

Pest Management – Invasive Plant Control

Cut-leaved Teasel

Conservation Practice Job Sheet

MN-797



Photos by Peter M. Dziuk, MN Department of Agriculture

Cut-leaved Teasel, stalk (*Dipsacus laciniatus*) **Cut-leaved Teasel, flower**

Cut-leaved Teasel

Cut-leaved teasel is an aggressive exotic species that is native throughout central and southern Europe and Asia. Introductions were probably made by early settlers. It was used as an ornamental, and toys were made from the flowering heads. Teasels were also used commercially for combing wool.

Teasel has spread rapidly in the last 20-30 years, probably aided by construction of the interstate highway system, where dispersal is aided by mowing equipment. Teasel is an aggressive exotic that forms extensive monocultures. It has colonized many areas along interstates.

Habitat

Teasel grows in open sunny habitats, ranging from wet to dry conditions. Optimal conditions seem to be mesic habitats. Teasel sometimes occurs in high quality prairies, savannas, seeps, moist forest openings and sedge meadows, though roadsides, dumps, cemeteries and heavily disturbed areas are the most common habitats.

Ecological Threat

Teasels produce massive amounts of seed that can remain viable in the soil for several years and have germination rates as high as 86%. A single teasel plant can produce over 2,000 seeds. They typically don't disperse far; most seedlings will be located near the parent plant. Dead adult plants leave a relatively large area of bare ground (formerly occupied by their own basal leaves) providing an optimal nursery site for new seedling establishment, leading to a continuous population of dense monocultures. The combination of these life history traits enable teasels to successfully out-compete native plants. Lack of natural enemies allows teasel to proliferate. If left unchecked, it can quickly form large monocultures excluding all native vegetation.

Highway mowing equipment and inappropriate disposal of dried teasel heads from flower arrangements can increase the spread. Immature seedheads of cut-leaved teasel are capable of producing viable seed.

Description

Teasels are monocarpic perennials, which produce a basal rosette that can grow several seasons, then sends

up a tall, flowering stalk, and dies after flowering. The length of the rosette state varies according to the amount of time needed for the plant to acquire enough resources for flowering to occur. The rosettes develop increasingly oblong, hairy leaves and large tap roots, which may exceed 2 feet in length and 1 inch in diameter at the crown.

Cut-leaved teasel blooms from July through September. The small, dense white flowers occur on oval-shaped, terminal heads enclosed by stiff, spiny bracts. Flower stalks may grow to over 7 feet in height and have large, opposite sessile leaves that form cups that often hold water and are prickly, especially on the lower midrib. Stems are also prickly. Teasel's unique inflorescence makes the plant readily identifiable when flowers or seedheads are present.

Control

Cutting, removal, burning and herbicides offer the best solutions for control.

Biological Control

There are no biological controls for this plant at this time.

Mechanical or Manual Control

Individual rosettes can be removed using a dandelion digger; removal of the entire root is essential to eliminate re-sprouting. Flowering stalks may be cut down once the plant has initiated flowering, but if cut too soon plants may send up new flowering stalks. It has been shown that seeds will continue to develop and mature even after cutting, so the cut stalks should be removed. Cutting flowering stems may need to be repeated for several years to control teasel. Teasel in nearby areas should also be eliminated to prevent introduction of new seed.

Prescribed Burning

Late spring burns may be useful for controlling teasel before it becomes dense. Once an area is densely covered with teasel rosettes, fire does not carry well through the teasel-infested area. Prescribed burns probably work best in conjunction with other methods.

Chemical Control

Foliar Treatment: Foliar application of herbicides is effective and useful when mechanical treatments are not feasible. Glyphosate or 2,4-D amine should be applied to the rosette state.

Glyphosate (trade name Roundup) is non-selective, so care should be taken not to let it come in contact with non target species. Although it is most effective during the summer when the plant is actively growing, it is also effective in late fall or early spring. Teasel rosettes remain green and active after most prairie plants have died back in the fall, and they green up and start growing in the spring before many prairie plants do. Application at these times will result in less potential harm to non-target species. Roundup should be applied carefully by hand sprayer to individual teasel rosettes at a 1 ½% solution (2 oz. Roundup/gallon of clean water) during late fall or early spring. Application should be made on a spray-to-wet basis. Spray coverage should be uniform and complete. **Do not spray so heavily that herbicide drips off the target species.**

Application of 2,4-D amine is selective to broadleaf plants; it will not harm most grasses. This herbicide should be applied in early spring when the rosettes are young, using a hand sprayer at the label rate for spot-spraying weeds. Application should be uniform with the entire leaf being wet. The amine formulation of 2,4-D should be used rather than the ester formulation to reduce vapor drift.

Important Note

Mention of specific pesticide products in this document does not constitute an endorsement. These products are mentioned specifically in control literature used to create this document.

By law, herbicides may only be applied as per label instructions. Follow all label instructions when applying pesticides including "grazing and re-entry level restrictions" and application site restrictions (is the product labeled for "the application site" you are considering?).

Most of the products listed are not acutely toxic but have high potentials to move off-site via leaching or runoff under certain conditions. Off-site movement potential can be minimized by avoiding over-spraying or application to the point where products are reaching or dripping onto the ground.

REFERENCES

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