



JEFFERSON COUNTY NOXIOUS WEED CONTROL BOARD

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BEST MANAGEMENT PRACTICES

Teasel (*Dipsacus fullonum*) (Family—*Dipsacaceae*—Teasel Family)

Legal Status in Jefferson County: Class C-select Noxious Weed (non-native species selected for control by the Jefferson County Noxious Weed Control Board, under State Law RCW 17.10). The Jefferson County Noxious Weed Control Board requires control of teasel on private and public lands throughout the county. State Weed Law defines control as *to prevent all seed production and to prevent the dispersal of all propagative parts capable of forming new plants.* (See WAC 16-750-003)



BACKGROUND INFORMATION

History and Impact

- Teasel was introduced to North America in colonial times because the spiny heads were used in the textile industry for cleaning fibers and raising the nap on woolen cloth.
- It is also used in flower arrangements and some of its spread comes from this use, especially in and near cemeteries.
- In recent years there has been an increase in its spread in some western Washington counties, possibly aggravated by roadside mowing after teasel has formed seeds.
- Like most weeds, teasel will quickly invade disturbed or over-grazed roadsides and pastures.



Once it gets a foothold, teasel is competitive because of its large, ground-hugging rosettes, plentiful seed production (2,000 seeds per plant), deep roots (over two feet long) and its tall growth that towers over most other field weeds, even Canada thistle. A patch with a few plants quickly turns into a dense population because old teasel plants create a large bare area when their basal leaves die back, and seeds can germinate there.

- Common teasel is not considered palatable and is generally ignored by livestock. It displaces native vegetation and decreases forage quality.

Description

- The basal leaves are oval and wrinkled, 6 to 12 inches long and appear early in the year, forming a large low rosette.
- The leaves have rigid spines on the underside along the midrib and smaller spines on the upper surface.
- During the rosette stage plants develop a fleshy tap root that can be 2 feet long and 1 inch in diameter at the crown.
- The basal leaves usually die in their second year.
- Branching flower stems develop in the second year, growing 2 to 6+ feet in height. They are prickly and the prickles increase towards the top.
- The stem leaves are up to 10 inches long, pointed at the end. They clasp the stem, and form “cups” that may hold water.
- Dense egg-shaped flowerheads (see picture above) about 4 inches long, occur individually at the ends of stems and where side stems branch off the main stem. Flowers are usually purple and have conspicuous prickly bracts.
- Teasel typically flowers in July through October.



Teasel rosettes—Image courtesy of Steve Dewey, Utah State University, Bugwood.org

Habitat

- Teasel prefers open sunny habitats and grows on roadsides and in disturbed areas. It can survive wet or dry conditions and will also grow on pond edges, along creeks and in agricultural areas.

Reproduction and Spread

- Teasel is biennial or a short-lived perennial that dies after making seed.
- Reproduction is by seed. A single flowerhead can on average produce around 850 seeds and plants typically produce 1-40 flowerheads.
- Seeds can be dispersed by floating on water, in mud, soil movement, human activities and by animals and birds.
- Seeds can remain viable for at least 3 to 5 years



Teasel seedhead

Local Distribution

Teasel infestations in Jefferson County have not yet been tracked and documented but it is known to be very common on roadsides and vacant land in East Jefferson.

CONTROL INFORMATION

Integrated Pest Management

- The preferred approach for weed control is Integrated Pest Management (IPM). IPM involves selecting from a range of possible control methods to match the management requirements of each specific site. The goal is to maximize effective control and to minimize negative environmental, economic and social impacts.
- Use a multifaceted and adaptive approach. Select control methods which reflect the available time, funding, and labor of the participants, the land use goals, and the values of the community and landowners. Management will require dedication over a number of years, and should allow for flexibility in method as appropriate.

Planning Considerations

- Survey area for weeds, set priorities and select best control method(s) for the site conditions. Small infestations can be effectively dug up. Isolated plants should be carefully removed in order to stop them from infesting a larger area.
- For larger infestations, the strategy will depend on the land use of the site.
- Generally work first in least infested areas, moving towards more heavily infested areas.
- Control practices in critical areas should be selected to minimize soil disturbance and reduce the potential for erosion. Minimizing disturbance also avoids creating more opportunities for germination of weed seeds.
- If the control site requires extensive clearing or grading, or is located near a shoreline, steep slope, stream, or wetland, contact the Jefferson County Department of Community Development to find out whether or not a permit may be necessary.
- Because teasel is a state-listed noxious weed, control (both manual and chemical) in critical areas is allowed as long as the landowner consults with the Jefferson County Noxious Weed Control Board and follows their guidelines.

Early Detection and Prevention

- Look for teasel on roadsides, vacant lands, pastures, fencerows and around cemeteries.
- Rosettes can be seen early in the year—February or March—and at that time they usually can be dug because the ground is soft and plants are small.
- The site should be monitored for several years for plants germinating from seeds already in the soil.
- Prevent plants from spreading to new sites by cleaning boots and tools that have been used in infested areas.
- Do not plant teasel or use the dried heads in flower arrangements.
- Maintenance of healthy native plant communities, pasture grass or agricultural crops can help prevent infestation of teasel and other weeds.

Manual

- Wear protective clothing and gloves when working with this plant.
- Hand pulling or digging is effective for removing seedlings and young plants. Care should be taken to dig as much of the root as possible—this is easiest when the ground is soft and moist.
- Manual control may be appropriate for mature plants if infestations are small enough to manage. A dandy digger or similar tool can be used to extract the root.
- If plants are dug when in bloom, the flower heads should be cut, bagged and disposed of in the landfill. If left on site they will produce seed.

Mechanical

- Flowerheads can be cut off and removed from the site, and this should be followed by cutting of the stems at, or just below, ground level. If this is done as plants are blooming, they will not normally re-sprout from the root crown. This control method will need to be repeated for several years to eliminate the population.
- Cutting flowering stalks prior to flowering should be avoided since the plants will re-sprout and flower again.
- Mowing is not recommended because it will not kill plants and may in fact spread seeds.

Biological

Biological control is the deliberate introduction of insects, mammals or other organisms that adversely affect the target weed species. No biological controls are currently available for teasel

Chemical

- Effective chemical control of biennial and perennial weeds can be achieved only with *translocated* herbicides (ones that move through the plant and kill the roots).
- If desirable grasses or other monocots (sedges, rushes or cattails) are present, use a selective herbicide (one that affects only broadleaved plants), or carefully spot-spray only the teasel.
- Herbicides are most effective on actively growing plants in warm, dry weather.
- Herbicides should only be applied at the rates and for the site conditions and/or land usage specified on the label. **Follow all label directions.**
- Treated areas should not be mowed or cut until after the herbicide has had a chance to work. This can be as long as 2-3 weeks.
- It is important to establish new vegetation after treating an area. Follow the label for the timing because some herbicides stay active longer than others.

For questions about herbicide use, and specific herbicide recommendations, contact the Jefferson County Noxious Weed Control Program at 360-379-0470 ext 205, or noxiousweeds@co.jefferson.wa.us.

SUMMARY OF BEST MANAGEMENT PRACTICES

Small Infestations in Desirable Vegetation

- Small infestations can be effectively and relatively easily hand-pulled or dug. This is easier early in the year when the soil is moist.
- IF plants are dug later in year and they are in bloom, flower heads should be clipped, bagged and taken to the land fill. If left on site they will produce viable seed.
- OR apply appropriate herbicide, targeting individual teasel to avoid injury to other plants.
- Monitor site throughout growing season and remove any new plants.

Large Infestations\Monocultures

- If enough labor is available, even large infestations can be controlled by hand-pulling or digging. See guidelines above.
- If labor is not available, apply appropriate herbicide, preferably by spot-spray to avoid damage to other plants.
- When large dense areas of weeds are removed, the bare areas created need to be re-vegetated with native or non-invasive vegetation to prevent erosion and re-invasion of weeds. Ensure that a high standard of teasel control has been achieved prior to re-vegetating the site.

Riparian and Aquatic Area Control

- Manually removal small infestations if possible.
- If manual removal is not feasible, use an appropriate herbicide.
- **Any herbicide application over or near water can be done only by a specially-licensed applicator using an approved aquatic formulation, and may require a permit from the Washington State Department of Ecology.**

Road Right-of-Way Control

- Pull or dig small infestations.
- If manual control is not feasible, use an appropriate herbicide—see guidelines above.
- If bare spots are left, replant with low-growing natives.

REFERENCES

- Colorado Weed Management Association—Teasel. Accessed, January 22nd 2013 at <http://www.cwma.org/Teasel.html>
- Written Findings of the Washington State Noxious Weed Control Board—Dipsacus fullonum. Accessed, January 22nd 2013 at http://www.nwcb.wa.gov/siteFiles/DRAFT_Dipsacus_fullonum_2012.pdf
- University of Nevada Cooperative Extension—Identification and Management of Common Teasel. Accessed, January 23rd 2013 at <http://www.unce.unr.edu/publications/files/nr/2002/FS0240.pdf>
- Missouri Department of Conservation—Common and Cut-Leaved Teasel Control. Accessed, January 23rd 2013 at <http://mdc.mo.gov/your-property/problem-plants-and-animals/invasive-plants/common-and-cut-leaved-teasel-control>

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