

## Managing Weeds in the Garden

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Weeds may be our least favorite topic but still one of the driving forces behind phone and email questions right now, with “How do I kill...?” leading the discussion. Weed identification may seem immaterial, after all, the consuming focus is to be rid of the pesky plant, but in reality, this should always be the first step. Why? Because determining if the weed is an annual or perennial will help to direct the most effective management strategy.

Let's start with annual weeds. In this category we have foxtail, crabgrass, henbit, Pennsylvania pellitory and speedwell to name a few. For annual weeds, plants rarely expend much energy to develop a robust root system. Instead, the plant's life cycle depends on producing copious amounts of seeds before the growing season ends and the weed dies. Keep in mind that herbicides work best when translocated into the root system, resulting in effective management of the weed. With annual weeds, however, movement within the plant is upward and little in the way of herbicide is moved into the roots. Dieback of the foliage occurs but the weed can and does grow back.

A better strategy would be to make use of pre-emergence herbicides for annual weed management. A pre-emergence herbicide targets germinating seeds, killing them before they even break the soil surface. For winter annuals like speedwell and henbit, the application of a pre-emergence herbicide takes place around September 1. For warm season annuals like purslane and spotted spurge, an application around May 1 is best.

Perennial weeds are different in that their root system survives our winters, putting on fresh growth each spring. Brome, dandelion, ground ivy, wild violet and stinging nettles are just a few of the many perennial weeds. For perennial weed management, their winter survival strategy can be used against them. In the fall, as perennials ready for winter, transport of sugars into the root system ensures survival for plants. Post-emergence herbicides applied at this time are very effectively moved into the root system along the sugar pathway. The result is more effective management. Does this mean we shouldn't try to manage weeds in the spring and summer? Not necessarily. After all, the plants will be growing robustly during this time, so the point is to use herbicides to slow growth while recognizing that management efforts will have greater efficacy with a fall application.

Yellow nutsedge management requires a different strategy, utilizing a post-emergence herbicide containing the active ingredient either halosulfuron or sulfentrazone. Application needs to take place before June 21 (the summer solstice) to bypass the plant's ability to create underground structures, called nutlets, that are resistant to herbicides.

Patience is a virtue when dealing with any kind of weed issue. Rarely does one application of a herbicide take care of the entire problem. Identifying the plant in question leads to an understanding of the plant's life cycle, which then directs management strategies. *Weeds of Nebraska and the Great Plains* from the Nebraska Department of Agriculture is a great resource for identifying weeds, with color pictures and descriptions of the plant. Order forms to purchase the book may be found here: <http://www.nda.nebraska.gov/forms/nw11.pdf> .