

## News Article

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## What is a Weed?

At first glance, you may think, “I know what a weed is!” But, do you understand the growth cycle, the type of weed, and effective control methods?

Let’s start with the question posed in the title. Besides the obvious weed in the field, garden or flower bed, a weed can be any plant growing in the wrong place, or where it is not wanted. For example, farmers grow corn, but the next year when they grow soybeans in the same field, a “volunteer” corn plant is a weed. In home landscapes, it may be the tree seedling suddenly sprouting up in your flower bed.

In order to be able to produce high yielding crops, farmers reduce weed competition through herbicides, cultivation, and other cultural methods. Additionally, invasive plant species, like garlic mustard, callery pear and Asian bush honeysuckle, threaten natural areas and ecosystems. And, home gardeners know all too well how difficult it is to stay ahead of weeds among their vegetable and fruit crops.

So, I think most people can agree that weeds are a problem. How do we best go about controlling these plant pests?

One principle that is fairly universal is that it is best to control weeds when they are smallest and most vulnerable. When do many of us feel the urgency to control weeds? When they are large and out of control!

Farmers know very well the importance of controlling weeds early. Although somewhat rare compared to several years ago, some farmers still use rotary hoes, an implement designed to kill very young weed seedlings. Many herbicides used are selective pre-emergent herbicides, meaning that they must be in place to kill weeds before they emerge. Other selective post-emergent herbicide labels direct farmers to use products before weeds reach a maximum height – perhaps 4 inches, depending on the product. And, some herbicides are non-selective, meaning that they will affect almost anything with green leaves that they come in contact with. Herbicides containing glyphosate are an example.

Knowing about weed growth cycles and types of weeds will also help further our eventual development of weed control strategies.

First, there are annual weeds, which can be further classified as summer or winter annuals. Summer annuals are the ones that sprout from seed in the spring, grow and produce seeds through the growing season, and die before winter. Examples include foxtails, crabgrass, ragweeds, and lambsquarters. On

the other hand, winter annuals sprout in the fall, spend the winter in a vegetative state, then flower, produce seed and die before summer. Examples include chickweed, henbit, and purple deadnettle. Some winter annuals may behave like weak perennials.

Biennials are weeds that grow foliage, called a rosette, the first year, then produce flowers and seed, and finally die the second year. Wild carrot (Queen Anne's lace), poison hemlock, garlic mustard and bull thistle are examples. Control of biennials should be done early in the first year of growth.

Perennial weeds grow year after year, and are difficult to control. Many of these have extensive underground roots or stem structures that enable the plant to regrow, even if the top growth is eliminated. Examples include Canada thistle, dandelion and buckhorn plantain. Chemical control of perennial weeds is generally most effective in the fall or at flowering time.

Additionally, we know that there are three main types of weeds – grasses, broadleaves, and sedges. Sedges look somewhat like grasses, but have a triangular stem. Grass herbicides don't typically work on sedges.

Finally, weed control should be approached from an integrated pest management (IPM) perspective. This means that we should consider multiple ways to combat plant pests, including cultural, mechanical and chemical methods. For homeowners and gardeners, some non-chemical weed control methods would include hand pulling, hoeing and mulching. A cultural control is mowing turf at a taller height (3") to help grass out-compete weeds. Gardeners can lay a tarp over a garden area for a couple of weeks to kill all newly emerged weeds before planting their vegetables. Consider all the alternatives and choose the effective strategies you prefer.