prepared with Melon seeds, water and sugar to taste.

Membrillo - Common Quince

(*cydonia oblonga*)

Cydonia Vulgaris. Pers Pyrus cydonia L.
Shrub or small tree of the Asian genera Chaenomelesand
Cydonia of the family Rosaceae (rose family).

The common quince (*Cydonia oblonga*) is a spineless tree with edible fruits cultivated from ancient times in Asia and in the Mediterranean area, where it was early naturalized.

Its pome fruit is similar to that of the related apple and pear but is very astringent, and hence it is used chiefly cooked in preserves; marmalade is said to have first been made from quince.

As a commercial fruit tree, the quince is cultivated more widely in the temperate zone of Europe than in the United States, where it is grown chiefly in California and New York. It is often used as a rootstock for dwarf fruit trees, especially the pear.

The flowering quinces (genus *Chaenomeles*) are cultivated as ornamental shrubs for their profuse, usually thorny branches and attractive scarlet, pink, or white flowers.

Membrillo Graphic

Properties of Membrillo Favored by the Aztec's

Used for Curing Children of Indigestion

Aztec's Method of Use

Apply an intestinal wash(enema) consisting of 8 Membrillo Hearts and 1/2 teaspoon of Castillian or Wild Roses in 1/2 liter of water. Once the water has boiled add 1/4 of a teaspoon of Hydrogen Peroxide(This is to be a warm enema). Once the child has had a bowel moment, administer another enema consisting of 4 tablespoons of sweet almond oil. The following day repeat the treatment followed by a rigorous diet.

Mezquite

(*Prosopis spp.*)

- **Family:** Leguminosae
- **Distribution:** Southwestern U. S. and Northern Mexico.
- **Habitat:** Plains and foothills in semiarid regions. Mesquite (the genus Prosopis) is represented by about 45 species of trees and shrubs native to North America, Central/South America and Africa/Asia. The word prosopis is an ancient Greek plant name, used by Dioscorides apparently for burdock. Only trees are included in the following list.

North American species

- Prosopis glandulosa-Algaroba,
- bilayati kikar,
- common mesquite,
- cuji,
- honey locust,
- honey mesquite,
- honey-pod,
- ibapiguazu,
- inesquirte,
- ironwood,
- mesquite,
- screwbean,
- Torrey mesquite,

- wawahi,
- western honey mesquite.

Description: Large shrub or small tree to 6 m (20 ft) tall and 30 cm (1 ft) in diameter. Bark rough, thick, brown, divided into long narrow strips. Twigs glabrous, brown, with usually paired (stipular) sharp spines at the nodes. Buds very small, no terminal bud. Leaves alternate, drooping, bipinnately compound with only one pair of side branches. Leaflets sessile, 7-17 pairs, narrowly oblong, 1-3 cm (0.4-1.2 in) long, yellowish-green, glabrous. Flowers very small, numerous, crowded in spikes about 5-7.5 cm (2-3 in) long, blooming in Spring and Summer.
Fruits legumes, 10-20 cm (4-8 in) long and about 1 cm (0.4 in) in diameter, slightly constricted between seeds, yellowish or brown, ending in a sharp point, maturing in late Summer or Fall.

Mezquite in my backyard
Mezquite Graphic 1
Mezquite Graphic 2

Properties of Mezquite Favored by Aztec's

Expectorant,
Lowers Inflammation,
Helps Fight Irritation in the Digestive Track

Method of Use

Drink a cup several times a day of the infusion made from 50 grams of Mezquite Cortex or seeds to 1 liter of water.

In cases of Dysentery: apply a enema using the same formula as above, apply warm and double dose.

Nabo - Turnip

(*Brassica rapa*)

Turnip, common name for a hardy, biennial herb, of the mustard family, grown for its edible root. Turnips are native to Europe and parts of Asia and are cultivated in temperate and subarctic regions throughout the world. The yellow flowers, arranged in erect racemes, have four sepals, four petals, six stamens, and a solitary pistil. The fruit is a long, slender, many-seeded pod. The turnip differs from the rutabaga in having densely grouped stems and white-fleshed roots. Turnips are grown extensively for food and to provide feed for livestock.

Scientific classification: The turnip belongs to the family Brassicaceae (formerly Cruciferae).It is classified as Brassica rapa, Rapifera Group.

Credits:

Nabo-Turnip Graphic

Nabo Properties Favored by Aztec's

Eliminates Bile Stones,
Calms Cough,
Cures Colds,

Bronchitis and
Whooping Cough
also used externally for Itchy Skin.

Methods of Use

To eliminate Bile Stones: Mix 6 Turnip slices,10 Tomato Plant leaves, 10 Wormwood leaves, 2 pinches of Resurrection Fern and the juice of 2 Lemons in a liter of water. Drink 3 cups of this brew, the first cup on an **EMPTY STOMACH** before going to bed the second cup in the morning and the last cup at Noon.

To Calm Coughs, Cure a Cold, Bronchitis and Whooping Cough: Drink a Hot Cup of Turnip Root decoccion and Bundle Up Well

To Sooth Itchy Skin: Apply external cataplsms of peeled and cooked Turnip over the affected area.

Naranja - Orange

(*Citrus*)

Citrus originated in the Malay Archipelago and in Southeast Asia, and spread westward to India and the Mediterranean before Columbus brought the first seeds to the New World (Haiti) in 1493.

Orange (fruit), common name for citrus fruit of several trees. Different varieties include the sweet orange, the sour orange, and the mandarin orange, or tangerine. The fruit is technically a hesperidium, a kind of berry. It consists of several easily separated carpels, or sections, each containing several seeds and many juice cells, covered by a leathery exocarp, or skin, containing numerous oil glands.

Orange trees are evergreens, seldom exceeding 9 m (30 ft) in height. The leaves are oval and glossy and the flowers are white and fragrant. Three essential oils are obtained from oranges: oil of orange, obtained from the rind of the fruit and used principally as a flavoring agent; oil of petigrain, obtained from the leaves and twigs and used in perfumery; and oil of neroli, obtained from the blossoms and used in flavorings and perfumes.

Oranges, of great commercial importance, are cultivated in warm regions, although they are native to southeastern Asia. The sour orange was introduced to the Mediterranean region by the Arabs about the 10th century, and the sweet orange was introduced by Genoese traders in the 15th century.

In the United States the principal orange-producing states are Florida (the orange blossom is the state flower), California, Texas, and Arizona.

From 1991 to 1992 the yield of oranges in the United States was about 10 million metric tons. The principal varieties of the sweet orange cultivated by orange growers of the eastern United States are the Hamlin and Parson Brown, both early-maturing, seedy varieties with thin, russet skin and juicy pulp.

Both eastern and western growers cultivate the Valencia, a late variety that is commercially "seedless," having two to five seeds. The principal crops of the western growers consist of the Valencia and the Bahia, or Washington navel orange, imported from Bahia, Brazil, in 1870, and developed in Washington, D.C., by the U.S. Department of Agriculture.

The navel orange is a seedless orange, with medium-thick rind, in which a second small, or abortive, orange grows. A variety of the Washington navel orange is the principal orange product of Texas. The sour orange is cultivated to a limited extent for marmalade and to provide rootstock for less vigorous strains. About 20 percent of the total crop of oranges is sold as whole fruit; the remainder is used in preparing frozen and canned orange juice, extracts, and preserves.

Scientific classification:
Oranges belong to the genus Citrus, of the family *Rutaceae*. The sweet orange is classified as Citrus sinensis; the sour, or Seville, orange as Citrus aurantium; and the mandarin orange, or tangerine, as Citrus reticulata.

Click to See Fruit and Blossom

Properties of Orange Favored by Aztec's

Useful in cases of

1. Neurasthenia,
2. Hysteria,
3. Infections,
4. Asthma,
5. Arthritis
6. and Infections of the Respirtory Tract.

7. The brew made from boiling Orange Tree Leaves is considerd a sedative since it allows a tranquil sleep and calms nervous altercations, furthermore it relieves pain associated with Rheumatism and Gout.

Aztec's Method of Use

- **Drink one to two glasses of Orange Juice preferable in the morning with breakfast.**
- The Orange Tree Leaves brew is made from boiling 25 grams of Orange Tree Leaves to 1/2 liter of water. Drink 3 cups a day, after meals.

Nogal - Pecan

(*Carya illinoensis, Koch*)

The pecan belongs to the Juglandaceae family, along with the hickories and black walnuts, but in a separate genus.

The pecan tree is a large North American tree that bears sweet edible nuts. The nuts range from 1 to 2.5 inches in length and are deep brown in color. A pecan tree usually ranges from 70 to 100 feet in height, but can grow as tall as 170 feet. In addition to the nuts, pecan trees yield strong hard timber used in flooring and furniture.

The pecan (*Carya illinoensis, Koch*) is native to the Americas and naturally distributed in the Mississippi Valley and the river valleys of Texas. The Indians introduced pecans to the white man by trading for tools and trinkets. In this way, the traders moved the pecan from its native range to the eastern states.

Several studies on nuts, including pecans, have shown that blood cholesterol levels can be lowered when nuts are incorporated into the diet. Pecans actually contain plant components with antioxidant properties, which can slow the oxidation or "rusting" of LDL (low-density lipoproteins), otherwise known as bad cholesterol. University research has confirmed that pecans also contain plant sterols, which have been in the news recently for their cholesterol-lowering ability.

Just one ounce of pecans (a small handful or about 15 halves) has more zinc-an important nutrient for proper growth and strong immunity-than a 3.5-ounce piece of skinless chicken. Most good sources of zinc are foods of animal origin, but pecans happen to be a plant-based source.

Over half the fat (56 percent) found in pecans is monounsaturated fat and another 29 percent is polyunsaturated fat. This means that almost 90 percent of the fats (oils) in pecans are heart-healthy!

To View a Pecan Tree, Click Here!

Nogal Properties Favored by Aztec's

The word "Nogal" refers to the Tree and it's Leaves

Purifies the Blood,
Relieves Diahrreah,
Fights Anemia,
Gives the Body More Energy,
Cures Conjunctivitis and Tonsillitis,
Darkens and Favors the Growth of Hair.

Aztec's Method of Use

1. (**For Blood Purification**) Drink 3 cups a day of the boiled mixture consisting of 200 grams of Fresh Nogal Leaves to 1 litter of water, wait a few hours(2)after meals. Do this for 5 or 6 days.
2. **For Conjunctivitis and Tonsillitis:** Apply the same mixture described above but in the form of eye drops in the first case and as a gargle in the second.
3. **To Darken and Favor the Growth of Hair:** Macerate 200 grams of **Green** Pecan Nuts in 1 liter of pure alcohol then rub the mixture on hair area; best when hair has been washed before treatment.

Nopal - Prickly Pear Cactus

(*Opuntia lasiacanta*)

Scientific Name:Opuntia lasiacanta Family:
Cactaceae

The genus Opuntia includes the prickly pear, bunny ears, and beaver tail cacti. It is also called cactus pear and Indian fig ("Figadindi" in Italian). You may have been intrigued by the seemingly erratic growth of the prickly pear cactus, with its pads protruding at all angles; or you may have avoided it because of its sharp, barbed spines and tiny stickers. Everyone, however, can appreciate the prickly pear's large but delicate and colorful blooms and the sweet, succulent fruit.

The Aztec Indians called the Nopal nochtli or nopalli

Nopal 1 Nopal 2 Nopal Fruit Nopal 3 Nopal 4 Removing Spines Cooking Nopalitos 1
Cooking Nopalitos 2 Ready to Eat Nopalitos

More Nopal Places to Visit
Site 1 Site 2 Site 3

Over a period of several weeks in late spring and early summer, each pad produces several three-

to-four-inch wide flowers that bloom in an array of colors, depending on the variety, from subtle to brilliant tones of yellows and oranges, pinks and reds. When the blooms fade, the edible fruits form.

While the prickly pear cactus is native to the United States, Mexico, and South America, it grows well in many areas of the world, including Africa, Australia, and the Mediterranean. In some areas of South Africa and Australia, it has become a notorious weed. It will grow at elevations ranging from sea level to 15,000 feet.

Like most plants that thrive in a wide variety of areas, the prickly pear is tolerant of varied soils, temperatures, and moisture levels. The plants grow best in a sunny position in well-drained sandy loam with some protection from cold winter winds. Plants benefit from applications of a balanced fertilizer during their spring-through-fall growing period and, with excellent drainage, can tolerate almost as much water as any other cultivated plant. They are, however, drought tolerant once established.

The sap from the pads can be used in first aid similar to the aloe vera plant. Simply cutoff a portion of a pad, crush it, and squeeze the juice onto a cut, burn, or bruise. The sap will soothe the wound. Ground or pureed young pads are used as a laxative and also as a remedy for diabetes. According to Marita Cantwellde-Trejo, Extension Vegetable Postharvest Specialist at the University of California, Davis, the Mexican Institute of Nutrition in Mexico City is researching the hypoglycemic effect of cactus consumed by humans.

In Central Africa, the sap from the pads served as a mosquito repellent. In 1911, Burbank noted in Scientific American, that when spread on water, it smothers mosquito larvae, and the effect last's up to a year.

Culinary Uses:
However, forbidding the spines, this cactus is definitely worth eating. The pads are "cladodes" or "nopales" when they're whole, and "nopalitos" when they're diced. They taste something like green beans. The fruits are called prickly pears, cactus pears, or "tunas."

Whether you add sliced or cubed pads to omelettes or gently urge the fruit from its stickery skin and eat it fresh or cooked into jelly, this cactus has much to offer. Even the seeds can be eaten in soups or dried and ground into flour. Recipes and entertaining and informative tips on preparation can be found in Joyce L. Tate's Cactus Cookbook, available from the Cactus and Succulent Society of America. Recipes range from appetizers, soups, and salads through entrees, vegetable dishes, and breads to desserts, beverages, and candies.

In Central Mexico, the pads have grown as a traditional vegetable since before the Spanish

arrived. Today, the pads are available in this country throughout the year in specialty produce sections and at farmer's markets. The smaller young pads in the early spring are the most succulent, delicate in flavor, and have the fewest spines. Fresh pads are full of water and should be bright green and firm. To prepare the pad, simply hold its base and scrape the skin on both sides with a blunt knife until all the spines are removed. Then peel the pads and cut them into shoestring strips or dice them according to the needs of the recipe. They can be eaten raw in salads, boiled and fried like eggplant, pickled with spices, or cooked with shellfish, pork, chilies, tomatoes, eggs, coriander, garlic, and onions.

The flavor of a ripe prickly pear cactus fruit depends on the variety but include strawberries, watermelons, honeydew melons, figs, bananas, and citrus. You can eat them raw, at room temperature or chilled, and alone or with lemon juice. They can be cooked into jams and preserves or cooked down into a syrup as a base for jelly and candy (the "cactus candy" in some Mexican food stores.) This syrup can be reduced even further into a dark red or black paste that is fermented into a potent alcoholic drink called "coloncha." The fruit pulp can be dried and ground into flour for baking into small sweet cakes, or stored for future use.

Individual taste preferences will dictate which varieties to choose for eating fresh and which for cooking. In Mexico alone, there are over 100 species with edible fruits. Sam Williams, a cactus enthusiast in Carmichael, California, says that while all the fleshy fruit kinds are edible and none are poisonous, only a few are palatable and even fewer taste really sweet. They range from juicy to dry and sweet to acid. Cantwell-de-Trejo says that the acidity and fibrousness of the fruits are called "xoconochtlis" and are used in certain traditional Mexican stews and other dishes.

Fruit size, shape, and color vary from small and round like a walnut to three inches long and two inches wide like a rounded cylinder. Skin and flesh come in a rainbow of colors (white, green, yellow, orange, red, purple, and brown. White-skinned varieties are the most popular in Mexico, says Cantwell-de-Trejo, while the sweetest varieties generally available in this country have dark reddish-orange or purple skins and deep red-purple flesh. The fruit contains about one-half the amount of an orange. According to Cantwell-de-Trejo, this is its most important use in the diet of rural Mexicans.

The fruits ripen from early spring through late fall, depending on the variety. Those that are best for eating fresh ripen from September through November. Charlotte Glenn of Le Marche Seeds International in Dixon, California, who works extensively with gourmet vegetables, says that the perfect stage of ripeness of each fruit lasts only about a week, and the maximum shelf life of a fruit is only eight or nine days. Many of the fruits sold in California are imported from Mexico to extend the market season.

by Yvonne Savio
Master Gardener
University of California, Davis
Published June 1989

The Mexican indians and and a lot of people who have tried them, including myself, will tell you that the Nopal Leaves or "Pencas" are delicious, furthermore, they are good for you also. Well enough, I'm getting hungry.

"Warning and Caution" All Pencas come with Spines Be Careful

Nopal Properties Favored by Aztec's

- Favors the expulsion of certain types of intestinal parasites,
- Increases the secretion and excretion of urine,
- Strengthens the lungs,
- Cures Diabetes,
- Increases milk production for mothers who are in lactation,
- Allows the maturation of abcesses.

Aztec's Method of Use

- **To Expel Certain Intestinal Parasites and to Increase the Secretion and Excretion of Urine:** Boil 100 grams of Nopal Pads(Pencas) to 1 liter of water, drink 3 cups daily.
- **To Strengthen the Lungs:** Cut in half a medium sized penca, scrape the interior in the shape of a cross, (don't remove all the internal matierial), add honey and re-close, let stand, the following day, cook over an open flame and eat on an empty stomach. Do This Daily for Three Months.
- **To Cure Diabetes:** Boil 1 Nopalito, 5 Green Tomato Husks, 1/2 small, tender(calabacita)calabash or squash in 1/2 liter of water. Let stand all night then the following day drink as a daily drink.

- **To Increase milk production in Lactating Mothers:** Eat daily on an empty stomach 2 grilled Nopales or in a salad with olive oil as dressing. after 1/2 hour has passed after eating the Nopales, drink a cup of alfalfa tea.
- **To allow Abcess to Mature:** Cut the Nopal in half, heat up the penca, then place on affected area.

Oregano

(*Origanum vulgare L.*)

- Plant family: Lamiaceae (mint family).
- **Sensoric quality:** Aromatic, warm and slightly bitter. Oregano largely varies in intensity: Good quality is so strong that it almost numbs the tongue, but the cultivars adapted to colder climate have often unsatisfactory flavor.
- **Main constituents:** The essential oil (max. 4%) may contain variable amounts of the two phenols carvacrol and thymol (see also thyme and savory); furthermore, a variety of monoterpene hydrocarbons (limonene, terpinene, ocimene, caryophyllene, beta-bisabolene and p-cymene) and monoterpene alcohols (linalool, 4-terpineol) are reported.

In Mexican oregano (*Lippia graveolens*) an essential oil of very similar constitution is found. A typical analysis is as follows: 50% thymol, 12% carvacrol, 9% p-cymene and a number of further monoterpenoids (1,8 cineol, gamma-terpinene, terpinene-4-ol and terpinene-4-yl acetate) in amounts between 1 and 5%.

Flowering Oregano. This Italian cultivar has an exceptionally intensive flavor.

- **Origin:** Several species of genus Origanum are native to the Mediterranean, all of which are traded as a spice. The influence of climate, season and soil on the composition of the essential oil is greater than the difference between the various species.

The most important species are O. vulgare (*pan-European*), O. onites (Greece, Asia Minor) and O. heracleoticum (Italy, Balkan peninsular, West Asia). A closely related plant is marjoram from Asia Minor, which, however, differs significantly in taste, because phenolic compounds are missing in its essential oil. Some breeds show an flavor intermediate between oregano and

marjoram (gold marjoram = gold oregano).

Mexican Oregano stems from the plant Lippia graveolens (*Verbenaceae*) and is closely related to lemon verbena. Although only loosely related to oregano, Mexican oregano displays a flavor very similar to that of oregano, albeit stronger. It is increasingly traded, especially in the US. Its strong aroma makes it an acceptable substitute for epazote leaves if the latter are not available; this wouldn't work the other way round, though.

- **Etymology:** The Greek name oríganon might well contain óros "mountain", and the verb ganoûsthai "delight in", because oregano prefers higher altitude in Mediterranean climate; yet a pre-Greek or Semitic origin of orígánum has also been discussed. A similar motivation may lay behind Norwegian bergmynte "mountain mint" (oregano and mint belong to the same plant family).

[*oh-REHG-uh-noh*] Greek for "joy of the mountain," oregano was almost unheard of in the United States until soldiers came back from Italian World War II assignments raving about it. This herb, sometimes called wild marjoram , belongs to the mint family and is related to both marjoram and Thyme.

Oregano is similar to marjoram but is not as sweet and has a stronger, more pungent flavor and aroma. Because of its pungency, it requires a bit more caution in its use. Mediterranean oregano is milder than the Mexican variety, which is generally used in highly spiced dishes.

Fresh Mediterranean or European oregano is sometimes available in gourmet produce sections of supermarkets and in Italian or Greek markets. Choose bright-green, fresh-looking bunches with no sign of wilting or yellowing. Refrigerate in a plastic bag for up to 3 days.

Dried Mediterranean oregano is readily available in any supermarket in both crumbled and powdered forms. The stronger-flavored Mexican oregano can generally be found in its dried form in Latin markets. As with all dried herbs, oregano should be stored in a cool, dark place for no more than 6 months. Oregano goes extremely well with tomato-based dishes and is a familiar pizza herb.

Click Here for Oregano Image

Properties of Oregano Favored by Aztec's

- Expectorant,
- Stomachic,
- Strengthens the Body,
- Regulates Menstruation,
- Expels Intestinal Parasites in Great Quantities,
- Also Useful to Induce Vomiting(in case someone is poisoned and needs to empty stomach quick)
- **Children and Pregnant Women Should Refrain from Using this Herb!**

Aztec's Method of Use

- **Drink a cup on an empty stomach of the boiled mixture of 7 to 10 grams of Oregano to 1/2 liter of water**.
- **To induce vomiting:** Eat a large amount of Oregano to expel the toxic substance.

Ortiga Mayor - Nettle

(*Urticaceae*)

Common name for the Urticaceae, a family of fibrous herbs, small shrubs, and trees found chiefly in the tropics and subtropics. Several genera of nettles are covered with small stinging hairs that on contact emit an irritant (formic acid) which produces a skin rash sometimes called urticaria (see hives).

The tropical American genus Urerais is very powerful and sometimes dangerous. Stinging nettles in the United States include species of Urtica, widely distributed, and Laportea canadensis, a characteristic plant of eastern forests. L. gigas,the Australian nettle tree, reaches 90 ft (27.4 m) in height.

Various plants of the family supply fiber, e.g., ramie, or China grass (Boehmeria nivea), native to SE Asia. Its valuable fiber is extremely strong, silky, and durable, but very difficult to extract. Because of the high quality of its various products (e.g., fabric, paper, and cordage) it has been cultivated experimentally in the United States and other countries.

The young foliage of many temperate nettles supplies edible greens that are cooked like spinach. Various unrelated plants are sometimes also called nettles, e.g., the Old World nettle trees of the elm family and the prickly horse nettle of the nightshade family. The nettle family is classified in the division Magnoliophyta , class Magnoliopsida, order Urticales.

Ortiga Properties Favored by Aztec's

- Cures Dropsy,
- Useful against Diarrhea,
- Rheumatism,
  Bronchial Afflictions,
  and Contains Uterine Hemorrhage.

Aztec's Method of Use

Drink 3 to 4 cups of the boiled mixture containing 15 to 30 grams of Ortiga Leaves and Roots to 1/2 liter of water.

Palo de Brasil - Brazilwood

Caesalpinia echinata
Guilandina echinata

Brazilwood, common name for several trees of the family Leguminosae (pulse family) whose wood yields a red dye. The dye has largely been replaced by synthetic dyes for fabrics, but it is still used in high-quality red inks. The bright red wood, which takes a high polish, is used in cabinet work and for making violin bows.

The East Indian redwood, or sapanwood (*Caesalpinia sappan*), was called “bresel wood” when it was first imported to Europe in the Middle Ages; Portuguese explorers used this name for a similar South American tree (*C. echinata*), from which the name Brazil for its native country purportedly derives.

Brazilwoods are classified in the division Magnoliophyta, class Magnoliopsida, order Rosales, family Leguminosae.

Caesalpinia echinata, the famous "Pau-brazil," is the source of the name of the country, Brazil, and is endemic to the Atlantic coastal forest.
The large tree was once highly valued for its timber and as a source of dye and was logged

almost to extinction.

Save Our Tree's-Global Tree Campaign

Properties of Arbol de Brasil wood Favored by Aztec's

Useful for Renal and Cardiac Diseases

Aztec's Method of Use

Drink 1 cup 3 times a day of the infusion made with 12 to 15 grams of **splintered** Palo de Brasil to 1/2 liter of water.

Papa - Potato

(*Solanum tuberosum*)

More than 6,000 years ago in the high Andes of South America, people first domesticated the potato. In the 16th century, Spanish conquistadores brought the potato from Peru to Europe, but it wasn't until two centuries later that potatoes were introduced into the European diet. Today, potato is the fourth most important crop in developing countries after rice, wheat, and maize.

More than 3 billion people consume potatoes.

The potato plant is a leafy, sprawling, almost vinelike annual to 3' tall and spreading out a little more. The compound leaves are about 10" long and the 7-15 leaflets about 3" long. The tubers are not roots, but modified stems or rhizomes, and the "eyes" are really leaf buds. Potato flowers are rather showy: they are star-shaped, white, lavender, pink or light blue with yellow centers, about an inch across, and borne in clusters. The fruits are like small green tomatoes, about an inch in diameter, and contain several hundred seeds. The fruits, leaves

More Potato Info Here

Papa Properties Used by Aztec's

- Energizer, useful to thin weak people,
- Helps people suffering from rheumatism,
- Renal stones,
- Bladder stones,
- Dissolves tumors,
- Calms Neurologies
- Softens abscesses
- Eliminates loose dandruff and
- Fights afflictions that affect hairy dermis(skin)

Aztec Method of Use

- **Eat Papas, in all it's combinations, 2 to 3 times a week.**
- **To dissolve renal and bladder stones:** Drink for fourteen(14) consecutive days, the water in which Potatos have been boiled
- **To dissolve tumors,soften abscesses and calm neurologies:** Apply in the form of a cataplasm, raw grated Papa

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PAPAYA

(*Carica papaya L.*)

Family: Caricaceae

Common Names: Papaya, Papaw or Paw Paw (Australia), Mamao (Brazil), Tree Melon. Related Species: Babaco (Carica pentagona), Mountain Papaya (*C. pubescens*), Chamburo (*C. stipulata*).

Origin: The papaya is believed to be native to southern Mexico and neighboring Central America. It is now present in every tropical and subtropical country.

Adaptation: Papayas have exacting climate requirements for vigorous growth and fruit production. They must have warmth throughout the year and will be damaged by light frosts. Brief exposure to 32° F is damaging and prolonged cold without overhead sprinkling will kill the plants. Cold, wet soil is almost always lethal. Cool temperatures will also alter fruit flavor. Papayas make excellent container and greenhouse specimens where soil moisture and temperature can be moderated.

Growth Habit: The papaya is a short-lived, fast-growing, woody, large herb to 10 or 12 feet in height. It generally branches only when injured. All parts contain latex. The hollow green or deep purple trunk is straight and cylindrical with prominent leaf scars. Its diameter may be from 2 or 3 inches to over a foot at the base.

Foliage: The leaves emerge directly from the upper part of the stem in a spiral on nearly horizontal petioles 1 to 3-1/2 feet long. The blade, deeply divided into 5 to 9 main segments, varies from 1 to 2 feet in width, and has prominent yellowish ribs and veins.

The life of a leaf is 4 to 6 months.

Flowers: The five-petalled flowers are fleshy, waxy and slightly fragrant. Some plants bear only short-stalked female flowers, or bisexual (perfect) flowers also on short stalks, while others may bear only male flowers, clustered on panicles 5 or 6 feet long. Some plants may have both male and female flowers.

Others at certain seasons produce short-stalked male flowers, at other times perfect flowers. This change of sex may occur temporarily during high temperatures in midsummer. Male or bisexual plants may change completely to female plants after being beheaded. Certain varieties have a propensity for producing certain types of flowers. For example, the Solo variety has flowers of both sexes 66% of the time, so two out of three plants will produce fruit, even if planted singly.

How pollination takes place in papayas is not known with certainty. Wind is probably the main agent, as the pollen is light and abundant, but thrips and moths may assist. Hand pollination is sometimes necessary to get a proper fruit set. There are two types of papayas, Hawaiian and Mexican.

The Hawaiian varieties are the papayas commonly found in supermarkets. These pear-shaped fruit generally weigh about 1 pound and have yellow skin when ripe. The flesh is bright orange or pinkish, depending on variety, with small black seeds clustered in the center. Hawaiian papayas are easier to harvest because the plants seldom grow taller than 8 feet.

Mexican papayas are much larger then the Hawaiian types and may weigh up to 10 pounds and be more than 15 inches long. The flesh may be yellow, orange or pink. The flavor is less intense than that the Hawaiian papaya but still is delicious and extremely enjoyable. They are slightly easier to grow than Hawaiian papayas.

A properly ripened papaya is juicy, sweetish and somewhat like a cantaloupe in flavor, although musky in some types. The fruit (and leaves) contain papain which helps digestion and is used to tenderize meat. The edible seeds have a spicy flavor somewhat reminiscent of black pepper.

CULTURE Location: Papayas like to be warm with both sunshine and reflected heat, so the hottest place against the house where nothing else seems happy is an ideal location. They also like to be as free from wind as possible, although this is not as critical as their need for sun. Papayas can be grown successfully in shade, but the fruit is rarely sweet. They are best planted in mounds or against the foundation of a building where

water can be controlled.

Papaya Info Courtesy of "http://www.crfg.org/pubs/ff/papaya.html" Papaya Graphic 1 Papaya Tree Graphic

Properties of Papaya Favored by Aztec's

Favors Digestion,
Diuretic,
Laxative,
Vermifuge,
Meat Tenderizer,
Cures Skin Irritation
and Cures Sunburn

Aztec's Method of Use

Eat Papaya a natural, in salads, cooked, boiled, in a milk shake or as preserves.

To Use as a Vermifuge: Drink on an empty stomach, Papaya juice mixed with an equal amount of honey ,in a cup of hot coffee, 1 half hour later, administer a laxative.

To Use as a Meat Tenderizer: As the meat is being cooked, add Papaya seeds to it or wrap the meat in Papaya leaves before grilling.

To Cure Skin Irritations and to Cure Sunburn: Apply Papaya Juice on affected areas.

Perejil - Parsley

(*Petroselinum crispum*)

Family: Umbelliferae/Apiaceae (carrot family) **Common Names:** parsley, Italian parsley, Hamburg parsley, turnip-rooted parsley

Parsley is a clump-forming biennial to about a foot tall and twice as wide. It has bright green multi-compound curly or flat leaves. The leaflets are finely divided and held at the end of long stems and the whole plant has a rounded, mound-like shape. In its second summer, parsley sends up stalks with compound umbels of small yellow flowers.

Parsley Properties

- Antioxidant
- Carminative
- Diuretic
- Emmenagogue
- Encourages uric acid elimination
- Increases milk in lactating woman
- Inhibits histamine release
- Tones uterine muscles

Perejil Image 1 Perejil Image 2

Perejil Properties Favored by Aztec's

Increases the Amount of Urine,
Favors Menstruation,
Promotes Perspiration,
Applied Externally, it acts as a Disinflamatory.
and is an Aphrodisiac.

Aztec's Method of Use

Drink 3 Cups a Day of the Boiled Mixture made of 60 grams of Fresh Parsley to 1/2 liter of Water.

As a Disinflamatory: Apply Crushed and Boiled Parsley on Wounds and Contusions.

Pinguica

(*Arctostaphylos pungens*)

Family:
Ericaceae, Heather Family
Perennial
Plant Size:
Generally less than 6' (1.8 M)
Blooms in: Spring
Habitat Preferred:
Dry hillsides above 4000' to the Ponderosas
Photo(s) taken at:
Lynx Creek
Bloom Color:
Small white and pinkish "bells"
Other Common Names:
Manzanilla, Mexican Manzanita
Origin:
Native
Comments:
Note the smooth red bark, "dusty" green leaves.

Pinguica Graphic 1 Pinguica Graphic 2 Pinguica Graphic 3

Further Reference Sources: "A Field Guide to the Plants of Arizona", Anne Orth Epple, 1995, Falcon Press

Pinguica Properties Favored by Aztec's

- Increases the amount of Urine, and helps in the elimination of Renal Stones,
- lowers Albumin Level
- also good for curing Bronchitis, Diahrreah, White Vaginal Discharge and Infections of the Urinary Tract.

Aztec's Method of Use

- **Drink 3 cups a day of the boiled mixture consisting of 50 grams of leaves to 1/2 a liter of water, or better still, drink a glass in the morning on an empty stomach and another at night before bed of the boiled mixture consisting of 25 to 50 grams of Pinguica Fruit to 1/2 liter of water.**
- **To Increase Urine Amount and to help dissolve and expel Renal Stones:** Drink as a Daily Drink the boiled mixture consisting of 120 grams of Resurrection Fern mixed with 50 to 100 grams of Pinguica to one and a half liter of water.

Piña - Pineapple

(*Annanas sativus*)

Description: This group consists of 9 species of tropical, terrestrial bromeliads (plants belonging to the family, Bromeliaceae) native to tropical America. These plants are commonly known as Pineapples. They grow up to 4 feet high and produce rosettes of long, stiff, spiny leaves. Pineapples produce a thick, leafless stem topped by a thistle-like, violet or red flower after about 16 months and when the plant is at least 2 feet high. This flower develops into the delicious, juicy fruit we all love. Pineapples can be grown as an interesting houseplant or outdoors in tropical climates.

Properties of Piña Favored by Aztec's

- Useful for Cases of Diphtheria,
- Intestinal Infections,
- Renal Stones,
- Throat Afflictions,
- Hypertension,
- Arthritis,
- Constipation,
- Anemia,
- Hysteria,
- Mental Depression,
- Memory Loss and
- Digestion Problems.

Aztec's Method of Use

- **Eat Pineapple**- in any form(salad, shake..etc.)at any hour.
- **In Case of Diphtheria:** Drink a lot of Pineapple Juice mixed with Onion Juice and Sweetened with Bee Honey.
- **To Remove Renal Stones:** Drink Pineapple Juice on an Empty Stomach

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Platano - Banana

(Musa sp)

- **Common Name:** Plantain, Banana

Musa is a relatively small genus of about 50 species that has as its main claim to fame the Banana, perhaps the archetypal tropical fruit. Bananas are grown over a huge area of the tropics, almost 10 million hectares, with an annual production of around 88 million metric tons. The vast majority of producers are small-scale farmers growing bananas either as a staple crop for home consumption or for local markets.

Despite the importance of bananas as a source of human food and trade, the genus Musa is not at all well understood. They are very difficult plants to study and little is known about the wild species. Partly because of this and partly because Musa nomenclature can be very confusing there is a lot of misinformation about Musa species in gardening books and plant catalogues.

Musa species. The natural, wild species of Musa are given Latin plant names and, at the moment, are sorted into six sections:

Australimusa
Callimusa
Ingentimusa
Rhodochlamys
Musa 1
Musa 2

Banana Graphic 1 Banana Graphic 2

Banana Site - Your online resource for Banana!

Banana Properties Favored by Aztec's

- Decongests the Respiratory Track,
- Calms the Nervous System,
- is a Laxative,
- Cures Urinary Infections,
- Has a Great Nutritional Value,
- Kills Tuberculosis Bacteria
- and Used to Fight Alcoholism

Aztec's Method of Use

- **Eat Banana's a Natural, Fried, Cooked, in a Shake, etc,...**
- **To Kill Tuberculosis Bacteria:** Drink the Extract from the Stem attached to the Banana Cluster or Bunch.
- **To Fight Alcoholism:** Drink a small glass of the boiled mixture consisting of 3 Banana Peels, Tabasco, the Water or Milk from 1 Coconut, Brown Sugar or Sugar Loaf to Taste; let Ferment for 3 Days then add a Snifter of Licor. **Do This for 9 Days!**

Rabano - Radish

(*Raphanus sativus L*)

- **Origin:** Wild relatives of assumed ancestry of cultivated radishes grow in Mediterranean to Near East region, though immediate origin is not determined. Earliest record of utilization was in Egypt (B.C.2700). Radishes proceeded toward east through several pathway, with secondary development in several locations, and established as old natives through temperate area from Europa to Japan. Though their variation is continuous, European and Asian group can be recognized, and the latter can be divided into North Chinese group in cool, dry area and South Chinese group in warm, wet area. Japanese radish (Daikon) basically belongs to South Chinese group, but with unique characteristics.
- **Characteristics:** Radishes have non-splitting silique, unlike Brassicas. Leaves are basically haired and bi-pinnatesected. Glabrous, entire leaves are unique to Asian groups. Cultivated forms are usually biannual with enlarged root. Variation of the size is quite large. Varieties with thin roots are used for fresh leaves or pods. Some of the latter are annual with extra-long silique. The color of root surface (other than white) is either red, purple, yellow or black for European group; green, red or purple for North Chinese group. Some of the latter show pigments in root flesh.
- **Utilization:** Enlarged roots of large varieties are either eaten fresh, cooked, picked or dried. Leaves (of young seedlings) are cooked. Small varieties and sprouts are eaten as salad.

Reference: L.Sazonova, Bull.Apl.Bot.Genet.and Plant Breed.,45.42(1974)

Properties of Rabano Favored by Aztec's

- Stimulates the Appetite,
- Stimulate Sweat and Urine Production,
- Tones and Purifies the Blood Prevents Muscle Fatigue,
- Cures Laryngitis and
- Bronchial Infections,
- Gingivitis,
- Scurvy,
- Fights Anemia and
- Helps Dissolve Bile Stones

Aztec's Method of Use

- **Eat Radish**, (making sure it is washed and disinfected), in a salad or better yet Drink a cup after meals of the brew made from 7 to 15 grams of Rabano Root to 1/2 a liter of water.
- **To Cure Laryngitis, Bronchial and Throat Infections:** Drink Daily whenever thirsty the brew made from 50 grams of Radish to 1/2 liter of water, sweetened with Honey.
- **To Fight Anemia:** Take a Tablespoon 3 Times a Day of the Radish Syrup made by boiling 150 grams of Unpeeled radish; (Boil for 20 Min. in 1 and 1/2 liter of water)add 750 grams of Sugar and 22 Drops of Tincture of Iodine, Boil without stopping until syrup consistency is achieved.
- **To Dissolve Bile Stones:** Eat 20 grams of Rabano Negro in the Morning on an Empty Stomach and then the Same Dose at Night Before Bed.

It Is a Very Good Remedy

Romero - Rosemary

(*Rosmarinus officinalis L.*)

- **Family:** Lamiacea Lindl
- **Division:** Magnoliophyta
- **Class:** Magnoliopsida
- **SubClass:** Asteridae
- **Order:** Lamiales

A herb in the mint family with medicinal, culinary ,and ornamental uses. Upright growth with needle like scented leaves. Adored for its long blooming period.
Tender shrub with glossy, strongly scented, evergreen needlelike leaves with a flashy light stripe below and blue, lavender, or white flowers. Flowers are borne on old growth in late winter. When grown outside in warm climates, most rosemary cultivars can grow up to six feet high. Prostrate forms creep along the ground.

Rosemary has a wide variety of use outside of the kitchen. History reveals uses from using rosemary for depression, headaches, muscle spasms, rheumatism, skin ailments and wounds. It was also burned in early hospitals along with juniper berries to "cleanse the air" as it does have some antibacterial effects.

The food industry uses the oil as a natural protectant against food spoilage organisms. The antibacterial and antifungal activities have been documented towards mold, Staphylococcus aureus, and E coli.

History also reveals it's use as a memory enhancer. According to Dr James A. Duke, "Some

evidence suggests that oxidative damage cuased by highly reactive (free radical) oxygen molecules in the body plays a role in Alzheimers's. If that's so, rosemary should help. It contains a couple of dozen antioxidants-that is, compounds that help mop up free radicals."

Rosemary oil should be used sparingly since over use can produce poisoning symptoms. Always follow the directions on the containers that you purchase.

Credits:
HerbMed.org | Herbs for Health | Romero - Rosemary Graphic

Romero's Properties Favored by Aztec's

- Stimulates Digestion,
- Regulates Menstruation,
- Fights Asthma,
- Colds,
- Typhus,
- Vertigo,
- Nervous Disorders,
- Headaches,
- Rheumatism,
- Prevents Hair Loss,
- Promotes Hair Growth,
- Prevents Dandruff,
- Cures Sciatica,
- and Repels Insects with it's agreeable odor.

(We Like It They Dont)

Aztec's Method of Use

- **Drink a Cup 3 Times a Day, after meals, of the Brew made from 5 to 10 grams of Romero Leaves to a half liter of water.**

- **To Regulate Menstruation:** Drink 3 Cups a Day of the Brew made from 50 grams of Romero Leaves to 1/2 liter of water.

- **To Fight Rheumatism and Painful Articulations:** Rub the Affected Area with the Tincture made from 20 grams of Dry Romero Leaves, 20 grams of Lavender Flowers to 1/2 a liter of Alcohol; let Macerate for 2 days then Filter before use.

- **To Prevent Hair Loss, Promote Hair Growth and Avoid Dandruff:** Rub on Head, Twice a day, with the following Rubbing Alcohol Mixture-10 grams of Romero Flowers and Leaves, 10 grams of Brotano Macho(Cotton Lavender), and 1/2 liter of Alcohol. **Mix Well**, Let Macerate for 1 Week, Then Filter or Strain.

- **To Cure Sciatica:** Rub the affected area with the mixture made from 4 Romero's, 1 liter of Alcohol, Crushed Garlic, Tabacco, Allspice, Beleño(Henbane), Ruda(Rue) and Pirul(Pepper Tree), Verter in a Bottle, Let Heat up outdoors in the Sun, then Rub on affected area until pain Disappears. Complete the Treatment by Chewing a Clove of Garlic in the Mornings,swallow the juice, but spit out the chewed remains.

- **To Repel Insects and Aromatize your Home:** You must have a fire proof container that you can hold in your hands without burning yourself.
    1. Ignite 4 to 6 charcoal brickets
    2. Place glowing coals in fire proof container
    3. Add a mixture of dry and fresh Romero leaves
    4. As the mixture smolders,go from room to room in your home.

    (Use Common Sense with this One!)

Ruda - Rue

(*Ruta graveolens L.*)

- **Common Name:** Common Rue, Herb-of-Grace,Bitterwort
- **Spanish:** Ruda
- **Family:** Rutaceae Juss.
- **Country of Origin:** Southern Europe
- **Habitat:** Rocks, old walls and dry hills, mainly on limestone
- **Description:** A hardy evergreen herb.
- **Division:** Magnoliophyta
- **Class:** Magnoliopsida
  SubClass: Rosidae
  Order: Sapindales
- **SubOrder:**

Rue is a small evergreen subshrub or semiwoody perennial 2-3' tall and almost as wide. The stems become woody near the base, but remain herbaceous nearer the tips. The 3-5" long leaves are dissected pinnately into oblong or spoon shaped segments. They are somewhat fleshy and usually covered with a powdery bloom.

The sea green foliage has a strong, pungent, rather unpleasant scent when bruised. The paniculate clusters of small yellow flowers appear in midsummer, held well above the foliage and often covering most of the plant. Each flower is about a half inch across with four concave notched petals. Rue usually grows in a compact, rounded mound. 'Jackman's Blue' has beautiful bluish green foliage and stays in a tight, rounded form, smaller than the species; this is the most popular cultivar in Europe. 'Blue Beauty' is small, to 18" tall, with

powdery blue foliage. 'Variegata' has white splashes on the leaves and is often used in floral arrangements.

Credits for this Page
FloridaData.com BioDiversity Ruda Graphic

Based upon: Watson, L., and Dallwitz, M. J. (1992 onwards). 'The Families of Flowering Plants: Descriptions, Illustrations, Identification, and Information Retrieval.' Version: 19th August 1999.

Ruda Properties Favored by Aztec's

- Provokes Menstruation that is why it is very important that pregnant women should refrain from using this herb.
- Calms pain associated with hepatitic colic or intestinal.
- Useful in Treating Nervous Diseases.
- Regulates Hearts Palpitations.
- Kills Lice and thier Eggs(nits).
- and is also used for cleaning exposed ulcers, sores, wounds.

Aztec's Method of Use

- **Drink 2 cups a day of the infusion made from 3 to 5 grams of Fresh Ruda, to 1 liter of water. If You Use Dry Ruda Use Only Half the Dose.**
- **To Eliminate Lice and Nits:** Apply a Strong Massage to the Head after Washing with the following Treatment:
  Boil 35 grams of Ruda, after letting cool a while apply to head and soak well, then wrap with a linen or cotton cloth, after 1 hour, comb well.
- **To Clean Exposed Ulcers, Sores..etc,..:** Boil 20 to 30 grams of Ruda and Clean the Area.

Anis Verde-Pimpinella

(Pimpinel'la)

Description:

This is a large group of frost-tender annuals, biennials and perennials from China, the Himalayas, Africa and Europe. ***P. anisum***,
commonly called Anise or Aniseed, is a native to Greece and is used for culinary purposes. This lanky annual herb grows up to 2 feet high and 6 to 12 inches wide. They have finely divided upper leaves and flat clusters, resembling umbrellas, of creamy white flowers.

P. major

'Rosea' is a vigorous perennial that grows up to 4 feet high. The large, dark green leaves are simply divided into toothed, almost heart-shaped segments. In mid-summer, small umbels of tiny, pink flowers are borne atop thick stems.

Properties of Anise Verde Favored by Aztec's

Digestive, Carminative (the expulsion of intestinal gases), Emmenagogue(Helps to promote and regulate menstruation), Diuretic, Aperitif, Upset Stomach (helps relieve some of the gas accompanied by certain dispepsias), Antispasmodic (relieves the colic pain accompanied by gastroenteritis), is also used for vomiting and nausea caused by Dizziness, Vertigo and Abstania nerviosa and Headaches.

Aztec Method of Use

They would drink 3 cups of the infusion a day by small teaspoonfuls. The infusion is made with 10 grams of seed to 1/2 liter of water.

Cancerino - Heal All

(*Prunella vulgaris*)

Also known by the name: Hierba del Cancer or Yerba de Cancer.

This plant is at home all over the country and grows with great vigor in the South and is abundant in **Mexico**. It is an Eurasian import, long naturalized, and can be found growing in low woods and thickets in partial shade, in yards, lake margins, fields, waste places, pastures and roadsides. It is a common weed, a low perennial with a short rhizome, reproducing by seeds and short runners that root freely at the nodes. As with other members of the mint family, the stems are square and the leaves are opposite. The stems branch freely and are usually about one foot tall; but when repeatedly mowed, the plants become densely matted, depressed and small-leaved.

The lower leaves are petioled, with the blades lanceolate to ovate. The upper leaves are sessile, subtending the flower cluster. The flower cluster is a close thick spike with three flowers in the axils of each rounded membranaceous bract.

The flowers are two-lipped, the upper lip hood-shaped, the lower lip shorter and three-lobed. The blossoms are lavender to white and their nectar attracts honeybees, bumblebees and some

kinds of butterflies. Blooming time is March to frost.

Originally, Prunella was called Brunella, from the German bruen meaning quinsy, a disorder of the throat, for which this plant was considered a certain cure. Vulgaris comes from vulgus, of the common people. Both refer to the ancient belief in the healing powers of this plant.

It has been used medicinally to cure many ailments. No wonder it is called **Heal-all**. We find it used for the treatment of boils, gas, colic, sore throat, hemorrahages, and diarrhea. It is much esteemed for healing wounds as it is an effective astringent, thus useful in stopping the flow of blood from a cut or wound.

Research suggests that the plant possesses antibiotic, hypotensive, and antimutagenic qualities. It contains the antitumor and diuretic compound Ursolic Acid.

Cancerino - Heal All Properties

For Throat Pain and Tonsillitis also used for Exposed Ulcers and Wounds.

Aztec Method of Use

- **For throat pain, inflammation of the tonsils (tonsillitis), exposed ulcers and wounds:** Boil in 1/4 liter of water, 10 grams of Cancerino; then strain and with this decoccion fill a glass 3/4 full, mix in a spoonful of hydrogen peroxide 1 spoonful of alcohol, and with this, gargle before bed for 2 to 3 days,

  "Warning" Do Not Swallow The Liquid or Drink Cold Beverages After Taking Treatment! This Remedy is ONLY for Adults and Teenagers who are not likely to swallow the liquid.

- **For Exposed Ulcers and Wounds:** Take a couple of branches of Cancerino, "Shake Well" and collect the dust that this action will produce; (The violent shaking or beating of this plant will produce a fine dust, TRY to collect as much as possible.), then boil the weed in 1/2 liter of water and with this brew **Clean the wound Well** , dry with cotton, add the Cancerino dust then wrap with gauze bandage.
  This procedure must be done daily until healing is noticed. It is also recommended **Not to drink Alcohol** or **Coffee** Do Not **Eat Hot** and/or **Spicy Foods** and **Pork** or **Pork Products**.

Salvia - Sage - Common Sage

(Salvia officinalis)
(Salvia lavanduloides)

Spanish Name: Salvia
Botanical Name: Salvia officinalis, Salvia lavanduloides.
Other Name: Salvia Real, Salvia de Bolita, Yerba de Santa Maria, Alhucema de la Costa, Te de Mar, Chia, Meforana, Mirto,
Origin: Mediterranean basin
Properties: Digestive, antiseptic, astringent, carminative, tonic.
Preparation: Leaf, stem. Tea/ Infusion.
Indications: Stomach ache, sore throat, sore gums, insomnia, nerves, diabetes.
Side Effects: Not to be taken during pregnancy or breastfeeding.
Comments: Sage's popularity peaked during Middle Ages. Sage elixirs were bottled and sold throughout Europe. There was a Latin proverb "why should a man die while sage grows in his garden?" The physicians used poultice of the pounded leaves for infected wounds, boiled it to wash itching skin conditions and prescribed sage tea for cold. Mexican Americans today use these same remedies. Salvia comes from Latin word salvus, meaning health, to heal. Sage tea is still popular in Greece.

Salvia Properties Used by Aztec's

Favors Digestion
Stimulates Intestines
Diminishes the production of sweat, saliva, urine and mucus
Used with success in Bronchitis and Tuberculosis cases

Click for Salvia Graphic

Aztec Method of Use

Drink 1 cup 3 times a day, before meals, of the brew made from 10 grams of Salvia to 1 Liter of water or better yet, take 3 to 5 grams of tincture, diluted with a little water, 3 times a day. This tincture is prepared with 100 grams of Salvia to 1 Liter of Alcohol; let macerate for 2 days then afterwards filter or strain.
To diminish cough and the secretion of mucus: Take 3 to 5 teaspoons a day of the above mentioned tincture

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Salvado - Wheat Bran

Scientists say they have persuasive evidence that wheat bran fiber has a "clear protective effect" against colon cancer.

A Wayne State University researcher told the Federation of American Societies for Experimental Biology that feeding wheat bran to rodents which were given chemicals to induce colon cancer resulted in a 32 percent reduction in cancerous development.

David Klurfeld says if those test results were transposed to humans, adding wheat bran to the diet could potentially mean decreasing colon cancer rates by 42,000 cases yearly.

The new study comes at a time when several human intervention trials involving thousands of subjects are finding a reduction in colon cancer risk from the inclusion of wheat bran in the diet. Wheat bran fiber can be found in many ready-to-eat cereals, whole wheat bread, bran muffins and certain wheat crackers.

Salvado Properties Used by Aztec's

- Calms Rheumatic and Neurological Pain
- Cures Light Skin Eruptions

Aztec Method of Use

- **To Calm Rheumatic and Neurological Pain:** Apply Salvado on painful areas, Apply dry or wet, if applying wet Salvado, it must be warmd in water.

Simonillo - Flea Bane

(*Conyza flaginoides*)

Spanish:
Falso sacalechinchi,
Gordolobo,
Hierba de las ánimas,
Rosilla,
Simonillo,
Simonio,
Zacachichic

Simonillo Definitions

- 1. One of various plants, supposed to have efficacy in driving away fleas. They belong, for the most part, to the genera Conyza, Erigeron, and Pulicaria.

- 2. Any of several North American plants of the genus Erigeron having daisylike flowers; formerly believed to repel fleas.

- 3. Common North American weed with linear leaves and small discoid heads of yellowish flowers; widely naturalized throughout temperate regions; sometimes placed in genus Erigeron [syn: horseweed, Canadian fleabane, Conyza canadensis, Erigeron canadensis]

Simonillo Properties Used by Aztec's

- Efficiently Combats Gastrointestinal Distress, since one of Simonillo's properties is to lower the stomaches mucus membrane inflammation, relieves pain and stops vomiting,
- Lowers Swelling of the Bile Ducts
- Increases Appetite
- Favors the expulsion of Bile
- **MUST NOT BE USED BY CHILDREN, BY WEAK INDIVIDUALS or PERSONS IN ADVANCED AGE.**

Aztec Method of Use

- **Drink 1 cup, on an empty stomach, of the brew made from 60 to 80 grams of Simonillo leaves to 1 Liter of water, in case nausea develops, reduce the dose.**
- **To remove the strong bitter after taste of the plant: Take a little honey with lemon juice or eat a little piece of sugar loaf.**

Taray - Tamarisk

(*Tamarix gallica L.*)

Tamaris de france

Tamarisk can grow in many different substrates from below sea level to about 2100 m elevation (Hoddenbach 1990), although it grows mostly on fine-textured soils (Everitt 1980). Tamarisk is a facultative phreatophyte (Turner 1974), meaning that it uses but does not depend on ground water.

Tamarisk occurs in areas where its roots can reach the water table, such as floodplains, along irrigation ditches and on lake shores. Plants usually grow where the depth to ground water does not exceed 3 - 5 m.

Tamarisk forms dense thickets where the ground water lies from 1.5 - 6 m below the soil surface (Horton et al. 1960). Where ground water is deeper than 6 m, plants form an open shrubland (Horton and Campbell 1974). Tamarisks have a wide tolerance of saline or alkaline soils (Robinson 1965). Carmen and Brotherson (1980) found that sites with tamarisk in Utah had higher soil salinity and pH than sites without tamarisk.

Brotherson and Winkel (1986) identified the major factors that contribute to tamarisk success as alkaline soils, available soil moisture, and sufficient disturbance of native vegetation to facilitate tamarisk invasion. Everitt (1980) stated that ideal conditions for first-year survival for tamarisk seedlings are on gently sloping riverbanks, or sandbars and siltbars where water levels slowly recede during the period of seed fall.

Taray Properties Used by Aztec's

- Used in Renal Afflictions and
- Hidropsia

Aztec Method of Use

Drink 3 times a day, before meals, for 5 days, 1 cup of the brew made from a couple of pieces of Taray Cortex to 250 grams of water, add the juice of 1 lemon, drink warm.

Tejocote - Mexican Hawthorn

(Crataegus pubescens stipulacea)

- **Latin Name:** Crataegus pubescens stipulacea
- **Synonyms:** C. mexicana. C. mexicanus. C. stipulacea. Loud.
- **Family:** Rosaceae
- **Spanish Name:** Tejocote
- **Other Name:** Chiste, Manzanilla, Manzanita
- **Aztec** Texocotl.
- **Habitat:** Clearings of pine - oak woodlands in Mexico.

Credit for info: GardenBed.com

CRATAEGUS pubescens - Mexican Hawthorn (Mexico) Height 5-7 metres A hardy, fast growing semi-evergreen small tree with dense branches and practically no thorns. Decorative for most of the year. White flowers followed by yellow edible fruit. Fairly large oval leaves turn orange-red in late autumn. Adapts to almost any well-drained location including clay soils but prefers a lime rich soil and dislikes extremely dry conditions. Frost hardy. Suitable for street planting, hedging or as a specimen.

Credit for info: WinterHill.com

Tejocote Properties Used by Aztec's

- Increases Urine Production
- Lowers Swelling of Renal Epithelium
  and
- Fortifies the Muscle System

Aztec Method of Use

Drink 3 cups a day of the brew made by boiling 75 grams of Tejocote root to 1 Liter of water. Boil until half the water is evaporated.

Te Limon-Zacate Limon-Lemongrass

(*Cymbopogon citratus syn.*)
(*Andropogon citratus*)

- **Spanish Name:** Te limon
- **Botanical Name:** Cymbopogon citratus syn. Andropogon citratus
- **Other Name:** Zacate Limon.
- **Aztec Name:** Ocozacatl

Herb Names Credit: Traditional Mexican Herb Usage

Lemongrass (Cymbopogon citratus) is a native of India and Sri Lanka. It is used in herbal teas and other nonalcoholic beverages, in baked goods, and in confections. The oil is widely used in perfumes and cosmetics. Lemongrass has been considered a carminative and insect repellent. West Indian lemongrass is reported to have antimicrobial activity and the oil acts as a central nervous system depressant. East Indian lemongrass oil has antifungal activity. The volatile oils may also have some pesticide and mutagenic activities. The bulbous stems and leaves are used in Asian cooking and teas.

Credit: Medicinal, Culinary and Aromatic Crops

Te Limon Properties Used by Aztec's

- Used to Calm Stomach Aches
  and

- Minimizes Intestinal Gas

Aztec Method of Use

Drink 3 cups a day, after meals, of the brew made from 1 Te Limon Reed or Blade to 1 Liter of water.

Tepozan - Butterfly bush

- **Scientific Name:** Buddleja americana L.
- **Nomenclature:** Buddleja L., Sp. Pl. 112. 1753. Gen. Pl., ed. 5, 51. 1754 (also spelled Buddleia). TYPE: Buddleja americana L.
- **Other Names:** Arnica, Salvia Santa
- **Aztec:** Zayolizcán, Cayolizán, Topoza

Buddleia americana is commonly called butterfly bush because of the hordes of butterflies (and bees) that are attracted to its wonderfully fragrant flowers. A less frequently used common name is summer lilac, recognizing the spikes of lilac-colored flowers.

Tepozan Properties Used by Aztec's

- Analgesic,
- Sedative,
- Diuretic,
- Dropsy(an unnatural acumalation of water in any part of the body)
- Rheumatism
- Sores
  and
- Exposed Ulcers

Aztec Method of Use

- **Drink 3 cups a day, after meals, of the boiled mixture consisting of 25 grams of Tepozan Root and Cortex to 1/2 Liter of water.**

- **For Rheumatism, Sores and Exposed Ulcers:** Apply Tepozan leaves on the affected areas in the form of a cataplasm.

Tila - Linden

(*Tilia mexicana*)

- **Division:** Magnoliophyta,
- **Class:** Magnoliopsida,
- **Order:** Malvales. Tilia europea
- **Spanish Name:** Tila
- **Botanical Name:** Tilia mexicana, Tilia americana, Tilia vulgaris, Tilia spp.
- **Other Name:** Flor de Tila, Tilia

Common name for the Tiliaceae, a family of chiefly woody shrubs and trees. Most genera are tropical, but the genus Tilia,commonly called linden, or lime tree, in Europe and Asia and basswood in North America, is found throughout the north temperate zone.
These deciduous trees are valued for ornament and shade. Their light, strong lumber, often called basswood, or whitewood, is variously employed, e.g., for woodenware and cheap furniture, and for beehives and honeycomb frames.
The nectar of the flowers is a commercial source of an excellent honey; the blossoms themselves are used for tea. Fiber was formerly made from the tough inner bark, or bast (hence the name basswood), which is still used for canning and wickerwork. The most important member of the family economically is the tropical genus Corchorus,from which jute is obtained.

Tila Properties Used by Aztec's

- Tranquilizes the Nervous System,

- Cures Insomnia,
- Favors Digestion,
- Calms Menstrual, Hepatic and Renal Cramps,
- Disinflames the Digestive Tract,
- Is a Laxative,
- Sudorific
  and
- Diuretic
- Useful in Bronchitis Cases

Aztec Method of Use

- **Drink 1 cup, 3 to 4 times a day of the infusion or brew made from 2 to 4 grams of Tila leaves to 1/2 Liter of water.**
- **To Increase it's Sedative effect:** Add 10 grams of Orange Tree Leaves.
- **To obtain the best effect over Bronchial Mucus:** Add to the Tila infusion, 5 grams of Borage Flowers

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Toronjil - Giant Mexican Hyssop

- **Spanish Name:** Toronjil
- **Botanical Name:** Agastache mexicanum, Cedronella mexicana, Melissa spp.
- **Other Name:** Toronjil Morado, Te de Menta.
- **Aztec:** Tlalhaueuetl,Tlalamatl,Tzompilihuitzatli.

Agastache mexicana, also known by its common name Mexican Giant Hyssop or by its synonyms Brittonastrum mexicana or Cedronella mexicana, is an erect bushy, lemon scented ,short lived perennial with ovate to lance shaped leaves, and bearing spikes of rose - red blooms in mid-late summer. It requires moderately fertile ,well drained soil in full sun and will attain a height of 24-36"(60-90cm.) and a width of 12" (30 cm.).

Credit for info:
BotResearch.eplugz.com
Click for Toronjil Graphic

Toronjil Properties Used by Aztec's

- Stimulates Digestion,
- Opens the Apetite,

- Increases Energy to the Heart,
- Improves Blood Circulation,
- Calms the Nervous System,
- Fortifies Brain Functions
  also used for
- Vertigo,
- Fainting Spells,
  The cream is used for
- bumps,
- bruises
  and
- Rheumatic Pain

Aztec Method of Use

- **Drink 1 cup, after each meal, of the infusion made with 15 to 20 grams of Toronjil leaves to 1/2 Liter of water**
- **To Calm the Nervous System:** Take the same infusion as above but add 10 grams of Orange Tree leaves; take 1 cup in the morning on an empty stomach and 1 before going to bed.
- **For Bumps and and Rheumatic Pain:** Apply the cream prepared with 25 grams of pure lard, and 1/2 gram of Essence of Toronjil

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Tumbavaqueros - Princess Vine

(*Cissus sicyoides L*)

- **Family:** VITACEAE Juss.
- **Common Name:** Princess Vine
- **Classification:**
- **Division:** Magnoliophyta
- **Class:** Magnoliopsida
- **SubClass:** Rosidae
- **Order:** Rhamnales
- **Origin:** Florida and Tropical America

A vigorous, much-brancked climber to 3m (10ft) or more. Leaves heart-shaped, about 10cm (4in) long, slender-pointed, somewhat fleshy and a pleasing light green. Under humid conditions, slender aerial roots are produced in profusion, hanging down like a curtain.

Tumbavaqueros Properties Used by Aztec's

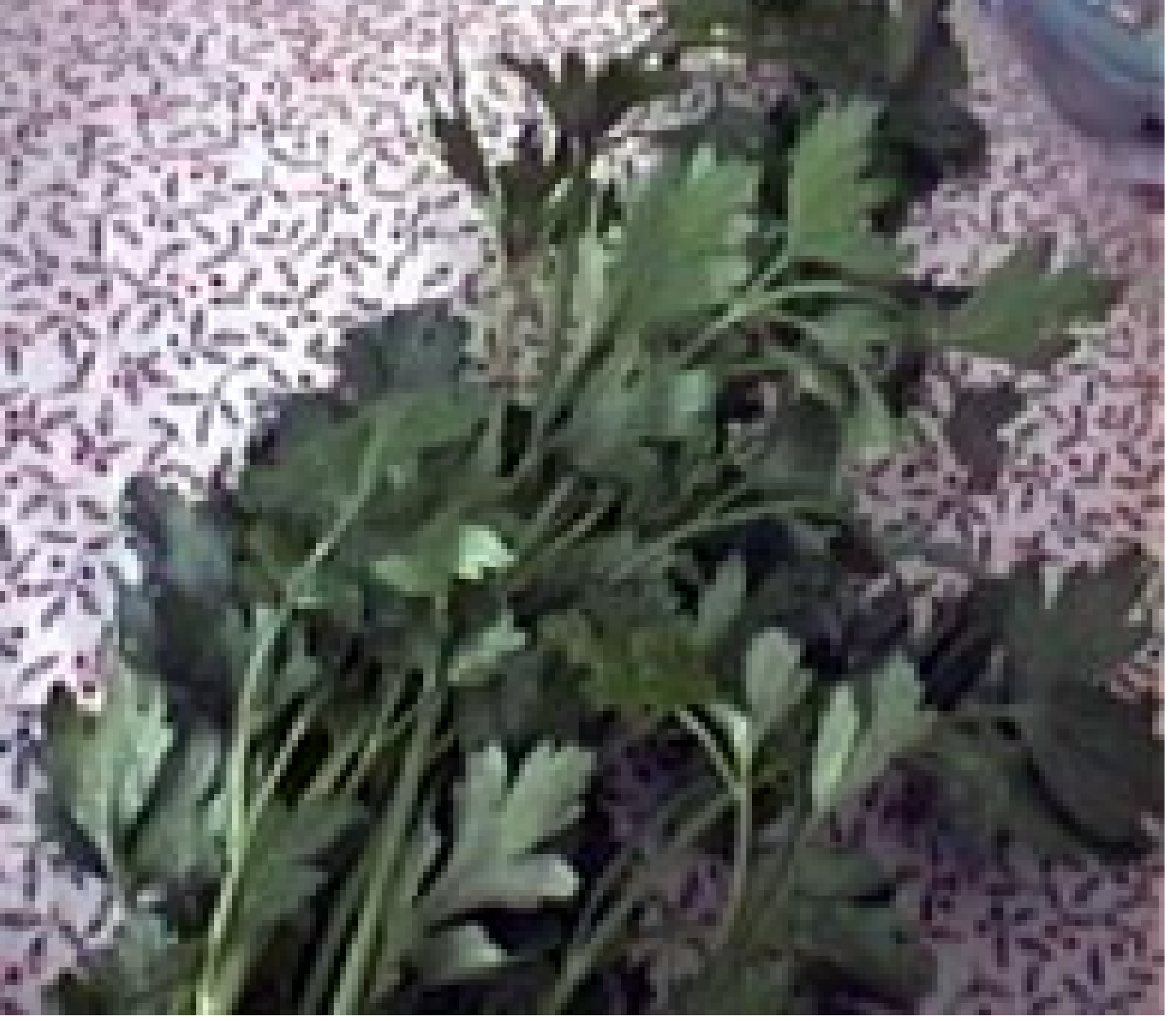
- Increases Urine Production,
- Fights Obeseity,
- Calms Cramps,
- Is a Laxative,

- Sedative
  and used with success against
- Epilepsy
  and
- Huntington disease

Aztec Method of Use

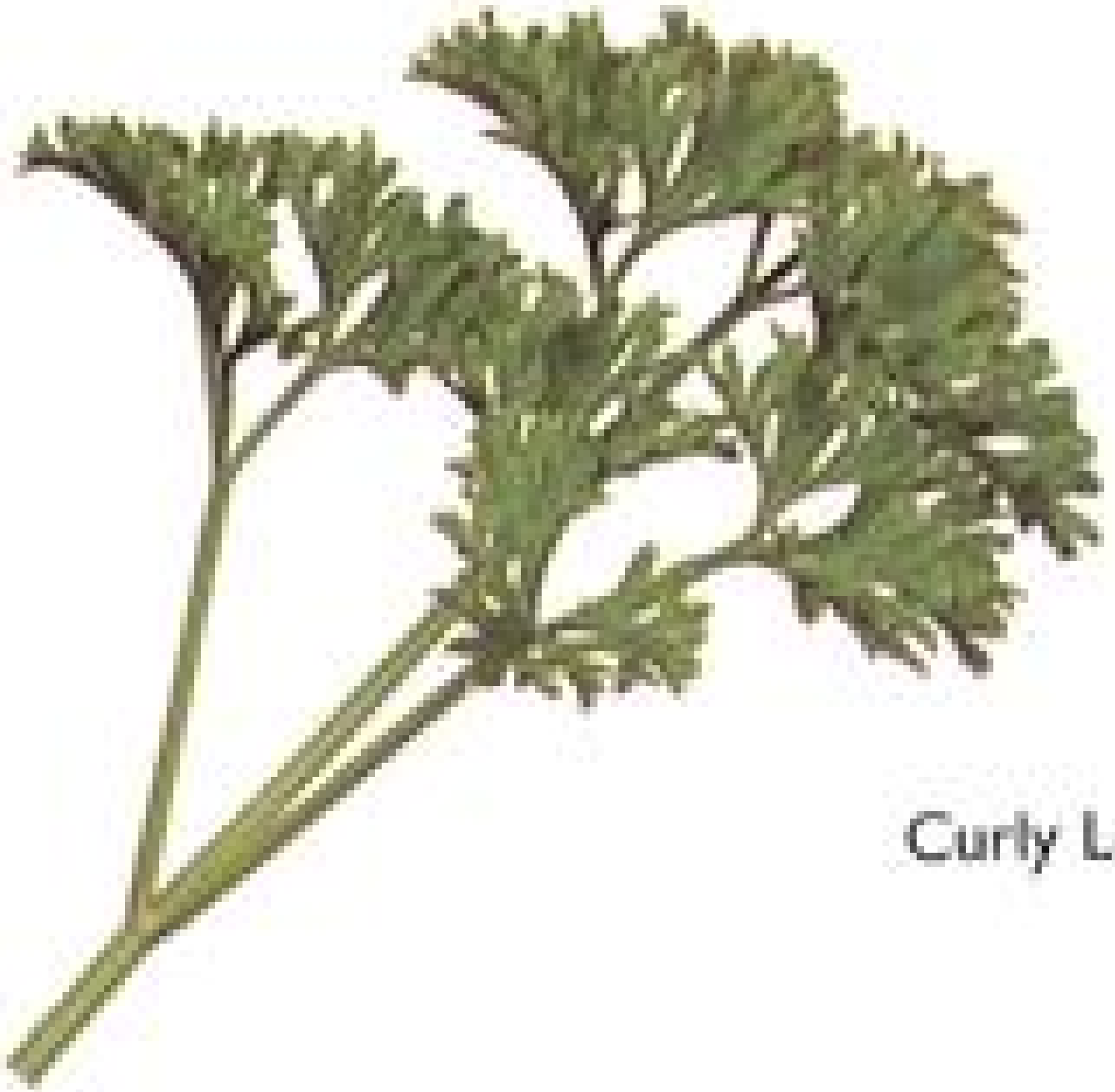
- **To Fight Obeseity:** Take 3 cups a day of the boiled mixture consisting of 30 grams of Tumbavaquero Root to 1/2 Liter of water.
- **Drink 1 cup 3 times a day of the boiled mixture consisting of 15 grams of Tumbavaquero Root to 1/2 Liter of water.**

Must Not be Given to Small Children
or Used for a Prolonged Period of Time!

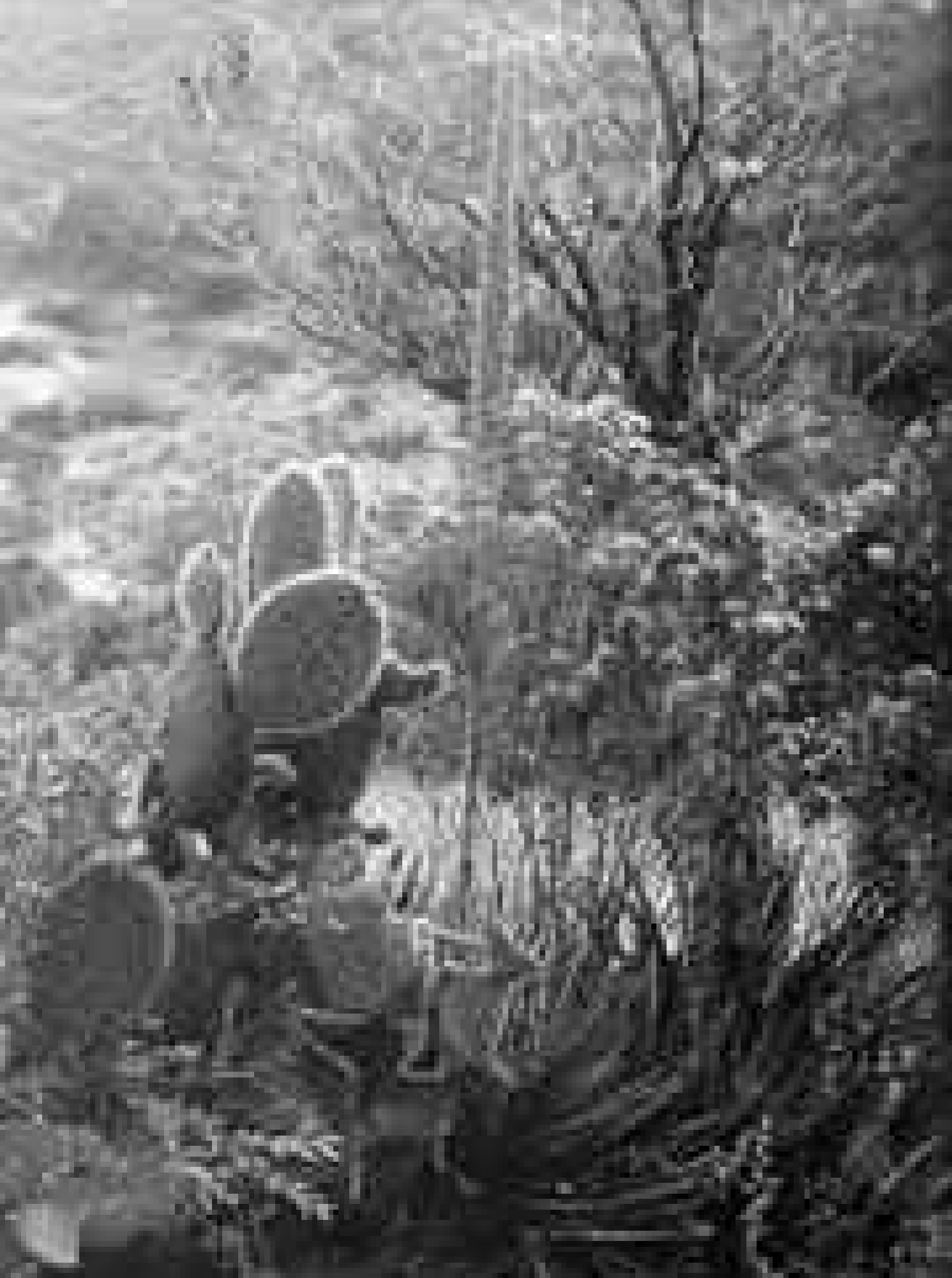


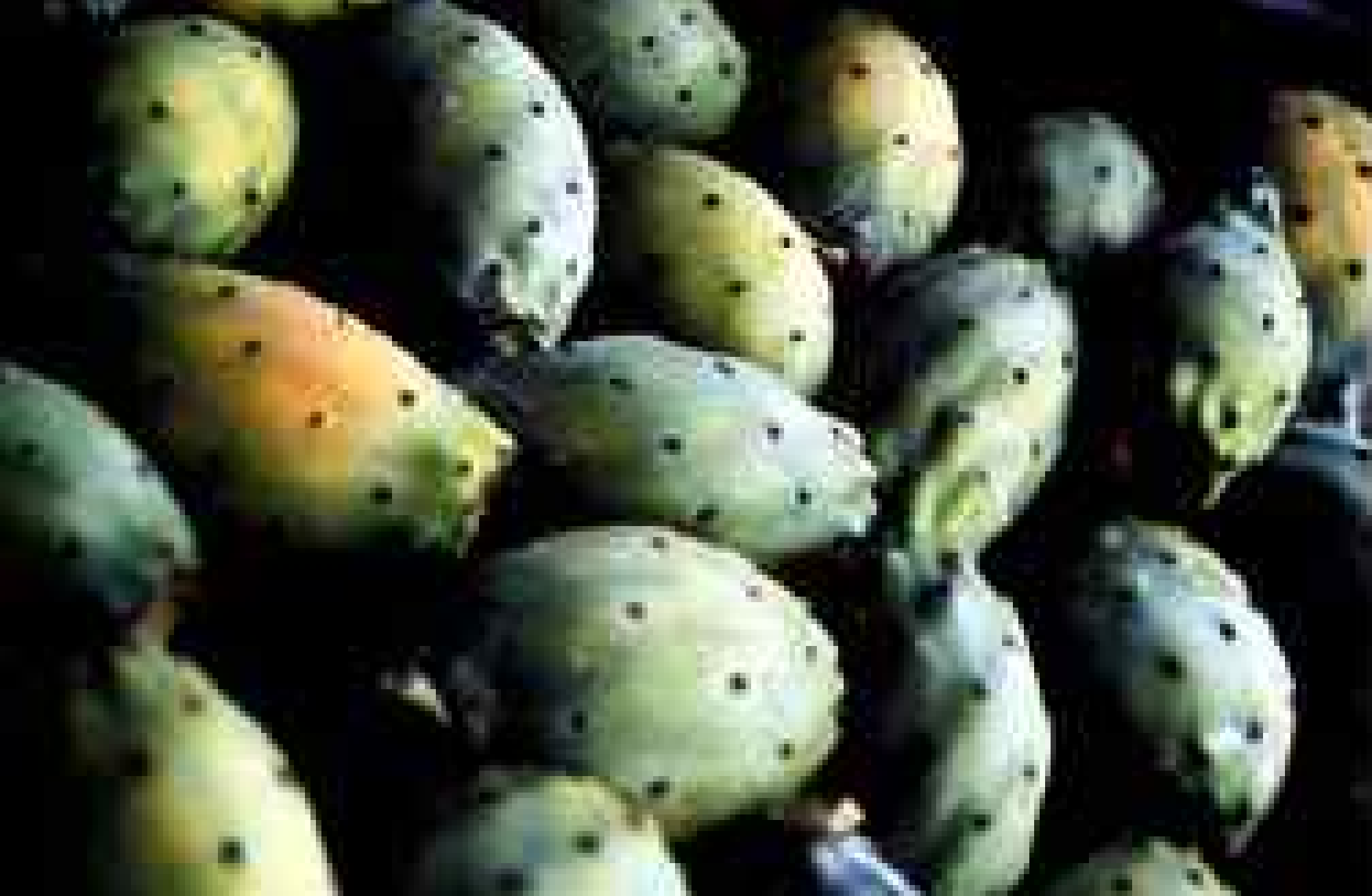

PAPAYA


Carica papaya
Caricaceae
Gerald D. Carr

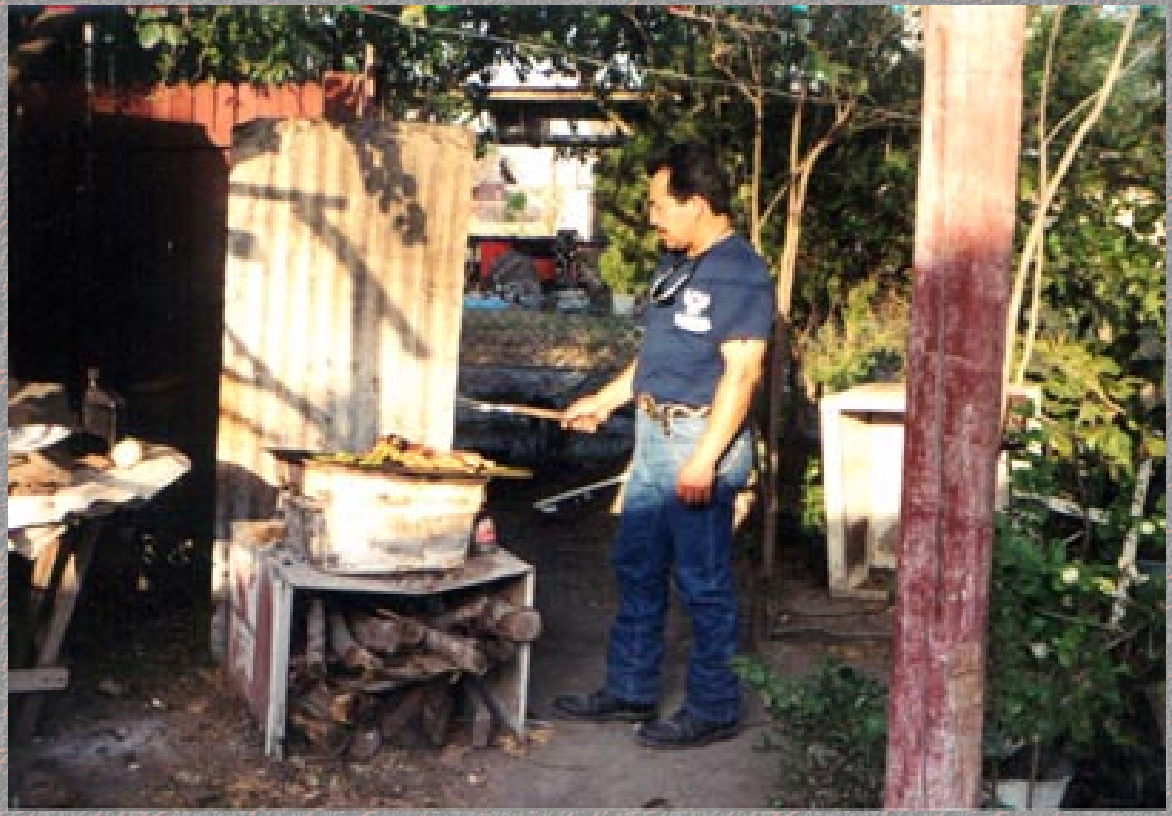


Curly Leaf Parsley





This is a picture of my mom scraping the spines off of nopalitos (prickly pear cactus)



This is a picture of Cuco grilling Nopalitos and Chicken(and a turkey drumstick)

Here you have my brother inlaw Refugio or Cuco, as he likes to be called, cooking Nopalitos and Chicken over a Mezquite fire

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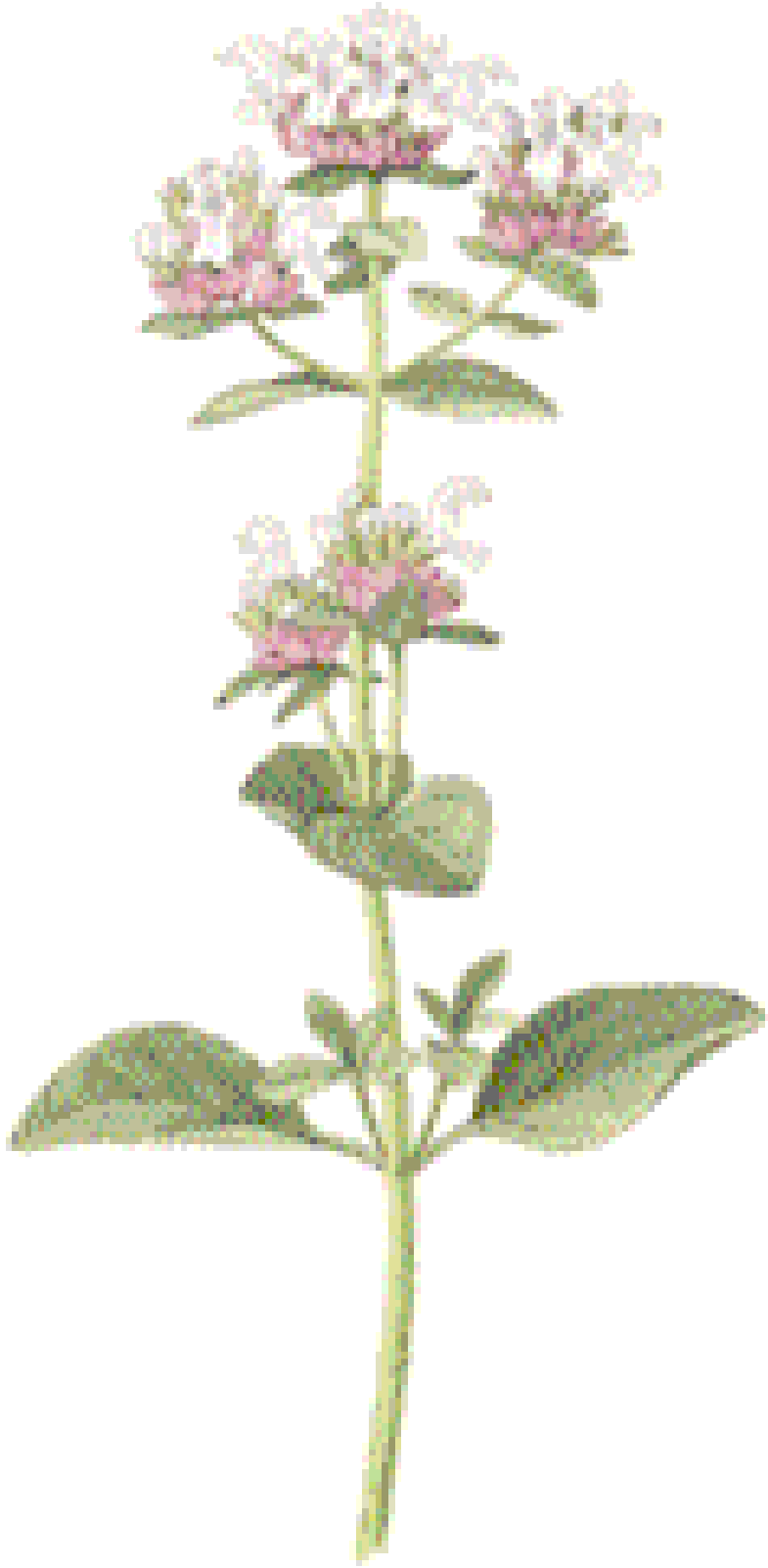
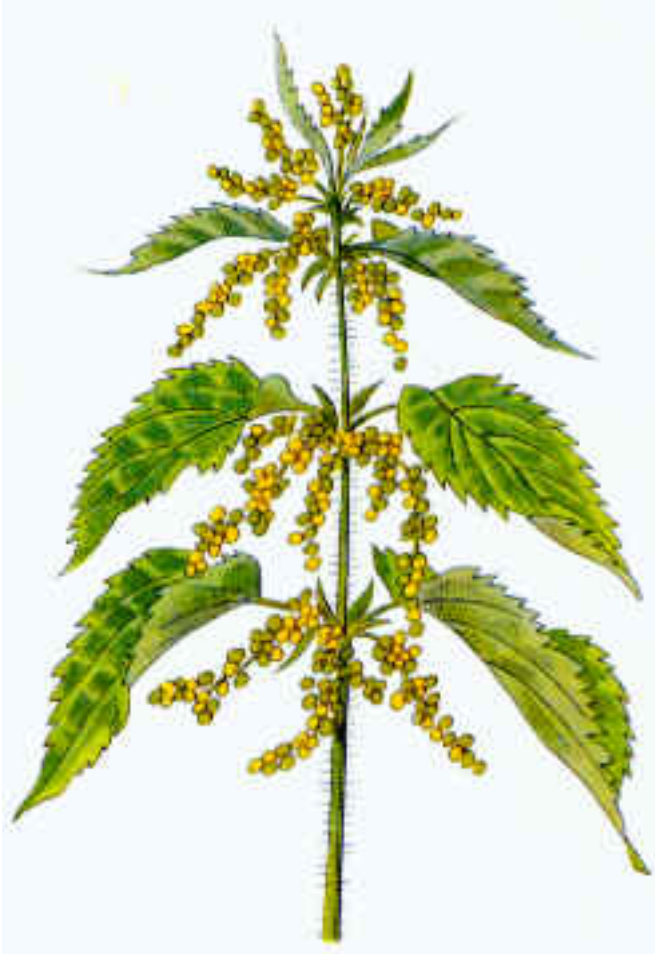
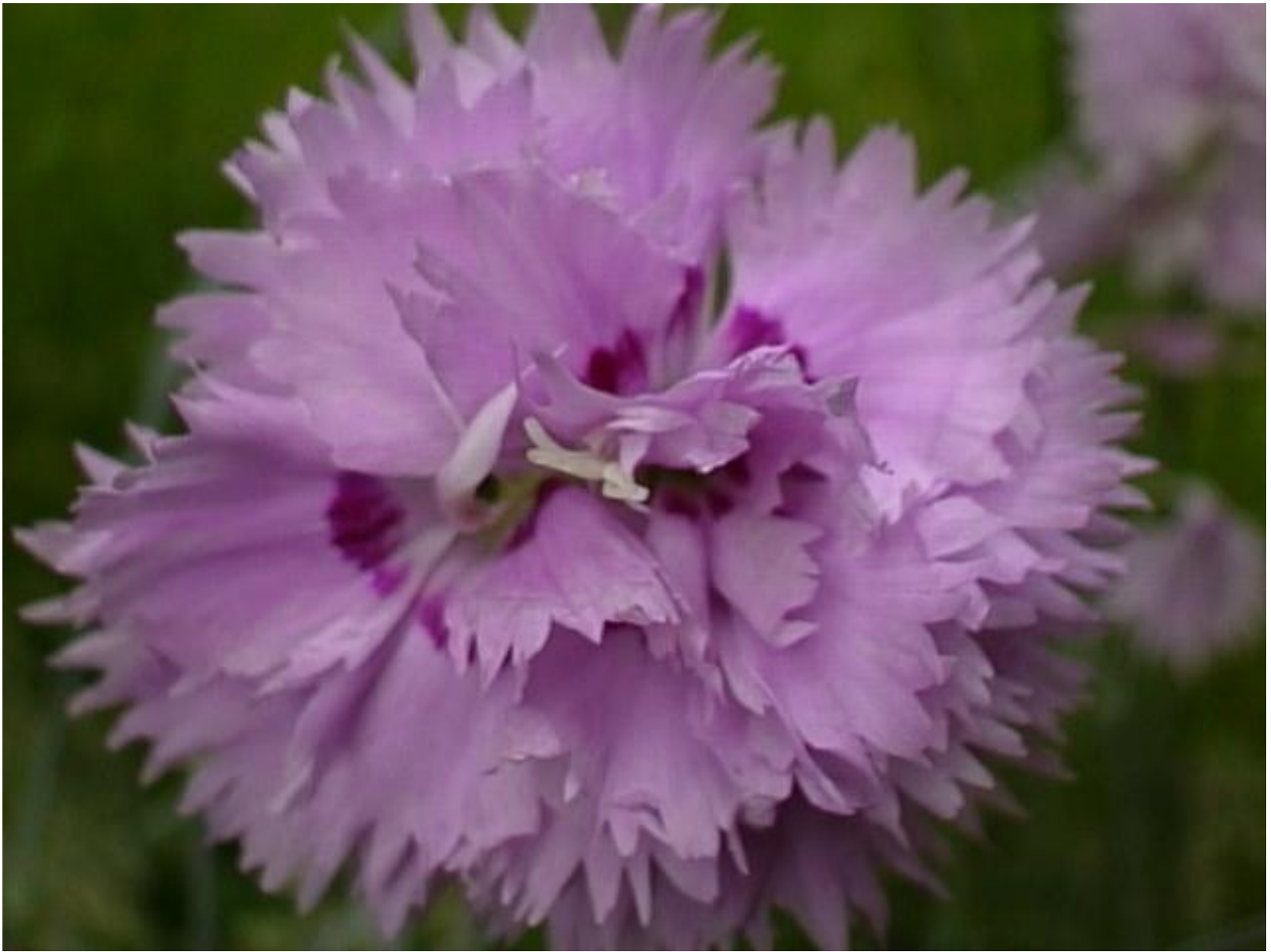
CAUTION: This presentation is not a guide to the identification of plants or their use as a substitute for standard medical treatments. Many plants with medicinal properties are also toxic and frequently FATAL if taken at incorrect dosages or if not prepared in a specific fashion. We do not advocate the consumption of reputed medicinal plant products without prior consultation with your physician or other natural plant products professional. Consult Your Physician Before Using a Herbal Remedy!

This is a picture of ready to eat nopalitos.(notice the saute onions and cilantro)







A Guide to Medicinal and Aromatic Plants

Welcome to the Medicinal and Aromatic Plant home page, sponsored by the Center for New Crops and Plant Products. The **Guide to Medicinal and Aromatic Plants** has several main components:

Plant/Crop Descriptors	The plant/crop descriptors are general monographs providing background information about each herb plant. Plants are listed in alphabetical order by common and Latin names.
Guide to Herb Varieties	The Guide to Herb Varieties provides a listing of herb varieties available from commercial sources.
Sources of Herb Seeds and Plants	The herb seed and plants directory provides a guide to public and commercial sources of these plants.
Botanical Companies Database	Searchable database of companies in the botanical products industry. This project was funded in part by ASNAPP
Flavor, Fragrance and Essential Oils Companies Database	Searchable database of companies in the flavor, fragrance and essential oils industries. This project was funded in part by ASNAPP
Links to Other Web Sites	Links provides a direct bridge and listing to other related web sites.

You can also find:

Aromatic, Spice, and Medicinal Plants	General information about this site, instruction for use, acknowledgments, a comment/suggestion form, and information on contacting our personnel.
NewCROP	This will bring you into our main new crop server (NewCROP) of which this site can be considered a subset built to highlight information on these commodities of plants. NewCROP offers the most comprehensive library and compilation of new and alternative crop information available on the world-wide web.

We hope that this web site will provide technical assistance to you in your search for sound scientific information about medicinal, spice and aromatic plants, and in particular be of benefit in the introduction and production of these unique and fascinating specialty crops and natural plant products.

Aromatic and Medicinal Plants Index

Amomum cardamomum

Ancistrocladus korupensis

Anethum graveolens

Angelica archangelica

Angelica atropurpurea

Angostura

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Annatto

Anthriscus cerefolium

Apium graveolens

Apocynum cannabinum

Aralia nudicaulis

Araliopsis tabouensis

Arborvitae

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Arctostaphylos uva-ursi

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Balm-of-Gilead poplar

Bamboo greenbrier

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Basil

Bayberry

Bay laurel

Bearberry

Belladonna

Benzoin

Berberis aquifolium

Bergamont

Betula lenta

Bilberry

Bitter kola

Bitter nightshade

Bittersweet

Bixa orellana

Black cherry

Blackcohosh

Blackhaw

Black willow

Blessed Thistle

Bloodroot

Blue Cohosh

Blueflag Iris

Blue Vervain

Blumea lacera

Bogbean

Boneset

Borago officinalis

Bosonia

Brassica alba

Buchu

Bugleweed

Burdock

Butterfly Weed

Butternut

Button-Snakeroot

Cajeput

Calamus

Calendula officinalis

Calotropis gigantea

Camellia sinensis

Canada Wildginger

Cananga

Caper

Capparis spinosa

Capsicum

Caraway

Carolina-jessamine

Carolina-vanilla

Carum carvi

Cardamom

Carob

Cascara buckthorn

Cassia

Catha edulis

Catnip

Cat's claw

Caulophyllum thalictroides

Celandine

Celastrus scandens

Celery

Ceratonia siliqua

Chamaelirium luteum

Chamaemelum nobile

Chamomile

Chasmanthera dependens

Chelidonium majus

Chelone glabra

Chenopodium ambrosioides anthelminticum

Chervil

Chicory

Chimaphila maculata

Chimaphila umbellata

Chionanthus virginica

Chlorophytum borivilianum

Cichorium intybus

Cimicifuga racemosa

Cinchona

Cinnamon

Cinnamomum cassia

Cinnamonium zeylanicum

Citronella

Clary sage

Cloves

Cnicus benedictus

Coca

Cocoa

Coffee

Coffea arabica

Cohosh bugbane

Cola

Cola acuntinata

Collinsonia canadensis

Coltsfoot

Comfrey

Comptonia peregrina

Conium maculatum

Coptis trifolia

Coriander

Coriandrum sativum

Cornus florida

Costus

Cowhage

Cranberrybush

Crocus sativus

Cryptolepis sanguinolenta

Cubeba

Culantro

Culvers-physic

Cumin

Cuminum cyminum

Curcuma longa

Cymbopogon spp.

Cypripedium parviflorum

Cypripedium pubescens

Damiana

Dandelion

Datura stramonium

Deertongue

Devil's Claw

Digitalis spp.

Dill

Dioscorea villosa

Dittany of Crete

Dronpushpi

Dryopteris filixmas

Dryopteris marginalis

Echinacea angustifolia

Elecampane

Eleuthero

Epazota

Ephedra

Epigaea repens

Erigeron canadensis

Eriodictyon californicum

Eryngium aquaticum

Eryngium foetidum

Ethiopian pepper

Eucalyptus

Euonymus atropurpureus

Eupatorium perfoliatum

Euphorbia

Euphorbia lathyris

Evening Primrose

Eyebright

False-Hellebore

Fangfeng

Fennel

Fenugreek

Feverfew

Figwort

Flowering Dogwood

Foeniculum vulgare

Foxglove

Frankincense

Fraxinus americana

Fringetree

Galbanum

Galium odoratum

Garcinia kola

Garlic

Gaultheria procumbens

Gelsemium sempervirens

Gentian

Geranium

Geranium maculatum

Ginger

Ginkgo

Ginseng

Ginseng, American

Ginseng, Asian

Ginseng, Siberian

Glycycrhiza glabra

Gnaphalium obtusifolium

Golden groundsel

Goldenrod

Goldenseal

Goldthread

Gotu Kola

Grains of Paradise

Grindelia robusta

Grindelia squarrosa

Ground-Ivy

Guaiac

Guar

Guarana

Gum Plant

Guma

Hamamelis virginiana

Hawthorn

Hazel Alder

Hedeoma pulegiodies

Hemlock

Hemp dogbane

Henna

Hepatica acutiloba

Hepatica americana

Hibiscus abelmoschus

Hibiscus

Hophornbeam

Hops

Hoptree

Horehound

Horsechestnut

Horse nettle

Horseradish

Horseweed

Humulus lupulus

Hydrangea arborescens

Hydrastis canadensis

Hypericum perforatum

Hyssopus officinalis

Hyssop

Ilex verticillata

Indian hemp

Indigo

Indigofera species

Inula helenium

Ipecac

Iris versicolor

Jack-In-The-Pulpit

Jasmine

Jasminum spp.

Jeffersonia diphylla

Jimson Weed

Juglans cinerea

Juniperus communis

Kapikachu

Karya Gum

Kava Kava

Khat

Kola

Labdanum

Lactuca scariola

Ladyslipper

Larix laricina

Laurus nobilis

Lavendula spp.

Lavender

Lawsonia inermis

Leather Woodfern

Lemon balm

Lemongrass

Lemon Verbena

Lemongrass

Leptandra virginica

Leucas cephalotes

Levisticum officinale

Liatris odoratissima

Licorice

Liverleaf

Lobelia infata

Lovage

Lycopus virginicus

Mace

Mad-Dog Skullcap

Mahuang

Marigold

Marjoram

Marrubium vulgare

Marshmellow

Mayapple

Maypop

Melaleuca quinquenervia

Melissa officinalis

Menispermum canadense

Mentha piperita

Mentha

Mentha pulegium

Menyanthes trifoliata

Milk Thistle

Mint

Monarda

Moonseed

Mucuna pruriens

Mullein

Muskdana

Mustard

Myrica carolinensis

Myrica cerifera

Myristica fragrans

Myrrh

Myrrhis odorata

Narrow Dock

Nasturtium officinale

Nauclea latifolia

Neem

Nepeta cataria

Nepeta hederacea

Nettle

Nutmeg

Ocimum basilicum

Olibanum

Onion

Oregano

Oregon hollygrape

Origanum dictamnus

Origanum majorana

Origanum spp.

Ostrya virginiana

Oxydendrum arboreum

Pacific Yew

Panax species

Papaver somniferum

Parsley

Parthenium hysterophorus

Passiflora incarnata

Passionflower

Patchouli

Pelargonium graveolens

Pennyroyal

Peppermint

Petroselinum crispum

Phytolacca americana

Pimenta dioica

Pimenta-longa

Pimpinella anisum

Pinkroot

Pinus strobus

Piper hispidinervum

Piper methysticum

Pipsissewa

Plantago spp.

Plantain

Podophyllum peltatum

Poison Hemlock

Pokeberry

Polygala senega

Polygonum

Poppy

Populus balsamifera

Populus candicans

Prickly-Ash

Prickly Lettuce

Prunus serotina

Psyllium

Ptelea trifoliata

Purple coneflower

Purplestem Angelica

Purple Trillium

Quack grass

Quercus alba

Rhamnus purshiana

Rhus glabra

Rose

Rosella

Rosmarinus officinalis

Rosemary

Rue

Rumex crispus

Ruta graveolens

Safed moosli

Saffron

Sage

Salix nigra

Salvia officinalis

Salvia sclarea

Sambucus canadensis

Sandalwood

Sanguanaria canadensis

Sarsaparilla

Sassafras variifolium

Satureja spp.

Savory

Saw palmetto

Scrophularia marilandica

Scutellaria lateriflora

Seneca-Snakeroot

Senecio aureus

Senna

Serenoa repens

Serenoa serrulata

Sesame

Sesamum indicum

Skunkcabbage

Slippery Elm

Smilax pseudo-china

Smooth Hydrangea

Smooth Sumac

Snakeroot

Solanum carolinense

Solanum dulcamara

Solidago odora

Solidago suaveolens

Sorbus americana

Sourwood

Southernwood

Spathyema foetida

Spigelia marilandica

St. John's Wort

Stevia rebaudiana

Stinging Nettles

Sweet birch

Sweet Cudweed

Sweetfern

Sweetflag

Symphytum officinale

Tagetes

Tamarack

Tanacetum vulgare

Tansy

Taraxacum officinale

Tarragon

Taxus

Tea

Theobroma cacao

Thuja occidentalis

Thyme

Thymus spp.

Tilia americana

Tragacanth

Trailing-Arbutus

Trigonella foenum-graecum

Trilisa odoratissima

Trillium erectum

Tsuga canadensis

Tumeric

Turtlehead

Tussilago farfara

Twinleaf

Ulmus fulva

Uncaria guianensis

Uncaria tomentosa

Valerian

Valerianella olitoria

Vanilla

Vanilla planifolia

Veratrum viride

Verbascum thapsus

Verbena hastata

Veronica virginica

Veronicastrum virginica

Vervain

Viburnum prunifolium

Viburnum trilobum

Wahoo

Watercress

West Indian Bay

White Ash

White Mustard

White Oak

White Pine

Wild Geranium

Wild-Sarsaparilla

Wild Yam

Winterberry

Wintergreen

Witch-Hazel

Woodruff

Wormseed

Wormwood

Xanthorhiza simplicissima

Xylopia aethiopica

Yarrow

Yellowdock

Yellowroot

Yellow Wild-Indigo

Yerba Santa

Ylang Ylang

Yohimbe

Zingiber officinale

Zanthoxylum americanum

Zanthoxylum clava-herculis

Muskdana or Ambrette (*Abelmoschus moschatus*): Aromatic and Medicinal

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Abelmoschus moschatus (L.) Medic, Malvaceae (Syn. *Hibiscus abelmoschus* L.) is a tropical weedy shrub native to India valued for its scented seed. Ambrette is a close relative to Okra, a popular horticultural crop. The genus *Abelmoschus* has six species distributed in the South and South East Asia and in North Australia. *Abelmoschus moschatus* Medic., *A. manihot* (L.) Medic., and *A. esculentus* (L.) Moench, contain wild and cultivated forms, and *A. ficulneus, A. crinitus,* and *A. angulosus*, are only wild. *Abelmoschus manihot, A. moschatus* and *A. esculentus* are compared in Table 1. In Hindi, it is popularly known as *mushkdana*, *kasturi bhendi* (kasturi = musk; *bhendi* = lady's finger). In other Indian languages it is known as *gukhia korai* (Assamese), *kasturi bhenda* (Telgu), *kattukasturi* (Malylam), *varttilai kasturi* (Tamil), *lalkasturika* (Sanskrit) (Krishnamurty 1993). The area under ambrette is presently low in India but is increasing rapidly (Oudhia and Tripathi 2000) with seed exports to France, Germany, Japan, Singapore, Spain for its use as an aromatic oil. Indian drug manufacturers are introducing new herbal drugs containing ambrette for medicinal use.

Table 1. Comparison of *A. esculentus*, *A. manihot* and *A. moschatus*.

Particulars	*A. esculentus* (n=65)	*A. manihot* (n=60)	*A. moschatus* (n=36)
English name	Okra, Gumbo	Manihot-mallow	Musk-mallow
Place of origin	Old world tropics	East Asia	India
Life cycle	Annual	Annual or perennial	Annual or biennial

Leaves	Large often 12 inch or more across; cordate-ovate.	Leaves large ovate to nearly orbicular in outline 6-12 inch or more. Manihot probably suggests the resemblance of leaves to those of cassava or manihot	With variously 3-9 lobed or divided. Margins coarsely toothed
Floral characteristics	Calyx large and spathe-like; bracts of involucre linear; pod 4-5 inch or more long.	Calyx large and spathe-like; bracts ovate to oblong.	Calyx large and spathe-like; Bracts of involucre linear; pod 3 inch or less long.
Flower colour	Yellow with a reddish center	Yellow or whitish with a dark brown center.	Yellow with a crimson center.

Botany

Erect hispid herbs or undershrubs, 0.5-2.5 meters high, with a long slender tap root. Leave extremely variable, lower suborbicular in outline, cordate, lower or palmately 3-7 lobed, upper narrower, hastate or sagittate at the base with linear-oblong or triangular lobes. Flowers regular, bisexual, involucral bracts 8-12, hairy yellow with purple centre. Fruits capsule fulvous hairy, oblong lanceolate, acute. Seeds subreniform and blackish (Verma et al. 1993; Agharkar 1991; Lindley 1985).

Uses

Ambrette oil obtained from seeds possess an odor similar to that of musk and its aromatic constitents have long been used in perfumery industry. Different grades of essential, or aromatic absolute, are marked in Europe as high-grade perfumes (Singh et al. 1996) The seeds are valued for the volatile oil present in the seed coat. Seed analysis report 11.1% moisture, 31.5% crude fiber; 14.5% lipids, 13.4% starch, 2.3% protein, volatile oil (0.2-0.6%) and ca/ 5% resin (Srivastava 1995).

Analysis of volatiles report myricetin-3-glucoside and a glycoside of cyanidin in flowers, an aromatic constituent in seeds, beta-sitosteral and its beta-D-glucoside, myricetin and its glucoside in leaves and petals and beta-sitosterol from dry fruit husk (Rastogi and Mehrotra 1991a,b).

In India, roots, leaves (rarely), and seeds of ambrette are considered valuable traditional medicines. The bitter, sweet, acrid, aromatic seeds are used as a tonic and are considered "cooling, aphrodisiac, opthalmic, cardiotonic, digestive, stomachic, constipating, carminative, pectoral, diuretic, stimulant, antispasmodic, deodorant, and effective against "*kapha*" and "*vata*," intestinal complaints, stomatitis; and diseases of the heart, allays thirst and checks vomiting. According to *Unani* system of medicine seeds allay thirst, cure stomatitis, dyspepsia, urinary discharge, gonorrhea, leucoderma and itch. Roots and leaves are cures for gonorrhea (Agharkar 1991). Even use against venomous reptiles has been reported (Lindley 1985).

Cultivation

Ambrette is cultivated as pre-kharif crop in India. It is usually sown in March–April but as late as the first week of July in Central India (Oudhia 2001a). Seed rates of 41g/kg are optimum (Oudhia 2000b). Application of dried Neem leaves (500Kg/ha) at last ploughing increased oil content and quality. April sown crop start flowering in September; fruits ripen from November to January and are harvested when fully mature. Applications of fertilizers improves growth of plant and seed yields (Krishnamurty 1993) but studies conducted by SOPAM indicate the use of chemical inputs resulted in negative impact on oil content and quality. Harvested capsules are sun dried and seeds dehisce when the capsules burst. The oil for perfumery is extracted by steam distillation of crushed seeds.

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Achillea millefolium L.

Compositae

Yarrow, milfoil

We have information from several sources:

Herbs: An Indexed Bibliography. 1971-1980—J.E. Simon, A.F. Chadwick and L.E. Craker.

The Herb Hunters Guide—Sievers, A.F. 1930.

Last updated: NaN/NaN/NaN by ch

Acorus calamus L.

Araceae

Sweetflag, calamus, calamus root, flag root, myrtle flag

We have information from several sources:

The Herb Hunters Guide—Sievers, A.F. 1930.

Food and feed crops of the United States—Magness, J.R., G.M. Markle, C.C. Compton. 1971.

Last updated: NaN/NaN/NaN by ch

Horsechestnut

Aesculus hippocastanum L.

Other common names.—Hippocastanum, bongay, konker-tree

Habitat and range.—This tree is largely cultivated in this country as an ornamental shade tree and occasionally escapes from cultivation.

Description.—The horsechestnut is a rather large tree, usually reaching 40 feet or more in height. The large leaves are composed of five to seven leaflets from 4 to 8 inches long, pointed, and broader at the top than at the base. In June it produces handsome flower clusters sometimes a foot in length, consisting of large white flowers spotted with yellow and red. The fruit is round and prickly and contains a large shining brown nut.

Part used.—Horsechestnut bark is collected in autumn, and preference is given to the bark from the younger branches.

Figure 66.—Horsechestnut (*Aesculus hippocastanum*)

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update March 19, 1998 by aw

New Antimicrobials of Plant Origin

Maurice M. Iwu, Angela R. Duncan, and Chris O. Okunji

Infectious diseases account for approximately one-half of all deaths in tropical countries. In industrialized nations, despite the progress made in the understanding of microbiology and their control, incidents of epidemics due to drug resistant microorganisms and the emergence of hitherto unknown disease-causing microbes, pose enormous public health concerns. Historically, plants have provided a good source of antiinfective agents; emetine, quinine, and berberine remain highly effective instruments in the fight against microbial infections. Phytomedicines derived from plants have shown great promise

in the treatment of intractable infectious diseases including opportunistic AIDS infections. Plants containing protoberberines and related alkaloids, picralima-type indole alkaloids and garcinia biflavonones used in traditional African system of medicine, have been found to be active against a wide variety of micro-organisms. The profile of known drugs like *Hydrastis canadensis* (goldenseal), *Garcinia kola* (bitter kola), *Polygonum* sp., *Aframomum melegueta* (grains of paradise) will be used to illustrate the enormous potential of antiinfective agents from higher plants. Newer drugs such as *Xylopia aethiopica*, *Araliopsis tabouensis*, *Cryptolepis sanguinolenta*, *Chasmanthera dependens* and *Nauclea* species will be reviewed.

INFECTIOUS DISEASE

World wide, infectious disease is the number one cause of death accounting for approximately one-half of all deaths in tropical countries. Perhaps it is not surprising to see these statistics in developing nations, but what may be remarkable is that infectious disease mortality rates are actually increasing in developed countries, such as the United States. Death from infectious disease, ranked 5th in 1981, has become the 3rd leading cause of death in 1992, an increase of 58% (Pinner et al. 1996). It is estimated that infectious disease is the underlying cause of death in 8% of the deaths occurring in the US (Pinner et al. 1996). This is alarming given that it was once believed that we would eliminate infectious disease by the end of the millenium. The increases are attributed to increases in respiratory tract infections and HIV/AIDS. Other contributing factors are an increase in antibiotic resistance in nosicomial and community acquired infections. Furthermore, the most dramatic increases are occurring in the 25–44 year old age group (Pinner et al. 1996).

These negative health trends call for a renewed interest in infectious disease in the medical and public health communities and renewed strategies on treatment and prevention. Proposed solutions are outlined by the CDC as a multi-pronged approach that includes: prevention, (such as vaccination); improved monitoring; and the development of new treatments. It is this last solution that would encompass the development of new antimicrobials (Fauci 1998).

Historic Use of Plants as Antimicrobials

Historically, plants have provided a source of inspiration for novel drug compounds, as plant derived medicines have made large contributions to human health and well-being. Their role is two fold in the development of new drugs: (1) they may become the base for the development of a medicine, a natural blueprint for the development of new drugs, or; (2) a phytomedicine to be used for the treatment of disease. There are numerous illustrations of plant derived drugs. Some selected examples, including those classified as antiinfective, are presented below.

The isoquinoline alkaloid emetine obtained from the underground part of *Cephaelis ipecacuanha,* and related species, has been used for many years as and amoebicidal drug as well as for the treatment of abscesses due to the spread of *Escherichia histolytica* infections. Another important drug of plant origin

with a long history of use, is quinine. This alkaloid occurs naturally in the bark of *Cinchona* tree. Apart from its continued usefulness in the treatment of malaria, it can be also used to relieve nocturnal leg cramps. Currently, the widely prescribed drugs are analogs of quinine such as chloroquine. Some strains of malarial parasites have become resistant to the quinines, therefore antimalarial drugs with novel mode of action are required.

Similarly, higher plants have made important contributions in the areas beyond antiinfectives, such as cancer therapies. Early examples include the antileukaemic alkaloids, vinblatine and vincristine, which were both obtained from the Madagascan periwinkle (*Catharanthus roseus* syn. *Vinca roseus*) (Nelson 1982). Other cancer therapeutic agents include taxol, homoharringtonine and several derivatives of camptothein. For example, a well-known benzylisoquinoline alkaliod, papaverine, has been shown to have a potent inhibitory effect on the replication of several viruses including cytomegalovirus, measles and HIV (Turano et al. 1989). Most recently, three new atropisomeric naphthylisoquinoline alkaloid dimers, michellamines A, B, and C were isolated from a newly described species tropical liana *Ancistrocladus korupensis* from the rainforest of Cameroon. The three compounds showed potential anti-HIV with michellamine B being the most potent and abundant member of the series. These compounds were capable of complete inhibition of the cytopathic effects of HIV-1 and HIV-2 on human lymphoblastoid target cell in vitro (Boyd et al. 1994).

The Development of Phytomedicines and the Ethnomedicinal Approach

The first generation of plant drugs were usually simple botanicals employed in more or less their crude form. Several effective medicines used in their natural state such as cinchona, opium, belladonna and aloe were selected as therapeutics agents based on empirical evidence of their clinical application by traditional societies from different parts of the world. Following the industrial revolution, a second generation of plant based drugs emerged based on scientific processing of the plant extracts to isolate "their active constituents." The second-generation phytopharmaceutical agents were pure molecules and some of the compounds were even more pharmacologically active than their synthetic counterparts. Notable examples were quinine from *Cinchona*, reserpine from *Rauvolfia*, and more recently taxol from *Taxus* species. These compounds differed from the synthetic therapeutic agents only in their origin. They followed the same method of development and evaluation as other pharmaceutical agents.

The sequence for development of pharmaceuticals usually begins with the identification of active lead molecules, detailed biological assays, and formulation of dosage forms in that order, and followed by several phases of clinical studies designed to established safety, efficacy and pharmacokinetic profile of the new drug. Possible interaction with food and other medications may be discerned from the clinical trials.

In the development of "Third Generation" phytotherapeutic agents a top-bottom approach is usually adopted. This consists of first conducting a clinical evaluation of the treatment modalities and therapy as administered by traditional doctors or as used by the community as folk medicine. This evaluation is then

followed by acute and chronic toxicity studies in animals. Studies should, when applicable, include cytotoxicity studies. It is only if the substance has an acceptable safety index would it be necessary to conduct detailed pharmacological/ biochemical studies.

Formulation and trial production of the dosage forms are structured to mimic the traditional use of the herb. The stability of the finished product is given careful attention during the formulation of the final dosage form. This is a unique blend of the empiricism of the earlier first *generation* botanicals with the experimental research used to prove the efficacy and safety of second *generation* isolated pure compounds. Several pharmaceuticals companies are engaged in the development of natural product drugs through the isolation of the so-called active molecules from plant extracts.

PRESENT USE OF PLANTS AS ANTIMICROBIALS

It is estimated that today, plant materials are present in, or have provided the models for 50% Western drugs (Robbers 1996). Many commercially proven drugs used in modern medicine were initially used in crude form in traditional or folk healing practices, or for other purposes that suggested potentially useful biological activity. The primary benefits of using plant derived medicines are that they are relatively safer than synthetic alternatives, offering profound therapeutic benefits and more affordable treatment.

Therapeutic Benefit

Much of the exploration and utilization of natural products as antimicrobials arise from microbial sources. It was the discovery of penicillin that led to later discoveries of antibiotics such as streptomycin, aureomycin and chloromycetin. (Trease 1972). Though most of the clinically used antibiotics are produced by soil micro-organisms or fungi, higher plants have also been a source of antibiotics (Trease 1972). Examples of these are the bacteriostatic and antifugicidal properties of *Lichens,* the antibiotic action of allinine in *Allium sativum* (garlic), or the antimicrobial action berberines in goldenseal (*Hydrastis canadensis*) (Trease 1972). Plant based antimicrobials represent a vast untapped source for medicines. Continued and further exploration of plant antimicrobials needs to occur. Plants based antimicrobials have enormous therapeutic potential. They are effective in the treatment of infectious diseases while simultaneously mitigating many of the side effects that are often associated with synthetic antimicrobials. They are effective, yet gentle. Many plants have tropisms to specific organs or systems in the body. Phytomedicines usually have multiple effects on the body. Their actions often act beyond the symptomatic treatment of disease. An example of this is *Hydrastis canadensis*. *Hydrastis* not only has antimicrobial activity, but also increases blood supply to the spleen promoting optimal activity of the spleen to release mediating compounds (Murray 1995).

Economic Benefit

World wide, there has been a renewed interest in natural products. This interest is a result of factors such as: consumer's belief that natural products are superior; consumer's dissatisfaction with conventional

medicines; changes in laws allowing structure-function claims which results in more liberal advertising; aging baby boomers; national concerns for health care cost.

Sales of products in this market have increased dramatically in the last decade. Sales of botanical products in the United States have reached $3.1 billion of the $10.4 billion dollar dietary supplement industry 1996 (NBJ June 1998). The industry anticipates growth on the order of 15–20% into the new millenium (Herbalgram 1996). This growth rate will be maintained in an industry that is still considered to be in its infancy. Many plants that were previously wildcrafted will need to be grown domestically to meet the demands of the consumer. This represents many opportunities for the cultivation of crops for this industry.

A market based illustration of the need for plant based antimicrobials is demonstrated by the dissection of the herbal products market. In reviewing the top botanicals used as antiinfectives, the primary botanical used as an antimicrobial is *Hydrastis* with sales of 4.7% in 1995 (Gruenwald 1997). While antiinfectives agents make up 24 % of the pharmaceutical market (1992 Census of Manufactures 1994).

A similar, analysis of *Hypericum* (St. John's wort), demonstrates the value of such an evaluation. Though *Hypericum* is an antiviral, it is primarily used for its antidepressant activity. In 1995 it was not among the top selling herbs (Gruenwald 1997). However, by 1997, it had become an overnight success, with sales increasing over 20,000% in the mass market sector (Aarts 1998). The meteoric increase in the sales of *Hypericum* is multifactorial, but one factor in its in popularity was the existence of an unexploited market opportunity. In 1994 21% of pharmaceuticals sold were for the conditions affecting the central nervous system (1992 Census of Manufactures). Most of the drugs sold in this category are for depression. During this period of time, none of the top selling herbs sold had a primary indication for depression. This market hole, coupled with the media exposure produced a market success.

Many market holes exist. When using the same strategy to look at antimicrobial agents there is a similar gap. If the market dissection for antiinfectives is viewed in the same light as the *Hypericum analogy*, then perhaps this market is prime for receiving new plant based antimicrobials.

The potential for developing antimicrobials into medicines appears rewarding, from both the perspective of drug development and the perspective of phytomedicines. The immediate source of financial benefit from plants based antimicrobials is from the herbal products market. This market offers many opportunities for those cultivating new crops, as many of the plants that are wildcrafted today must be cultivated to match the demands of this market. Again *Hydrastis,* one of the top selling antimicrobials in the US herbal market, represents an example of a herb that has undergone domestication. Originally this plant, native to eastern North America, was wild crafted. *Hydrastis,* has been used by Native Americans for many conditions, including as an antimicrobial for infections. Efforts to cultivate this plant were undertaken in order to supply the demands of the herbal products market and to battle it's threatened extinction.

It is vital to be in the position to capitalize on the phytomedicine market, providing environmentally

responsible solutions to public health concerns presented by new trends in infectious disease. In order to be prepared, the industry must be able to sustainably harvest and supply the herbal market. That means we must be able to anticipate the market needs and develop products to satisfy this market.

PLANTS WITH PROMISING ANTIINFECTIVE ACTIVITY

In our organizations, our major emphasis has been on drug discovery from ethnomedicinal information using the "Third Generation Approach." This method differs in that the clinical evaluation in humans takes place before the precise active constituents are known but the chemical composition and safety of the extracts are determined before formulation into dosage forms.

Plants containing protoberberines and related biflavones used in traditional African system of medicine have been found to be active against a wide variety of micro-organisms. Many medicinal plants of Africa have been investigated for their chemical components and some of the isolated compounds have been shown to posses interesting biological activity. Some of these plants are discussed below.

Garcinia kola, bitter kola (Guttiferae)

Garcinia kola, is found in moist forest and grows as a medium size tree, up to 12 m high. It is cultivated and distributed throughout west and central Africa. Medicinal uses include, purgative, antiparasitic, antimicrobial. The seeds are used in the treatment of bronchitis and throat infections. They are also used to prevent and relieve colic, cure head or chest colds and relieve cough. Also the plant is used for the treatment of liver disorders and as a chewing stick (Iwu 1993).

The constituents include—biflavonoids, xanthones and benzophenones. The antimicrobial properties of this plant are attributed to the benzophenone, flavanones. This plant has shown both anti-inflammatory, antimicrobial and antiviral properties. Studies show very good antimicrobial and antiviral properties. In addition, the plant possesses antidiabetic, and antihepatotoxic activities (Iwu 1993).

Aframomum melegueta (Zingiberaceae) Grains of Paradise

This is a spicy edible fruit that is cultivated and occurs throughout the tropics. It is a perennial herb. The medicinal uses of *Aframomum* include aphrodisiac, measles, and leprosy, taken for excessive lactation and post partem hemorrhage, purgative, galactogogue and anthelmintic, and hemostatic agent (Iwu 1993). The constituents are essential oils—such as gingerol, shagaol, paradol. Studies show antimicrobial and antifungal activity and effective against schistosomes (Iwu1993).

Xylopia aethiopica, Ethiopian Pepper (Abbibacceae)

An evergreen, aromatic tree growing up to 20 m high with peppery fruit. It is native to the lowland rainforest and moist fringe forest in the savanna zones of in Africa. Largely located in West, Central and Southern Africa. Medicinal uses of the plant are, as a carminative, as a cough remedy, and as a post partum tonic and lactation aid. Other uses are stomachache, bronchitis, biliousness and dysentery. It is also used externally as a poultice for headache and neuralgia. It is used with lemon grass for female hygiene. It is high in copper, manganese, and zinc (Smith 1996).

Key constituents are diterpenic and xylopic acid. In studies, the fruit as an extracts has been shown to be active as an antimicrobial against gram positive and negative bacteria. Though it has not been shown to be effective against *E. coli* (Iwu 1993). Xylopic acid has also demonstrated activity against *Candida albicans* (Boakye-Yiadom 1977).

Cryptolepis sanguinolenta Lindl. Schltr. (Periplocaceae)

A shrub that grows in the rainforest and the deciduous belt forest, found in the west coast of Africa. Related species appear in the east and southern regions of the continent. Its main medicinal use is for the treatment of fevers. It is used for urinary tract infections, especially *Candida*. Other uses are inflammatory conditions, malaria, hypertension, microbial infections and inflammatory conditions, stomach aches colic (Iwu 1993).

Active principals identified are indo quinoline alkaloids. Studies show inhibition against gram negative bacteria and yeast (Silva 1996). Additionally studies have shown this plant to have bactericidal activity. Clinical studies have shown extracts of the plant were effective in parasitemia. Recent in vitro study shows activity against bacteria specifically, enteric pathogens, most notably *E. coli* (but also staphylococcus, *C. coli*, *C. jejuni*, pseudomonous, salmonella, shigella, streptococcus, and vibrio) and some activity against *candida* (Sawer 1995). It has shown histamine antagonism, hypotensive, and vasodilatory activities (Iwu 1993). In addition it has demonstrative antihyperglcyemic properties (Brierer 1998).

Chasmanthera dependens Hoschst (Menispermaceae)

A woody climber that grows wild in forest margins and savanna. The plant is cultivated. It is used medicinally for venereal disease, topically on sprained joints and bruises and as a general tonic for physical and nervous debilities. The constituents include berberine type alkaloids, palmatine, colombamine, and jateorhizine. Studies show that the berberine sulfate in the plant inhibits lieshmania.

Nauclea latifolia Smith (Rubiaceae)

It is a shrub or small spreading tree that is a widely distributed savanna plant. It is found in the forest and fringe tropical forest. Medicinal uses are as a tonic and fever medicine, chewing stick, toothaches, dental caries, septic mouth and malaria., diarrhea and dysentery (Lamidi 1995).

Key constituents are indole-quinolizidine alkaloids and glycoalkaloids and sapponins. There are studies showing the root has antibacterial activity against gram positive and negative bacteria and antifungal activity (Iwu 1993). It is most effective against Corynebacterium *diphtheriae, Streptobacillis* sp., *Streptococcus* sp., *Neisseria* sp., *Pseudomonas aeruginosa, Salmonella* sp. (Deeni 1991).

Araliopsis tabouensis (Rutaceae)

It is a large evergreen tree found throughout west tropical Africa. Its medicinal use is for the treatment of sexually transmitted diseases. The bark infusion is drunk for gonorrhea in the Ivory Coast (Irvine 1961). Its major constituents are alkaloids. Seven alkaloids have been isolated from the root and stem bark (Fish 1976).

CONCLUSION

Thomas Jefferson wrote that "The greatest service which can be rendered any country is to add a useful plant to it's culture." Plants have forever been a catalyst for our healing. In order to halt the trend of increased emerging and resistant infectious disease, it will require a multi-pronged approach that includes the development of new drugs. Using plants as the inspiration for new drugs provides an infusion of novel compounds or substances for healing disease. Evaluating plants from the traditional African system of medicine, provides us with clues as to how these plants can be used in the treatment of disease. Many of the plants presented here show very promising activity in the area of antimicrobial agents, warranting further investigation.

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Ageratum conyzoides: A Tropical Source of Medicinal and Agricultural Products

Lin Chau Ming

Ageratum conyzoides L., Asteraceae, is an annual herbaceous plant with a long history of traditional medicinal uses in several countries of the world and also has bioactivity with insecticidal and nematocidal acitivity. This tropical species appears to be a valuable agricultural resource.

BOTANY

Ageratum is derived from the Greek "*a geras*," meaning non-aging, referring to the longevity of the flowers or the whole plant. The specific epithet "*conyzoides*" is derived from "*kónyz*," the Greek name of *Inula helenium*, which it resembles (Kissmann and Groth 1993).

The synonyms of *A. conyzoides* include *A. album* Stend; *A. caeruleum* Hort. ex. Poir.; *A. coeruleum* Desf.; *A. cordifolium* Roxb.; *A. hirsutum* Lam.; *A. humile* Salisb.; *A. latifolium* Car.; *A. maritimum* H.B.K.; *A. mexicanum* Sims.; *A. obtusifolium* Lam.; *A. odoratum* Vilm. and *Cacalia mentrasto* Vell.

(Jaccoud 1961). In Brazil, *A. conyzoides* has the following vernacular names: *catinga de bode, catinga de barrão, erva de são joão, maria preta, mentrasto, erva de são josé, picão roxo, erva de santa-lúcia, camará-opela, agerato, camará apeba, camará iapó, camará japê, erva de santa maria, macela de são joão, macela francesa, matruço* (Jaccoud 1961; Oliveira et al. 1993).

Ageratum ranges from Southeastern North America to Central America, but the center of origin is in Central America and the Caribbean. Most taxa are found in Mexico, Central America, the Caribbean, and Florida. *Ageratum conyzoides* now is found in several countries in tropical and sub-tropical regions, including Brazil (Baker 1965; Lorenzi 1982; Correa 1984; Cruz 1985).

Johnson (1971), classifies two subspecies, *latifolium* and *conyzoides*. Subspecies *latifolium* is found in all the Americas and subsp. *conyzoides* has a pantropical distribution. The basic chromosome number is 2*n* = 20 but natural tetraploids are found. *A. conyzoides* subsp. *latifolium* is diploid and *A. conyzoides* subsp. *conyzoides* is tetraploid.

Ageratum conyzoides is an erect, herbaceous annual, 30 to 80 cm tall; stems are covered with fine white hairs, leaves are opposite, pubescent with long petioles and include glandular trichomes. The inflorescence contain 30 to 50 pink flowers arranged as a corymb and are self-incompatible (Jhansi and Ramanujam 1987; Kaul and Neelangini 1989; Ramanujam and Kalpana 1992; Kleinschimidt 1993). The fruit is an achene with an aristate pappus and is easily dispersed by wind. In some countries the species is considered a weed, and control is often difficult (Lorenzi 1982; Scheffer 1990; Kalia and Singh 1993; Lam et al. 1993, Paradkar et al. 1993; Waterhouse 1993; Kshatriya et al. 1994). Seeds are positively photoblastic, and viability is often lost within 12 months (Marlks and Nwachuku 1986; Ladeira et al. 1987). The optimum germination temperature ranges from 20 to 25°C (Sauerborn and Koch 1988). The species has great morphological variation, and appears highly adaptable to different ecological conditions.

PHYTOCHEMICAL CHARACTERISTICS

There is high variability in the secondary metabolities of *A. conzyoide* which include flavonoids, alkaloids, cumarins, essential oils, and tannins. Many of these are biologically active. Essential oil yield varies from 0.02% to 0.16% (Jaccoud 1961). Vyas and Mulchandani (1984) identified conyzorigum, a cromene. Borthakur and Baruah (1986) identified precocene I and precocene II, in a plant collected in India. These compounds have been shown to affect insect development, as antijuvenile hormones, resulting in sterile adults (Borthakur and Baruah 1987). Ekundayo et al. (1988) identified 51 terpenoid compounds, including precocene I and precocene II. Gonzales et al. (1991) found 11 cromenes in essential oils, including a new cromene, 6-angeloyloky-7-methoxy-2,2-dimethylcromen. Vera (1993), in Reunion, found ageratocromene, other cromenes, and beta cariophylene in its essential oil. Mensah et al. (1993) and Menut et al. (1993) reported similar yields of precocene I in the essential oil of plants collected in Ghana.

Vyas and Mulchandani (1986), in India, identified flavones, including some considered new such as

ageconyfavones A, B, and C. Horrie et al. (1993) reported hexametoxyflavone. Ladeira et al. (1987) in Brazil, reported three cumarinic compounds, including 1-2 benzopirone. The species contains alkaloids, mainly the pirrolizidinic group, which suggest that it may be a good candidate for pharmacological studies. Trigo et al. (1988) found several alkaloids, including 1,2- desifropirrolizidinic and licopsamine which can have hepatotoxic activity. Alkaloids also were found by Weindenfeld and Roder (1991) in a hexane extract of *A. conyzoides* in Africa.

FOLK MEDICINAL USES AND PHARMACOLOGICAL STUDIES

A. conyzoides is widely utilized in traditional medicine by various cultures worldwide, although applications vary by region. In Central Africa it is used to treat pneumonia, but the most common use is to cure wounds and burns (Durodola 1977). Traditional communities in India use this species as a bacteriocide, antidysenteric, and antilithic (Borthakur and Baruah 1987), and in Asia, South America, and Africa, aqueous extract of this plant is used as a bacteriocide (Almagboul 1985; Ekundayo et al. 1988). In Cameroon and Congo, traditional use is to treat fever, rheumatism, headache, and colic (Menut et al. 1993; Bioka et al. 1993). In Reunion, the whole plant is used as an antidysenteric (Vera 1993). The use of this species in traditional medicine is extensive in Brazil. Aqueous extracts of leaves or whole plants have been used to treat colic, colds and fevers, diarrhea, rheumatism, spasms, or as a tonic (Penna 1921; Jaccoud 1961; Correa 1984; Cruz 1985; Marques et al. 1988; Negrelle et al. 1988; Oliveira et al. 1993). *A. conyzoides* has quick and effective action in burn wounds and is recommended by Brazilian Drugs Central as an antirheumatic (Brasil 1989).

Several pharmacological investigations have been conducted to determine efficacy. Duradola (1977) verified inhibitory activities of ether and chloroform extracts against in vitro development of *Staphylococus aureus*. Almagboul et al. (1985), using methanolic extract of the whole plant, verified inhibitory action in the development of *Staphylococus aureus*, *Bacillus subtilis*, *Eschericichia coli*, and *Pseudomonas aeruginosa*. Bioka et al. (1993) reported effective analgesic action in rats using aqueous extract of *A. conyzoides* leaves (100 to 400 mg/kg). Assays realized in Kenia, with aqueous extract of the whole plant, demonstrated muscle relaxing activities, confirming its popular use as an antispasmotic (Achola et al. 1994).

In Brazil, assays conducted by State University of Campinas and Paraiba Federal University) showed promising results. Marques Neto et al. (1988) in clinic trials with patients with arthrosis, administered aqueous extract of the whole plant, and reported analgesic effect in 66% of patients and improvement in articulation mobility in 24%, without side effect. Mattos (1988), using aqueous extract of the whole plant, verified effective clinical control of arthrosis, reporting a decrease in pain and inflammation or improvement in articulation mobility, after a week of treatment.

BIOACTIVITY

Ageratum conyzoides has bioactive activity that may have agricultural use, as shown by several research investigations in different countries. Pereira in 1929, cited by Jaccoud (1961), reported use of the leaves as an insect (moth) repellent. The insecticide activity may be the most important biological activity of this species. The terpenic compounds, mainly precocenes, with their antijuvenile hormonal activity are probably responsible for the insecticide effects.

Assays conducted in Colombia by Gonzalez et al. (1991) showed activity of this species against *Musca domestica* larvae, using whole plant hexane extract. Vyas and Mulchandani (1980) reported the action of cromenes (precocenes I and II), isolated from *Ageratum* plants, which accelerate larval metamorphosis, resulted in juvenile forms or weak and small adults.

Ekundayo et al. (1987) also demonstrated the juvenilizing hormonal action of precocene I and II in insects, the most common effect being precocious metamorphosis, producing sterile or dying adults. Raja et al (1987), using *A. conyzoides* methanolic extract from fresh leaves (250 and 500 ppm) in the fourth instar of *Chilo partellus* (Lepidoptera, Pyralidae), a sorghum pest, observed the presence of a dark stain in the insects' cuticle and immature pupae formation, both symptoms of deficiency of juvenile hormone.

A. conyzoides also induces morphogenetic abnormalities in the formation of mosquitoes larvae (*Culex quinquefasciatus, Aedes aegypt,* and *Anopheles stephensi*). This has been verified using petroleum ether extracts (5 and 10 mg/L) of the whole plants. The larvae showed intermediary stages between larvae–pupae, discolored and longer pupae, as well as incompletely developed adults (Sujatha et al. 1988). Extracts of the flowers of this species showed activity against mosquitoes (*Anopheles stephensi*), in the last instar, showing DL 50 with 138 ppm (Kamal and Mehra 1991).

Cetonic extracts of the species produced significant effects against the mosquito, *Culex quinquefasciatus*, in India, when applied to fourth instar larvae and adult females. In larvae, the extracts produced altered individuals, intermediate between larvae and pupae, unmelaninized and with inhibition of development, as well as adults with deformed wings muscles. In female adults, there was loss of fecundity, lower eggs production, and production of defective eggs (Saxena et al. 1992). Similar results were observed in larvae *of Anopheles stephensi* and *Culex quinquefasciatus* in others essays, confirming the antijuvenile potential of *A. conyzoides* (Saxena and Saxena 1992; Saxena et al. 1994).

The species also has potential use in controlling other pests. Shabana et al. (1990), using aqueous extract of the whole plant, verified reduction of larvae emergence of *Meloidogyne incognita*. Pu et al. (1990) and Liang et al. (1994), verified that plants of *A. conyzoides* in *Citrus* orchards sheltered predators of the spider *Panonychus citri,* suggesting that its development in orchards is beneficial. Other *Citrus* spiders populations, *Phyllocoptruta oleivora* and *Brevipalpus phoenicis* were decreased with maintenance of *A. conyzoides* in the orchards and a reduction of leprosy virus was noted (Gravena et al. 1993)

The presence of *A. conyzoides* can also be used as an seed inhibitor, decreasing development of several herbaceous plants. Jha and Dhakal (1990) in Nepal, reported that an aqueous extract of the aerial part or roots of this species (15 g of aerial part or 3 g of roots in 100 ml of water, during 24 h) inhibited

germination of wheat and rice seeds while Prasad and Srivastava (1991) in India, reported a lower germination index in peanut seeds with aqueous extract.

CULTURAL STUDIES

Magalhaes et al. (1989) in Brazil evaluated fertilizer studies and plant density on biomass production of *A. conzyzoides.* The higher the N level, the higher the biomass production (dry weight basis). Optimum spacing was 70 cm between rows and 50 cm between plants. Biomass yields was 1.3 t (dry weight)/ha.

Correa Jr. et al. (1991) obtained biomass yields of 3.3 to 5.3 t (fresh wt)/ha. Essential oil content was 0.02% (fresh wt) and 0.16 % (dry wt) in the preflowering state. Preliminary data of Ming (1998) indicated that essential oils, higher in leaves than in flowers, peaked during early-flowering.

FUTURE POTENTIAL

There are some small pharmaceutical companies in Brazil using *A. conyzoides* as a raw material for phytochemicals. The demand is increasing year by year and this situation warrants further scientific research to develop both agricultural and medical uses. Research on medicinal plants should be focused primarily on species whose pharmaceutical activities have already been demonstrated. Positive preliminary clinical assays of *A. conyzoides* clearly demonstrate that this species may be an important economic resource in several tropical countries. The use of this species as a natural biocide or agent for pest management particularly requires further investigation.

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Agropyron repens (L.) Beauv.

Gramineae, Poaceae

Quack grass

We have information from several sources:

The Herb Hunters Guide—.Sievers, A.F. 1930.

Food and feed crops of the United States—Magness, J.R., G.M. Markle, C.C. Compton. 1971.

Last update Wednesday, July 08, 1998 by aw

Aletris

Aletris farinosa L.

Other common names.—Stargrass, blazing star, mealy starwort, starwort unicorn root, true unicorn root, unicornplant, unicorn's-horn, colicroot, devil's-bit, ague grass, ague root, aloeroot, crow corn, huskwort. Some of the common names are also used in connection with Helonias (*Chamaelirium luteum* (L.) A. Gray), which causes much confusion, although the two plants do not bear any close resemblance. It is best, therefore, to designate it as Aletris, under which name it is best known in the drug trade.

Figure 1.—Aletris (*Aletris farinosa*)

Habitat and range.—Aletris occurs in dry, generally sandy soil, from Maine to Minnesota, Florida, and Tennessee.

Description.—This plant is an erect slender herb 1 1/2, to 3 foot tall with leaves only at the base. These are grasslike, of a yellowish green color, and from 2 to 6 inches long. They surround the base of the stem in the form of a star, in this respect differing distinctly from starwort (*Chamaelirium luteum*), with which it is sometimes confused, as stated. The erect, flowering spike produced from May to July bears white urn-shaped flowers sometimes tinged with yellow.

Other species.—Three other species of Aletris, namely, *Aletris aurea* Walt., *A. lutea* Small. and *A. obovata* Nash, bear much resemblance to *A. farinosa* and are for this reason no doubt frequently collected with the latter.

Part used.—The rootstock, which should be collected in autumn.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Monday, March 12, 1998 by aw

Allium cepa L.

Amaryllidaceae

Bermuda onion, California Italian Red onion, Common onion, Green onion, Italian red onion, Maui onion, Onion, Pearl onion, Purple onion, Red onion, Salad onion, Scallion, Spanish onion, Spring onion, Sweet onion, Vidalia onion, Walla Walla onion, White onion, Wild onion, Yellow onion

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We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Midwest Vegetable Production Guide for Commercial Growers 1998

Onions and its Relatives production links

Alternative Crops Research in Virginia—Harbans L. Bhardwaj, Andy Hankins, Tadesse Mebrahtu, Jimmy Mullins, Muddappa Rangappa, Ozzie Abaye, and Gregory E. Welbaum

Advances in New Alliums—Michael J. Havey

Onions and Their Relatives—HO-67 Purdue University Cooperative Extension Service

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.
Onion—*Allium cepa* L. (Common onion group)
Onion [cv. Beltsville Bunching]—*Allium cepa* L. x *Allium fistulosum* L., 4N
Potato Onion—*Allium cepa* L. (Aggregatum group)
Shallot—*Allium cepa* L. (Aggregatum group)

Outside Links

Allspice

Pimento, Jamaica pepper, Pimienta

Myrtaceae *Pimenta dioica* (L.) Merr.

Source: Magness et al. 1971

Allspice is the dried, unripe berries of a large evergreen tree, native to the Caribbean area. The leaves are large and leathery, about 8 inches long by 2 inches wide. The fruits are about 0.33 inch diameter, near globose, produced in clusters of a dozen or more at or near the terminals of branches. The fruit is harvested while immature, as it is then most strongly flavored. It is a drupe, with 1 or 2 seeds. The whole dried fruit is ground to produce the allspice powder of commerce. Both pulp and seeds are aromatic, and contain an oil with qualities similar to clove oil.

Last updated: NaN/NaN/NaN by ch

Hazel Alder

Alnus rugosa (DuRoi) Spreng.

Synonym.—*Alnus serrulata* Willd.

Figure 60.—Hazel alder (*Alnus rugosa*)

Other common names.—Tag alder, common alder, red alder, smooth alder, green alder, American alder, speckled alder, swamp-alder, notch-leaved alder.

Habitat and range.—Hazel alder is found in swamps and along the marshy banks of streams from New England south to Florida and Texas and westward to Ohio and Minnesota.

Description.—The hazel alder, although it sometimes attains the height of a tree, is more frequently a shrub from 5 to 20 feet high with smooth, brownish-gray bark. It has somewhat leathery, oval leaves from 2 to 4 1/2 inches long. The flowers, which appear early in the spring before the leaves develop, are reddish green. The male flowers are borne in drooping and the female in erect catkins. The conelike fruit usually remains on the shrub throughout the winter. The bark has a strong, rather aromatic odor and a bitter astringent taste.

Part used.—The bark.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update March 19, 1998 by aw

Sambucus canadensis L.

Caprifoliaceae

American Elder, American elderberry, Blueberry elder, Blue elderberry, Eastern elderberry, Red elderberry, Western elderberry

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We have information from several sources:

Temperate Berry Crops—Chad Finn

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

Last updated: NaN/NaN/NaN by ch

American Mountain-Ash

Sorbus americana Marsh.

Synonym.—*Pyrus americana* DC.

Other common names.—Roundwood, round-tree, American rowan tree American servicetree, mountain sumac, dogberry, quickbeam, wild ash, winetree, witchwood, life-of-man, Indian mozemize, missey-moosey, moose-misse.

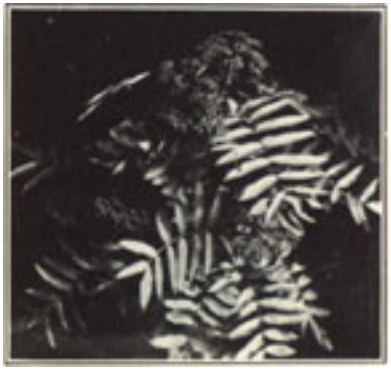

Figure 7.—American mountain-ash (*Sorbus americana*)

Habitat and range.—The American mountain-ash occurs in swamps, low woods, or moist ground from Newfoundland south along the mountains to North Carolina and to Michigan. It is most abundant in the northern portion of its range.

Description.—This smooth-barked tree reaches a height of 30 feet with a trunk 18 inches in diameter. The leaves resemble those of the sumac, consisting of from 11 to 17 lance-shaped, pointed leaflets about 1 1/4 to 4 inches long. When young they are slightly hairy, both sides soon becoming smooth. The white flowers are borne from May to June in dense clusters measuring from 3 to 6 inches across. The flowers are followed later in the season by large, dense, showy clusters of bright-red berries about the size of peas, which give the tree a brilliant appearance.

Part used.—The bark with the outer layer removed.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Wednesday, March 11, 1998 by aw

Hedeoma pulegioides L.

Lamiaceae (Labiatae)

American Pennyroyal

We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971-1980.

Sievers, A.F. 1930. The Herb Hunters Guide.

Last update Wednesday, July 08, 1998 by aw

Cardamom

Zingiberaceae *Elettaria cardamomum* (L.) Maton.

***Amomum cardamomum* L.**

Source: Magness et al. 1971

Both the above related species of tropical plants produce the cardamom seeds of commerce. Both are tropical, perennial herbs, the tops growing each year from underground rhizomes. *E. cardamomum* reaches 5 to 10 feet, with lanceolate leaves up to 2 feet long. The capsules are oblong to globular, ribbed and indehiscent. These dried capsules are the principal cardamoms of commerce. The seeds and plant of *A. cardamomum* are very similar to "grains of paradise" These seeds are also sold as cardamom.

Last updated: NaN/NaN/NaN by ch

Ancistrocladus korupensis D. Thomas & Gereau

We have information from several sources:

Ancistrocladus: Potential Anti-AIDS Source

Drug Discovery and Development at the National Cancer Institute: Potential for New Pharmaceutical Crops—Gordon M. Cragg, James E. Simon, Johnson G. Jato, and Kenneth M. Snader

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last update October 21, 1997 by aw

Anethum graveolens L.

Apiaceae (Umbelliferae)

Dill

We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Alternative Crops Research in Virginia—Harbans L. Bhardwaj, Andy Hankins, Tadesse Mebrahtu, Jimmy Mullins, Muddappa Rangappa, Ozzie Abaye, and Gregory E. Welbaum

Lowman, M.S. and M. Birdseye. 1946. Savory Herbs: Culture and Use. Farmer's Bulletin No. 1977. USDA, Washington, DC.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

Last update Monday, March 2, 1998 by aw

Angelica archangelica L.

Apiaceae (Umbelliferae)

Angelica

We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

Last update Tuesday, December 30, 1997

Purplestem Angelica

Angelica atropurpurea L.

Synonym.—*Archangelica atropurpurea* Hoffm.

Other common names.—American angelica, great angelica, high angelica, purple angelica, masterwort.

Figure 89.—Purplestem angelica (*Angelica atropurpurea*)

Habitat and range.—Purplestem angelica is a native herb, common in swamps and damp places from Newfoundland to Delaware and west to Minnesota.

Description.—This strong-scented, tall, stout perennial reaches a height of from 4 to 6 feet. It has a smooth, dark purple, hollow stem 1 to 2 inches in diameter. The leaves are divided into three parts, each of which is again divided, with many broad leaflets. The lower leaves are sometimes 2 feet in width, but the upper ones are smaller, and all have very broad stalks. From June to July the greenish-white flowers are produced in somewhat roundish heads, which sometimes are 8 to 10 inches in diameter. The root is branched, from 3 to 6 inches long, and less than an inch in diameter. It has an aromatic odor, and the taste at first is sweetish and spicy, afterwards bitter. The fresh root is said to be poisonous.

Part used.—The root, dug in autumn. It must be carefully dried and preserved, because it is very subject to the attacks of insects.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, April 3, 1998 by aw

Pimpinella anisum L.

Apiaceae (Umbelliferae)

Anise, Aniseed, *jintan*, sweet cumin

We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Lowman, M.S. and M. Birdseye. 1946. Savory Herbs: Culture and Use. Farmer's Bulletin No. 1977. USDA, Washington, DC.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

Bixa orellana L.

Bixaceae

Achiote, anato, annatto, arnato, bija, bijol, *bixa*, lipstick tree, roucou

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We have information from several sources:

New Crops from Brazil—David Arkcoll

Achiote In: Magness, J.R., G.M. Markle, C.C. Compton. Food and Feed Crops of the United States. 1971.

Anthriscus cerefolium Hoffm.

Apiaceae (Umbelliferae)

Chervil, Garden Chervil, Leaf Chervil, Salad Chervil, Sweet Cicely, Turnip Chervil, Turnip-rooted Chervil

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We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Lowman, M.S. and M. Birdseye. 1946. Savory Herbs: Culture and Use. Farmer's Bulletin No. 1977. USDA, Washington, DC.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

Apium graveolens L.

Apiaceae (Umbelliferae)

Celery, Celeriac, *Céleri Rave*, Celery Heart, Hamburg Celery, Knob Celery, Pascal Celery, True Celery, Turnip-rooted Celery, Wild Celery

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We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Lowman, M.S. and M. Birdseye. 1946. Savory Herbs: Culture and Use. Farmer's Bulletin No. 1977. USDA, Washington, DC.

Celery production links

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.
Celery
Celery seed
Celeriac

Hemp Dogbane

Apocynum cannabinum L.

Other common names.—Black hemp, black Indian hemp, Canadian hemp, American hemp, amy-root, bowmans root, bitterroot, Indian-physic, rheumatism weed, milkweed, wild cotton, Choctaw-root.

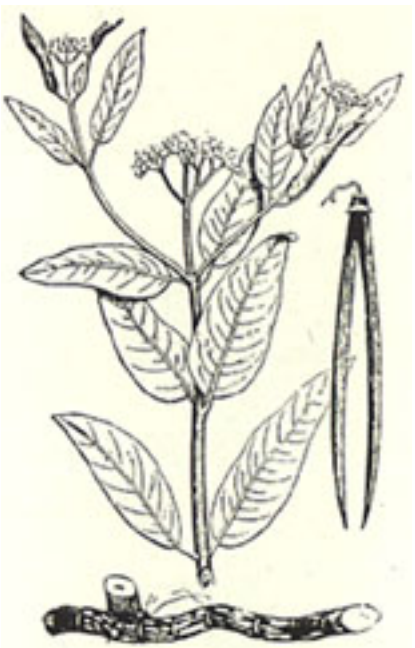

Figure 62.—Hemp dogbane (*Apocynum cannabinum*)

Habitat and range.—Hemp dogbane is a native of this country and may be found in thickets and along the borders of odd fields throughout the United States.

Description.—Hemp dogbane is from 2 to 4 feet high, with erect branches and sharp-pointed, short-stalked leaves from 2 to 6 inches long. The small greenish white flowers which appear from June to August are borne in dense heads followed later by the slender, pointed pods which are about 4 inches in length. The plant contains a milky juice.

Other species.—The roots of a closely related species, *Apocynum androsaemifolium* L., are also collected. The branches of this plant are diverging and forked and the flower heads loose and spreading. It also contains a milky juice. There are several well-recognized forms which formerly were recognized as varieties of *A. cannabinum* and *A. androsaemifolium*, but which are now considered distinct species. The roots of all these species possess somewhat similar properties, but they are not all acceptable to the trade.

Part used.—The root, collected in autumn.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update March 19, 1998 by aw

Wild-Sarsaparilla

Aralia nudicaulis L.

Other common names.—False sarsaparilla Virginian sarsaparilla, American sarsaparilla, small spikenard, rabbitroot, shotbush, wild licorice.

Habitat and range.—Wild-sarsaparilla grows in rich, moist woods from Newfoundland west to Manitoba and south to North Carolina and Missouri.

Description.—This plant produces a single, long-stalked leaf and flowering stalk from a very short stem. The leafstalk is about 12 inches long and is divided at the top into three parts each bearing about five leaflets from 2 to 5 inches long. The flowering stalk produces in May to June three flower clusters consisting of from 12 to 30 small greenish flowers followed later in the season by round purplish black berries. The rootstock is rather long, creeping, somewhat twisted, and possesses a very fragrant, aromatic odor and a warm, aromatic taste.

Figure 119.—Wild-sarsaparilla (*Aralia nudicaulis*)

Other species.—The American spikenard (*Aralia racemosa* L.), known also as spignet, spiceberry, Indian root, petty-morrel, life-of-man, and old-man's root, is used for the same purpose as *A. nudicaulis*. It is distinguished from this by its taller form, its much-branched stem from 3 to 6 feet high, and very large leaves. The flowers are arranged in numerous clusters instead of only three, as in *A. nudicaulis*, and they appear several months later. The range of this species extends as far south as Georgia.

Part used.—The root, collected in autumn.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, April 3, 1998 by aw

Thuja occidentalis L.

Cupressaceae

Arborvitae, Northern white cedar

We have information from several sources:

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Handbook of Energy Crops—James A. Duke. 1983. unpublished.

Last update Monday, April 16, 1998 by aw

Burdock

Arctium minus (Hill) Bernh.

Synonym.—*Lappa major* Gaertn.

Other common names.—Cockle button, cuckold dock, beggar's-buttons, hurr-burr, stick-button, hardock, bardane.

Figure 28.—Burdock (*Arctium minus*)

Habitat and range.—Burdock, one of our most common weeds, was introduced from the Old World. It grows along roadsides and in fields, pastures, and waste places, being very abundant in the Eastern and Central States and in some scattered localities in the West.

Description.—Burdock is a coarse, unsightly weed. During the first year it produces only a rosette of large leaves from a long tapering root. In the second year the plant grows to a large size, measuring from 3 to 7 feet in height. The stem is round, fleshy, and much branched and bears very large leaves, the lower ones frequently measuring 18 inches in length. The flowers are not produced until the second year, appearing from July until frost. They are purple and are borne in small clustered heads armed with hooked spines, and the spiny burs thus formed are a great pest, attaching themselves to clothing and to the wool and hair of animals. The plant has a large fleshy taproot. When dry this root is much wrinkled lengthwise.

Part used.—The roots, collected from plants of the first year's Growth. As they are large and fleshy they are likely to become moldy, and it is best to slice them lengthwise, so that drying may proceed more rapidly. The roots of other species of Arctium are also used.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Bearberry

Arctostaphylos uva-ursi (L.) Spreng.

Other common names.—Uva-ursi, red bearberry, bear's-grape, bear's bilberry, bear's whortleberry, foxberry, upland cranberry, mountain cranberry, crowberry, mealberry, rockberry, mountain box, kinnikinnic, killikinnic, universe vine, brawling, burren myrtle, creashak, sagachomi, rapper dandies (fruit).

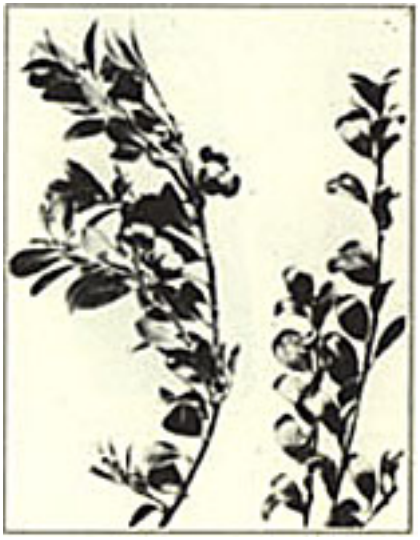

Figure 14.—Bearberry (*Arctostaphylos uva-ursi*)

Habitat and range.—Bearberry, also commonly known in the trade as uva-ursi is a native of this country, growing in dry sandy or rocky soil from the middle Atlantic States north to Labrador and westward to California and Alaska.

Description.—The bearberry is a low, much-branched shrub trailing over the ground and having numerous leathery evergreen leaves about 1 inch in length. The waxy flowers, which appear in May, are few and are borne in short, drooping clusters at the ends of the branches. They are white with a pinkish tinge, 5-lobed, and somewhat bell-shaped in form. Smooth, red, globular fruits containing five nutlets follow the flowers.

Part used.—The leaves, collected in autumn.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Jack-In-The-Pulpit

Arisaema triphyllum (L.) Schott.

Synonym.—*Arum triphyllum* L.

Other common names.—Wild turnip, arum, three-leaved arum, Indian-turnip, wakerobin, wild pepper, dragon-turnip, brown dragon, devil's-ear, marsh turnip, swamp turnip, meadow turnip, pepper turnip, starchwort, bog onion, priest's-pintle, lords-and-ladies.

Figure 69.—Jack-in-the-pulpit (*Arisaema triphyllum*)

Habitat and range.—Jack-in-the-pulpit inhabits moist woods from Canada to Florida and westward to Kansas and Minnesota.

Description.—The jack-in-the-pulpit has one or two smooth leaves consisting of three leaflets from 3 to 6 inches long and from 1 1/2 to 3 1/2 inches wide. The flower, which is either all green or green with dark purple stripes, is readily recognized on account of the similarity of its form to that of the calla lily. In autumn the fruit ripens in the form of a bunch of bright, scarlet, shining berries. The underground portion, usually referred to as the root but botanically known as a corm, is shaped like a turnip. The lower part is flat and wrinkled, while the upper part is surrounded by coarse wavy rootless. It has an extremely burning taste.

Part used.—The dried corm, collected in the summer, is sliced crosswise and dried. Drying and heat diminish its burning taste, which disappears rapidly with age.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update March 19, 1998 by aw

Snakeroot

(1) *Aristolochia serpentaria* L.; (2) *A. reticulata* Nutt.

Other common names.—(1) Virginia snakeroot, Virginia serpentaria, serpentary, snakeweed, pelicanflower, snagrel, sangrol, sangree-root; (2) Texas snakeroot, Texas serpentaria, Red River snakeroot.

Figure 99.—Snakeroot (*Aristolochia serpentaria*)

Habitat and range.—Virginia snakeroot is found in rich woods from Connecticut to Michigan and southward, principally among the Alleghenies, and Texas snakeroot occurs in the Southwestern States, growing along river banks from Arkansas to Louisiana.

Description of Virginia snakeroot.—This plant is nearly erect, the slender, wavy stem sparingly branched near the base growing usually to about a foot in height sometimes, however, even reaching 3 feet. It has thin leaves, heart-shaped at the base and pointed at the apex, about 2 1/2 inches long and from 1 to 1 1/2 inches wide. The dull-brown, somewhat leathery flowers are produced individually from near the base of the plant on slender stems. The fruit is round, about half an inch in diameter, and contains numerous seeds. Serpentaria has a short rootstock with many thin, branching, fibrous roots. The rootstock has a very agreeable, aromatic, camphorlike odor and a warm, bitterish, camphoraceous taste.

Description of Texas snakeroot.—This plant has a very wavy stem with oval, heart-shaped, clasping leaves which are rather thick and marked with a network of veins. The entire plant is hairy, with numerous long, coarse hairs. The small densely hairy, purplish flowers are produced from the base of the plant. The rootstock of this species is larger and has fewer small roots than that of the Virginia snakeroot.

Part used.—The roots of both species, collected in autumn.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, April 3, 1998 by aw

Armoracia rusticana P. Gaertn., B. Mey. & Scherb.

Brassicaceae (Cruciferae)

Horseradish, Creole mustard, German mustard, Horse-reddish root (archaic), Red horseradish

---

We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

Artemisia abrotanum L.

Asteraceae (Compositae)

Southernwood, Old-man, southern wormwood

We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

Last update Monday, January 6, 1998 by aw

Artemisia absinthium L.

Asteraceae (Compositae)

Wormwood, Absinthe

NewCROP holds information from the following sources:

Herbs: An Indexed Bibliography. 1971-1980—J.E. Simon, A.F. Chadwick and L.E. Craker

The Herb Hunters Guide—Sievers, A.F. 1930.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

Outside links to Wormwood info:

Illustration of *Artemisia absinthium* L. from Hermann A. Köhler's 3-part tomes *Medizinal Pflanzen* (1887) plates.

Wormwood and absinthe FAQ's.

Wormwood from the "Vaults of Erowid"

Artemisia dracunculus L.

Asteraceae (Compositae)

Tarragon, French tarragon, Russian tarragon, true tarragon

We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Lowman, M.S. and M. Birdseye. 1946. Savory Herbs: Culture and Use. Farmer's Bulletin No. 1977. USDA, Washington, DC.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

Canada Wildginger

Asarum canadense L.

Other common names.—Asarum, Indian ginger, Canada snakeroot, Vermont snakeroot, heart snakeroot, southern snakeroot, black snakeroot, coltsfoot snakeroot, black snakeweed, broad-leaved asarabacca, false coltsfoot, colicroot.

Figure 32.— Canada wildginger (*Asarum canadense*)

Habitat and range.—This inconspicuous little plant frequents rich woods or rich soil along roadsides from Canada south to North Carolina and Kansas.

Description.—Canada wildginger, better known perhaps as Canada snakeroot, is a small plant, apparently stemless, and not more than 6 to 12 inches in height. It usually has but two leaves, which are borne on slender, finely hairy stems. The leaves are kidney-shaped or heart-shaped, thin, dark green above and paler green on the lower surface, and from 4 to 7 inches broad. The solitary flower is borne on a short, slender stalk produced between the two leaf stems, and on account of its closeness to the ground it is not readily noticeable. It is bellshaped and of a dull-brown or brownish-purple color, the inside being darker than the outside. The plant has a creeping, yellowish rootstock with thin rootless produced from joints which occur about every inch. It has a fragrant odor and spicy taste.

Part used.—The rootstock, collected in autumn.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Asclepias tuberosa L.

Asclepiadaceae

Butterfly weed, Indian posy, Orange milkweed, Orange root, Pleurisy root, Tuberroot

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We have information from several sources:

The Herb Hunters Guide—Sievers, A.F. 1930.

New Flower Crops—Abraham H. Halevy

Last updated: NaN/NaN/NaN by ch

Astragalus species

(over 1500 species exist)

Fabaceae, or Leguminosae

Tragacanth, Gum Tragacanth

The gum group includes:
***Astragalus adscendens* Boiss**
***A. echinaeformis* Sirjaev**
A. gossypinus
***A. gummifer* Labill**
***A. microcephalus* Willd.**

Milk Vetches used for forage & groundcovers

forages and groundcovers
***Astragalus adsurgens* Pall**
A. cicer
***A. falcatus* L. Per.**
A. meliotoides

Other Astragalus species and their uses:
***Astragalus boetica* - Swedish Coffee (seeds roasted for a coffee substitute)**
***A. crassicarpus* Nutt.- Buffalo Pea, Ground Plum (unripe seed pods edible)**
***A. glycyphyllos* - (Used for a tea)**
***A. membranaceus* - Milk-vetch root, huang qi (a chinese medicine)**

Introduction of Chia and Gum Tragacanth in the U.S.—Howard S. Gentry, Marc Mittleman, and Peter R. McCrohan

See: Astragalus In: Potential New Specialty Crops from Asia: Azuki Bean, Edamame Soybean, and Astragalus. Lumpkin, T.A., J.C. Konovsky, K.J. Larson, and D.C. McClary. 1993.

Balm-Of-Gilead Poplar

Populus candicans Ait.

Other common names.—Balsam poplar, balm buds.

Habitat and range.—The balm-of-Gilead tree, which has mostly escaped from cultivation, is found along roadsides or streams from Newfoundland to Minnesota and Georgia.

Description.—This is a large tree reaching a height of 100 feet with a maximum trunk diameter of about 6 1/2 feet with spreading branches, the young twigs slightly hairy, and with very resinous, fragrant buds. The broad, pointed leaves, 2 1/2 to 6 inches long, are somewhat heart-shaped at the base, fine toothed, dark green above, pale beneath, and hairy when young. The male and female flowers are borne in separate catkins 6 inches or less in length, which appear before the leaves.

Figure 11.—Balm-of-Gilead poplar (*Populus candicans*)

Part used.—The leaf buds.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Wednesday, March 16, 1998 by aw

Bamboo Greenbrier

Smilax pseudo-china L.

Other common names.—Bamboo brier, long-stalked greenbrier, American chinaroot, false chinaroot, bullbrier.

Habitat and range.—This plant occurs in dry, sandy thickets from New Jersey to Florida and west to Texas and Nebraska.

Description.—Bamboo greenbrier is a smooth vine with a tuberous rootstock and with the lower part of the stem smooth or sometimes beset with straight, needle-shaped prickles. The leaves, 2 1/2 to 5 1/2 inches long and 1 1/2 to 3 1/2 inches wide, are egg-shaped or sometimes narrowed at the middle, usually rough on the margin, and somewhat leathery when old. The greenish flowers, 12 to 40 in number, are borne in round clusters on flattened stalks 1 to 3 inches long. These are followed in autumn by one to three seeded black berries up to one-quarter inch in diameter.

Figure 12.—Bamboo greenbrier (*Smilax pseudo-china*)

Part used.—The root.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Wednesday, March 16, 1998 by aw

Yellow Wild-Indigo

Baptisia tinctoria (L.) R. Br.

Other common names.—Baptisia, indigo weed, yellow indigo, American indigo, yellow broom, indigo broom, clover broom, horsefly weed, shoofly, rattlebush.

Habitat and range.—This native herb grows on dry, poor land and is found from Maine to Minnesota and south to Florida and Louisiana.

Description.—Yellow wild-indigo is an erect, much-branched, very leafy plant about 2 to 3 feet in height with cloverlike leaves. The flowers are bright yellow, one-half inch in length, and are produced in numerous clusters from June to September. The root, which is round and fleshy, sending out branches and rootless almost 2 feet in length, has a white interior and a thick, dark-brown bark. The bark root has a bitter, nauseous taste.

Figure 127.—Yellow wild-indigo (*Baptisia tinctoria*)

Other species.—A related species, said to possess similar properties, is *Baptisia alba* R. Br., called the white wild-indigo. This plant has white flowers and is found in the Southern States and on the western Plains.

Part used.—The herb and the root, the latter collected in autumn.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, April 3, 1998 by aw

Ocimum basilicum L.

Lamiaceae

Basil, basilic common, *basilico*, bush basil, sweet basil, wild basil

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We have information from several sources:

FactSheet contributed by James Simon

Herbs: An Indexed Bibliography. 1971-1980—J.E. Simon, A.F. Chadwick and L.E. Craker

Midwest Vegetable Production Guide for Commercial Growers 1998

Antioxidant Activity of Basil—H.R. Juliani and J.E. Simon

Basil Seed Oils—Paul Angers, Mario R. Morales, and James E. Simon

Basil: A Source of Essential Oils—James E. Simon, James Quinn, and Renee G. Murray

Essential Oils and Culinary Herbs—James E. Simon

New Aromatic Lemon Basil Germplasm—Mario R. Morales, Denys J. Charles, and James E. Simon

New Basil Selections with Compact Inflorescences for the Ornamental Market—Mario R. Morales and James E. Simon

Basil: A Source of Aroma Compounds and a Popular Culinary and Ornamental Herb—James E. Simon, Mario R. Morales, Winthrop B. Phippen, Roberto Fontes Vieira, and Zhigang Hao

Alternative Crops Research in Virginia—Harbans L. Bhardwaj, Andy Hankins, Tadesse Mebrahtu,

Bayberry

Myrica cerifera L.; *M. carolinensis* Mill.

Other common names.—(1) Southern waxmyrtle, waxberry, tallow berry, candleberry, tallow shrub, candleberry myrtle; (2) northern bayberry, small waxberry.

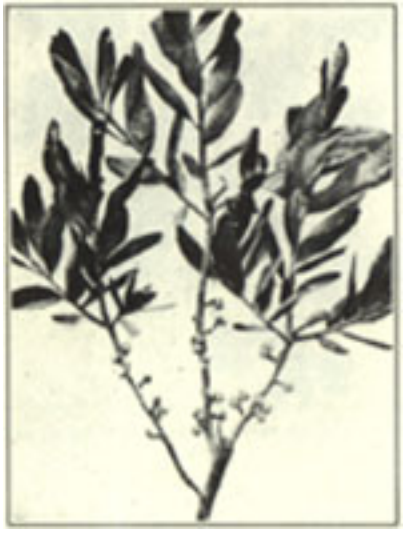

Figure 13.—Northern bayberry (*Myrica carolinensis*)

Habitat and range.—The bayberry is native in sandy swamps or wet woods from New Brunswick south to Florida. *Myrica cerifera* is found as far west as Texas and Arkansas while M. carolinensis is common in bogs in northern New Jersey and Pennsylvania.

Description.—The southern waxmyrtle is a shrub or slender tree up to 40 feet high. The leaves are from 1 to 4 inches long, narrow, wedge-shaped, entire or with a few teeth, and have a fragrant odor when crushed. The flowers appear from March to May, according to locality, generally before the leaves are fully expanded. Male and female flowers are borne on separate trees, the male flowers in cylindrical yellow clusters and the female flowers in green somewhat shorter clusters. The fruit, which remains on the tree for several years, consists of clusters of round, 1-seeded, somewhat berrylike nuts covered with a whitish wax. Northern bayberry is a shrub 8 feet high or less, with broader and blunter leaves.

Part used.—The bark of the root, collected in late autumn. After thorough cleansing and while still fresh the bark is loosened and removed by heating the root. The wax obtained from the berries, used for making bayberry candles, is also an article of commerce.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 16, 1998 by aw

Laurus nobilis L.

Lauraceae

Bay laurel

We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

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last update December 30, 1997

Oregon Hollygrape

Berberis aquifolium Pursh.

Other common names.—Oregon grape, Rocky Mountain grape, hollyleaved barberry, California barberry, trailing mahonia.

Figure 81.—Oregon hollygrape (*Berberis aquifolium*)

Habitat and range.—This shrub is native in woods in rich soil among rocks from Nebraska to the Pacific Ocean, but it is especially abundant in Oregon and northern California.

Description.—Oregon hollygrape is a low-growing shrub from 2 to 5 feet in height, resembling the holly of the Eastern States. The leaves are divided like those of an ash; the five to nine leaflets from 2 to 3 inches long and about 1 inch wide are evergreen, thick, leathery, smooth, and shining on the upper surface with marginal spines. The numerous small yellow flowers appear in April and May and are borne in erect clusters. The fruit consists of a cluster of blue berries. The rootstock and roots are more or less knotty, about an inch or less in diameter, with tough yellow wood and brownish bark.

Other species.—The roots of *Berberis nervosa* Pursh, which is found in the same region, are sometimes collected with that of Oregon hollygrape.

Part used.—The bark, collected in autumn.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, April 3, 1998 by aw

Monarda sp.

Lamiaceae (Labiatae)

Bergamot, American horsemint, bee balm, bergamot herb, gergamot orange, horsemint, mellarosa, wild bergamot

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We have information from several sources:

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Monarda: A Source of Geraniol, Thymol, Linalool, and Carvacrol-rich Essential Oils—G. Mazza, F.A. Kiehn, and H.H. Marshall

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Last updated: NaN/NaN/NaN by ch

Betula lenta L.

Betulaceae

Sweet birch, black birch, cherry birch, spice birch

We have information from several sources:

The Herb Hunters Guide—.Sievers, A.F. 1930.

Handbook of Energy Crops—James A. Duke. 1983. unpublished.

Last updated: NaN/NaN/NaN by ch

Bilberry

Whortleberry

Ericaceae *Vaccinium* spp.

Source: Magness et al. 1971

Similar to blueberries except berries are only 4 or 5-celled. Fruit is a glabrous berry, blue to black-colored, and sweet. Used like blueberries.

Last update February 18, 1999 by ch

Bitter Nightshade

Solanum dulcamara L.

Other common names.—Bittersweet, dulcamara, nightshade, climbing nightshade, woody nightshade, amara dulcis, fevertwig, violet-bloom, blue bindweed, felonwort, poisonberry, poisonflower, pushion-berry, morel, snakeberry, wolfgrape, scarlet berry, tether-devil, dwale, skawcoo.

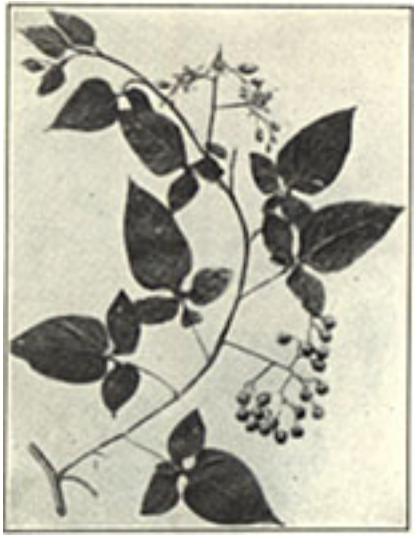

Figure 15.—Bitter nightshade (*Solanum dulcamara*)

Habitat and range.—This plant occurs in low damp grounds and moist banks of rivers from New Brunswick to Minnesota and south to New Jersey and Kansas.

Description.—Bitter nightshade has a climbing, somewhat woody, branched stem about 2 to 8 feet long. The leaves are from 2 to 4 inches long, some entire and others having one to three lobes at the base. The purplish flowers, which resemble those of the potato, are produced from about May to September in compound clusters. The berries, which ripen in autumn, are oval, red, juicy, and contain numerous seeds. The plant has a handsome appearance in autumn with its colored berries, and is often planted as an ornamental.

Part used.—The young branches from plants only 1 or 2 years old, collected after the leaves have fallen.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

American Bittersweet

Celastrus scandens L.

Other common names.—False bittersweet, climbing bittersweet, shrubby bittersweet, fevertwig, fever-twitch, staff tree, climbing staff tree, staff vine, waxwork, Roxbury waxwork, yellowroot, climbing orange-root, Jacob's-ladder.

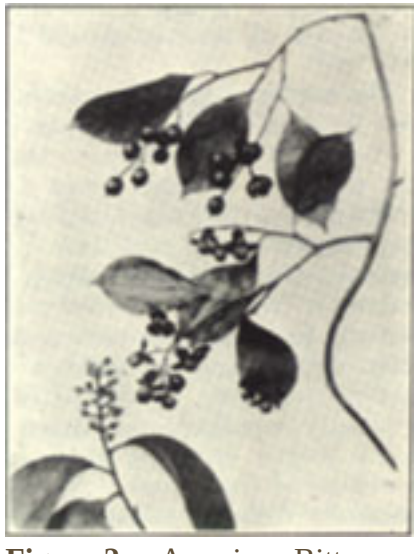

Figure 2.—American Bittersweet (*Celastrus scandens*

Habitat and range.—This woody vine or climbing shrub is found in woods and thickets, growing in rich damp soil from Ontario to Manitoba and south to North Carolina and New Mexico.

Description.—American bittersweet is a woody and shrubby climber, growing over trees or fences. It has smooth thin leaves 2 to 4 inches long and about half as wide. The small greenish-white or greenish-yellow flowers are produced in June in short clusters. The fruit is a roundish, orange-yellow capsule which opens in autumn, disclosing the scarlet-colored seed. The seed capsules remain on the plant well into the cold season.

Part used.—The bark of the plant and root, but especially that of the root.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last updated: NaN/NaN/NaN by aw

Black Cherry

Prunus serotina Ehrh.

Synonym.—*Prunus virginiana* Mill., not of Linnaeus.

Other common names.—Wild cherry, wild black cherry, cabinet-cherry, black choke, rum cherry, whisky-cherry, Virginian prune-bark.

Habitat and range.—The black cherry occurs in woods or open places and is most abundant in the Southeastern States, but its range extends from Nova Scotia to Florida, westward to Texas, and north through Oklahoma, the eastern portions of Kansas, Nebraska, and South Dakota.

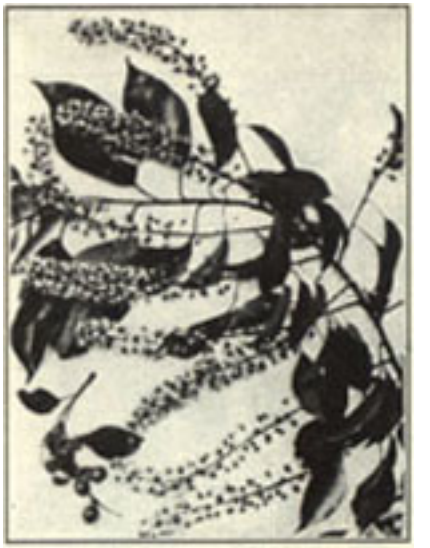

Figure 16.—Black cherry (*Prunus serotina*)

Description.—This tree sometimes reaches a height of 90 feet and a maximum trunk diameter of 4 feet. The trunk is straight and covered with rough black bark, but the young branches are smooth and reddish. The smooth shining leaves are about 2 to 5 inches long. The long drooping clusters of small white flowers are borne at the ends of the branches, usually during May. The cherries, which ripen about August or September, are round, black, or very dark purple, about the size of a pea, and have a sweet, slightly astringent taste.

Part used.—The bark, collected in autumn. The outer layer is removed, and the bark is then carefully dried and preserved. Young thin bark is preferred and that from very young or very old branches should not be used. Black cherry bark should not be kept longer than one year, because it deteriorates with age.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Cimicifuga racemosa (L.) Nutt.

Ranunculaceae

Cohosh Bugbane, Black Cohosh

We have information from several sources:

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Phytomedicines as a New Crop Opportunity—Loren D. Israelsen

Last updated: NaN/NaN/NaN by aw

Blackhaw

Viburnum prunifolium L.

Other common names.—Sloe, sloe-leaved viburnum, stagbush, shonny.

Habitat and range.—The blackhaw occurs in dry woods and thickets and on rocky hillsides from Connecticut to Florida and west to Michigan and Texas, but is found in greatest abundance in the South.

Description.—This shrub or small tree, from 10 to about 20 feet in height, has rather stout, spreading branches. The smooth bright-green, finely toothed, broadly or roundish oval leaves are 1 to 3 inches long. The numerous stemless flower clusters are from 2 to 4 inches broad, composed of numerous white flowers appearing from April to June. The fruit, which is sweet and edible, is about half an inch long, bluish black, covered with a bloom, and ripens in early autumn. It contains a somewhat flattened stone.

Figure 17.—Blackhaw (*Viburnum prunifolium*)

Another species.—The sweet viburnum (*Viburnum lentago* L.), known also as nannyberry and sheepberry, is collected with *V. prunifolium*. It grows in rich soil from Canada south to Georgia and Kansas. Its fruit matures in October, becoming sweet and edible, and sometimes remaining on the shrub until the following spring.

Part used.—The bark of both species, collected in autumn.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Black Willow

Salix nigra Marsh.

Other common names.—Swamp willow.

Habitat and range.—This tree is found in low ground and along streams from New Brunswick to western Ontario and in North Dakota, Florida, and Texas.

Description.—This willow is a tree attaining a height of 120 feet and a trunk diameter of 3 feet, with narrow lance-shaped leaves 2 1/2 to 5 inches long and up to three-quarters of an inch wide, finely toothed and hairy when young. Male and female flowers are borne in separate catkins which expand with the leaves the male catkins l to 2 inches and the female catkins 1 1/2 to 3 inches long.

Part used.—The bark and buds.

Figure 19.—Black willow (*Salix nigra*)

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Blessed Thistle

Cnicus benedictus L.

Synonyms.—*Carduus benedictus* Steud., *Carbenia benedicta* Adans.

Figure 20.—Blessed thistle (*Cnicus benedictus*)

Other common names.—Holy thistle, St.-Benedict's-thistle, Our Lady's thistle, bitter thistle, spotted thistle, cursed thistle, blessed cardus, spotted cardus.

Habitat and range.—The blessed thistle is a weed which is found sparingly in waste places and stony, uncultivated localities from Nova Scotia to Maryland and the Southern States, also on the Pacific coast.

Description.—This plant, which scarcely exceeds 2 feet in height, has a coarse, erect, branched, and rather woolly stem. The leaves are 3 to 6 inches long, more or less hairy, with margins lobed and spiny. The yellow flower heads which appear from about May to August are borne at the ends of the branches, almost hidden by the upper leaves, and are about 1 1/2 inches long. Surrounding the flower heads are leathery scales, tipped with long, branching, yellowish-red spines. The herb has a rather disagreeable odor which is lost in drying.

Part used.—The leaves and leafy flowering tops, gathered preferably just before or during the flowering period.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Sanguinaria canadensis L.

Papaveraceae

Bloodroot

We have information from several sources:

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Phytomedicines as a New Crop Opportunity—Loren D. Israelsen

Last update Monday, April 17, 1998 by aw

Blue Cohosh

Caulophyllum thalictroides (L.) Michx.

Other common names.—Caulophyllum, papoose root, squawroot, blueberry root, blue ginseng, yellow ginseng.

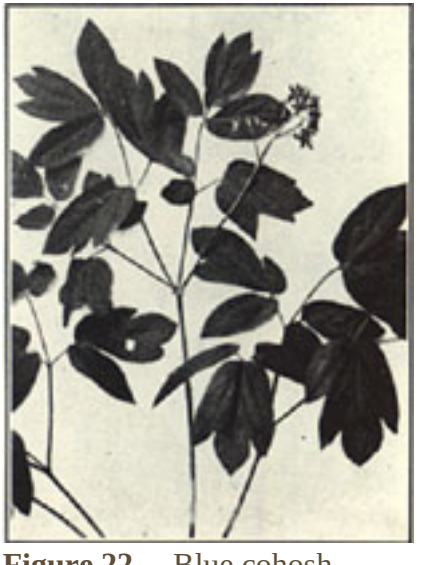

Figure 22.—Blue cohosh (*Caulophyllum thalictroides*)

Habitat and range.—Blue cohosh is found in the deep rich loam of shady woods from New Brunswick to South Carolina and westward to Nebraska, being abundant especially throughout the Allegheny Mountain region.

Description.—Blue cohosh is from 1 to 3 feet in height and hears at the top one large almost stemless leaf which is divided into three divisions, each of which is again divided into three divisions consisting of three leaflets each. The latter have from three to five lobes. During its early growth the plant is covered with a bluish-green bloom which gradually disappears. The small greenish-yellow flowers are borne in small heads during April and May. The small round seeds, which ripen in August, are borne on stout stalks and resemble dark-blue berries. The thick, crooked rootstock is covered with a mass of matted roots.

Part used.—The rootstock with roots, collected in autumn.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Blueflag Iris

Iris versicolor L.

Other common names.—Iris, flag lily, liver lily, snake lily, poison flag, water flag, American fleur-de-lis or flower-de-luce.

Figure 23.—Blueflag iris (*Iris versicolor*)

Habitat and range.—Blueflag iris delights in wet, swampy localities, making its home in marshes, thickets, and wet meadows from Newfoundland to Manitoba and south to Florida and Arkansas.

Description.—This well-known plant is from 2 to 3 feet hl height With an erect stem, sometimes branched near the top, and sword-shaped leaves, shorter than the stem, from one-half to 1 inch in width and showing a slight grayish bloom. The flowers, which appear from May to July, are large and handsome, each stem bearing from two to six or more. They have a peculiar form, consisting of six segments, the three outer ones turned back and the three inner ones erect and much smaller. They are purplish blue, the narrow base of the segments variegated with yellow, green, or white and marked with purple veins. Blueflag has a thick, fleshy, horizontal, branched rootstock producing many long, fibrous roots. It is poisonous and has caused poisonous effects in persons who mistook the plant for sweetflag which it resembles greatly when not in flower.

Part used.—The rootstock, collected in autumn. demand.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Blue Vervain

Verbena hastata L.

Other common names.—Verbain, false verbain, wild hyssop, simpler's-joy, ironweed.

Habitat and range.—Vervain is found in moist fields, meadows, and waste places from Nova Scotia to British Columbia and Florida, Nebraska, and Arizona.

Description.—This rather rough, finely haired herb has an erect, straight 4-sided stem, 4 to 7 feet high, usually branched above with broadly lance-shaped sharply toothed leaves. The small, usually blue, flowers are densely clustered in numerous slender panicled spikes 2 to 6 inches long.

Part used.—The herb.

Figure 24.—Blue vervain (*Verbena hastata*)

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Blumea lacera: Useful Plant

Pankaj Oudhia
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Blumea lacera L., Compositae, is one of the common rabi weeds of India (Oudhia and Tripathi 1999a). It is an annual herb, with a strong odor of turpentine. Stem is erect, ash colored, densely glandular, pubescent. Leaves are often incised or lyrate. There are many flower heads in single plant, arranged in axillary cymes or terminal panicle. Pappus is white. Fruits is an achene, oblong and not ribbed. Flowering time January to April (Agharkar 1991).

The plant occurs throughout the plains of India from the north-west ascending to 2,000 ft in the Himalayas. It is a common roadside weed in Ceylon and Malaya. It is distributed to the Malay Islands, Australia, China and Tropical Africa. *Blumea* consists of about 80 species (Caius 1986). *Blumea lacera* competes with rabi crops such as linseed, chickpea, and wheat for light, food and moisture (Oudhia, 1997) and harbors diseases and insects such as *Euplexia dolorosa*, *Eublemma trifasiciata* (Lefroy, 1909). *Blumea lacera* is described as a valuable medicinal plant in many popular systems of medicine including *Ayurveda*, homoeopathy, and unani. Stimulatory allelopathy of different parts of *B. lacera* on many agricultural crops has also been reported (Oudhia 1996). Not much work has been done on various utility aspects of *B. lacera*. In many parts of India, *Blumea* is cultivated for its green leaves and roots. *Blumea* is late kharif crop in these parts (Oudhia and Tripathi 1999b)

Reported Uses

Blumea is described in *Ayurveda* as bitter, astringent, acrid, thermogenic, errhine, anti-inflammatory, styptic, opthalmic, digestive, anthelmintic, liver tonic, expectorant, febrifuge, antipyretic, diuretic, deobstruant, and stimulant (Warner et al. 1996). The root kept in the mouth is said to cure disease of the mouth. In the Konkan region of India, the plant is used to drive away fleas and other insects. It is prescribed as an antiscorbutic in West Africa (Caius 1986). Essential oil from *Blumea* has been shown analgesic, hypothermic, and tranquilizing activities (Anonymous 1972). Campestrol has been isolated from aerial parts and 5-hydroxy-3, 6, 7, 3',4'- pentamethoxy flavone, 5,3',4' trihydroxy flavone and an unidentified flavone have been isolated from leaves (Rastogi and Mehrotra 1991). *Blumea lacera* is

considered a valuable homoeopathic drug (Oudhia et al. 1998a) useful in case of enuresis, neuralgia, headache, cold borne cough. A tincture is useful in case of bleeding piles (Ghosh 1988). Natives of Chhattisgarh use this weed for treating health problems (Oudhia et al. 1998b). There is a heavy demand of different parts (fresh and dry both) of this weed in national and international drug markets (Oudhia and Tripathi 1999c). Farmers can earn extra income after selling various parts of *Blumea* with the help of co-operatives (Oudhia and Traipathi 1999d). Fresh leaves of *Blumea* are the most valuable part.

Stimulatory allelopathy of *B. lacera* on many agricultural crops such as rice has been reported (Oudhia et al. 1997b, 1998c,d) including rabi and kharif obnoxious weeds such as *Echinocloa colonum, Ageratum conyzoides* (Oudhia et al., 1998c), *Chenopodium album, Melilotus indica, Phalaris minor, Cirsium arvense*, and *Spilanthes* (Oudhia et al. 1997a)

Cultivation

Blumea is a late kharif crop. Standard agrotechniques have not been developed. Seeds are generally sown in late August on prepared land with good tilth; fertilizers are not used. Leaves are harvested at time of 50% flowering. Blumea leaf beetle (*Chrysolina madrasae* Jackoby) is the main insect pest (Oudhia 1989, 1997, 1999a,b,c,d; Oudhia & Thakur 1996).

References

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Lefroy, H.H. 1909. Indian Insect Life: Today's and Tomorrow's. Printers and Publ. New Delhi.

Oudhia, P. 1996. Allelopathic effects of selected weeds on crops. M.Sc. (Ag.) thesis, IGAU, Raipur.

Oudhia, P. 1997. Evaluation of host specificity of *Blumea* leaf beetle *(Chrysolina sp. Nr. Madrasae* Jackoby), Insect Environment 3(3) :80.

Oudhia, P. 1999a. Medicinal weeds in wheat fields of Chhattisgarh (India). Rachis (ICARDA). 18(1):40-41.

Oudhia, P. 1999b. Studies on allelopathy and medicinal weeds in chickpea fields. International Chickpea and Pigeonpea Newsletter (ICRISAT) 6:29-33.

Oudhia, P. 1999c. Effect of some botanicals on hatchability of *Blumea* leaf beetle eggs. Insect Environment 4(4):154.

Oudhia, P. 1999d. Possibilities of providing on additional income to Lathyrus farmers of Chhattisgarh through medicinal weeds. FABIS Newsletter 42:39-42.

Oudhia, P. and B.S. Thakur. 1996. New record of the leaf beetle on a weed. Current Research 25:218.

Oudhia, P. and R. Tripathi. 1999a. Medicinal weeds of Raipur and Durg (Madhya Pradesh) region Proc. National Conference on Health Care and Development of Herbal Medicines, IGAU, Raipur. p. 71-78.

Oudhia, P. and R.S. Tripathi. 1999b. Auseful weed *Blumea lacera* L. : A review. Indian J Weed Sci. 31 (1 & 2):108-109.

Oudhia, P. and R.S. Tripathi. 1999c. Medicinal weeds : A boon for the farmers of Chhattisgarh *Abstract.* Eighth Biennial Conference of Indian Society of Weed Science, BHU, Varanasi 5-7 Feb. p. 152.

Oudhia, P. and R.S. Tripathi. 1999d. Scope of cultivation of important medicinal plants in Chhattisgarh plains. Proc. National Conference on Health Care and Development of Herbal Medicines, IGAU, Raipur. p. 215-222.

Oudhia, P., B.S. Joshi, and V.K. Koshta. 1998a. Chhattisgarh ke kleshkarak kharptwaron se homoeopathic dava nirman kisambhavnayain (The possibilites of preparing homoeopathic drugs from obnoxious weeds of Chhattisgarh. Abstract : V National Science Conference, Bhartiya Krishi Anusandhan Samittee, JNKVV, Gwalior.

Oudhia. P., R.S. Tripathi, and N. Pandey. (1998b). The possibilities of utilization of medicinal weeds to increase the income of the farmers. Abstract. National Seminar on Medicinal Plant Resources Development. Gujarat Ayurved University and Govt. of Gujarat, Gandhi Labour Institute, Ahmedabad, 4-5 Oct. p. 3.

Oudhia, P., S.S. Kolhe, and R.S. Tripathi. 1997a. Allelopathic effect of *Blumea lacera* L. on chickpea and rabi weeds. Agr. Sci. Dig. 17:275-278.

Oudhia, P., S.S. Kolhe, and R.S. Tripathi 1998b. Allelopathic effect of *Blumea lacera* L. on wheat. Indian J. Weed Sci. 29: 4-7.

Oudhia, P., S.S. Kolhe, and R.S. Tripathi. 1998c. Allelopathic effect of *Blumea lacera* L. on rice and common kharif weeds. Oryza 35: 175-177.

Bogbean

Menyantheas trifoliata L.

Other common names.—Buck bean, bog myrtle, bog hop, bog nut, brook bean, bean trefoil, marsh trefoil, water trefoil, bitter trefoil, water shamrock, marsh clover, moonflower, bitterworm.

Habitat and range.—The bogbean is a northern marsh herb occurring in North America as far south as Pennsylvania, Minnesota, and California.

Description.—This herb arises from a long, black, creeping, scaly rootstock, the leaves being produced from the end of the same on erect stems measuring about 2 to 10 inches in height. The leaves consist of three somewhat fleshy, smooth leaflets 1 1/2 to 3 inches long. The flower cluster is produced from May to July on a long, thick, naked stalk arising from the rootstock. It bears from 10 to 20 flowers each, with a funnel-shaped tube terminating in five segments which are pinkish purple or whitish on the outside and whitish and bearded on the inside.

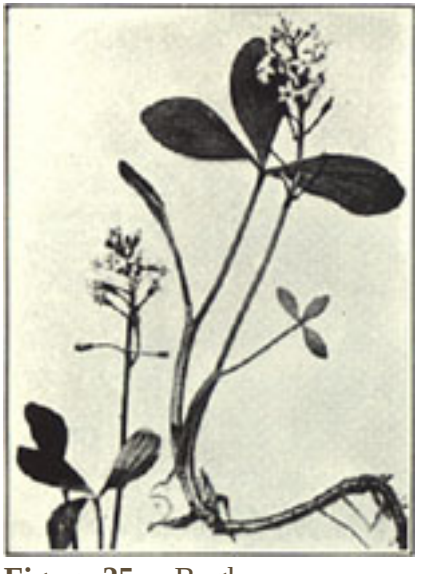

Figure 25.—Bogbean (*Menyanthes trifoliata*)

Part used.—The leaves, collected in the spring.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Boneset

Eupatorium perfoliatum L.

Synonym.—*Eupatorium connatum* Michx.

Other common names.—Thoroughwort, thorough-stem, thoroughwax, wood boneset, teasel, agueweed, feverwort, sweating plant, crosswort, vegetable antimony Indian sage, wild sage, tearal, wild isaac.

Figure 26.—Boneset (*Eupatorium perfoliatum*)

Habitat and range.—Boneset is a common weed in low, wet ground, along streams, on the edges of swamps, and in thickets from Canada to Florida and west to Texas and Nebraska.

Description.—This plant is easily recognized by the peculiar arrangement of the leaves, which are opposite each other and joined at the base, making it appear as though they were one with the stem passing through the center. It is erect, growing rather tall, from 1 to 5 feet in height, with rough, hairy, stout stems. The crowded, flat-topped clusters of flowers are produced from about July to September and consist of small heads of tubular white flowers.

Part used.—The leaves and flowering tops, collected when the plants are in flower, and stripped from the stalk.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Borago officinalis L.

Boraginaceae

Borgae

We have information from several sources:

Borage Culture on the Black Soil Zone of Alberta, Canada—R. El Hafid, S.F. Blade, and Y. Hoyano

Borage: A New Crop for Southern Chile—M. Berti, R. Wilckens, S. Fischer, and R. Araos

Simon, J.E., A.F. Chadwick and L.E. Craker. 1984. Herbs: An Indexed Bibliography. 1971–1980.

Borage: A Source of Gamma Linolenic Acid (Abstract)—James E. Simon, Nancy Beaubaire, Stephen C. Weller, and Jules Janick

Drawing by Mary Lou Overley

New Crops In The UK: From Concept to Bottom Line Profits—Francis H. Nicholls

Alternative Crops Research in Virginia—Harbans L. Bhardwaj, Andy Hankins, Tadesse Mebrahtu, Jimmy Mullins, Muddappa Rangappa, Ozzie Abaye, and Gregory E. Welbaum

Preliminary Agronomic Evaluation of New Crops for North Dakota—Marisol T. Berti and A.A. Schneiter

Neglected Crops: 1492 from a Different Perspective—J.E. Hernándo Bermejo and J. León (eds.)

Food and feed crops of the United States—Magness, J.R., G.M. Markle, C.C. Compton. 1971.

Mustards

Brassicaceae, or Cruciferae

We have information from several sources:

Herbs: An Indexed Bibliography. 1971-1980—J.E. Simon, A.F. Chadwick and L.E. Craker

Midwest Vegetable Production Guide for Commercial Growers 2000

Mustard: Alternative Field Crops Manual, University of Wisconson Cooperative Extension Service, University of Minnesota Extension Service, Center for Alternative Plant & Animal Products

Black Mustard In: Potential of Fanweed and Other Weeds as Novel Industrial Oilseed Crops—Patrick M. Carr

Handbook of Energy Crops. 1983. James A. Duke. unpublished
Brassica juncea
Brassica nigra
Sinapis alba

The Herb Hunters Guide—A.F. Sievers. 1930.

Potential of Sugar Beet Nematode-Resistant Radishes and Mustard for Use in Sugar Beet Rotations—James M. Krall, David W. Koch, Fred A. Gray, and Li Mei Yun

Alternate Crops for Dryland Production Systems in Northern Idaho—Kenneth D. Kephart, Glen A. Murray, and Dick L. Auld

New Crops for Canadian Agriculture—Ernest Small

Evaluation of Tropical Leaf Vegetables in the Virgin Islands—Manuel C. Palada and Stafford M.A. Crossman

Bugleweed

Lycopus virginicus L.

Other common names.—Buglewort, sweet bugleweed, American water hoarhound, carpenter's herb, green archangel, gypsyweed, Paul's betony, woodbetony, wolf foot, purple archangel, water bugle, gypsywort, gypsy herb, Virginia hoarhound.

Figure 27.—Bugleweed (*Lycopus virginicus*)

Habitat and range.—Bugleweed is a native herb frequenting wet, shady places from Canada to Florida, Missouri, and Nebraska.

Description.—This herb has long, threadlike runners and a bluntly 4-angled, smooth, slender, erect stem from 6 inches to 2 feet in height. The leaves are about 2 inches in length, pointed, rather narrow, and dark green or of a purplish tinge. The whitish flowers, which appear from about July to September, are small, tubular, and bell-shaped, and are produced in dense clusters in the axils of the leaves. They are followed by four nutlets. The plant has a rather pleasant, mintlike odor, but a disagreeable bitter taste.

Part used.—The entire herb, gathered during the flowering period.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, March 13, 1998 by aw

Juglans cinerea L.

Juglandaceae

Butternut

We have information from several sources:

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Magness, J.R., G.M. Markle, C.C. Compton. 1971. Food and feed crops of the United States.

Outside links:

Butternut accessions from the National Germplasm Repository, Corvallis, Oregon

Walnuts, *Juglans* spp.

Prickly-Ash

(1) *Zanthoxylum americanum* Mill.; (2) *Z. clava-herculis* L.

Synonyms.—(1) *Xanthoxylum fraxineum* Willd.; (2) *X. carolinianum* Lam.; *Fagara clava-herculis* (L.) Small.

Other common names.—Common prickly-ash, northern prickly-ash, toothache tree, toothache bush, yellowwood, angelica tree, pellitory-bark, suterberry; (2) southern prickly-ash, Hercules-club, toothache tree, yellow Hercules, yellowthorn, yellowwood, yellow prickly-ash, prickly yellowwood, West Indian yellowwood, sea ash, pepperwood, wild orange.

Habitat and range.—The common, or northern, prickly-ash is common in woods, thickets, and along river banks from Virginia, Missouri, and Kansas northward to Canada, while the southern prickly-ash grows along streams from southern Virginia to Florida and west to Texas and Arkansas.

Figure 87.—Southern, prickly-ash (*Zanthoxylum clava-herculis*)

Description.—(1) The common or northern prickly-ash is generally a shrub from 10 to 12 feet high, rarely exceeding 25 feet. Its leaflets are from 5 to 11 in number and from 1 1/2 to 2 inches long. The greenish-yellow flowers appear about April or May, before the leaves are borne in dense, stemless clusters from the axils of the branches. The branches have brown, cone-shaped prickles, and the bark, leaves, and pods are highly aromatic.

(2) The southern prickly-ash is taller than the northern species, but seldom attains a greater height than 45 feet. Its leaves consist of 5 to 17 leaflets from 1 1/2 to 3 inches long, and its small, greenish flowers appear in June after the leaves are out, borne in large clusters at the ends of the branches. The entire tree is furnished with sharp spines or prickles.

Part used.—The bark of both species.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, April 3, 1998 by aw

Yellowroot

Xanthorhiza simplicissima Marsh

Synonym.—*Zanthorhiza apiifolia* L'Her.

Other common names.—Shrub yellowroot, southern yellowroot.

Habitat and range.—Yellowroot grows in woods from southwestern New York to Kentucky and Florida, chiefly in the mountains

Description.—This slightly shrubby plant, 1 to 2 feet high, has compound slender-stemmed leaves 5 to 6 inches long clustered at the summit of the short stem. The leaves consist usually of five thin leaflets 1 to 3 inches long, with sharp, irregular teeth. The small, purplish-brown flowers are produced in spring, borne either singly or in clusters from terminal scaly buds. A characteristic of this plant is the bright-yellow color and bitter taste of its bark and long roots.

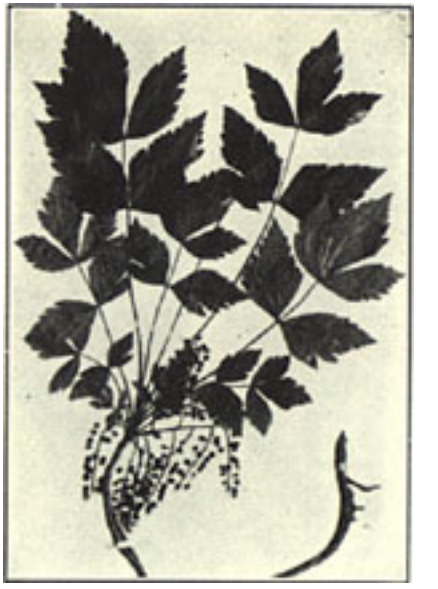

Figure 126.—Yellowroot (*Xanthorhiza simplicissima*)

Part used.—The roots.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, April 3, 1998 by aw

Xylopia aethiopica (Dunal) A. Rich

Annonaceae

Ethopian pepper

We have information from several sources:

Identification of the Key Aroma Compounds in Dried Fruits of *Xylopia aethiopica*—A.O. Tairu, T. Hofmann, and P. Schieberle

New Antimicrobials of Plant Origin—Maurice M. Iwu, Angela R. Duncan, and Chris O. Okunji

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Last updated: NaN/NaN/NaN by aw

Yerba Santa

Eriodictyon californicum (Hook. and Arn.) Greene.

Synonym.—*Eriodictyon glutinosum* Benth.

Other common names.—Mountain balm, consumptive's weed,* bear's-weed, gum plant, tarweed.

Habitat and range.—Yerba santa is common on the Pacific coast along the coastal ranges from central California north to Oregon.

Description.—This evergreen shrub, which reaches a height of from 3 to 4 feet, has a smooth stem which exudes a gummy substance. The narrow, dark-green, leathery leaves are from 3 to 4 inches in length and are covered with a resinous substance which makes them appear as if varnished. The rather showy, whitish, or pale-blue flowers are borne in clusters at the top of the plant.

Part used.—The leaves.

*This is a popular but misleading name.

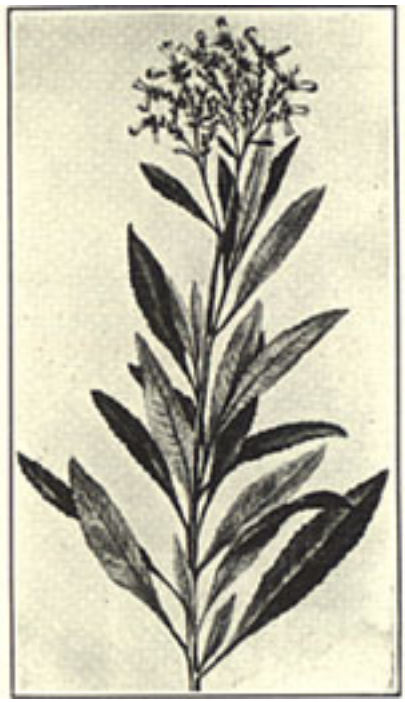


Figure 128.—Yerba santa (*Eriodictyon californicum*)

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, April 3, 1998 by aw

Ginger

Jengibre

Zingiberaceae *Zingiber officinale* Roscoe

Source: Magness et al. 1971

Ginger is a biennial or perennial reed-like herb, grown for the pungent, spicy underground stems or rhizomes. The stems reach a height of 3 feet, with lanceolate, smooth leaves up to 8 inches long. The plants are propagated by small divisions of the rhizomes. A crop of rhizomes can be harvested approximately a year after planting. After harvesting, the rhizomes may be cleaned, washed and dried directly, or they may be peeled before drying. Preserved ginger is prepared from immature rhizomes by washing, boiling successively in sugar and water, and placed in containers in syrup, or dried and rolled in sugar. Ginger is used as a spice or condiment especially in carbonated beverages. Oil of ginger is also extracted from the rhizomes. Ginger is produced in many tropical countries, and has been grown experimentally in Florida; produced commercially in Hawaii 352 tons on 19 acres (1968).

Last update February 18, 1999 by ch

Wormseed

Chenopodium ambrosioides anthelminticum (L.) A. Gray.

Synonym.—*Chenopodium anthelminticum* L.

Other common names.—Chenopodium, American wormseed, Jerusalem-oak.

Habitat and range.—Wormseed occurs in waste places from New England to Florida and westward to California.

Description.—This common weed has a much-branched stem from 2 to 3 feet in height and numerous, lance-shaped leaves, the lower ones 1 to 3 inches in length and the upper ones much smaller. The greenish flowers are produced from July to September in closely crowded spikes mixed with leaves and are followed by small, green, roundish fruits each of which contains a very small black seed. The entire plant has a strong, disagreeable odor due to the volatile oil which is present.

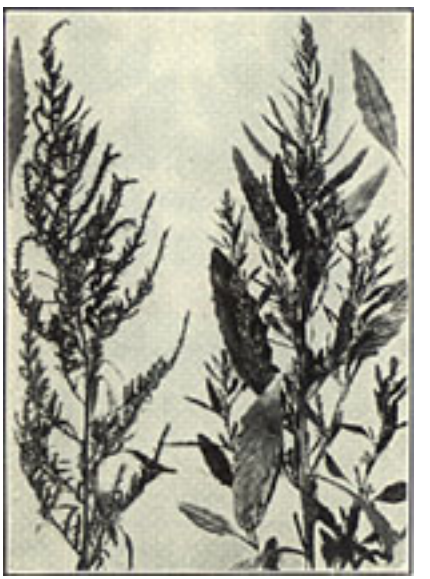


Figure 123.—Wormseed (*Chenopodium ambrosioides anthelminticum*)

Part used.—The fruit, collected when ripe, and the volatile oil distilled from the fruit or from the entire plant. Wormseed is grown commercially mainly in central Maryland for the production of the oil.*

Information on the extraction of volatile oils from plants is contained in the following publication: Sievers, A.F. Methods of extracting volatile oils from plant material and the production of such oils in the United States. U.S. Dept. Agr. Tech. Bul. 16, 36 p. illus. 1928.

Sievers, A.F. 1930. The Herb Hunters Guide. Misc. Publ. No. 77. USDA, Washington DC.

Last update Friday, April 3, 1998 by aw

August photo

California Pepper Tree (Peruvian Pepper Tree)

Schinus molle L.

Anacardiaceae (Sumac Family)

South America

Plant Characteristics: Dioecious evergreen tree, 5-15 m. high, with slender pendulous twigs; lvs. 2-3 dm. long, alternate, odd-pinnate, long, pendulous, with numerous lance-linear lfts. 3-6 cm. long; fls. in bracteate panicles, small, whitish; calyx short, 5-parted; petals 5, imbricated; fr. reddish, 6-8 mm. in diam.

Habitat: Commonly cult. in Calif., frequently becomes natur., especially in canyons. No bloom dates are printed in the text references. Blooms have been photographed in June and August.

Name: Greek, *schinus*, the mastic tree. Peruvian, *molle,* name for the pepper tree. (Jaeger 157, 231).

General: Uncommon in the study area, having been found only in the Santa Ana Heights flats and along the Delhi Ditch. Photographed specimen is from Santa Ana Heights. (my comments). *Schinus* species have been known to cause hay fever and asthma, also dermatitis. (Fuller 369,379). About 15 species, mostly from South America. (Munz, *Flora So. Calif*. 66).

Text Ref: Hickman, Ed. 136; Munz, *Calif. Flora* 997; Munz, *Flora So. Calif*. 66; Roberts 7.

Photo Ref: June 6 83 # 8; Sept 1 83 # 13; Aug 1 85 # 8.

Computer Ref: Plant Data 130.

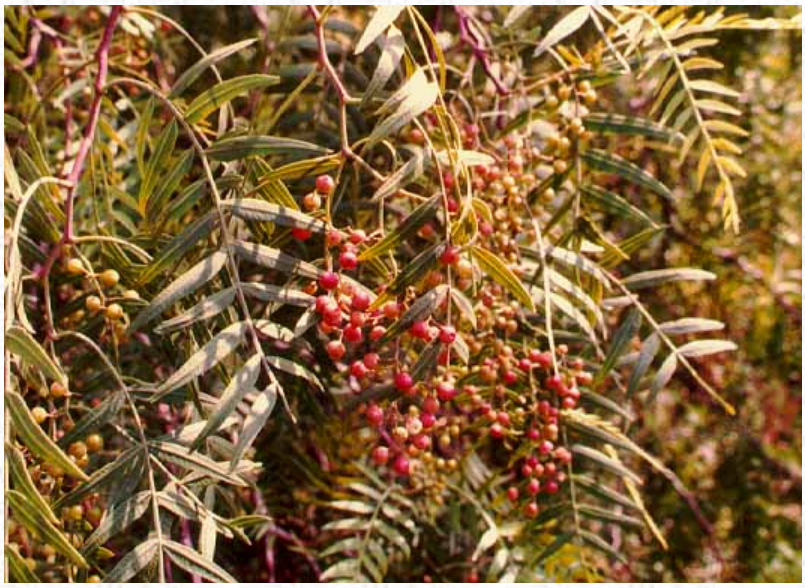
Identity by R. De Ruff.

No plant specimen.

Last edit 7/12/00.

June photo (1)

June photo (2)



September photo