

Leafy Spurge (*Euphorbia esula*)



DESCRIPTION:

Leafy spurge is an invasive perennial originally from Eurasia, which can form large colonies in sunny areas, particularly dryer sites, utility right-of-ways and roadsides. The milky sap of leafy spurge is poisonous to most livestock and the plants will not be eaten by cattle. Leafy spurge has the ability to invade natural areas including prairie remnants and displace native plants by beginning growth early in the spring. Additionally, leafy spurge produces allelopathic chemicals that suppress the growth of other plants. Leafy spurge propagates primarily by underground roots (rhizomes), which can spread up to 40 ft. laterally per year and as deep as 25 ft. into the soil. Rhizomes near the surface develop buds which will sprout into new above ground stem, this is the plants primary means of spread. Leafy spurge can also spread by seed, each stem producing up to 200 seeds, which can be expelled up to 15 ft. when they ripen in late-July. The seeds of leafy spurge have a high germination rate and remain viable in the soil for up to 8 years. It is legally classified as a noxious weed in nineteen states including Wisconsin.

Leafy spurge most commonly grows to a height of 12-30", and can form massive colonies, which stand out in the landscape when the yellow-green colored flowers bloom in early-June. The true flowers, which bloom in June, are very small with petals that are fused together in a roughly circular shape around the stalk. The more 'colorful' part of the plant is the heart-shaped bracts, which are found just below the flowers. Healthy plants may bloom again later in the summer or early-fall. The leaves are long, narrow, pointed, and drooping with smooth margins. When damaged, leafy spurge, like all members of the spurge family, releases a milk-like, sticky white sap.

CONTROL METHODS:

Organic: Hand-digging may control very small populations if repeated regularly (biweekly). Repeated tilling, every three weeks throughout the growing season, can be effective. Leafy spurge is extremely difficult to eradicate. Grazing by goats multiple times per season for several years should control (but not eradicate) the infestation. **Equipment should be cleaned thoroughly after use to prevent the spread of root fragments.**

Chemical: This species is resistant to many types of herbicide, including glyphosate, triclopyr and 2,4-D. Imazapic (Plateau®) and picloram (Tordon®), are somewhat effective, but due to persistent environmental risks we cannot recommend them.

Aminocyclopyrachlor (Method®) is the most effective control option, however, this chemical has a high potential for damage to neighboring broadleaf plants through root uptake and should not be used near some trees including pines, aspen and hackberry. Aminopyralid (Milestone®) & clopyralid (Transline®) are moderately effective, though both will persist in dead plant material and present a risk of groundwater contamination in well drained soils. All of these herbicides will kill any plant in the aster, legume, tomato or knotweed families, and should be used with caution around them.

Fall treatment is most effective as this promotes better translocation of the herbicide into to root system. Also treat leafy spurge in early-summer after yellow-green bracts become prominent but before seed pods form. We prefer a careful spot herbicide application, the fine structure of the plant makes overspray likely. For isolated plants in a matrix of desirable native plants the "glove-of-death" application technique will minimize harm and overall chemical use. Add an adjuvant, such as methylated soybean oil (MSO) at 3 oz/ga. to the spray solution for better adhesion of the herbicide to the leaf surface.

Always read herbicide labels carefully before use and always apply according to the instruction on the product label.

