

LARGE CRABGRASS

(*Digitaria sanguinalis*)

SEEDLING DESCRIPTION

The leaf sheaths of large crabgrass seedlings are tinged purple and are covered with long, stiff hairs. The ligule is membranous, flat at the top, and smooth. Auricles are absent. The first leaf is only about twice as long as it is wide. It is tinged light purple and has a white stripe running down the center and a whitish vein at the margin. Both sides have silky, shiny hairs. Leaves taper to a point and have many veins and rough margins. The youngest leaf is rolled in the bud shoot.

1. Seedlings beginning to show stiff hairs.
2. Flat-topped membranous ligule.
3. Hairy leaf sheath.
4. Matted growth habit of mature plant.
5. Roots forming at nodes.
6. Seed head spikes emerge from different points.
7. Spikes may form a single whorl.



forming mats in moist soils. These mats occasionally grow upright.

Large crabgrass reproduces by tillers and seeds, a single plant producing as many as 700 tillers and 150,000 seeds. Plants can produce seeds at mowing heights as low as ¼ inch (6 mm). If top growth is periodically mowed, two to three seed crops may form in a single growing season.

Seeds germinate best from midspring to late summer. Large crabgrass seeds are dormant for a short period after they are shed. Dormancy can be overcome by opening the seed coat or allowing seeds to ripen in dry storage at alternating temperatures of 68° to 86°F (20° to 30°C) in the light or at a constant temperature of about 95°F (35°C). Thus, new seedlings grow best where the soil becomes very warm. Seeds rarely germinate in heavy sod or thatch, because the increased moisture and lack of light lower the soil temperature.

Large crabgrass continues to grow until midsummer, when days become shorter. Vegetative growth then slows down and plants enter their reproductive phase. Purplish seed heads form until frost kills the plants. Flowering significantly inhibits growth. Plants that emerge early and have a long period of vegetative growth are much larger and more competitive than plants that germinate in late summer.

Because large crabgrass can adjust to both tropical and temperate conditions, it grows in numerous countries and competes with many different crops. It is a serious weed of cultivated fields, lawns, waste areas, and pastures. Once established, large crabgrass tolerates both high temperatures and dry, compacted soils.

This weed has a prolific branching habit. Just a few plants can spread rapidly and cover considerable ground area. While large crabgrass is frequently short and not very obvious, it is always competitive. It is also an alternate host of the viruses that cause tobacco mosaic, barley stripe, lucerne dwarf, panicum mosaic, sugar cane mosaic, and wheat streak mosaic.

leaves of large crabgrass, but the goosegrass sheath is smooth, distinctly flattened, loose and overlapping, and silvery green at the center of the plant. In addition, goosegrass leaf blades are smooth on both surfaces.

Smooth crabgrass (*D. ischaemum*) turns purplish in the fall, has long thin leaves, and is usually hairless.

NATURAL HISTORY

A native of southern Europe, large crabgrass was introduced into Great Britain as an impurity in grain and has since spread throughout South America and the United States. It was first reported in the United States in 1864. Fifty-six countries report large crabgrass as a weed in thirty-three different crops. It is one of the three most serious weeds in sugar cane and cotton and is a principal weed of sorghum and soybeans in the United States.

The flower spikes of this weed radiate from the main stalk like the fingers of a hand, hence its generic name, *Digitaria*, and one of its common names, finger grass. Other common names for large crabgrass are hairy crabgrass, purple crabgrass, pigeon grass, crowfoot, and Polish millet.

The young plants of large crabgrass are palatable to livestock; they are often used for grazing and cut for hay. Large crabgrass was cultivated for human consumption in the Middle Ages.

CONTROL

Large crabgrass flourished in U.S. corn fields in the 1960s following a prolonged period of triazine herbicide application. Because the weed tolerates these chemicals and often outcompetes other weeds, it spreads at an alarming rate.

Crabgrass cannot be controlled quickly or even in one growing season because of the great number of viable seeds that accumulate in the soil from years of infestation. Satisfactory control requires several years of conscientious adherence to a control program. The basic principle of crabgrass control is to prevent reinfesta-

tion. Mowing is not an effective control measure because low growth allows most of the plants to escape cutting and because large crabgrass grows back faster than crop plants.

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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