LEAFY SPURGE

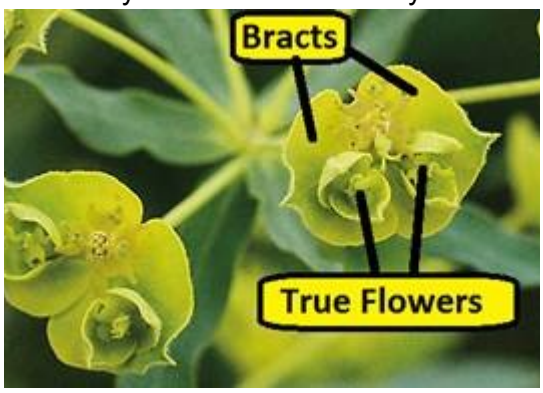
(*Euphorbia esula)*

WHAT DOES IT LOOK LIKE? Leafy spurge is an aggressive perennial weed that can grow to 3 feet tall and up to 20 feet deep. It has bluish-green narrow leaves and showy yellowish green, heart-shaped leaves which surround a small flower. Stems and leaves ooze a milky latex sap when broken. This sap can seriously irritate the skin of people and animals, and can cause human blindness if rubbed into the eye.

WHERE DOES IT GROW? It can be found in any type of soil and is commonly found in rangeland, pastures, roadsides, waste areas and wetland sites. Although leafy spurge grows best in unmanaged sites, it will invade cultivated sites as well.

HOW DOES IT SPREAD? Flowering begins in May and continues into the fall. It's seed capsules open explosively, shooting the seed up to 15 feet from the parent plant or can be carried further by water and wildlife. Each flowering shoot produces an average of 140 seeds. The seeds can live in the soil for up to 8 years before germination. The roots can grow sideways and spread several feet per year, developing buds which will produce many more plants.

HOW DO I CONTROL IT? You must remember that Leafy Spurge has a very extensive root system that continually spreads and sends up new shoots. Any control effort that only controls top growth is simply ineffective because new shoots will come up to replace the ones you killed. Even if you manage to stop seed production by mowing/cutting/grazing/contact herbicides, the roots will keep right on spreading and your Leafy Spurge infestation will continue to grow. Your control efforts have to target the roots and kill all growing points, and the only effective way to do this is with systemic herbicides. Systemic means the chemical will translocate all the way through the plant, not just attack the portions it touches. The best example is **Picloram**, the active ingredient in herbicide products such as ***Tordon 22K***, especially when enhanced the active ingredient **Diflufenzopyr** as found in products such as ***Overdrive***. If you treat with an herbicide such as **2,4-D** that does *not* translocate well, the top growth will die only to be quickly replaced by fresh new shoots as the roots continue to spread and your infestation gets worse. See the reverse side for more information on mechanical, cultural, biological and chemical control options for Leafy Spurge. Also see our Chemical Treatments handout for more information on using herbicides.



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How to Control Leafy Spurge

Leafy Spurge is a perennial that reproduces not only by seed but also vegetatively through its extensive roots. Control is by preventing seed production and killing the root system.

Mechanical Pulling, digging, tilling, burning, grazing, and any other control effort that controls only top growth without killing all growing points in the root system will be ineffective at controlling Leafy Spurge. Even if you eliminate 100% of the seed production, the creeping rhizomes will expand your infestation up to 15 feet per year.

Cultural The best long term weed control is to get your desirable native plants thriving. Killing weeds is only one step, you have to also replace them with something good. Seed and fertilize so your grass can take nutrients away from the weeds and not leave available open soil for new weeds to germinate.

Biological Several biocontrol agents are available for Leafy Spurge with varying degrees of success. Contact Nez Perce Biocontrol Center for more information (208)843-9374 or nezpercebiocontrol.com.

Chemical *******Chemical treatment of creeping perennials must target the root system in order to be effective. Killing only the top growth with an herbicide such as 2,4-D will not reduce your infestation. See our Chemical Treatment handout for more information.

- **Aminopyralid** is the active ingredient in herbicide products such as ***Milestone***. It is broadleaf selective (safe on grass) and can provide some control of Leafy Spurge if applied in the early summer when the small true flowers form.
- **Imazapic** is the active ingredient in herbicide products such as ***Plateau***. It can be effective against Leafy Spurge if applied late in the summer but before the white milky sap dries up.
- **Picloram** is the active ingredient in herbicide products such as ***Tordon 22K***. It is a broadleaf selective herbicide that can be very effective on Leafy Spurge, but is federally restricted and requires a license to buy or apply.
- **Aminocyclopyrachlor** is the active ingredient in herbicide products such as ***Method 240 SL***. It is broadleaf selective and can be effective against Leafy Spurge if applied when the true flowers are formed in early summer. Take care not to apply Aminocyclopyrachlor over the root zone of any desirable trees, IT WILL KILL THE TREES.
- **Glyphosate** is the active ingredient in herbicide products such as ***RoundUp***, ***Honcho***, ***Gly-Star***, etc. It is non-selective (will kill grass) and can be effective on Leafy Spurge if applied when the small true flowers form.
- **Diflufenzopyr + Dicamba** are the active ingredients in the herbicide produce ***Overdrive***. It can be mixed with the other active ingredients such as Picloram or Aminopyralid and causes them to accumulate in growing points, increasing their efficacy.

Chemical recommendations are based on University of Idaho Extension Bulletin 865 Idaho's Noxious Weeds 2011 Control Guidelines Noncrop and Rangeland Sites, the book Weed Control in Natural Areas in the Western United States published by UC Davis Weed Research & Information Center, and herbicide labels.