

LEAFY SPURGE

Euphorbia esula



Overview:

Leafy spurge is a long-lived perennial that was introduced as either an ornamental or crop seed contaminant in the early 1800's. It reproduces primarily by re-sprouting from its extensive, persistent, creeping root system, but also by seed. Leafy spurge roots can extend 4.5 m laterally and about 9 m deep. Leafy spurge forms dense stands over time and a large plant can produce up to 130,000 seeds. All parts of the plant contain a milky-coloured latex that can poison livestock and cause skin irritation on humans. Cypress spurge is very similar in appearance, but leafy spurge is taller, has longer leaves, and less branching in the upper part of the plant.

Habitat:

Native to much of Europe and Asia, it is adapted to a wide variety of site conditions. It grows on a range of soil types and tolerates very dry to very wet climates, but does require some warmth for good growth. Seasonal flooding of riparian infestations can distribute seed long distances.

Identification:

Stems: Stems are arranged in clumps, smooth and hairless, grow up to 1 m tall and contain a milky latex.

Leaves: Leaves are numerous and attached directly to the stem, arranged alternately or sometimes spirally. The leaves are up to 7 cm long, narrow, waxy, have smooth edges and are bluish-green in color, turning yellowish or reddish-orange in late summer.

Flowers: Flowers are small, yellowish-green, lack both petals and sepals, and are supported by 2 green, heart-shaped, leaf-like bracts, arranged in numerous small clusters.

Seeds: Seeds are about 2mm, smooth, oblong, light gray to dark brown in color and grow in pods on top of the bracts. When mature the dried seed pods explode, distributing seed as far as 5 m from the parent plant. Seeds are viable in the soil for about 8 years.

Prevention:

Producers should exercise caution when using hay from road ditches and when purchasing hay from known infested areas. Use weed seed free hay, isolate animals for a week that were in an infested area so that all the seeds can go through the animal's body, wash the under carriage of vehicles in a commercial area making sure all seedlings; stems; flowers; etc. are washed down the drain, and don't get soil or gravel from an area infested with leafy spurge.

Control:

Leafy spurge is extremely resilient and a combination of control methods will be necessary to achieve significant control.

Grazing: Sheep and goats will readily graze leafy spurge and are not affected by the toxic juices in the stems. The subsequent resprouting will weaken the plants by diminishing root reserves. However there is the risk of seed being carried by the animals to un- infested locations.

Cultivation: There are two types of cultivation for leafy spurge; intensive throughout the growing season, and fall-only cultivation. Intensive cultivation programs should begin two to four weeks after leafy spurge emerges in the spring. Till at least four inches deep every three weeks until the soil freezes for one or two years. Fall only cultivation should be done when the regrowth of leafy spurge is three to six inches tall, and should be repeated for three years.

Mechanical: Hand-pulling and mowing is in-effective other than on small, young infestations. Wear gloves and wash after handling leafy spurge to avoid skin rashes.

Chemical: 2,4-D, Amitrole, Dicamba, Glyphosate, Imazapyr, MCPA and Picloram are registered for use on leafy spurge. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Always read and follow label directions. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: Five flea-beetles and 2 moths have been imported for biocontrol of leafy spurge. Flea-beetle larvae are root-feeders and adults consume shoot and leaf tips.

