Leafy Spurge

Euphorbia virgata

FAMILY	*Euphorbiaceae*- spurges	**ORIGIN**	Eurasia
LIFE CYCLE	Perennial	**OTHER NAMES**	Flowering spurge, Wolf's milk, Faitours-grass, Tithymal

QUICK FACTS

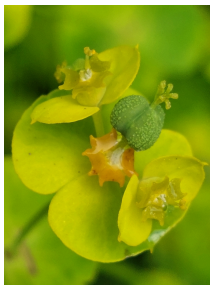
- Leafy spurge is an aggressive, noxious weed that thrives in a wide variety of environments, quickly spreading through deep, woody roots and prolific seed dispersal. It competes with native plants, leading to monocultures and ecosystem disruption.
- Due to its resistance to herbicides and ability to regenerate from small root fragments, leafy spurge is a challenging pest to manage. It requires a combination of control methods, including herbicide, mowing, tilling, and biological control, for effective suppression.
- Leafy spurge causes significant economic losses in agriculture and disrupts ecosystems by outcompeting native flora, reducing forage for livestock, and altering biodiversity. Its toxic sap also poses a health risk to both humans and animals.

Meet leafy spurge, the explosive (literally) weed that is as adaptive as it is persistent, infiltrating landscapes with ruthless efficiency, establishing dense monocultures, and leaving economic ruin in its wake.

Leafy spurge is a highly invasive and noxious weed that poses a significant threat to native plant species, cattle, and agricultural lands. Known for its rapid spread and resilience to many control methods, this weed can quickly dominate pastures, grasslands, and disturbed areas. Leafy spurge competes aggressively for resources, overwhelming more desirable vegetation and altering ecosystems. Its ability to thrive in diverse environments, coupled with its resistance to herbicides, makes it a formidable challenge to land management efforts.

Rob Routledge, Sault College, Bugwood.org


alcesevropsky, inaturalist.org


Jan Doležal, inaturalist.org


GarJulia Scher, USDA APHIS PPQ, Bugwood.orgy L. Piper, Washington State

What does it look like?

This blue-green weed can grow up to 3 feet tall. The plant produces hairless, erect stems that branch at the top and produce a milky white sap (latex). An easily identifiable characteristic of leafy spurge is the presence of light-green flowers surrounded by heart-shaped yellow bracts, which would make one believe the flowers themselves are yellow. Leafy spurge is similar in appearance to cypress spurge (Euphorbia cyparissias), but is generally larger and produces fewer leaves.

Roots: The roots are deep and woody, with vertical taproots that can form buds that create new plants near the soil surface. It has creeping roots that form root buds and generate new plants, which also causes continuous grazing or mowing to be ineffective because the roots can store a large amount of energy.

Leaves: The smooth, hairless leaves are simple, the leaf blade is entire, and the arrangement is alternate, though leaves and bracts may be whorled or opposite under the flowering branches. The leaves are narrow and oblong.

Flowers: The inflorescences form umbrella-like flower clusters at the stem tips. The flowers do not have petals but rather two yellow-green bracts, which form a cup shape and are often mistaken for petals.

Seeds: The flowers produce seed capsules with three chambers, each containing seeds ranging from yellow-brown to gray. Once mature, the capsules burst open and disperse seeds up to 15 feet away from the parent plant.

Impact and Management

Health and Safety

Spurge plants contain a highly irritating latex sap that can lead to skin rashes when exposed to sunlight. It is crucial to wash your hands thoroughly after handling, as the sap can cause significant irritation. Prolonged handling of this sap is considered potentially carcinogenic. While the entire plant contains this latex, the concentration is highest in the roots. Large quantities of the sap can have a slowing effect on the heart and may even be fatal to humans. The weed's milky latex causes severe diarrhea when ingested by cows and horses. Exposure to weed-infested grounds by horses can cause blistering and hair loss around the hooves.

Ecosystem Health

Once established, leafy spurge displaces native plants, resulting in a notable loss of floral and faunal biodiversity. The plant is particularly aggressive in native ungrazed grasslands, making it a severe danger to large acreage ranches. Its dense litter and foliage crowd out desirable forbs and grasses. Some studies have shown that leafy spurge may be allelopathic in nature, but more research is required. The high reproductive and dispersal rates of leafy spurge combined with its tendency to create large, well-established stands make it a severe threat to native ecosystems.

Economic

This weed will become a monoculture through aggressive seed production and vegetative growth. Aside from big game, it can reduce available forage for domestic livestock and, in rare cases, cause harm to cattle. In 1994, Economic losses in North Dakota from leafy spurge invasion of rangelands and subsequent management costs totaled $14.4 million annually.

Randy Westbrooks, Invasive Plant Control, Inc., Bugwood.org

The high genetic variability of leafy spurge makes it a particularly difficult weed to control, as management efforts must be consistently adapted to keep up with changes in the plant's biology. Because of this, the plant is extremely resistant to pesticides as well as other control measures. Prevention of leafy spurge should be the highest priority before the weed can gain a foothold. If you are at risk of a leafy spurge infestation, always make sure to use certified weed-free seed and hay. After being moved from an infested area, cattle should be quarantined for 6 days and sheep for 11 so they may discharge any consumed seeds.

DO's

- Select herbicides that are effective on leafy spurge. Apply them in the correct season, typically when the plant is actively growing, for the best results.
- Address smaller, early infestations of leafy spurge before they become large-scale problems. This can be more cost-effective and easier to manage.
- Combine herbicides with other methods like mowing, tilling, and biological control (e.g., releasing flea beetles) to reduce the spread and impact of leafy spurge over time.

DON'Ts

- Avoid spraying herbicides during windy or rainy weather, as this can cause drift or runoff, which reduces the herbicide's effectiveness and can damage non-target plants.
- Move soil or plant material from infested areas to prevent spreading leafy spurge to new places.
- Rely on a single control method, such as herbicide application, without a complementary approach like mowing or biological control, as this can result in the plant's resistance.

TAOS SOIL & WATER CONSERVATION DISTRICT

For more information on managing leafy spurge, please visit **www.nmweeds.org**