

# COMMON BURDOCK

(*Arctium minus*)

## SEEDLING DESCRIPTION

The seed leaves (cotyledons) of burdock are light green, smooth, and fleshy. They are oval or spoon-shaped, slightly notched at their tips, and connected at the base so that the stem below the seed leaves (hypocotyl) is barely noticeable. When the seed leaves are about  $\frac{3}{4}$  inch (18 mm) long, the first true leaf appears.

True leaves are oval or triangular. Their upper surfaces are green and covered with stiff straight hairs; their lower surfaces, whitish and woolly.

1. First year seedling showing cotyledons.
2. Second year plants emerge from root.
3. Note large leaves and grooved petiole.
4. Second year plants produce flowers.
5. Note hooked barbs on burs.
6. Starchy root is edible.



## BIOLOGY

Common burdock is a biennial weed that reproduces by seed. Seedlings emerge in early spring. The first year's growth produces a large rosette of broadly triangular or oval, bluntly pointed leaves. They are coarsely veined, 6 to 18 inches (15 to 45 cm) long and up to 10 inches (25 cm) wide. The upper surface is smooth to sparsely hairy and dull, dark green. The lower surface is light green and has a

woolly texture. The leaves are round-lobed at the base, and the margins are wavy or occasionally coarsely toothed.

The thick leaf stalks (petioles) are green or purple, grooved, and usually hollow, at least in the lower portion. The rosette leaves die back in winter, but the root crown remains alive to send up new leaves the following spring. The second-year rosette has a bushier form, and its leaves are rarely longer than 9 inches (22 cm). A



branched flower stalk emerges from the center of the rosette. Usually fully extended by late June, the stalk grows 2 to 5 feet (60 to 150 cm) tall and bears alternate leaves similar to those of the rosette, but about half the size.

The burs that form on this stalk are actually composite flowers that bloom in late spring to midsummer. Several to many flower heads cluster in the leaf axils of the long central stalk. Heads are nearly round,  $\frac{3}{8}$  to  $\frac{1}{2}$  inch (1 to 2 cm) across, and are topped with a corolla of rose-purple, petallike flowers. Slender hooked bracts surround the corolla and become dry and stiff as the bur ripens.

Seeds are spread when the hooked bracts stick to passing animals or people. Very little effort is needed to dislodge and carry away whole clumps of these ripe seed heads.

Flowers are self- or cross-pollinated, usually by insects. Each bur produces thirty to forty seeds inside its spherical pod. One plant can produce as many as 15,000 seeds with 90 percent viability. Seeds last one to three years in soil and require a cold period to germinate.

#### **SIMILAR SPECIES**

*Arctium lappa*, commonly known as great burdock, is similar to common burdock in most respects except for its size. Great burdock often grows 10 feet (3 m) tall, while the largest common burdock plants rarely exceed 5 feet (1.5 m). In the United States, *Arctium lappa* grows mainly in the Northeast.

In early growth stages, the two burdocks can be distinguished by their leaf stalks. Great burdock petioles are solid, whereas those of common burdock are generally hollow.

#### **NATURAL HISTORY**

Burdock grows throughout the United States except for the southern border and some areas of the Great Lakes states. The weed first arrived in North America with the early European immigrants, who used it as a medicine.

The writings of Galen, a second century Greek physician, describe the many curative properties of this plant, especially its effectiveness in soothing coughs and asthma. The North American Plains Indians used the root to treat pleurisy.

The United States imports the dried root

of great burdock, called "lappa," for the manufacture of blood medicines, eczema treatments, diuretics, and laxatives.

Oriental and European cultures use burdock as a vegetable. The fleshy taproot contains large amounts of inulin, the same sugar that is abundant in Jerusalem artichokes. The roots, which are actually quite nutritious, may be prepared by peeling and boiling in two changes of water. The stalk may also be eaten, after the rind is stripped off and the inner part cooked. However, its laxative properties limit its use as a main dish. The stalk may also be candied by slowly simmering in sugar water.

Burdock is a slow growing plant, but it can effectively compete in waste areas because its large flat "elephant ear" leaves shade surrounding plants. Burdock likes fertile but undisturbed ground; it is not a serious crop weed because even minimal tillage prevents growth.

The genus name *Arctium* comes from the Greek word *arktos*, meaning bear, and refers to the round, brown burs. The species name *minus* is Latin for "smaller." Other names for common burdock are smaller burdock, clothbur, cuckoo-button, cockle-button, hardock, and bardane.

#### **CONTROL**

Plowing or disking as soon as burdock seedlings appear will destroy them. First-year rosettes growing in grass pasture, along fence rows, and in waste areas are easily destroyed by chemical herbicides. Late summer treatment ensures that late emerging seedlings will not grow large enough to produce the root reserves necessary for overwintering.

A second-year rosette can send up a new flower stalk if the plant is only cut off at the surface. Spading or otherwise removing most of the taproot will prevent regrowth. The other option is simply to mow after the flower stalk forms. The plant will not regrow, and its seeds will have been eliminated.

For specific recommendations, consult your county extension agent or the most recent *Weed Control Manual and Herbicide Guide*, available through Meister Publishing Company, 37841 Euclid Avenue, Willoughby, Ohio 44094. Follow label instructions for all herbicides and observe restrictions on grazing and harvesting procedures.

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Where trade names appear, no discrimination is intended, and no endorsement by the Cooperative Extension Service is implied.

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