

ORIGINAL ARTICLES

Thyme (*Thymus vulgaris*), the Medicinal plant and Usages

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ABSTRACT

Thyme (*Thymus vulgaris* L.) is a perennial Labiatae of the Mediterranean region, which has been used for centuries as spice, home remedy, drug, perfume and insecticide. In Medicine, it is used as antispasmodic, antibacterial, antifungal, secretolytic, expectorant, antiseptic, anthelmintic and antitussive as reported by other authors. More than fifty plants are named and used as "thyme" in world. Most of them belong to the genus *Thymus*, but some of them to other genera of Lamiaceae such as *Origanum*, *Majorana*, *Satureja* and *Thymbra*. Thymol and carvacrol constituted the main phenolic compound of Thyme oil. The major nonphenolic compounds were linalool and p-cymene. Thyme oil with high thymol content strongly inhibited the bacterial growth. Also, thymol has the higher activity against fungi, followed by carvacrol and geraniol, but linalool, terpineol and thujone exhibited the least effect.

Key words: Thyme, *Thymus vulgaris*, Usages, Medicine, Labiatae, Antibacterial, Antifungal.

Introduction

Medicinal plant play important role in human life (1-24). Thyme with Scientific's name, *Thymus* is one of the dicotyledonous plants. This plant's name derivative from Grecian's word, *thymus* that it means courage and potency and it can symbol for medical and curative efficacy from this plant. This plant is Lamiaceae's family and the origin of that is Mediterranean Sea. This plant is multi – years plant and grow to 40 centimeter height and one of its small and wooden branches, growing spearhead dark green leaves. We use from manifold fine perfume as spice or drug. We can perceive good smell odor from white partial to pink color flowers. There are many and different kinds species from this plant. The extract of this plant has intensive perfume and the fresh kind of that has much odour.

The Position of this Plant in History:

This plant has chief role in mummify of corpses in archetype. Egyptian and Greek physicians had known the strong and stimulator impression of this plant. This plant had proposed as symbol of potency and courage in medieval and rankers of that time, had in laied themselves with this plant before battle.

Mountain Thyme:

The mountain thyme is one of the beautiful and fragrant plants that have growing in the most of moderate areas. The domestic sample of this plant is Shiraz thyme that had cultivated and then utilized and cultivate in Shiraz, too. This two kind thyme are different from exterior shape and taste. But the remedial properties of mountain thyme is major than Shiraz thyme.

Remedial Properties:

This plant has very pleasant odor and hasty taste and for its property that give to blood flow when we rubbing to every one of organ and member, blood be turned upside down to that direction. We can use from sodden of this plant for calvities from, until, blood flow is better and feeding the hair – bulb.

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This plant is good drug for breathing system and illness such as snuffle, bronchitis, asthma, and grippe. This plant is good drug for bread basket, too and removal stomach malaise such as digestion and distension, entirely.

Using Instance:

Its steepening help to digestion of food and its opposite of cough and it give humor and using in bronchitis, whooping cough and the inflammation of upper breathing system.

Pharmacologic Effects:

Opposite cough effect and giving humor and opposite of spasm in this plant on animals is one of the chief effects of that. The infected proof food digestion, cough proof. Smell proof, tension proof, the sodden of this plant effective in bowel curvature treatment and squirt thyme is a good agent in purificatory and useful sleeplessness treatment and digestive apparatus diseases. If we stewing 5 to 10 gram of thyme in 1 liter of boiling water, and giving that with a few honey for patients suffering to pursiness and kidney and urinary bladder and junctures pain and sciatica and menstruations and unnatural transpiration in womankind, it will effective in removal of sickness themselves. Thyme is tension proof and petitmal proof and distension proof, too. And it is useful for vision and stomach reinforcement. For prevent of calvities, 20 gram of thyme, decoction in one liter water and then rubbing that on your head. Implied that, we haven't immoderation in eating that because it cause to detection of Albumin in urine and garden thyme effective materials gyiring phlegm and using for treatment of cough. From tincture and alcoholic extractive from this plant we can use for treatment of cough, strangles, bronchitis and asthma, vastly.

Consumption Forbidding and Sidelong Phenomenon:

We have to keep from consumption of thyme's escaper oil as edible from and we use that only extraneous application and poisoning signs of this plant with escaper oil of that, is navsea, disgorge, stomach pain, giddiness and tension, coma, respiratory – sincere collapse.

Thymus Vulgris:

It is a medical plant from spearmint fuscous that is short shrub and full branch that has thin and reciprocal leaves. It has white and singular and umbelliferous flowers. Different kind of that growing in Iran Mountains that have different names and it famous to Ushon in Khorbiabanak area.

Ecological Need:

Thyme is Mediterranean's plant and need to hot weather and enough light in growing stages. This plant like drought and it endurance drought and shallow very facility. The cultivation of this plant isn't suitable in fertilizer's field and the ground that cause to stagnation of water because it's very sensor to ground water drawing. We use from sunny areas and southern hillside of hills for cultivation of that. Not heavy soil is suitable soil because they have calcium composition with much width. Heavy soil isn't suitable for cultivation of this plant. Soil ventilation has basically rolls in operation enhancement. Humidity and much irrigation not only suitable for germination of this plant but also cause to decrement of auality and quantity of plant's essence. Soil's pH for cultivation of this plant have to 4.5 to 8 is suitable for that.

Selection:

Choose fresh herbs that have good green color; avoid those that are wilted. Packaged seasonings lose quality after a while. Try to buy from a store that restocks its fresh herb section fairly often.

Storage:

Refrigerate fresh thyme in damp paper towels over wrapped in plastic. Stored this way, thyme will keep for up to one week. Store dried thyme and ground thyme in a cool, dark, dry place. Dried thyme will keep up to one year, ground thyme up to six months.

References

- Broucke, C.V.D., J. Lemli, J. Lamy, 1983. Spasmolytic activity of the flavonoids from *Thymus vulgaris*, Pharmaceutisch weekblad scientific edition, *Plantae medicinalis et Phytotherapie*, 16(4): 310-317.
- Broucke, C.V.D., 1983. The Therapeutic of *Thymus* species. *Fitoterapia*, 4: 171-174.
- Cabo, J., M.E. Crespo, J. Jimenez, C. Navarro, S. Risco, 1982. Seasonal variation of essential oil yield and composition of *Thymus hyemalis* *Planta Medica*, 380-382.
- Consentino, S., C.I.G. Tuberoso, B. Pisano, M. Satta, E. Arzedi and F. Palmas, 1999. In vitro antimicrobial activity and chemical composition of sardinian *Thymus* essential oils. *Lett. Appl. Microbiol.*, 29: 130-135.
- Cowan, M.M., 1999. Plant products as antimicrobial agents. *Clin. Microbiol. Rev.*, 12: 564-582.
- Cruz, T., M.P. Cabo, M.M. Cabo, J. Jiménez, J. Cabo and C. Ruiz, 1989. In vitro antibacterial effect of the essential oil of *Thymus longiflorus* Boiss. *Microbios*, 60: 59-61.
- Gouyon, P.H., Ph. Vernett, J.L. Guillerme, G. Valdeyron, 1988. Polymorphisms and environment the adaptive value of the oil. Polymorphisms in *Thymus vulgaris*, *Heredity*, 57: 59-66.
- Hornok, L., D. Foldesi, K. Szasz, 1975. Trials on modernizing thyme (*Thymus vulgaris*) cultivation, *Herba Hungarica*, 14: 47-64.
- Jahan, F.I., M.T. Islam, M. Rajib-ul-hasan, A.R. Chowdhury, S. Seraj, M.S. Aziz, R. Jahan, M.A. Khatun, R. Freedman and M. Rahmatullah, 2010. A survey on non-conventional plant parts consumed during Mongaa seasonal famine which affects the northern districts of Bangladesh. *American Eurasian Journal of Sustainable Agriculture*, 4: 230-236.
- Kokkini, S., D. Vokou, R. Karousou, 1990. Essential oil yield of Lamiaceae plants in Greece. *Fragrance and Flowers*, 3: 5-12.
- Meriçli-İlisulu, F., M. Tanker, 1986. The volatile oils of some endemic *Thymus* Species Grown in Southern Anatolia. *Planta Medica*, 340.
- Md. Mahabub A.H. Nawaz, Maruf Hossain, Masud Karim, Mujib Khan, Rownak Jahan, Mohammed Rahmatullah, 2009. An ethnobotanical survey of Rajshahi district in Rajshahi division, Bangladesh, *American-Eurasian Journal of Sustainable Agriculture* 3(2): 143-150.
- Özgüven, M., F. Aksu, H.S.Z., 1987. Antibacterial activities of essential oils from *Majorana hortensis* Moench, *Satureja montana* L. And *Thymus vulgaris* L., *Journal of ANKEM* 1(3): 270-275.
- Piccaglia, R., M. Marotti, 1991. Composition of the essential oil of an Italian *Thymus vulgaris* L. ecotype. *Flavour and Fragrance Journal.*, 6: 241-244.
- Rasooli, I. and S.A. Mirmostafa, 2003. Bacterial susceptibility to and chemical composition of essential oils from *Thymus kotschyianus* and *Thymus persicus*. *J. Agric. Food Chem.*, 51: 2200-2205.
- Rota, M.C., A. Herrera, R.M. Martinez, J.A. Sotomayor and M.J. Jordan, 2007. Antimicrobial activity and chemical composition of *Thymus vulgaris*, *Thymus zygis* and *Thymus hyemalis* essential oils. *Food Cont.*, 19: 681-687.
- Rahmatullah, M., D. Ferdousi, M.A.H. Mollik, M.N.K. Azam, M.T. Rahman and R. Jahan, 2009. Ethnomedicinal Survey of Bheramara Area in Kushtia District, Bangladesh. *American Eurasian Journal of Sustainable Agriculture*, 3: 534-541.
- Rahmatullah, M., A. Noman, M.S. Hossain, M.H. Rashid, T. Rahman, M.H. Chowdhury and R. Jahan, 2009. A survey of medicinal plants in two areas of Dinajpur district, Bangladesh including plants which can be used as functional foods. *American Eurasian Journal of Sustainable Agriculture*, 3: 862-876.
- Rahmatullah, M., A.K. Das, M.A.H. Mollik, R. Jahan, M. Khan, T. Rahman and M.H. Chowdhury, 2009. An Ethnomedicinal Survey of Dhamrai Sub-district in Dhaka District, Bangladesh. *American Eurasian Journal of Sustainable Agriculture*, 3: 881-888.
- Rahmatullah, M., M.A.H. Mollik, A.T.M.A. Azam, M.R. Islam, M.A.M. Chowdhury, R. Jahan, M.H. Chowdhury and T. Rahman, 2009. Ethnobotanical Survey of the Santal tribe residing in Thakurgaon District, Bangladesh. *American Eurasian Journal of Sustainable Agriculture*, 3: 889-898.
- Rahmatullah, M., I.J. Mukti, A.K.M.F. Haque, M.A.H. Mollik, K. Parvin, R. Jahan, M.H. Chowdhury and T. Rahman, 2009. An Ethnobotanical Survey and Pharmacological Evaluation of Medicinal Plants used by the Garo Tribal Community living in Netrakona district, Bangladesh. *Advances in Natural and Applied Sciences*, 3: 402-418.
- Stahl-Biskup, E., I. Laakso, 1990. Essential oil polymorphism in Finnish *Thymus* species, *Planta Medica*, 56: 464-468 542.
- Tansı, S., M. Özgüven, 1995. Çukurova'nın dağlık ve ova kesiminde yetistirilen Karabaskekik (*Thymus spicata*)'nın uçucu yağ bileşimi. *Ç.Ü. Ziraat Fakültesi Dergisi*, Yayın, 105: 233-241.
- Vernet, Ph., J.L. Guillerme, P.H. Gouyon, 1977. Le polymorphisme chimique de *Thymus vulgaris* L. (Labiee), I. Repartition des formes chimiques en relation avec certains facteurs écologiques, *Ecologica Plantarum*, 128(2): 159-179.