

Welcome to the
Herb Growers
Network of WA



Herb of the Month: Thuja

Network News

Hi All,

I have appeared back into the land of the living, after having no modem for may satellite since November. Since then I had a month away so it has all been crazy really.

I am looking forward to things getting back to normal and starting to form some kind of routine again.

I hope you all had a wonderful festive break and I wish you all a prosperous, happy and successful 2010.

This month's herb monograph is about

one of my favorite herbs, Thuja and I decided to write about plants used in soil detoxification and regeneration. Some interesting stuff about fungi there.

On the home front, I will be offering about 20 short courses next year, predominately herbal based, if you would like to know more then let me know. They will be correspondence courses and more will be happening later this year. Stay tuned for that.

Enjoy your month,

Louise Plant



Interesting Facts to Consider

The TGA has proposed that all capsules are to be listed with the TGA. This proposed declaration 7 of the TGA act can be found at this link <http://www.tga.gov.au/cm/consult/cons-s7declaration.pdf>

The main impact will be on the sponsors of sports food supplements, where the supplement is in capsule form, and sponsors of some brands of spirulina and chlorella and other similar products in capsule form (some are already Listed with the TGA).

The cost of Listing a therapeutic good is around \$500 - \$700 per annum. The main expense comes into at the stage of manufacturing, because all therapeutic goods must be manufactured by a GMP (good manufacturing practice) certified facility. Becoming certified can be a costly process. However, the TGA is always open to submissions about why these goods should not be regulated as therapeutic goods.

Vitamin pills/tablets/capsules are already clearly considered to be therapeutic goods, and not foods: Vitamin pills do not have a tradition of use as a food, are not subject to a FSANZ food standard, and they are presented as products for therapeutic use.

The section 7 declaration will capture other substances in pill, capsule or tablet form that are closer to the food/medicine interface as therapeutic goods... it will mean something like barley grass in a capsule which could currently fall under either definition (depending on the presentation of the product) will definitely become a therapeutic good."

Merck Scientist Admits Cancer & AIDS Came From Vaccines...

http://eclipptv.com/viewVideo.php?video_id=8093

Doctors speak out about H1N1 VACCINE DANGERS

<http://eclipptv.com/viewVideo.php?>

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Do you know where you are able to find quality herbs?

Do you know where you can find information and traditional uses of herbs?

- The Herb Growers Network of WA, offers Quality Herbs with Wisdom.

Article

Soil detoxification

Can the herbs and plants that grow in our gardens grow for particular soil functions?

It is known that yarrow has secretions from its roots that help to elevate disease resistance on the plants close by. Even ailing plants can be given chamomile and yarrow tea to help as a pick me up.

Tales have come from Los Alamos Laboratories that jimson weed (*Datura stramonium*) was being researched as potentially valuable for decontaminating radioactive waste.

At the Bioneers Conference, Paul Stamets discussed the use of mushrooms for remediation of highly toxic waste, including radioactive sites. The mushrooms, he said, were safe to eat despite their employment for such dangerous and noble purposes. Similar accounts of fungi have been coming out of both Afghanistan and Iraq. It is known that mushrooms excrete their own kind of antibiotic, which not only is beneficial to humans, it is also beneficial to the soil.

Mycelia can serve as unparalleled biological filters. Mycelium produces extracellular enzymes and acids that break down recalcitrant molecules such as lignin and cellulose, the two primary components of woody plants. Lignin peroxidases dismantle the long chains of hydrogen and carbon, converting wood into simpler forms, on the path to decomposition. These same enzymes are superb at breaking apart hydrocarbons, the base structure common to oils, petroleum products, pesticides, PCBs, and many other pollutants.

The word for utilizing mycelial mats for bioremediation, is a process we have termed "mycoremediation". Significant studies showed that a strain of Oyster mushrooms could break down heavy oil.

A trial project at a vehicle storage centre controlled by the Washington State Dept. of Transportation (WSDOT) enlisted the techniques from several, competing bioremediation groups. The soil was blackened with oil and reeked of aromatic hydrocarbons.

They inoculated one berm of soil approximately 8 feet x 30 feet x 3 feet high with mushroom spawn while other technicians employed a variety of methods, ranging from bacteria to chemical agents. After 4 weeks, the tarps were pulled back from each test pile. The first piles employing the other techniques were unremarkable. Then the tarp was pulled from our pile, and gasps of astonishment and laughter welled up from the observers. The hydrocarbon-laden pile was bursting with mushrooms! Oyster mushrooms up to 12 inches in diameter had formed across the pile.

Analyses showed that more than 95% of many of the PAH (polycyclic aromatic hydrocarbons) were destroyed, reduced to non-toxic components, and the mushrooms were also free of any petroleum products.

After 8 weeks, the mushrooms had rotted away, and then came another startling revelation. As the mushrooms rotted, flies were attracted. (Sciariid, Phorid and other "fungus gnats" commonly seek out mushrooms, engorged themselves with spores, and spread the spores to other habitats). The flies became a magnet for other insects, which in turn brought in birds. Apparently the birds brought in seeds. Soon the patch of soil was an oasis, the only pile teeming with life! What they found is what is called a "keystone" organism, one that facilitates a cascade of other biological processes that contribute to habitat remediation.



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with a hint of herbs*



*Our Lumina Tea
for stress*



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Teas*

Herb of the Month— Thuja

Name: Thuja

Botanic Name – *Thuja occidentalis*

Family - Cupressaceae

Other Names - Western hemlock, Arbour vitae, white cedar

Parts Used: The young twigs

History: The plant was first identified as a remedy by native Indians in Canada during a 16th century expedition and was found to prove effective in the treatment of weakness from scurvy. In folk medicine, *Thuja occ* has been used to treat bronchial catarrh, enuresis, cystitis, psoriasis, uterine carcinomas, amenorrhea and rheumatism.

Habitat: Thuja is indigenous to eastern North America and is grown in Europe as an ornamental tree.

Description - The tallest of this species of Conifer rarely grows above 30 feet high. These trees have regular, graceful conical forms that make them valuable as high hedge trees, and they also take easily any other shape to which they may be clipped. The leaves are of two kinds on different branchlets, one awl-shaped and the other short and obtuse. Both have a small, flattened gland, containing a thin, fragrant turpentine. They are persistent, and overlap in four rows. The flowers are very small and terminal, and the cones nodding first ovoid and then spreading, with blunt scales arranged in three rows.

Propagation – Macroscopically, the cut herb shows small flattened, green twigs bearing paired, decussate leaves ~ 3 mm long. The keeled alternately lateral pairs partly conceal the flat rhomboidal, facial pairs pressed close together. The odour and taste are strongly camphoraceous. Only the dried twig tips of the species *Thuja occ* are used. This consists of the varieties of *Thuja occ*: *Thuja occ* cv. *Aureospica*, *Thuja occ* cv. *Lutea*, *Thuja occ* cv. *Vervaeneana* and *Thuja occ* cv. *Wareana*. The cut herb should contain no more than 2% of the stem over a 4 mm diameter.

Active Compounds - 1% Volatile oil including thujone; flavonoid glycoside; mucilage; tannin. The fresh plant (related to the dry substance) contains 0.6% essential oil, 2.07% reducing sugar, 4.9% water-soluble polysaccharides, 2.11% water-soluble minerals, 1.67% free acid and 1.31% tannic agents. The essential oil of the fresh leaves (related to the monoterpene fraction) contains 65% thujone, 8% isothujone, 8% fenchone, 5% sabinene and 2% α -pinene as the main monoterpenes. Other monoterpenes, namely carvotanacetone, origanone, origanone, myrcene and camphene, have been described. Recently, further bioactive constituents have been found. High molecular weight glycoproteins/polysaccharides are highly relevant for the activity of the plant.

Actions

- Antitumour
- Expectorant
- Anti-microbial
- Diuretic
- Astringent
- Alterative

Indications – The oil content of thuja is what has shown powerful immunostimulating activity. Many clinical in vitro and in vivo studies have been carried out. Trials have shown it to have an HIV – 1 activity, spleen cell proliferation, cytokine induction, antibody production, increased leukocyte production, increased immune response, proven immunomodulatory efficacy and supportive effects for the common cold. Other studies have shown it to have supportive effects when on antibiotic treatment.

Thuja acts as an antiviral and has great immune stimulating potential. It is known to stimulate macrophages and other immunocompetent cells. Its main action is due to its stimulating volatile oil. It not only acts as an expectorant, it also works to stimulate systemically, hence it could prove beneficial in heart weakness. It is not indicated in dry irritable coughs. It is useful where glands are swollen and helping to reduce catarrhal discharges.

Thuja will help treat disorders of the mucous linings of the bronchial tubes. It is valuable in ulcerative forms of sore throats and for fetid secretions.

It has a specific reflex action on the uterus and can be used also in incontinence, where there is a lack of muscle tone, as it strengthens the sphincter of the bladder. It can be used for the elderly and the young and can prove beneficial for bedwetting. It is valuable where there is dribbling of the urine or dribbling when coughing or sneezing. It could be used with men with chronic prostatitis as it relieves the weakness at the neck of the bladder. It will also stimulate secretions of the kidney tubules by its direct influence upon the epithelial cells. It has been used in cases of spermatorrhoea and cystitis successfully. Especially where the urine is burning or scalding, or where there is soreness at the neck of the bladder. It is good for fissures of the rectum and haemorrhoids.

It is indicated in the treatment of psoriasis and rheumatism.

Externally it is commonly known for the treatment of warts, as well as thrush and ringworm.

Acting as an alterative it helps clean the blood. It is known to help reduce 'lumps and bumps' and any abnormal growths on the skin or mucous membranes. When added externally it make give a tingling sensation , so it is best added dilute with four parts water to any tinctures or fluid extracts. Topically it is an antiseptic and can be applied to gangrenous ulcers and bed sores, helping them to dry. It can also be used topically in a fluid hydrastis spray to remove growths. It is best applied 4 to 5 times a day.

David Hoffman describes the use of this herb thus: "Thuja is given internally for cancer and for the pains of cancer it is applied externally, when possible, occasionally with good results. Thuja certainly exercises a direct influence upon the glandular structures and function. In what manner this influence is exercised is unknown, but in any disease that involves the gland, this remedy must be considered, and if there are no contraindications it can be tried and in many cases as with the ductless glands, it seems to act in a direct manner.

Dosage – Infusion: Pour a cup of boiling water onto 1 teaspoonful of the dried herb and leave to infuse for 10-15 minutes. This should be drunk three times a day.

Tincture: take 1-2ml of the tincture three times a day.

Cautions - Thuja has traditionally been used for its abortive activity hence it is best not used during pregnancy. Symptoms of intoxication from the fresh plant include vomiting, stomach ache, diarrhoea and gastroenteritis followed by absorption disorders, headache, nervous agitation and chronic convulsions, and symptoms of liver and renal toxicity extending to yellow liver atrophy, arrhythmia and myocardial bleeding. In cases of overdose and abuse, the oral intake of **Thuja** extracts induced severe metabolic disturbances. Intoxication was accompanied by an irritant effect on the gastrointestinal tract, uterus, liver and kidney. Infants who ingested leaves and twigs of fresh plant showed mild gastrointestinal disorders and vomiting. These reactions can be explained by the high contents of thujone in the fresh plant.

References

Chevellier A. 2001. Encyclopaedia of Medicinal Plants. Dorling Kindersley, London

Plant, L. 2006. Rapid Reference Guide, 3rd ed. Self published Western Australia

<http://www.wildcrafted.com.au/Botanicals/Thuja.html>

eCAM Advance Access originally published online on February 9, 2005

eCAM 2005 2(1):69-78; doi:10.1093/ecam/neh065

<http://www.fungi.com/mycotech/mycova.html>

Harnischfeger G and Stolze H. *Bewährte Pflanzendrogen in Wissenschaft und Medizin* 1983; Notamed Verlag, Bad Homburg/Melsungen pp. 250-9

Chang LC, Song LL, Park EJ, et al. Bioactive constituents of *Thuja occidentalis* *J Nat Prod* 2000; 63: 1235-8 [[Medline](#)]

Millsbaugh CF. *American Medicinal Plants. Thuja* 1974; New York Dover Publications



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