



WILD INDIGO

(Baptisia tinctoria or Sophora tinctoria)(1)

Family: Fabaceae (Leguminosae)

Synonyms: Indigo weed, Wilder Indigo, Indigotier savage, Radix Baptisiae tinctoriae (2), Rattle bush, Horsefly bush, Yellow indigo (3) American Indigo, False Indigo, Indigo broom, Yellow broom (4), Horse-fly weed (5), Yellow clover broom root, Blackroot (6).

Plant characteristics

Wild indigo, a member of the pea family, grows well in dry woods in the southeastern United States (3), though its range extends north and west to Minnesota and New Mexico (2,7). It is a bluish perennial with many branches and grows up to 3 feet tall (5,7). The alternating leaves are wedge-shaped at the base, rounded at the tip and are brittle (5). The yellow, pea-like flowers appear from May to September on upper branchlets (7). The fruit is a bluish-black oblong pod and the roots are blackish and woody (3).

Growers and collectors dig the root in the fall and use the root and root bark medicinally (3,5). Young shoots are available as a food source in the spring though will cause diarrhea after they develop a green color (2,3). Dried wild indigo can produce a blue dye as well (3).

Herb chemical constituents and properties

Biologically-active chemicals: baptitoxine (similar to nicotine) (2), other quinlizidine alkaloids and isoflavonoids (5). Other compounds in Baptisia include glycoproteins (baptisin and baptin), polysaccharides (arabinogalactans), coumarins, and isoflavones (2,5).

Herbal properties: alterative, anticatarrhal, antimicrobial, antiseptic, emetic, emmenagogue, estrogenic, expectorant, febrifuge, and purgative (1,2,8,9).

How herb used traditionally

Native American desert tribes boiled the stems of *Baptisia* to create a treatment for pneumonia, influenza, and tuberculosis (3). The Eclectic physicians used it to heal infected wounds (2). They also treated infections, such as diphtheria, malaria, influenza, scarlatina, and typhus with the herb (5). *Baptisia* was listed in the United States Dispensary from 1831-1842 and in the National Formulary 1916-1936 (2).

Modern herbalists consider *Baptisia* to be a strong herb, valuable in herbal combination therapies for the treatment of ear, nose, and throat infections, including laryngitis, lymphadenitis, pharyngitis, sinusitis, and tonsillitis (2,6,9). Other herbalists use *Baptisia* for wound infections, mouth lesions, and sore nipples (1,8).

How used today (based on scientific evidence)

German scientists affiliated with Schaper & Brummer GmbH & Co KG have conducted extensive investigation into the medicinal properties of *Baptisia* as a component of their phytocombination product, Esberitox[®] which also contains *Echinacea pallida* root, *Echinacea purpurea* root, and *Thuja occidentalis* branch tips (6). In addition to animal studies, they have conducted clinical trials to assess the effectiveness of Esberitox[®] for treating the common cold. In their latest study, they determined that patients who took Esberitox[®] felt better than those who took a placebo, although the herbal preparation had little effect on most of the specific cold symptoms (10).

Scientists have not examined the merits of using Wild indigo to treat wound infections or sinusitis.

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| <p>Preparation and dosage: 0.75-1.2 ml (1:5 strength in 60% EtOH tincture) mixed with water TID (or 1.5-2.5 ml of a 1:10 tincture).(2,9) Boil 1 tsp (0.5g) of herb in 1 cup of water for 10-15 minutes, strain, and drink 2 ounces (60 ml) TID(9,11) Mix one part fluid extract (1:1) with eight parts base (water, ointment, or lotion) and apply externally TID(2,5) Esberitox[®] dosage for the common cold: three tablets TID for 7-9 days (10).</p> | |
| Safety issues | Consumer marketing issues |
| <p>Side effects: May cause nausea/vomiting, cramping/ diarrhea and mild intoxication at higher doses (1,2).</p> <p>Adverse events: One case report of hallucinations and hives has surfaced (12). Overdose may lead to respiratory failure secondary to muscle paralysis, seizures, incoordination, sedation, headache and coma (2).</p> <p>Precautions/contraindications:</p> <ul style="list-style-type: none"> • Pregnant women and nursing mothers should avoid (2). • Avoid in autoimmune conditions (such as lupus and rheumatoid arthritis). • Avoid in inflammatory disorders (such as asthma) | <p>In 2001, wild indigo products sold for approximately \$54,000-58,000. Growers harvested 12,000 pounds of root. The dried root sold for \$ 4.50-5.00 per pound of dried root. The demand for wild indigo root could put pressure on existing native populations (13).</p> <p>In North Carolina, Wild indigo grows best in the well-drained soils of the eastern part of the state. Farmers can grow it as a row crop in the coastal plain, but also in the piedmont and foothills (13).</p> |

References

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