

Leafy Spurge



- *Spurge family (Euphorbiaceae)*
- *Perennial*
- *Reproduces by seed and extensive lateral root system*
- *Flowers yellowish-green, small, and surrounded by paired, heart-shaped yellowish-green bracts*
- *White milky sap in entire plant is distinguishing characteristic*

Total estimated acreages in Johnson County have dropped from a peak estimate of 10,000 - 12,000 acres down to around 2,500 - 3,000 acres currently.



Aerial Treatment

Aerial treatment had been used periodically by the District since the 1980's. A more focused and coordinated effort began in 2000 amongst landowners in which several thousand acres were consistently treated using various herbicide rates and combinations. Arguably, this was a turning point in capturing "control" of this persistent weed.



Bio Control

The first release of a bio-agent (insect) on leafy spurge occurred in the mid 1980's. A more concerted effort began in early 1990's to establish "Apthona" flea beetles over several locations in the County. There are essentially 2 kinds of flea beetles, browns and blacks, with 2 different species in each. Bio-control agents are exposed to rigorous testing to make sure they don't negatively impact any other plant specie, before they are allowed into the US for release. Since leafy spurge is native to Eurasia, bio-agents had to be discovered and brought in from there. The District learned that the bio-agent populations seemed to stagnate until a light herbicide application over the top of a release site was integrated into the management plan. They have proven adept at moving long distances on their own, to wit we can generally find these insects anywhere there is Spurge. The use of goats to graze leafy spurge has also proven to be a useful bio-management tool.





Backpacking the Canyon

Ground Applications

The District has hired summer season crews since the 70's to cover vast acreages of the County on foot searching for and treating isolated spots of Leafy spurge. In recent years we have added ATV's to the arsenal to more efficiently search some of those areas. However, the backpack crews remain a vital component of the District's program so that we can do the best job possible in treating what we find **wherever** we find it. Crew members often hike several miles a day, in sometimes the most rugged of terrain, in extreme heat, tormented by snakes and bugs, while carrying up to 35 lb packs in search of and correctly spraying weeds. Kudos to crews past and present!

Chemical Control Options

- Tordon 22k (requires applicators license) remains the best option for treatment anytime from late May through October. We recommend 1-2 quarts per acre depending on your particular situation and only adding 2,4-D if treatment is occurring late July to August.
- For spring and summer treatments and you do not have an applicators license, a tank mix of Banvel and 2,4-D. Contact the District office for specific recommendations.
- Plateau (applicators license is **not** required) is effective late August through October. This product is an excellent choice for sites around water or trees. It does have low use rates therefore properly calibrated equipment is critical. Contact the District for specific mixing instructions.
- On the horizon: there is a new product that is projected to be labeled for use we hope in 2014. Research has shown excellent activity on leafy spurge as well as a number of other troublesome weeds.

★ *Please note- the above options are for reference only and are specific to rangeland or pasture settings, please consult the product label or the District for specific rates to suit your particular needs.*

Other

Effective management of Leafy Spurge takes long term commitment, perseverance and monitoring. One cannot rely solely on one treatment, often times needing to integrate other control techniques from your treatment "toolbox" to achieve the desired results. Just as a particular herbicide may not be suited to or effective in any given site, the same is true for bio-agents.