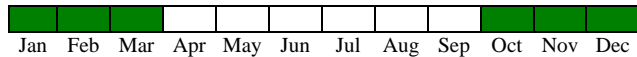




Best Survey Period



Legal status: Secure in Ontario, it has no federal status in Canada.

Global and provincial rank: G4G5/S4

Other Common names: Holy Grass, Sweet Holy Grass, Vanilla Grass, Zebrovka ("the place where bison graze"), Buffalo Grass, foin d'odeur, Wenserkon ohonte, Wiingashk or Weengushk, Hair of Mother Earth.

Family: Poaceae. The grass family.

Total range: This species is circumboreal, occurring in 3 continents, Europe Asia and

North America. In North America it is quite common north of about 40° and found from Alaska to Labrador and south to New England and the southern Great Lakes. It reaches as far south as far south as Arizona in the west.

Provincial distribution: *H. odorata* is found throughout most of Ontario, but is abundant only around Lake Superior and north to James bay. It is apparently absent across a wide swath of southern Ontario, north and east of Lake Huron. In the rest of southern Ontario it is sporadic in scattered populations. It is possible that its presence in

many sites may be due to its use by native peoples.

Recognition: *H. odoratus* is a perennial grass with shoots growing from a creeping rhizome that is often quite deep beneath the soil surface. The odor is a distinctive, sweet, vanilla smell, especially when dried.

The flowering stems are short and rather inconspicuous, and are sometimes sheathed at the bottom with the previous year's leaves. The spikelets are borne in a pyramid-shaped panicle up to 10 cm tall with branches spreading or pointing upwards. Each spikelet contains 2 male florets at the base and one female floret at the tip. When fresh the spikelets are greenish or purplish towards the base and golden at the tip.

The leaves are rolled lengthwise when young 2.5 to 8 mm wide few and quite short. The stems shrivel soon after flowering. On sterile stems, which develop later leaves can be 30 cm or more long and are somewhat shiny, especially on the back. They roll inwards rapidly as they dry and become strong and flexible.

Habitat: It is found primarily growing in wet prairies, wet meadows, lakeshores, along stream banks and at the edge of marshes, usually where the substrate is sandy.

Biology: *H. odorata* is a hardy perennial species spreading by deep rhizomes that form dense, matted sod below the surfaces. In cultivation it can become quite invasive. It is a cool season grass with C3 photosynthesis. It is usually found in mixed stands with other grasses.

It is very early-flowering, the flowers appearing in mid May. Although it flowers profusely, it rarely produces viable seed and these have a poor germination rate. The buds

require a winter dormancy period before sprouting in the following spring.

The sweet, vanilla-like smell of sweet grass is due to the presence of coumarin.

Conservation/management: *H. odorata* almost always grows in mixed stands. It seems to tolerate some disturbance.

Growing shoots are killed by fire, but in spring buds are surrounded by the base of the previous years leaves and appear to be protected from heat damage from the moisture in the dead foliage. Fall fires are generally more damaging.

Picking may be reducing populations of native plants. Most sweetgrass picking in the wild involves pulling the plant up by the roots. Stems that are cut about 5 cm above the ground grow back much faster and can provide a second harvest.

Under cultivation this species can produce more than 1,000 Kg of dried leaves per acre. Under cultivation the size and quality of the leaves for weaving and basket making can be improved.

Comments: Sweetgrass is considered sacred to the peoples of both North America and Eurasia.

It is one of the four sacred plants, along with cedar, sage and tobacco, of First Nations people and is used in purification rituals. It is dried and braided to preserve the scent. The three strands of the braid represent mind, body and spirit. During ceremonies a braid of sweetgrass is burned at the tip or put into a smudge bowl. The smoke of the smoldering sweetgrass rises, taking prayers to the Creator. Sweetgrass smudging in a home is believed to be a good protection against negative energies. Just as the sweet scent of

this natural grass is attractive and pleasing to mortal beings, it is also said to be attractive to good spirits.

The scientific name is derived from the Greek *hieros*, meaning sacred and *chloe*, meaning grass. The specific epithet *odorata* refers to the fragrance.

Sweetgrass is also braided or woven into bowls, baskets, fans, mats, coasters and ornaments

Brewed in a tea it has been used to treat fever, coughs, sore throats, vaginal bleeding after childbirth, venereal infections, chapping and windburn. It can also be used for insect repellent, hair tonic and as an eyewash. The smoke of sweetgrass mixed with other species can be used to treat lung conditions.

In Europe it is used to flavour candy, tobacco and soft drinks and was strewn before church doors on special days. In Poland it is used as a flavouring in vodka.

The active chemical that gives sweetgrass its scent is coumarin. Coumarin is banned by the FDA as a food additive, because it has been shown to be toxic to the liver. There is also some evidence that it may be carcinogenic. Cattle seem to sweetgrass avoid it and it has no value as a forage crop.

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Research needs: The exact status of this species on Walpole Island is currently unknown. It is widespread and picked extensively by members of the community for personal use and sale.

Population census and mapping is required followed by regular monitoring.

Selected references:

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Abstract citation:

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