

Oxeye Daisy: Options for Control

Oxeye Daisy (*Leucanthemum vulgare* Lam.) is a Class "B" Non-Designate Noxious Weed (Control will be required and enforced for vehicle corridors, buffer strips, and in areas of limited distribution. Control is encouraged in areas of large infestations). Oxeye Daisy is a perennial herb, 1 to 3 feet tall, with shallow, branched rhizomes and adventitious roots. The stems, which arise from upturned rhizomes or buds on the root crown, range from hairless to slightly hairy. The prostrate, basal stems can root, while the other stems are erect and simple to slightly branched. Cotyledons open above ground and wither soon after the first leaves form. The toothed, spatula-shaped to round basal leaves occur on long stalks. The stem leaves are alternate and lack stalks; they are lance-shaped to ligulate, with coarse teeth and often have a few lobes at the base. Flowers are showy and daisy-like, with 20 to 30 white ray flowers and numerous, bright yellow disk flowers. Flower heads are usually solitary and grow on long, terminal stems; heads average 1 to 2.2 inches in diameter. Involucral bracts are narrow with a dark brown, scarious pappus. The fruit is a dry, indehiscent achene that is circular in outline and lacks a pappus. The entire plant has a disagreeable odor when crushed. (Holm et al. 1997; Howarth and Williams 1968; Olson and Wallander 1999).

Oxeye Daisy - Full grown plants



The best invasive weed control is prevention!

Oxeye Daisy Flower

Economic Importance

Beneficial: Flowers are showy, making the plant a popular ornamental species. Leaves are sometimes used in salads. (Howarth and Williams 1968) Tea made from the whole plant has diuretic and antispasmodic properties and is used to treat asthma and whooping cough. (Holm et al. 1997)

Detrimental: Oxeye daisy is a weed of 13 crops in 40 countries, causing particular problems in pastures. In Canada, it is a serious weed of barley, flax, oats, oilseed rape, sunflowers, and wheat. It competes with cereals and has been shown to reduce oat yield in Canada by up to 16 percent. Oxeye daisy can also host aster yellow and several nematode species. (Holm et al. 1997).

Many of the exact economic and environmental impacts of oxeye daisy have not been precisely documented. It aggressively invades fields, where it forms dense populations, thus decreasing plant species diversity. In areas of heavy infestation, bare soil is more common, which increases the potential for soil erosion.

Oxeye Daisy along a road



Oxeye Daisy

Reproduction - Oxeye daisy can spread both vegetatively and by seed and are primarily insect pollinated. Plants normally produce 1,300 to 4,000 fruits but a vigorous plant may yield up to 26,000. Fruits are dispersed by wind, as well as in dung and with crop seeds.

Response to Mechanical Control Methods: Because of its shallow root system, oxeye daisy is easily killed by intensive cultivation. In pastures, mowing as soon as the first flowers open can eliminate seed production. However, mowing may stimulate shoot production and subsequent flowering in areas with adequate growing seasons.

Response to Herbicides: Picloram and 2,4-D are effective at reducing canopy cover of oxeye daisy. However, based on a study in an E. WA meadow, application of nitrogen fertilizer was almost as effective as the herbicides at reducing canopy cover of oxeye daisy.

Biocontrol Potentials: Effective biocontrol insects or pathogens have not been found for oxeye daisy. Oxeye daisy contains polyacetylenes and thiophenes that are generally highly toxic to insect herbivores.



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Oxeye daisy seeds have no dormancy requirements. Although the plant germinates throughout the growing season, most seedlings establish in autumn. Growth is slow during the first winter and spring. Extensive rhizome and crown development occurs during the summer and the crown will send up new shoots in the fall. The plant flowers during its second year. However, flowering may be delayed if plants are growing under competitive conditions. Flowering occurs June to August, with seeds dispersing August to September. Seeds will germinate as soon as they are dispersed.



Oxeye Daisy
Leucanthemum vulgare Lam.

For additional information about weed identification and control, contact:

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Prevention

Early detection is vital to prevent invasion. Prevent spread from infested fields by cleaning equipment.

Photos by Eileen Sande