

## Teasel, *Dipsacus* spp.



Teasel plants in summer

and to use on a small scale for boutique woolen fabrics and handwoven textiles, and in specialty manufacturing (some pool table cloths, piano felts, etc.). Teasel has escaped cultivation and is spreading rapidly throughout the United States. These two species are listed as “restricted invasive plants” in Wisconsin and may not be bought, sold or moved around, even when dry, due to the potential for spreading seeds.

The invasive weed called teasel has become established in many parts of the Upper Midwest. Two of the approximately 15 species in the genus *Dipsacus* of the teasel family (Dipsacaceae) can be seen in Wisconsin in open, sunny habitats especially along roadsides, in pastures or in disturbed areas. These plants, native to Europe, were introduced to North America in the 1700’s for use in textile processing – the dried flowerheads were used by fullers as a natural comb for cleaning, aligning and raising the nap on fabrics (“teasing”), especially wool (brushing the nap produces air pockets that provide added insulation and a softer surface that is also more stain resistant, as well as softening the colors). Teasel as a commercial crop has been phased out by the middle of the 20th century when more durable and uniform steel cards had replaced teasel in industrial fulling operations. They are still sometimes grown as ornamentals or as decorative elements for dried floral arrangements,



Teasel offered as a dried floral component at a Farmer’s Market.

These herbaceous biennials (or monocarpic perennials) form a rosette of wrinkled prickly leaves from a large tap root. The individual oval to lanceolate leaves are entire or toothed, with a row of small spines on the underside of the midrib. The plant grows as a basal rosette for a minimum of one year, but the rosette phase may be longer on poor soils.



Teasel grows a basal rosette of leaves (L) before flowering. The leaves form a cup where they attach to the stem which can collect water (C). The leaf midribs and stems are prickly (R).

on the underside of the midrib. The plant grows as a basal rosette for a minimum of one year, but the rosette phase may be longer on poor soils.

In the second season (or in subsequent years if needed to acquire enough resources for flowering), a tall, stout, rough to hairy flower stem up to 6 feet tall is produced. The angled stems with flat longitudinal ridges are scattered with small, whitish, down-turned prickles. The lower opposite leaves are sessile, while the upper opposite

leaves are clasping. Where the leaves attach to the flower stems (their bases completely surrounding the stem), a cup-like receptacle is formed where rain water can collect. It has been suggested that this can prevent insects from climbing the stem.

The stems branches at the upper end to produce many terminal inflorescences. Teasel blooms in midsummer, with white, pinkish, or purple flowers in a distinctive inflorescence 2-4" long. The ovoid to cylindrical inflorescence at the top of each stem has a basal whorl of spiny bracts that curve upward around the head. Flower buds are densely crowded together all around the spike. The individual tube-shaped, 4-lobed flowers open first in a band around the middle of the inflorescence, then open sequentially towards both ends, forming two narrow rings as flowering progresses. Each colony of plants typically is in bloom for about 2 months. Each flower has a stiff persistent bract, and the densely packed bracts around the floral spike give a pincushion-like appearance after the flowers have withered away.



**Teasel blooms in a band around the inflorescence (L), and the stiff persistent bracts give a pincushion-like appearance to the floral spike after flowering (RC). The plants produce many seeds (R).**

Flowers are followed by irregularly bullet-shaped, 4-angled fruits (achenes) that mature in mid-autumn within the persistent dried head. Teasel is a prolific seed producer, with over 2,000 seeds on a single plant. Adult plants die after flowering, but the flower stalks persist through the winter. The area of bare ground left where the leaves were is perfect habitat for new seedlings to germinate in, so populations quickly become very dense. The seeds do not generally move far from the parent plant, but may be dispersed over longer distances by mowing equipment or in flowing water.

There are two species of teasel that are established in Wisconsin: Common teasel, *Dipsacus fullonum* (= *D. sylvestris* and in some taxonomies also *D. sativus*), and cut-leaved teasel, *D. laciniatus*. Fuller's Teasel, a form of *D. fullonum*, usually refers to the cultivated type that has stiffer bracts and more pronounced recurved spines. Although Fuller's Teasel is better for working with cloth, the wild form was also used for fulling. Common teasel blooms from June to October, and generally has purple flowers.



**Infestations of teasel are most common along roadways.**

Cut-leaved teasel has a shorter bloom period (July-September), typically has white flowers, has broader leaves than common teasel, with irregularly pinnately-lobed upper stem leaves, and has straight bracts at the base of the inflorescence spreading outward rather than curling upward. The two species may hybridize. But it really isn't that important to correctly identify the species – both are invasive and should be removed quickly.

Cut-leaved teasel is more aggressive than common teasel and has been rapidly expanding its range in

several Midwestern states, including southern and western Wisconsin, especially along roads where mowing equipment disperses the seeds. Teasel is much more widespread in Wisconsin than originally thought. The Invasive Plants Project (Wisconsin State Herbarium, 160 Birge Hall, UW-Madison 430 Lincoln Drive, Madison, WI 53706) is collecting information on the distribution of teasel and other invasive weeds. If you find a population of one of the invasive species in Wisconsin you may report it online to the Wisconsin DNR by following the instructions at [dnr.wi.gov/topic/invasives/report.html](http://dnr.wi.gov/topic/invasives/report.html)



**Teasel is an aggressive, invasive weed in many parts of the Midwest.**

Teasel can be controlled by cutting, digging, burning and/or with chemical applications. Mowing, even repeatedly, is ineffective. In small infestations, rosettes can be dug up, removing as much root as possible to prevent regrowth. Plants will die without setting seed if flower stems are cut just before flowering, but the timing needs to be correct or the plant will reflower if the stalk is cut before the full bud stage and seeds will continue to develop from heads cut after flowering commences. Burning alone will not eradicate populations. Herbicides are best applied to the rosettes before flower stalk formation. Large infestations may require multiple tactics and treatments over several years to eliminate the population. Biological control with herbivorous insects is being investigated, but no releases are imminent.

– Susan Mahr, University of Wisconsin - Madison

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### **Additional Information:**

- Common Teasel (*Dipsacus fullonum* subsp. *sylvestris*) – WI DNR invasive species profile at [dnr.wi.gov/topic/invasives/fact/commonteasel.html](http://dnr.wi.gov/topic/invasives/fact/commonteasel.html)
- Teasel – on the Illinois Wildflowers website at [www.illinoiswildflowers.info/weeds/plants/teasel.htm](http://www.illinoiswildflowers.info/weeds/plants/teasel.htm)
- Common Teasel – a USDA National Agriculture Library plant species profile at [www.invasivespeciesinfo.gov/plants/teasel.shtml](http://www.invasivespeciesinfo.gov/plants/teasel.shtml)