



COLORADO STATE PARKS  
BEST MANAGEMENT PRACTICES  
WEED PROFILE



Date Created: April 25, 2003

Revised: April 1, 2005

Author: Various

Parks Affected: Many

## Oxeye daisy

*Chrysanthemum leucanthemum* L.;

*Leucanthemum vulgare* Lam.



**Family:** *Asteraceae* (Sunflower)

**Other Names:** white daisy

**USDA Code:** CHLE80, LEVU

**Legal Status:** Colorado Noxious List A (general weeds)

### Identification

**Growth form:** Short-lived perennial forb.

**Flower:** Flowering heads are solitary at the ends of branches. Flower heads have white ray flowers and yellow disk flowers.

**Seeds/Fruit:** Fruits have about 10 ribs.

**Leaves:** Alternately arranged leaves become progressively smaller upward along the stem. Basal and lower stem leaves are 2-5 in long, lance-shaped to narrowly egg-shaped. The upper leaves become stalkless and toothed.

**Stems:** Mature plants are 10-24 inches tall with erect, smooth to sparsely hairy stems.

**Roots:** The plants have shallow, branched rhizomes.

**Seedling:** No information available.

### Similar Species

**Exotics:** Oxeye daisy is easily confused with the ornamental Shasta daisy (*Chrysanthemum maximum*), which is a more robust plant with larger flowers.

**Natives:** None known.

### Impacts

**Agricultural:** The plant is unpalatable to cattle; dense infestations can reduce cattle forage.

**Ecological:** If given the chance, this plant can become noxious and is capable of taking over and modifying natural areas, pasture and rangeland (Rutledge and McLendon, 1998), and may increase soil erosion compared to native plant communities (Olson and Wallander 1999)

**Human:** No information available.

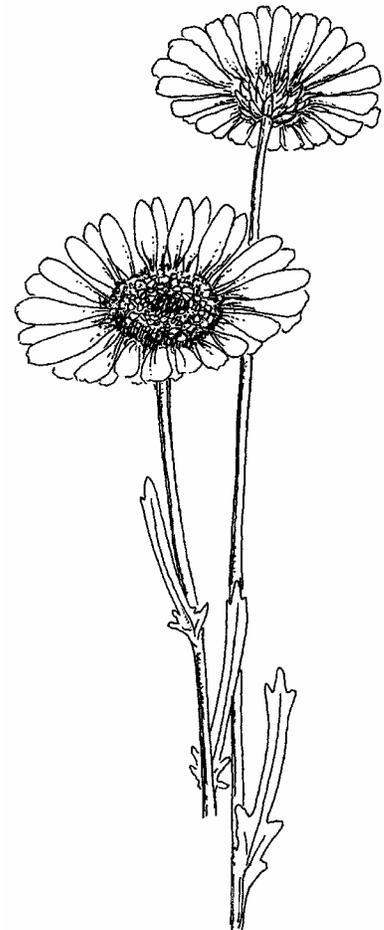
### Habitat and Distribution

**General requirements:** In Colorado, oxeye daisy is usually found at higher elevations in meadows, along roadsides, and in waste places. In many places this plant escaped from gardens and established in meadows, around mines and ghost towns in the mountains (Rutledge and McLendon, 1998).

**Distribution:** Widely distributed throughout the United States.

### Keys to Identification:

- Oxeye daisy can be identified by its daisy-like flowers. Flowering heads are solitary at the ends of branches, have white ray flowers and yellow disk flowers and are about 2 inches in diameter.



**Historical:** Escaped from cultivation as an ornamental.

### **Biology/Ecology**

**Life cycle:** Basal rosettes must experience a period of cold temperatures to initiate flowering (Rutledge and McLendon, 1998). Flowering occurs from June through August. The plant grows vigorously in poorer soils, possibly because it is a poor competitor with established plants on better soils (Olson and Wallander 1999). Oxeye daisy may require reduced competition from neighboring plants or disturbance to establish (Olson and Wallander 1999).

**Mode of reproduction:** Oxeye daisy reproduces by seeds and short rootstocks.

**Seed production:** A typical plant produces over 500 seeds.

**Seed bank:** Seeds can remain viable in the soil for at least 2-3 years and sometimes far longer (Rutledge and McLendon, 1998).

**Dispersal:** No information available.

**Hybridization:** No information available.

### **Control**

**Biocontrol:** None known.

**Mechanical:** Hand pulling or digging before seed head production can be used to effectively control small infestations. However, for this method to be successful it is important to remove as much of the underground part as possible.

**Fire:** No information available.

**Herbicides:** Larger infestations of oxeye daisy are commonly controlled with herbicides. Picloram 0.25 lb., dicamba, or 2,4-D at 1 lb. ai/acre, or glyphosate at 1.5 lb. ai/acre will control oxeye daisy. Other herbicides that have proven effective include imazapyr, and sulfometuron methyl (Rutledge and McLendon, 1998). No biological control agents exist for oxeye daisy.

**Cultural/Preventive:** Prevent the establishment of new infestations by minimizing disturbance and seed dispersal, eliminating seed production and maintaining healthy native communities.

### **Keys to Control:**

- Small infestations can be controlled by hand pulling or digging the plants before seed heads are produced.
- Minimize the amount of bare soil exposed by land management practices.
- Maintain a significant grass canopy to shade out oxeye

### **Integrated Management Summary**

Oxeye daisy has the potential to invade disturbed areas, form small colonies, and modify existing communities. Integrated treatments potentially include nitrogen fertilization and sheep or goat grazing; and nitrogen fertilization and picloram application. Nitrogen fertilizer stimulates other vegetation, especially grasses, that likely out-compete daisy plants for nitrogen, grow taller and shade out the daisy. Sheep or goat grazing is designed to selectively impact the daisy without adversely affecting the desirable species. Picloram can effectively control daisy plants but it can damage desirable forbs, as well.

### **References**

- Olson, B.E. and R.T. Wallander. 1999. Oxeye daisy. In R.L. Sheley and J.K. Petroff, eds. *Biology and Management of Noxious Rangeland Weeds*. Oregon State University Press, Corvallis, OR
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