

Ethnobotanical Garden FAQ v1.0

Contributions: Entheomation, Neuro, Salvia England

Plant Terms

Some basic plant terms one might come across in botanical communities, the forum, and in the literature.

What is the difference between an Ethnobotanical and an Entheogen?

An Ethnobotanical by definition is a plant that is used by humans.

The word roots are:

Ethn, -o (G): A nation

Botan, = a (G): Pasture, grass, fodder

The roots don't spell out exactly what the words mean in English as say Philadelphia's roots do, but the word roots give one an idea why we're using these words. A nation: People, Pasture: plants, A nation of people using plants, or in more crude and blunt terms A nation of plants or a pasture nation.

An Entheogen is by definition a plant that produces God-like states, or plants contain the gods; God engenderers.

The roots are:

En (G): In, into

theo (G): Run: a god

gen (G): Bear, produce

The roots provide a more straight forward clue as to the meaning of the word than Ethnobotanical's roots.

So all entheogens are ethnobotanicals, but not all ethnobotanicals are entheogens.

Angiosperm: Meaning covered seed; Traditional name for flowering plants, a very large, diverse phylum of plants that form flowers for sexual reproduction

and produce seeds enclosed in fruits; includes monocots and dicots.

Annual: A plant that completes its entire life cycle in one year or less

Anther: The part of the stamen in flowers that produces microspores and ultimate pollen grains.

Apical Dominance: Inhibition of the growth of lateral buds by the terminal bud of a plant shoot, a chemical hormonal influence

Biennial: A plant that takes two years to complete its life cycle

Carpel: The female reproductive unit of a flower; carpels bear ovules.

Cotyledon: A leaf of the embryo of a seed plant, which upon germination either remains in the seed or emerges, enlarges, and becomes green. Also called seed leaf.

Monocot: Any of various flowering plants, such as grasses, orchids, and lilies, having a single cotyledon in the seed.

Dicot: A flowering plant with two embryonic seed leaves or cotyledons that usually appear at germination. **NOTE:** This term has been replaced with *eudicot*. A definition and partial explanation will be included later.

Cultigen: a plant not known to have a wild or uncultivated counterpart.

Dioecious: Having male and female reproductive flowers or cones each on different plants.

Filament: In flowering plants, the thin stalk of a stem; the filament bears the anther at the

tip.

Germ eye: The place on a seed where the root emerges from.

Gymnosperm: Meaning naked seed. Any of a group of seed plants in which the seeds are not enclosed in an ovary; gymnosperms frequently bear their seeds in cones.

Internode: The spanning area between two nodes.

Lignin: A substance found in many plant cell walls that confers rigidity and strength, particularly in woody tissues.

Monoecious: Having male and female reproductive parts in separate flowers or cones on the same plant

Node, Leaf Node: The point where the leaf connects to the stem.

Perennial: A woody or herbaceous plant that grows year after year, i.e. lives more than two years.

Phloem: The vascular tissue that conducts sugar and other organic compounds in plants.

Photoperiod: The duration of time that light is provided for photosynthetic use of a plant.

Pistil: The female reproductive organ of a flower; consists of either a single carpel or two or more fused carpels

Stamen: The male reproductive part of a flower consisting of a filament and an anther

Stigma: The sticky sugary top of a style where pollen grains land during and before

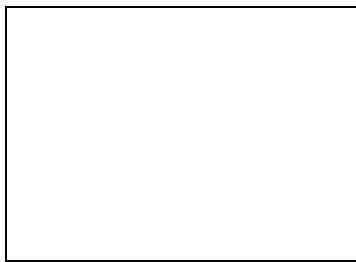
pollination.

Style: The neck connecting the stigma and the carpel.

Xylem: The vascular tissue that conducts water and dissolved minerals in plants

ZONES

USA:



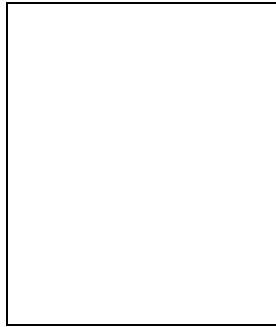
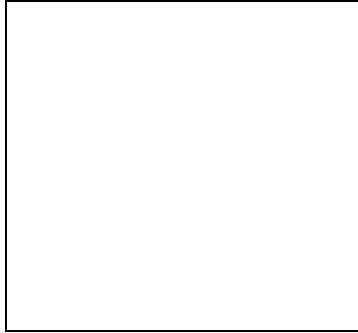
CANDA:



AUSTRALIA:



EUROPE:



Useful/Informative/Interesting Posts/links

- [Ethnobotanicals Links](#)
- [Secret of Syrian Rue From Seed](#)
- [Cactus seedling grafting...here's how to do it](#)
- [Cactus tissue culture](#)
- [Homemade Hydroponics](#)
- [Envelope seed stealth method](#)
- [How to send a rooted clone in the post.](#)
- [Cereus graft \(process and outcome\)](#)
- [Bonsai'd buds \(a how to\)](#)
- [Whats the recipe for the hot pepper bug spray???](#)

- [How to make pod putty](#)
- [How to Construct Sacred Smudge Sticks](#)
- [Symptoms of nutrient deficiency](#)
- [Starter's: Opium Poppy \(dial ups warned\)](#)
- [mjshroomer's guide to san pedro preparation-pictorial](#)
- [Composting](#)
- [Cold Frames Hotbed and Greenhouses](#)
- [Poppies - From Poppy Seed to Cooked Opium](#)

Basic Horticulture:

Is a twenty-four hour photoperiod good or beneficial?

Despite successes with marijuana under a 24 hr photoperiod; a photoperiod of 24hrs is not recommended. A dark period is required for photosynthesis. Also for cacti once darkness comes cacti take up CO₂ needed for photosynthesis at night to minimize water loss of taking it up during the day.

Seed rule

If your seeds seem rather thing and delicate, and you're afraid to sneeze, breath, move to fast, or let a strong breeze come by for fear of losing them:

Then these seeds generally require that they are planted VERY shallowly. Sprinkle them or order them and either push into the soil with a pencil tip, or cover lightly with soil.

To water, it is generally best to use a mister or atomizer until seeds sprout and become established.

If the seeds are larger:

They can be planted much deeper than the small tiny seeds usually between ¼ and sometimes up 1 inch deep.

Some seeds sometimes require scarifying or nicking.

Nicking:

Use a knife cut into the seed coat away from the germ eye.

Scarifying:

Place seeds in a bag with some sand and shake vigorously.

Taking a cutting tips.

Do not butcher the plant, leave enough of the mother plant so it can continue to photosynthesize, e.g. **IT'S BEST NOT TO STRIP IT BARE OF LEAVES.**

Cuttings can be taken commonly from the main stem, this is sometimes called topping and also from lateral branches/shoots.

The cutting should contain several sets of leaves, usually 3 sets are fine but 4 are best. The bottom set of leaves can be picked off exposing the leaf node. Scrape the node lightly with your finger nail,

Method 1:

The cutting should then be taken to a pot of room temperature water and submerged enough to cover the bottom of the cutting. Now make another cut under the water about $\frac{1}{4}$ of an inch from the bottom of the cutting. Once the cut is made transfer it quickly to your cup of water in which the cutting will root. This allows water to be sucked up into the xylem and provides a continuous water column in the xylem. This is good for your plant as it prevents wilting and conduction of water up to the leaves while it's trying to root. Once cut under the water transfer to another cup with water containing plain water or water with some rooting hormone. Where that leaf node scraped before is submerged.

Method 2:

Instead of cutting underwater and rooting in water, place the cutting in sterilized soil wetted to field capacity and placed under a humidity tent. Allow to root for approximately 2 weeks, venting the bag daily

and blowing up with air.

Propagation of Vines:

Ground Layering: This is a method of rooting shoots while they are still attached to the parent plant. It is often used with plants whose cuttings refuse to root. Select a low-growing branch that can be bent to the ground. Make a slanting cut halfway through the branch at a point about 12 inches from the end, and just below a joint. Then wedge is open with a pebble. Bury the cut in about 4 inches of soil and anchor it with a stone. Stake up the end of the branch so that it extends above the soil line. Keep the soil moist, and carefully dig down to the cut every few months to check if rooting has taken place. Once rooted, the branch should be severed from the parent plant and grown like an ordinary cutting.

Air Layering: This is similar to ground layering but may be done with any branch. Select a branch from pencil size up to one inch thick. Make a slanting cut halfway through the branch. Wedge the cut open with a matchstick and dust the cut lightly with rooting hormone. With thick branches, a ring of bark should be removed instead of cutting the branch. Surround it with a handful of damp peat moss and enclose it with plastic wrap. Tie the wrap at both ends with wire tape. The peat moss should be kept damp. Check it frequently during the summer. In a month or two roots will form and the branch may be severed and treated like an ordinary cutting.

Specific Horticulture

SALVIA DIVINORUM

It is also known as "la pastora" / "the shepherdess", "the leaves of the shepherdess", "diviner's mint" or "diviner's sage", and in context simply as "salvia".

DESCRIPTION

Salvia divinorum is a soft-leaved green plant, native to Southern Mexico, which contains a powerful psychoactive chemical known as Salvinorin. S. divinorum has been used traditionally in Mexico for healing and divination and has become popular in the underground psychedelic culture around the world starting in the

early 1990's Erowid (
[url=http://www.erowid.org/plants/salvia/salvia_basics.shtml]
).[http://www.erowid.org/plants/salvia/salvia_basics.shtml].[/url]

CHEMISTRY

Salvia Divinorum is a vision-inducing plant. Salvinorin A is the active chemical of Salvia Divinorum, it is not structurally similar to any other common psychoactives.

THE MYSTERY

Is salvia a plant mystery?

Yes it is. There is some controversy as to whether Salvia is a true cultigen. There has been much study done.

“after observing the localities in which the Salvia grew, we believe the mint is collected in the highlands and planted in more accessible places, where it becomes naturalized. It is doubtful that the Salvia is a true cultigen.”

Refer to: Studies of Salvia divinorum (Lamiaceae), an Hallucinogenic Mint from the Sierra Mazateca in Oaxaca, Central Mexico Economic Botany 41(2), 1987, pp. 283-291. L.J. VALDÉS III,2,3 G.M. HATFIELD,2 M. KOREEDA,3 and A.G. PAUL2

"AGRONOMIC DATA: There exists agronomic controversy over the status of S.divinorum as a cultigen. The type specimen was a cultivar, and the botanical discoverer of the plant said it "seems to be a cultigen", noting: "We were on the watch for S.divinorum as we criss-crossed the Sierra Mazateca on horseback in September and October of 1962, but never once did we see it. The Indians choose some remote ravine for the planting of it .. whether it occurs in a wild state (except for plants that have been abandoned or have escaped) we do not know" (Wasson 1962). Valdés, who made ethnographic and phytochemical study of this plant his thesis project, has challenged this, stating that his informant Don Alejandro "indicated that the plant grows wild in the fairly inaccessible highlands of the Sierra Mazateca" admitting, however, that all plants he saw were "apparently originally started by humans" (Valdés 1994). Valdés failed to cite Reisfield's thorough botanical and horticultural study of the plant, which concluded that the plant was a cultivar: "Hybridity is suggested, although

intermediacy between two known species has not been recognized" (Reisfield 1993), while Epling & Játiva-M. (1962) noted an affinity with *Salvia cyanea* Lamb. ex Benth. Although Valdés had been able to obtain 4 seeds from 14 cross-pollinated flowers (28%), these were killed by overheating in a greenhouse, before viability could be assessed (Valdés et al. 1987a). Valdés also noted that D.J. Siebert had obtained viable seed from cultivated plants in Hawai'i (Valdés 1994), but the seedlings were very weak and of dubious viability in wild conditions (Siebert 1993-94). Reisfield found more than 50% of the pollen grains examined from *S. divinorum* to be unviable. He obtained only 11 nutlets from 108 self-pollinations, each potentially yielding 4 fruits, or a success rate of 11/432 (2.5%); while in 190 cross-pollinations, only 24 fruits developed (24/760 or 3%), commenting "at no time was a legitimate pollinator observed visiting flowers", even in a nocturnal "stakeout", although mature seeds thus obtained produced some "vigorous seedlings [which] developed into plants indistinguishable .. from their parents". In his botanical description of the plant, Reisfield noted its habit of "trailing along rocky stream banks, sometimes in running water, rooting copiously at the nodes" (Reisfield 1993)."

HISTORY

http://www.erowid.org/plants/salvia/salvia_journal7.shtml

COMMON SALVIA QUESTION

Where can I get salvia seeds?

Salvia rarely flowers, and rarely sets viable seeds. You must obtain some cuttings to grow this plant.

I got my salvia cutting now what?

Salvia cuttings are best rooted in plain water or water with some rooting hormone in it. The lowest most leaf node should be exposed and if it isn't, crack off the leaves on those nodes and scrape the node with your nail, submerge the cutting in the water up to and covering the leaf node. The roots will sprout from there.

After several days root buds should appear, after there is a sufficient amount of

root mass, plant in your favorite aerated soil.

What conditions does my salvia like?

- Indirect sunlight
- High RH between 70 – 95% is optimal: Can be grown at lower humidity with acclimatization.
- Acidic or Neutral Soil.
- Miracid is a good feeder.
- Use large pots, with lots of space for the roots.

My Salvia is dying now what?

Many common causes of Salvia problems stems from over-watering. Watering should only be done when the top layer of soil is dry to the touch.

My Salvia is getting black edges, what's wrong?

That is rather normal; if your humidity is staying within optimal range and the brown/black edges don't start consuming the entire leaf then there is nothing to worry about. Simply remove the black edges by tripping the leaf back a little.

Consistent high humidity prevents black edges.

When can a salvia plant be propagated?

You can propagate Salvia at any time.

When taking a cutting use a clean sharp blade to make a cutting of either the main stalk or a branch. Be sure to leave the plant intact enough to recover, e.g. leave some leaves.

Once the cutting is made, a good thing to do is to take the plant to a pot of room temp water and submerge the cut end of the cutting and once again cut off about ¼ inch off the bottom where the original cut was made to separate from the host. After this is transfer quickly as possible, and preferably without ever leaving the water at all – if not no big deal just move quick, to the container in which the cutting is to root.

LINKS

<http://www.erowid.org/plants/salvia/salvia.shtml>

<http://members.lycos.co.uk/salviaengland/>

<http://sagewisdom.org/>

<http://sagewisdom.org/usersguide.html> *If you are going to use the plant.

POPPIES

For a plethora of information beyond the scope of this small section visit

www.poppies.org

Which poppy do I want for opium?

There are several species of poppy plant but the species that one wants for latex opium is Papaver Somniferum.

I heard poppies like cold temperatures is this true?

It’s been said that poppy seeds germinate best in colder temperatures. Rule of thumb is it should be somewhat cool for the seedlings, once the plants develop into mature specimens warm weather is just fine. After all they grow them in Afghanistan!

When is the best time to plant my poppy seeds?

Poppies should be directly sown in your garden or pot. Poppies can be sown in September; they will over-winter as a rosette and send up a shoot in the spring. It is also possible to spread seed at the end of winter to very early spring.

Can I really use seeds from the grocery store?

Yes, they seem to be rather viable and are said to be Tasmanian strain. Other's have said the grocery store poppies are bred to contain a low amount of alkaloids called 'Thompson Strain'; so far this has yet to be validated by any literature. To quote Hogshire from Opium for the Masses:

On the plus side, grocery store poppy seeds, bought in the cute little glass bottles in the spice section, are probably from some of the world's best opium cultivars. The seeds are a bit expensive (a bottle costs three or four dollars and contains the same amount of seed you can pour out of a half dozen good-sized heads!), but they probably came from the poppy fields of Tasmania.

Since 1970, two companies, Britain's Glaxo and America's Johnson & Johnson, have invested enormous energy into transforming the island into the world's most effective poppy country. They have tirelessly experimented with the plant until Tasmania's poppies are said to have some of the highest yields in the world. The seeds from these poppies are a rich blue color and the flower they grow is white.

I want to start my poppies in one place and transplant them to another, is this possible?

Short answer no, long answer possibly. Poppies have rather fragile root systems and do not hold up to being transplanted. However if started in peat pots one can simply plant the entire peat pot into its final growing place. The peat pot will eventually decompose and the plant will be just fine.

What kind of soil should I use?

Seeds should be planted in loose fluffy soil, well drained soil.

I heard something about not watering a poppy plant after a certain time, what does this mean?

It is recommended that after the plant flowers and the petals drop that one stop watering the plant. If you're growing several plants to one pot and the majority are matured and one or two is not then it's recommended that one stop watering anyway as the later maturing pods will not produce very well

anyway.

When can I harvest my plants?

If one wants latex from their pods it is best to take it from an unripe poppy pod that has had its flowers drop off and water discontinued. Use a small pin or a knife and scrape into the flesh of the pod, but not significantly deep through to the inner space of the pod. The latex will ooze out, one can either let it dry and scrape it off or scrape it onto a knife still wet and allow to dry then. The scars will then heal over and in a few more days one can make another scraping.

One can also allow pods to complete their life cycle and use dried pods for tea, and also to harvest seeds for later grows.

MORNING GLORY

**Source of LSA*

I have seeds, how do I get them started?

Your seeds can be scarred or nicked, however in experience with morning glory it's not always necessary, but can be done anyway. They should be then soaked 24 hours in warm water, and can be left until they sprout. They should be planted sprout down in the soil.

What kind of soil should I use?

Basically morning glories thrive in poor shitty sandy soil.

What should I consider when growing?

Room to grow and climb. A lattice is a wonderful climbing medium for morning glories. They also like pretty direct sunlight.

When can I harvest seeds?

The seeds will be left after the flower has died and fallen off, do not harvest yet. Allow the seed pods to dry naturally or tear down the vines at the end of the

season and pick through the vines finding fat pods about the diameter of a dime or penny. Each pod should be allowed to dry naturally to a crusty brown. Each pod will be divided into 3 sections with 2 seeds per section.

EXTRACTION:

http://www.erowid.org/plants/morning_glor/morning_glor_extraction1.shtml

http://www.erowid.org/plants/morning_glor/morning_glor_extraction2.shtml

LEGUMINOSAE:

**Source of DMT and derivatives*

I've got my seeds how do I plant them?

Seeds can be scarified and soaked over night, then planted in a large pot with some a diverse mix potting soil with soil, peat moss, vermiculite and perlite. Include a pea in a far end of the pot that will also sprout, once the pea sprouts cut it off at the soil level leaving the roots. This inoculates the soil with nitrogen fixing bacteria.

My seedling seems to be wilting over, what's wrong?

Have you included/planted a pea inoculant in the soil?

What is a pea inoculant?

Pea inoculants are peas or beans that have nitrogen fixing bacteria in the seed and when they germinate they inoculate the soil with the bacteria helping the tree get nitrogen from the soil. To prevent the pea from growing after it's sprouted, just cut off the stalk of the pea at the soil level once it sprouts through the soil.

HAWAIIAN BABY WOODROSE

**Source of LSA*

Is Hawaiian Baby Woodrose (HBWR) the same as Hawaiian Woodrose?:

No it is not. Hawaiian Woodrose, is *Merremia tuberosa*. It is in the Convolvulaceae family and contains lesser amounts of LSA than HBWR.

I have seeds, how do I grow them?

Seeds need to be nicked and then soaked in warm water until they swell or sprout, approximately twenty-four hours. Once they're ready for planting, plant them in peat pots, once they've sprouted and are established replant them in a large pot with some structure for them to climb up as they grow. If you don't live in the tropics you'll have to take them in for the winter. It takes about two years to flower.

I have seeds, how do I use them?

Typically five seeds are considered a good dose. It's been said that one should scrape off the fuzz with a fingernail to reduce nausea, however this is unsubstantiated. What's left can be ground up and eaten, or used in an extraction.

Also See

http://www.erowid.org/plants/morning_glory/morning_glory_extraction1.shtml

http://www.erowid.org/plants/morning_glory/morning_glory_extraction2.shtml