Scotch thistle

Biennial

Asteraceae

Onopordum acanthium
Onopordum tauricum

Scotch thistle invades rangeland, overgrazed pastures, roadsides, and irrigation ditches. It also prefers moist areas adjacent to creeks and rivers.

Origin: Eurasia

Description: 18 inches to 12 feet tall. Reproduces solely by seed

Color: Gray-green leaves and purple flowers

Roots: Stout, fleshy taproot

Stems: Numerous and branched with broad, spiny wings

Leaves: Broad, large and spiny with fine dense hair giving the leaf a woolly gray-green appearance

Flowers: Violet to reddish in color, numerous (70 to 100 per plant) and surrounded by spine-tipped bracts. Mid-June to September

Seeds: Up to 14,000 seeds per plant

Viability: Up to 40 years

Toxicity: Not documented as toxic but due to its robust, spiny nature it acts as a living barbed wire fence making areas impassable for livestock, wildlife and people

Lookalikes: Bull thistle (*Cirsium vulgaris*)
Plumeless thistle (*Carduus acanthoides*)

Scotch thistle is a biennial that reproduces solely by seed. A biennial is a plant that completes its lifecycle within two years. During the first year of growth, Scotch thistle appears as a rosette in spring or fall. During the second year in mid to late spring – the stem bolts, flowers, sets seed, and the plant dies.

According to the National Trust for Scotland, their native spear thistle (*Cirsium vulgare*) is thought to be the true Scottish national emblem which is abundant in Scotland and is the imagery on coins, flags and other symbols while the Scotch thistle (*Onopordum acanthium*) is non-native to Scotland and likely introduced from other parts of Europe.

On the backside of this sheet are management recommendations.

Recommended range and pasture management methods:

Cultural

Establishment of selected, aggressive grasses can be an effective cultural control.

Contact your local Extension office or Natural Resources Conservation Service office (NRCS) for seed mix recommendations.

Good grazing management will stimulate grass growth and keep pastures healthy. Healthy pastures may be more resistant to Scotch thistle invasion. Bare spots caused by overgrazing are prime habitat for weed infestations.

Mechanical

Any mechanical or physical method that severs the root below the soil surface will kill Scotch thistle.

Mowing or chopping is most effective when Scotch thistle plants are at full-bloom.

Be sure to properly dispose of the flowering cut plants, since seeds can mature and become viable after the plant has been cut down.

Biological

No control available at this time.

Herbicides

The following recommendations can be applied to range and pasturelands.

Herbicide	Rate	Application Timing	Comments
2,4-D Amine	1 qt/acre OR 1 oz/gal water	Spring/fall rosette – before flowering stalk lengthens.	DO NOT apply when outside temperatures will exceed 85 degrees. Add non-ionic surfactant @ 0.32 oz/gal water or 1 qt/100 gal water.
Curtail (clopyralid & 2,4-D)	1.5 – 2 qts/acre OR 1.5-2 oz/gal water	Spring rosette to pre-bud stage and/or fall rosette.	Add non-ionic surfactant @ 0.32 oz/gal water or 1 qt/100 gal water.
Clarity (dicamba)	1 qt/acre OR 1 oz/gal water	Spring rosette – before flowering stalk lengthens and/or late fall treatment of rosettes.	DO NOT apply near or under trees and/or shrubs or when outside temperatures will exceed 85 degrees. Add a non-ionic surfactant @ 0.32oz/gal water or 1 qt/100 gal water.
Milestone (aminopyralid)	3 to 5 oz/ acre	Apply to plants in the spring and early summer at rosette or bolting stage or to the fall rosette.	It is permissible to treat seasonally dry wetlands and transitional areas between upland and lowland sites. DO NOT rotate to a broadleaf crop within 1 year of application. Add a non-ionic surfactant @ 0.32oz/gal water or 1 qt/100 gal water.

ALWAYS READ, UNDERSTAND, AND FOLLOW HERBICIDE LABEL DIRECTIONS

The herbicide label is the LAW