



## Prostrate and Spotted Spurge Management in Home Landscapes

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Prostrate spurge and spotted spurge (*Euphorbia spp.*) are low-growing annual weeds that can be problematic in landscapes from mid to late summer in much of Utah. They are common on bare soil, in landscape beds, and in poorly-managed lawn areas. Prostrate spurge can also often be found growing in cracks in concrete and asphalt. It has tiny, oval leaves that can range in color from light green to gray green, and may even have a purple or reddish spot in the middle of the leaves. It begins germinating when soil temperatures reach 50-60° F (10-15° C) in the spring, but seedlings remain

mostly unnoticeable until temperatures are consistently much warmer, and the plants grow rapidly. Prostrate spurge can quickly form dense mats and cover desirable plants (Figure 1), although the plants die in the fall after exposure to hard frosts.

Flowers of prostrate spurge are tiny, inconspicuous, and occur where the leaves attach to the stem (Figure 2). The plants can produce thousands of seeds, many of which may germinate the following year, so small infestations may quickly get out of hand. Some seeds may stay dormant in the soil for several years. Prostrate spurge roots can penetrate deeply into the soil and the plants can become quite drought hardy. The stems and leaves exude a milky sap when broken, which can irritate skin. Control options for prostrate spurge include hand pulling, soil cultivation (tilling), mulching, and herbicide application. In bare ground areas, hand pull (wear gloves) or cultivate newly germinated plants before they produce seeds. Wash hands when done to avoid skin irritation from the milky sap it produces. In areas with bare ground, using a mulch



**Figure 1.** Prostrate spurge can form dense mats, especially on bare ground.



**Figure 2.** Spotted spurge showing dark irregular spot in leaves, and tiny flowers typical of both spurge species.

such as bark or grass clippings can also provide good control. Maintaining thick, healthy turf is the best way to control weeds in lawns (Figure 3).

Because spurge, and other weeds, are most problematic where the lawn is thin, take measures to improve these areas. Adjust or repair sprinklers to eliminate dry spots and program irrigation controllers to allow water to penetrate 6-12 inches into the soil, two to three times weekly in the summer.



**Figure 3.** Prostrate spurge growing in thin, poor quality turf.

Fertilizing in the spring and fall, and mowing at a height of 3 inches will also be helpful for increasing turf density.

If soil drains poorly, core aerating in the spring and/or fall may also reduce compaction and improve drainage. Overseeding thin spots in late summer can also help reduce spurge development in these areas.

In areas where spurge is a significant problem, using a pre-emergent herbicide can be very effective (Table 1). Pre-emergent products should be applied in mid-April along the Wasatch Front, or about the time Forsythia blooms.

Post-emergent control may be achieved with herbicides containing sulfentrazone, carfentrazone, 2,4-D, dicamba, MCPP, MCPA, dichlorprop (2,4-DP), and triclopyr. Some herbicides are formulated to contain 2, 3, or 4 herbicides together to increase the number of weeds controlled and in theory improve spurge control. However, because spurge has a thick waxy coating on leaves and stems, use of post-emergent herbicides such as glyphosate or 2,4-D on mature plants may not be effective unless a surfactant or spreader-sticker is added to increase effectiveness.

If using broadleaf herbicides, such as Weed-B-Gone or Trimec, during the summer, do so with extreme caution. Temperatures above 85° F cause these products to volatilize and drift through the air, possibly damaging desirable plants. As always, with any pesticide, carefully follow the label directions. The label will include guidance about other environmental conditions to be aware of at the time of application such as wind speed and temperature inversions.

**Table 1.** Selected pre-emergent options for control of prostrate spurge.

Pre-emergent Products	Areas of Use		Comments
	Lawn	Landscape Beds*	
Pendimethalin	X	X	Registered primarily for use against annual grassy weeds. Many products containing this active ingredient list spurge as being suppressed or controlled.
Dithiopyr	X	X	Registered primarily for use against annual grassy weeds. Many products containing this active ingredient also have spurge labeled as being suppressed or controlled.
Isoxaben	X	X	Often registered for turf use. This product is primarily for use against broadleaf weeds. Possibly the most effective pre-emergent for spurge. It is often registered for use with other pre-emergent products to create a synergistic effect against both grassy and broadleaf weeds.
Prodiamine	X	X	For use in established perennial beds – see the label for species tolerance information.

\* Herbicide labels should be carefully reviewed to determine which plant species are tolerant to herbicide applications in landscape beds.

**Precautionary Statement:** All pesticides have benefits and risks; however, following the label instructions will minimize the risk and maximize the benefit. Pay attention to the directions for use and follow precautionary statements. Pesticide labels are considered legal documents containing instructions and limitations. Inconsistent use of the product or disregarding the label is a violation of both federal and state laws. The pesticide applicator is legally responsible for proper use.

## References

- Ball, D., et al. Weeds of the West, 11<sup>th</sup> Ed. 2012. Western Society of Weed Science. Pp. 308-309.
- Spotted Spurge and Other Spurges. University of California Agriculture and Natural Resources. <http://ipm.ucanr.edu/PMG/PESTNOTES/pn7445.html>. Accessed 8/25/2017.
- Lowry, B., et. al. Common Weeds of the Yard and Garden. 2011. Utah State University Extension.

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