Creeping thistle

Western Invasive Plant Fact Sheet #4

Cirsium arvense

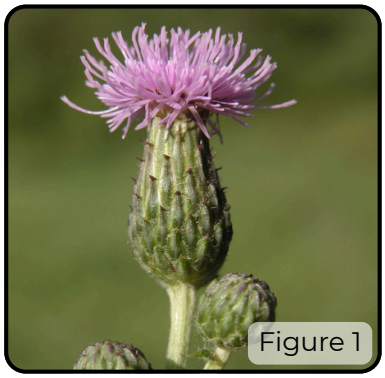


Figure 1

Figure 2

Figure 3

Figure 4

Scan or Click for more management information

Quick Facts: Creeping thistle (*Cirsium arvense*), also known as Canada thistle, is an invasive perennial forb from the aster family native to Eurasia. It grows across a wide range of habitats, including croplands and ditch banks. Creeping thistle is detrimental to agricultural systems by reducing crop yields and serving as an alternate host for crop pests such as bean aphids and stalk borers. In pastures and rangelands, it reduces forage production, and its prickly foliage can deter livestock from grazing. In addition, creeping thistle harms local biodiversity by aggressively competing for resources and displacing native plants.

Invasion Strategy: Creeping thistle disperses through seeds and rhizomes. It most readily establishes in areas with recent disturbance and thrives in poor, well-drained soils and full sun. A single plant can produce thousands of seeds that can travel great distances by wind and persist in the soil for up to 20 years. Seeds are also spread when attached to clothing, animal fur, and equipment. Once established, plants regrow each year from deep, underground rootstocks. Vegetative spread through rhizomes can form dense stands that expand up to six feet in diameter in a single year, and rhizome fragments less than an inch long can sprout new plants.

Identifying Features: The plant initially forms a rosette of spiny, lobed leaves, and later produces a flowering stalk.

- Flowers are pink/purple and lack spines. At < 1 inch long, they are smaller than those of similar thistles.
- Plant stalks are branching and can grow 5 ft. tall on average
- Leaves are lobed, spiny, and arranged in an alternating pattern along smooth stems.
- They are uniformly green and lack the white marbling sometimes seen in other thistle species.
- Male and female flowers are usually on separate plants
- Often found in dense, monoculture stands

Creeping thistle *Cirsium arvense*

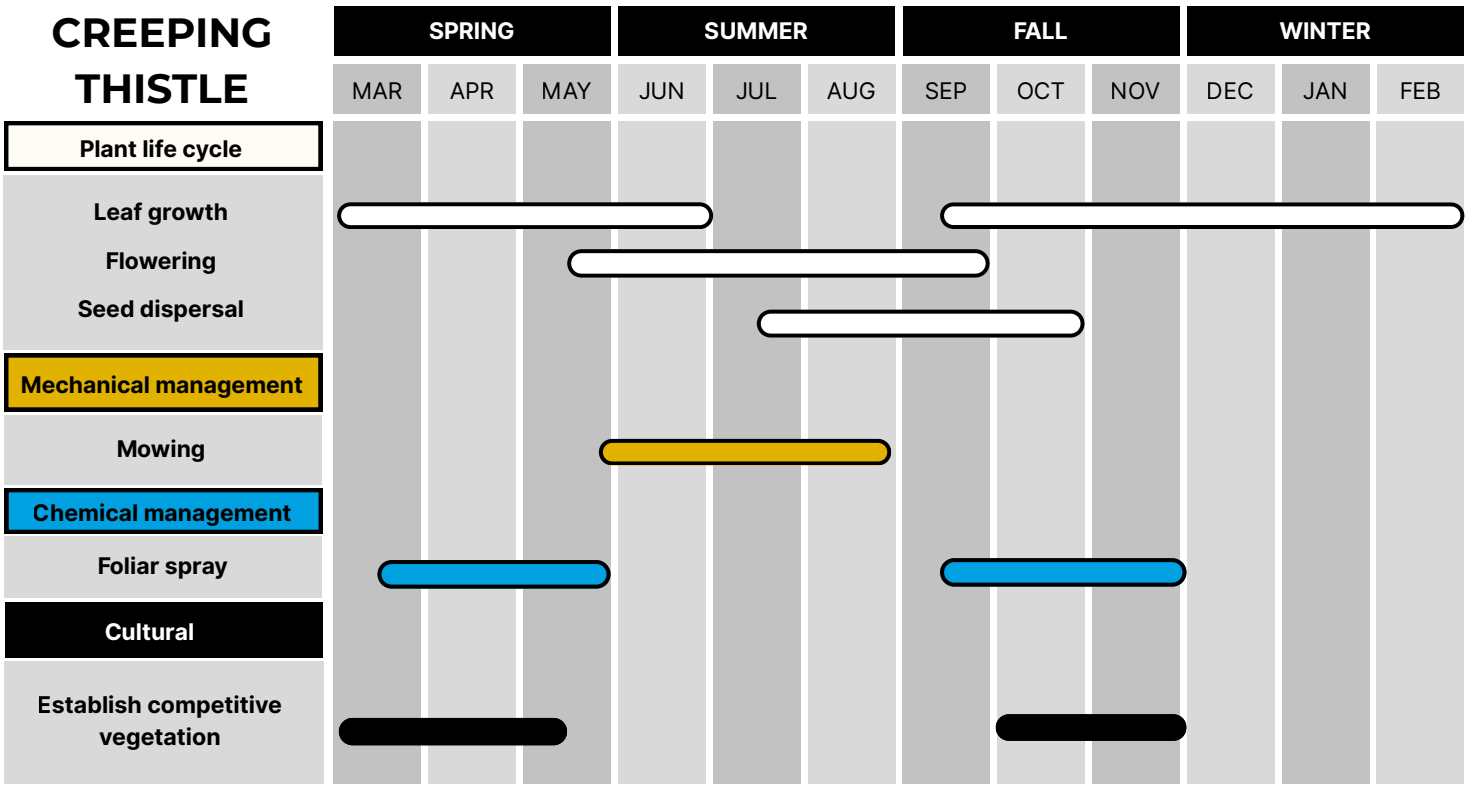


Table 1. This chart is based on USDA plant hardiness zone 7. Plant growth and treatment times vary by region.

Management Methods:

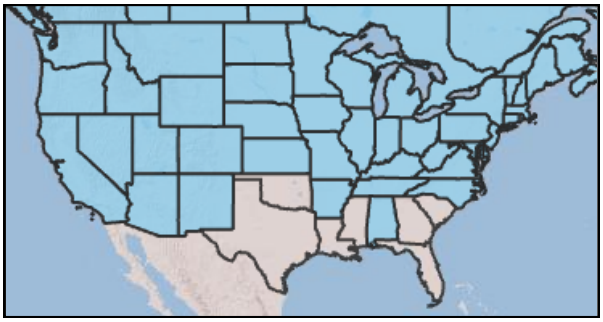
Mechanical - Repeated mowing can suppress creeping thistle by depleting reserves in its root system. This must be repeated every six weeks during the growing season for multiple years. Mowing is most effective before flowers are fully formed. Digging or tilling is not recommended (aside from very small infestations).

Chemical - Selective broadleaf herbicides can effectively control creeping thistle, particularly when applied to actively growing plants before the bud stage in spring, or in fall.

Cultural - Creating a dense, competitive stand of year-round vegetation will suppress thistle (for example, using both winter and summer annuals). Maintaining fertile, well-hydrated soils can suppress creeping thistle establishment.

Disclaimer - Selecting the best management method for this plant can be site- and context-specific. Check with your local USDA Service Center or University Extension agent to explore your options and determine what is most appropriate for your location and situation.

Management Information: Dispose of cut plant materials where they cannot resprout. If seeds are present, bag them and dispose of them in a landfill. Equipment should be cleaned after management. Personal protective equipment is recommended when removing any invasive species, and especially when using herbicides. Always follow label instructions when using herbicide!



Species present Absent

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Creeping thistle *Cirsium arvense*

Look-alike Species: Creeping thistle resembles several other thistle species, particularly Scotch, bull, and musk thistles. Correct identification is crucial as management approaches differ by species.

Scotch thistle *(Onopordum acanthium)* is a biennial that reproduces by seed (Figure 5). Features to distinguish from creeping thistle include:

- Larger flower heads, 1-3 in. in diameter, with needle-like bracts at base
- Greater height, growing up to 8 ft. tall
- Larger leaves, up to 2 ft. long
- Stems with spiny, ribbon-like wings
- Leaves and stems are covered in white hairs

Figure 5

Bull thistle *(Cirsium vulgare)* is a biennial that reproduces by seeds (Figure 6). Features to distinguish from creeping thistle include:

- Larger flower heads, up to 2 in. in diameter
- Ridged stems that contain spines
- Grows from a deep taproot

Figure 6

Musk thistle (*Carduus nutans*) is a biennial that reproduces by seed (Figure 7). Features to distinguish from creeping thistle include:

- Large flower heads, 1.5–3 in. in diameter
- Flower heads solitary and usually nodding
- Large, spine-tipped bracts beneath flower heads
- Dark green, deeply lobed leaves, often with a pale midrib and whitish margins
- Grows from a taproot rather than creeping lateral roots

Figure 7

References and Additional Reading:

- Oregon Flora Project *Cirsium arvense* [Identification, phenology, geographic range]
- Pacific Northwest Pest Management Handbooks *Cirsium arvense* [Chemical management]
- University of Idaho Cooperative Extension Service *Cirsium arvense* Biology and Control [Identification, ecology, management]

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- Range map: USDA PLANTS Database

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