



Leafy Spurge

Bayer Solutions

// THE PROBLEM

Leafy spurge (*Euphorbia esula*) is a troublesome perennial weed that spreads rapidly once established, forming large, dense colonies of a monoculture, which are difficult to control. This plant has invaded large areas of rangeland, farmland and roadsides in the Prairie provinces and has been a problem in pastures, roadsides, uncultivated crops and reduced tillage crops in eastern provinces. Although found on heavier soils, leafy spurge thrives in coarse soils.

Leafy spurge plants over-winter by using their extensive perennial root system. This extensive root system produces new shoots from pinkish root buds each spring at depths of 30 cm or more. The root system spreads horizontally, producing new crowns from pinkish adventitious root buds and vertically to depths up to 4.5 m. Perennial roots increase in size and diameter over time. Within large stands, crowns remain connected underground increasing plant reserves, which makes mechanical and herbicide control less effective.

// WHAT TO LOOK FOR

Some key characteristics to differentiate leafy spurge from other species:

- Leafy spurge stems are smooth, yellowish brown and mostly un-branched below the flowers. They grow in clumps from 30-70 cm tall and are interconnected by a perennial root.
- Leaves are linear, alternate and attached directly to the stem with no petiole. This is different than Cypress spurge leaves which are crowded on side stems. All plant parts have a milky sap.
- Leafy spurge has greenish-yellow flower clusters with leafy flower parts. They grow in flat topped clusters at the tops of the stem and on side shoots.
- The dried seed pods explode and spread seed up to 5 m. Seed persists in the soil for five to eight years.

Leafy spurge plants are unpalatable to cattle and horses and can have negative impacts on cattle. Its presence can render fields unsuitable for pasture. Interestingly, leafy spurge thrives in areas where vegetation is grazed out, taking over rangelands and pastures.

// BAYER SOLUTIONS

A multiple year control program is required to control the large underground roots and seeds. Control should include an integrated program using herbicides as a tool with other control methods.

Apply herbicides at the appropriate time when uptake is best:

- In late May and June once flowering has started to prevent seed production and herbicide will translocate to root
- In early September once growth has resumed and herbicide will translocate to root. The benefit of using herbicides with residual control is to prevent germination of seedlings through the year.

As part of a control program, establishment of competitive vegetation is important to prevent new infestations. Combine seeding and fertilization to promote competitive growth of desirable cover.

Cleaning equipment after herbicide application within a site, mowing, ditching or any work on infested sites is critical to prevent linear spread down rights-of-way or to new fields.

For cleaning protocols for contractors:

https://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/07/Clean-Equipment-Protocol_June2016_D3_WEB-1.pdf



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Application Type	Solution	Rate	Application Timing
Pre- and post-emergent bareground	Esplanade™ + Truvist® or Navius® FLEX	375 mL/ha + 168 g/ha 167 g/ha	When weeds are actively growing
Post-emergent selective weeding	Navius FLEX or Truvist	167 g/ha 168 g/ha	Weeds actively growing mid-May thru mid-September
Post-emergent selective weeding range and pasture	Navius FLEX	167 g/ha	Weeds actively growing mid-May thru mid-September

For more information about effective vegetation management, contact your Bayer representative or visit es.bayer.ca



Leafy spurge treated/untreated.



Leafy spurge close up.



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