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Parks Affected: All

COLORADO STATE PARKS BEST MANAGEMENT PRACTICES WEED PROFILE

Common burdock

Arctium minus (Hill) Bernh.

Family: Asteraceae (Sunflower)
Other Names: lesser burdock, wild burdock, bardane, wild rhubarb, beggar's button.
USDA Code: ARMI2
Legal Status: Colorado Noxious List A (general weeds)

Identification

Growth form: Biennial forb.

Flower: Flowers are purple and are borne in clusters at the ends of branches.

Seeds/Fruit: Mature flower heads form a prickly bur that readily sticks to clothing or animals.

Leaves: Stem leaves are alternate, broadest at the leaf base and somewhat diminished upward. Leaf margins are toothed or wavy, and the entire leaf is wooly beneath and dark green above. Rosette leaves are large, hairy, and heart-shaped. **Stems:** Mature plants are 3-7 feet tall. The stem is erect, coarse, and much branched.

Roots: Large fleshy taproot.

Seedling: Leaves of the rosette stage are large, simple and usually heart-shaped (Stubbendieck et al. 1995).

Similar Species

Exotics: Arctium lappa has larger heads on longer peduncles, and is less common. Cocklebur (Xanthium strumarium) has smaller, spiny-margined leaves. **Natives:** None known.

Impacts

Agricultural: Common burdock is not considered a problem in crops since it is intolerant to cultivation. Livestock are fond of common burdock and the foliage imparts a bitter taste to the milk if it is eaten in large quantities. Common burdock burs can

become entangled in the hair of sheep damaging the quality and reducing the value.

Ecological: Due to its biennial nature, common burdock is confined to areas that are not severely disturbed on an annual basis.

Human: Because of its diuretic effects, common burdock has been listed as a poisonous plant (Gross et al. 1980).

Keys to Identification:

- Common burdock can be easily identified by its bur-like flowerheads.
- Plants are highly branched and may grow up to, and occasionally over, seven feet in height.



Habitat and Distribution

General requirements: Common burdock can commonly be found growing along roadsides, ditchbanks, in pastures and waste areas. It generally prefers riparian areas that have moist, fertile soils with high nitrogen contents.

Distribution: Established throughout much of the United States. Very common in central and north central Colorado.

Historical: Common burdock is a native of Eurasia. The hooked spines of the flower heads gave rise to the idea of Velcro (Whitson et al. 1996).

Biology/Ecology

Life cycle: The bulk of germination occurs in early spring (Gross et al. 1980). During the first year the plant forms a rosette. The following year the plant produces a stout, grooved, rough stem with numerous branches. Flowering and seed production occur from July to September. Seeds are mature by September and are shed continuously throughout the autumn, winter, and following spring.

Mode of reproduction: Common burdock reproduces solely by seed.

Seed production: Common burdock typically produces between 6,000-16,000 seeds per plant. **Seed bank:** No information available.

Dispersal: Bur-like seed heads are readily dispersed by sticking to animal fur or clothing. **Hybridization:** Likely to hybridize with other *Arctium* species.

Control

Biocontrol: None known.

Mechanical: Tillage can be used to kill the plants in the first year rosette stage. Mowing or cutting can be used to eliminate seed production. Mow after the plant has bolted but before it has flowered.

Fire: No information available.

Herbicides: Common burdock can be controlled with 2,4-D, picloram, or dicamba at 1 lb. ai/acre, or glyphosate at 1.5 lb. ai/acre. Herbicides are most effective when applied to first-year rosettes.

Keys to Control:

- Eliminate first year rosettes through tillage or herbicide applications.
- Eliminate seed production in second year plants through mowing or cutting.

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

Integrated Management Summary

As with other plants which reproduce solely by seed, integrated management efforts must include the elimination of seed production and the depletion of the seed bank. Combine herbicide or tillage treatment of rosettes with removal of seed heads from any plants that have bolted. Preventing dispersal of burs is particularly important.

References

Gross, R.S., P.A. Werner, and W. Hawthorn. 1980. The biology of Canadian weeds. 38. Arctium minus (Hill) Bernh. and A. lappa L. Canadian Journal of Plant Science 60:621-634.

Stubbendieck, J., G.Y. Friisoe and M.R. Bolick. 1995. Common burdock. Weeds of Nebraska and the Great Plains. Nebraska Department of Agriculture, Bureau of Plant Industry, Lincoln, NE.

Whitson, T.D.(ed.), L.C. Burrill, S.A. Dewey, D.W. Cudney, B.E. Nelson, R.D. Lee, R. Parker. 1996. Common burdock. *Weeds of the West.* Western Society of Weed Science, in cooperation with the Western United States Land Grant Universities Cooperative Extension Services, Newark, CA.