# Hyssop

It is said that Hyssop was so well known in ancient times that the mention of its name never required a description. Hyssop is native to the Mediterranean, specifically Southern France and temperate Asia; the Europeans used the herb as early as the Middle Ages, but the Greeks and Arabs used it far earlier. The mention of Hyssop in the book of Psalms, not only illustrates the "holy herb's" purgative power, but indicates the herb's presence in society over 2,000 years ago.

"Purge me with hyssop and I shall be clean; wash me and I shall be whiter than snow." <sup>2</sup>



The herb is also mentioned in the New Testament. Just before Jesus died, he was offered a branch of hyssop with a vinegar/wine soaked sponge. Though, a comparative study was conducted between traditional Mediterranean herbs, which concluded that a version of *Majorana syriaca* is the "hyssop" of the Bible.<sup>3</sup> While this evidence may suggest otherwise, many cultures still attach the purgatory connotations of the biblical herb solely to *H. officinalis* L.

### **Botanical Description:**

Hyssop is an evergreen perennial with a very long flowering season. The herb grows an average of 2-3 feet tall and has a spread of about 1 foot. Its base is woody and it has herbaceous stems. The leaves of the herb grow in opposing pairs without petioles; the leaves are 1-2 inches long and are narrow and pointy. H. officinalis L. has ¼ inch tall bluish-purple flowers which grow in whorls of vertical spikes. The herb flowers in July. The herb flowers in July.

There are four varietals of the species, each are distinguishable by their flower's color or size. *H. alba* has white flowers, *H. rubia* has red flowers, *H. rosea* has pink flowers and *H. grandiflora* has larger bluish-purple flowers. A study found that of these four phenotypes, the blueish-purple variety has the strongest odor of the species.

<sup>&</sup>lt;sup>1</sup> Callery, Emma, <u>The Complete Book of Herbs</u>: A <u>Practical Guide to Cultivating, Drying, and Cooking with More than 50 Herbs</u> (Philadelphia: Courage Books, 1994) 83.

<sup>&</sup>lt;sup>2</sup> Psalm 51:7

<sup>&</sup>lt;sup>3</sup> Fleisher, A. & Fleisher, Z. "Identification of Biblical Hyssop and Origin of the Traditional use of Oregano-Group Herbs in the Mediterranean Region." <u>Economic Botany</u> 42.2 (1988) 232-41.

<sup>&</sup>lt;sup>4</sup> Muenscher, W., Leopold, C., & Rice, M. A., <u>Garden Spice and Wild Pot-Herbs: An American Herbal</u> (<u>Ithaca: Comstock Pub.</u> (Associates printing, 1955) 83.

<sup>&</sup>lt;sup>5</sup> Hutchens, Alma R. A., <u>Handbook of Native American Herbs</u> (Boston: Random House, 1992) 115.

<sup>&</sup>lt;sup>6</sup> Bailey, L.H. & Bailey, E.Z. Hortus Third. (New York: Macmillan Pub., 1976) 1290.

<sup>&</sup>lt;sup>7</sup> Kerrola, K., Galambosi, B. & Kallio, H., "Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (Hyssopus Officinalis L.)" <u>Journal of Agricultural and Food Chemistry</u> 42.3 (1994) 776-81. Image: "Agastache Blue Fortune (Hyssop):" http://www.flickr.com/photos/17548490@N00/1410744084/

## **Etymology:**

The name "hyssop" comes from the Greek word "hussopos" and the Hebrew word "ezob." both of which mean "the holy herb" (which is consistent with its use in the bible as cleaning and purifying sacred places and the body.) "Hyssop Tea" is another name for the herb. In Spanish, hyssop is "hisopo" while in Italian it is "issopo." The French call hyssop "hyssope" and "herbe sacree" where as in German the herb is "ysop."

#### Uses:

Hyssop has served humans for thousands of years. Hippocrates prescribed it for bronchitis and pleurisy. In the 17<sup>th</sup> and 18<sup>th</sup> centuries, teas and tinctures of hyssop flowers used to reduce perspiration and cure jaundice and dropsy. 8 Traditionally, Hyssop has been used to remedy asthma, congestion, rheumatism, sore throats, wounds, ulcers and tumors. Furthermore, doctors prescribed the inhalation of the fumes of burnt hyssop and brimstone (or sage)<sup>11</sup> to relieve sore throats (quinsy). <sup>12</sup> The New York Weekly Museum published this advice in 1816:

Kingdom	Plantea
Division	Magnoliophyta
Class	Magnpliopsoda
Order	Lamiales
Family	Lamiaceae (Mint)
Genus	Hyssopus
Species	H. officinalis L.

"Take some hyssop, and tie it up in a bit of muslin, put it into hot water, and bathe the eyes with it three or four times a day, keeping it moderately warm. Dragon's blood, powdered, may be put in the water, 13

In modern medicine, scientists have discovered many uses for hyssop. For example, they have proven hyssop to be a stimulant and help with rheumatism. Pharmacists also believe the herb soothes the mucus membrane which is why it relieves bronchitis/pleurisy/asthma. <sup>14</sup> Furthermore, the herb reduces blood pressure by increasing blood circulation. Currently, scientists believe that the herb could be a potential supplementary food for hyperglycemic individuals due to its antioxidant nature. <sup>15</sup> Also, researchers discovered a polysaccharide present in hyssop which could potential be used to treat individuals with HIV-1. 16 Herbalists continue to recommend hyssop for many sources of relief. For example, an infusion of hyssop leave creates an excellent compress, "a folded cloth moistened with an

<sup>&</sup>lt;sup>8</sup> Kowalchik, C. & Hylton, W.H., Rodale's Illustrated Encyclopedia of Gardening (Emmaus: Rodale Press, 1987) 342

<sup>&</sup>lt;sup>9</sup> Hartwell, J.L., Plants Used Against Cancer. A Survey, 33(3), (Lloydia, 1969) 247 - 296

<sup>&</sup>lt;sup>10</sup> Lewis, W. H. & Elvin-Lewis, M.P.F. Medicinal Botany: plants affecting men's health (New York, John Wiley & Sons, 1977) 515.

<sup>&</sup>lt;sup>11</sup> Hutchens 116.

<sup>&</sup>lt;sup>12</sup> O'Connor, A., Hirshfeld, M. & Cornell Plantations, An Herb Garden Companion and Guide to the Robison York State Herb Garden (Ithaca: Cornell University, 1984) 47.

<sup>&</sup>lt;sup>13</sup> Weekly Museum, published as The New-York Weekly Museum; Volume: V; Issue: 2(11-09-1816) 32.

<sup>&</sup>lt;sup>14</sup> Reader's Digest Association, Magic and Medicine of Plants (Pleasantville: Reader's Digest Association, 1986) 222.

<sup>&</sup>lt;sup>15</sup> Miyazaki, Hiroyuki et al., "Inhibitory Effects of Hyssop (Hyssopus Officinalis) Extracts on Intestinal Alpha-Glucosidase Activity and Postprandial Hyperglycemia" Journal of nutritional science and

<sup>&</sup>lt;u>vitaminology</u> 49.5 (2003) 346-9.

Gollapudi S, et al. Isolation of a Previously Unidentified Polysaccharide (MAR-10) from Hyssop officinalis That Exhibits Strong Activity Against Human Immunodeficiency Virus Type 1. Biochem Biophys Res Comm, 210;1 (1995) 145.

herbal infusion and applied to the skin,"<sup>17</sup> for muscle pains or mosquito insect bites. Written below is an herbalist's recipe for a traditional hyssop cough syrup:

- ❖ 1 cup of honey
- ❖ ¼ cup of water
- 2 tablespoons dried hyssop flowering tops
- Or 1/3 cup of freshly chopped flowering tops
- ❖ 1 teaspoon aniseeds (to offset the hyssop flavor)

Add water, one tablespoon at a time with stirring, to a saucepan containing the honey until the mixture reaches the consistency of syrup. Bring watered honey to a boil slowly, skimming off any residue that forms at the top. Crush the aniseeds and stir both the seeds and the hyssop (slightly dampen with water) into the honey mixture. The mixture needs to simmer over a low heat, covered, for about thirty minutes. After the elapsed time, let the syrup cool slightly cool, pour into a jar and seal the jar only when the syrup is completely cool. <sup>18</sup>

As a culinary herb in modern times, people use hyssop rarely because its flavor is so intense; it has a very strong spicy/bitter taste. Though, the herb's leaves and flowers are used in some salads, pastas, soups/stews, teas, absinthe and liquors such as Benedictine and Chartreuse. In ancient times, Romans used the herb to make an herbal wine and medieval monks used the herb to spice soups. <sup>19</sup> Also in the medieval period, people relied heavily on plants, such as hyssop, for their honey, the only source of sweetener. <sup>20</sup> Bees can create up to sixty pounds of honey from one acre of hyssop. <sup>21</sup>

Hyssop oil serves many industrial purposes as well. The oil is used as a bitter in perfume, is a key ingredient in some liquors, soaps, colognes, creams and is used for rinsing water for laundry and bathing. In Hungary, the country has special industrial plantations purely of hyssop for the sole purpose of its oil extract. To receive the best oil extract, hyssop's flowers should be collected right after the flowering. Though, hyssop's essential oil can also be adulterated by using lavender, rosemary or camphor oils. The combination when exposed to rats



resulted in the rats experiencing epileptic episodes, peripheral cortical and muscular manifestations. It is this adulteration by camphor that led to poisonings in France being attributed to hyssop oil.<sup>24</sup> Scientists attribute the herb's antifungal and fungicidal qualities to the reduction of a hyssop leaf's active

<sup>23</sup> Geunther E. The Essential Oils Vol. III, (New York: D. Van Nostrand Co., 1949) 777.

<sup>&</sup>lt;sup>17</sup> Boxer, A. & Back, P., <u>The Herb Book</u> (New York: Octopus/Mayflower, 1980) 61.

<sup>&</sup>lt;sup>18</sup> Reader's Digest Association 436.

<sup>&</sup>lt;sup>19</sup> Reader's Digest Association 222.

<sup>&</sup>lt;sup>20</sup> Harrop, R., Encyclopedia of Herbs (Secaucus: Chartwell Books Inc., 1977) 7.

<sup>&</sup>lt;sup>21</sup> Hutchens 116.

<sup>&</sup>lt;sup>22</sup> Callery 83,

<sup>&</sup>lt;sup>24</sup> Steinmetz, M. D., et al., "The Toxicity of Certain Essential Oils of Commerce Oil of Hyssop and Oil of Sage" Plantes Medicinales et Phytotherapie 14.1 (1980) 34-45.

concentration because of the diffusion of the oil's volatile components from the leaf's surface. Also, hyssop's dried leaves and flowers add terrific color and fragrance to potpourri. 46

#### **Cultivation:**

Hyssop is a treasured ornamental and frequently planted as a garden hedge because of its sturdy, erect growth and beautiful blossoms. To propagate, one can use germinations, cuttings or root divisions. For ideal growing, *Hyssopus officianilis* L. needs full sunlight to partial shade and well drained to dry soil (with pH of 6.7.) Other species prefer drier, rockier, calcified soil. Hyssop grows best in zones 4-5 and when planted about one foot apart from each other. The only pruning necessary for this herb is to remove old flower heads so the new can grow and to cut its growth down in the fall to guard against strong winds. Once a hyssop seedling is transplanted into a field, one must wait two years for the first harvest, which should be done directly after the first bloom of that year. After the first year of harvest, hyssop can be harvested for up to ten years purely by cuttings. For the most effective medicinal value, the tops and leaves of hyssop should be cut in August.

The combination of hyssop's long flowering season and that each varietal has a different colored flower makes the herb a great filler plant in a garden. Though, hyssop grows very well in a pot as well.

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Image: Britton, N.L., Brown, A. & USDA-NRCS PLANTS Database, "Hyssopus officinalis L" <u>An illustrated flora of the northern United States, Canada and the British Possessions</u> Vol. 3(1913) 140.

<sup>&</sup>lt;sup>25</sup> Letessier, M. P., Svoboda, K.P. & Walters D.R., "Antifungal Activity of the Essential Oil of Hyssop (Hyssopus Officinalis)" <u>Journal of Phytopathology</u> 149.11 (2001): 673-8.

<sup>26</sup> Boxer 43.

<sup>&</sup>lt;sup>27</sup> Chadwick, A.F., Cracker, L. E. & Simon, J.E., <u>Herbs An Indexed Bibliography 1971-1980 The Scientific Literature on Selected Herbs, and Aromatic and Medicinal Plants of the Temperate Zone</u> (Hamden: Archon Books, 1984) 50.

<sup>&</sup>lt;sup>28</sup> Kowalchik 343.

<sup>&</sup>lt;sup>29</sup> Chadwick 50.