

HORSEFLY WEED

Baptisia tinctoria (L.) R. Br.

Plant Symbol = BATI

Contributed by: USDA NRCS National Plant
Materials Center, Beltsville, Maryland



Janet Novak, used with permission.

Alternate Names

Yellow Wild Indigo, Rattle Weed, Yellow Broom

Uses

Conservation: Horsefly weed is a good ground cover in dry sunny locations due to its shrubby habit, and extensive root system. It is a native legume, fixes atmospheric nitrogen in the soil and can be part of a good wildlife seed mixture where native grasses and forbs are seeded together.

Ethno botanical: Horsefly weed is a favorite medicine of the North American Indians. The bark and roots steeped in water are used as an antiseptic wash for wounds. It is a purgative, emetic and is currently being researched for its anti-bacterial properties. It has a reputation for protecting horses and mules from horseflies if fastened to the harness, hence its common name. Historically it has been used as an immune system stimulant. A yellow dye made from the plant was used in the southern U.S.

Caution should be used in internal use of this plant as it contains the alkaloid cytisine, and baptisine which is an acrid poison. These compounds give this plant a bitter taste which is unpalatable to grazing animals.

Landscape and Wildlife: This plant is not particularly suitable for a formal garden but is at home in a meadow garden or sunny informal area. Bees are best adapted to pollinate the flowers. The dusky-winged butterfly (*Thanaos brizo*) and Io moth (*Automeris io*) larvae and caterpillars feed on the leaves. It is also a larval and/or nectar source for the Frosted Elfin (*Callophrys irus*). It is the only known food of the larval stage of the wild indigo dusky winged butterfly (*Erynnis baptisiae*).

Status

Horsefly weed is rare in some parts of its range; is threatened in Kentucky and endangered in Maine. Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description and Adaptation

General: Horsefly weed is an upright, multi-stemmed, warm season, shrubby perennial. It typically grows 2 – 3 feet tall. It is a member of the pea (Fabaceae) family which reproduces by seed or rhizomes. The dark grayish green leaves emerge in April and remain on the plant through October. The smooth leaves have three leaflets or lobes radiating from a common point. All parts of the plant will turn black when dried. Depending on the region, it will flower in May (in the south) through September (in the north). It has showy, bright yellow flowers which are about ½ inch long. There is a lot of flower color variation, from cream to clear yellow. The 4 -5 inch long terminal elongated cluster of flowers contain both male and female parts. Flowers give way to ½" long inflated seed pods which turn black when ripe. The seeds rattle around in the pods giving its other common name "rattle weed". In the autumn when fully mature, the plant turns silvery-grey and breaks off from the root system at ground level. The pods stay with the plant for some time while the wind tumbles it around to new locations.

Distribution: Horsefly weed is the most widely distributed of the wild indigoes; from southeastern Canada west to Minnesota and south to Florida (USDA plant cold hardiness zones 3-9). For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Habitat: Horsefly weed prefers growing in dry, sunny locations in gravel, sandy or well-drained loamy soils. It has a high tolerance to acidic soils. It occurs on sand hills, pine flat woods, xeric woodlands, ridges and road banks. It has even been seen growing in the cracks of shear rock faces.

Establishment

Seed Propagation: Seed collected from plants growing in native settings have an extremely low germination rate due to predation by weevils. Like many other legumes it has a hard seed coat. The seed must be scarified (breaking, scratching or softening the seed coat) in order for germination to occur. Soaking the seed in water after scarification for a full day will allow water to penetrate the seed coat and greatly increase seed germination percentages. The seeds normally germinate when the soil temperature nears 50 degrees Fahrenheit. After the seedlings emerge they can be further propagated by divisions. Seedlings will develop slowly (two to three years) as this plant devotes much of its energy into developing its root system. Due to its extensive, thick, woody and deep root system; horsefly weed plants dislike root disturbances and should be left alone once established. Horsefly weed plants form slowly expanding clumps.

Management

Horsefly weed is a hardy plant with relatively few problems. Once established it is long lived, and requires little maintenance.

Pests and Potential Problems

Few pests or diseases are known to affect the plant. In high pH soils (above 6.5) the plant may look stunted or have yellow foliage.

Environmental Concerns

Toxicity: Some older poisonous plant literature has blamed *Baptisia* species for killing cattle and horses. More modern literature documents this genus as more likely to cause severe diarrhea and anorexia. Horsefly weed is unlikely to become weedy or invasive in most regions or habitats and rarely displaces other desirable vegetation.

Cultivars, Improved, and Selected Materials (and area of origin)

There are no recommended cultivars or selected materials at this time. Horsefly weed may be available from commercial nurseries specializing in native plants.

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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