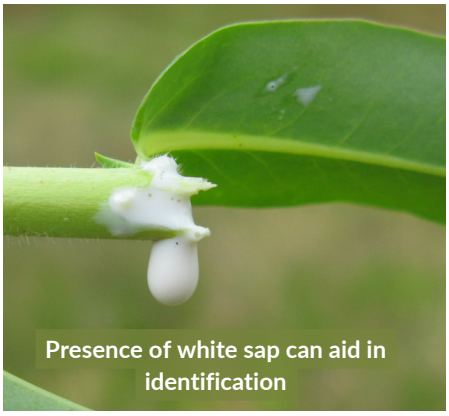
LEAFY SPURGE

Euphorbia esula

WHAT IS IT?

Leafy spurge (LS) is an herbaceous perennial forb in the Spurge family that was accidentally introduced from southern Europe. It is one of the most tenacious weeds in the U.S., spreading both from seeds and from its roots to form dense clonal colonies that suppress native plants and livestock forage. Its milky sap is toxic and can irritate the skin, eyes, and digestive tracts of humans and other animals. It has spread to the northern and western U.S. and to parts of Canada.

LS spreads from its roots to form dense infestations



Presence of white sap can aid in identification

HOW TO IDENTIFY LEAFY SPURGE

STEM AND LEAVES

LS is an erect, 3 ft tall forb with smooth elliptical leaves that alternate up the lower stem but are whorled or opposite just under the flowering branches. All parts of the plant contain a white milky sap that helps distinguish LS from similar looking plants – this is particularly helpful before easily-recognizable flowers have formed.

FLOWERS

Flowers are produced in umbrella-like clusters (umbels) at the tips of stems. Individual flowers are tiny and surrounded by showy, heart-shaped, yellow-green bracts that are often mistaken for petals.

FRUITS

Each flower forms a 3-chambered capsule that dehisces (pops open) to eject seeds 15 ft from the parent plant.

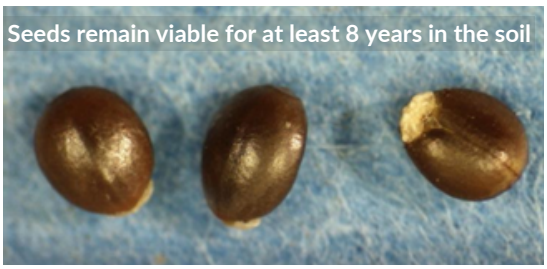
Yellow “petals” are actually colored bracts

3-chambered fruits explode to eject seeds

REPRODUCTION AND SPREAD

SEEDS	Each flowering shoot produces an average of 140 seeds which are exploded 15 feet when fruit capsules dry and dehisce. Seeds float, and water, birds, animals and people aid seed dispersal. Once dispersed, LS seeds are viable for at least 8 years.
ROOTS	LS forms an extensive system of creeping roots that generate new plants, as well as store food reserves. This enables roots to produce new shoots for many years under continuous grazing or mowing. LS can also spread from root fragments as small as 0.5 inch.
LIFE CYCLE	LS is a long-lived "creeping perennial" which means it can spread from its roots as well as start from seed. A single plant can form a patch that can essentially live forever under the right conditions.


Flea beetles are effective biocontrol agents


Seeds remain viable for at least 8 years in the soil


LS also spreads from its root system

HOW TO CONTROL IT

PREVENTION	Use clean tools so you don't risk spreading root fragments.
MECHANICAL	Hand pulling and digging out of rhizomes is generally not recommended because the plant will re-sprout from any rhizome fragments. However, if digging, tilling, or hand-pulling is repeated every 2 to 3 weeks throughout the growing season and for several years, this can eventually exhaust the root system. Mowing is not effective, except to prevent flowers and seeds.
CHEMICAL	Herbicide can be used to control LS but proper timing is imperative. Herbicides with *2,4-D* or *Dicamba* as active ingredients will be most effective. These should be applied right at flowering and again to regrowth in the Fall.
BIOLOGICAL	There are several biological control agents available for leafy spurge. The most effective are 5 species of Leafy Spurge Flea Beetle (*Aphthona* species). They have reduced LS infestations by as much as 80-90% in some areas. Although LS is poisonous to cattle and horses, sheep and goats can tolerate its toxic sap and can reduce stems and leaves through grazing. This will NOT kill the roots.
CULTURAL	Irrigation, where applicable, may favor grass growth and make it more competitive with leafy spurge.

Thanks to Teton County Weed and Pest for creating this material.