

Home Garden Series

Weed Management



A Guide To Controlling Weeds in the Home Vegetable Garden

Weed Control

What Are Weeds and Why Is it Critical to Control Them in Vegetable Gardens?

A weed is any plant growing out of place. In other words, prized ornamental garden plants like milkweed or ruellia that happen to re-seed themselves in your vegetable garden are considered weeds because they are growing in a location where they are not desired. Most often, however, weeds are not ornamentals that are growing in the wrong location but are highly invasive and competitive plants that are not wanted in any location.

Generally speaking, there are three major categories of weeds:

- Broadleaves
- Grasses
- Sedges

Within each of these categories there are weeds that are either annual or perennial. Annual weeds complete their life cycle in one growing season. Perennial weeds will persist in vegetable garden multiple seasons or even for many years. Identifying the weed growing in your garden is critical to determining the best methods for management.

Weeds are problematic in vegetable gardens because they:

- Steal nutrients, water and sunlight from your vegetable crop. Major weed infestations reduce overall yields.
- Harbor insects. Insects not only feed on vegetables but many will spread viruses and bacterial diseases.
- Tall, thick stands of weeds – severe cases – even will harbor other unwanted critters such as mice, snakes and other small animals that feed on vegetable plants.

Cultural Practices To Reduce Weed Populations

Weed populations often can be controlled using good cultural practices in the home vegetable garden. By following these general tips, you will reduce weed populations and thus your need for chemical control methods.

Mulch

Applying mulch in and around the vegetable garden will greatly reduce the presence of weeds in the garden. Mulches are an effective tool in reducing weed populations by inhibiting weed seed germination and smothering out growth. There are a variety of mulches that can be used safely in a vegetable garden.

Leaves: Foliage from deciduous trees can be raked and deposited in your raised beds and in-ground vegetable gardens. Leaves prevent most weeds when they are spread in a 4-6 inch layer between plants and in row middles. By the end of the spring vegetable season, you will notice all the leaves have disappeared. They will have decomposed and helped improve organic matter in your soil. In the fall garden, the weather is cooler and it takes longer for leaves to decompose. You will notice by the end of the fall season that most of the leaves are still present as a mulch layer in the garden. Before tilling your soil, you may want to rake out the mulch, work the soil and then redistribute leaves back into the garden prior to planting the spring crops. There are no right or wrong leaves to use, with the exception of black walnut foliage, which may affect your vegetable crops. Magnolia leaves also generally are not used in vegetable gardens because they decompose too slowly.

Newspaper or cardboard: Newspaper and cardboard also make excellent sunlight barriers and thus great weed preventers. Use several layers of newspaper in the garden for full reduction in light to the soil, or use a single layer of cardboard. Newspaper will need to be weighted down with rocks, bricks or other heavy objects so it does not blow away.

Hay: Hay is a popular choice for mulch in the home vegetable garden but can be full of weed seeds from perennial grasses that make up the pasture. Be careful that you do not unintentionally incorporate lots of fresh new weed seeds into your garden when using hay as a mulch.

Grass clippings: If you treat your lawn with herbicides, do not use your grass clippings in the vegetable garden. Doing so may transfer herbicide residues that will damage your vegetable crops. If you do not use herbicides in the lawn, however, make sure you mow your yard often enough so grasses are not going to seed. Placing grass clippings full of seeds into the vegetable garden will do more damage than weed prevention.

Pine straw: Pine needles are an excellent mulch choice for the vegetable garden. Be sure to put down a layer thick enough so you do not see the soil when you stand over the mulched area. Mulches prevent weeds by reducing sunlight, causing plants to die after they germinate because of lack of sunlight to produce photosynthesis. Note: Most vegetable crops prefer a soil pH of 5.5-7. If you have very low soil pH (acidic soil), using pine needles may further decrease the soil pH. Have your soil tested every three years since pH changes over time.

Plastic mulch: Plastic mulch is becoming popular in larger home vegetable gardens. Plastic mulch usually is purchased from hardware stores or local plant nurseries. Plastic mulch is very thin, ranging from 2 millimeters to 4 millimeters thick. It is primarily sold in black rolls, although other colors such as white and silver are beneficial in the vegetable garden, as well. In the spring garden (planted from January through April), use black mulch. If planting a summer or fall garden, when the weather is warmer, paint the top of your black mulch with white latex paint diluted 50 percent with water. Most gardeners use an old roller, brush, broom or mop to gently apply a thin layer of white paint to the top of the plastic mulch. Allow the paint to dry and then puncture holes and plant into the

plastic. The white coating prevents absorption of too much heat and reduces stress on plants. Irrigation through drip hoses or drip tape must be used under plastic mulch since these products don't let rain or other water permeate.

Plastic mulch is rolled across the top of the row. Using a shovel, remove soil from immediately under the edge of the plastic mulch and flip it onto the top of the mulch, pinning the mulch into place. Continue to do this on both sides of the row and at each end. Using garden soil to pin the plastic down will help keep the plastic mulch layer in place during windy periods.

Cultivation

Hand pulling is a very effective method of reducing weed populations – if you have a small garden or like to work a lot! Tools such as a hoe, push cultivator and cobra heads all will help manage weed populations. When using these tools, remember to gently scrape the top of the soil surface to pull weeds up without damaging the roots of your vegetable crops. A small tiller can be used in between seasons or in row middles to cultivate weeds.

Keep Plants Healthy

Well-fertilized, well-watered plants grow faster than neglected vegetable crops. Attending to the daily needs of your vegetables will help them compete with any weeds you didn't remove successfully.

Herbicide 101

What You Need to Know When Applying Herbicides in the Home Vegetable Garden

Identify Your Weed Before You Spray!

Broadleaf, grass and sedge weeds all require different chemicals to control them. If you do not know what type of weed you have, bring a sample to your local LSU AgCenter county agent for correct identification.

Follow Label Directions

Not following the label directions on herbicide, insecticide and fungicide labels is a federal crime. Don't guess how much you need. Read the label and accurately measure prior to applying herbicides to

your vegetable crops. Applying too much may kill the vegetable plants or cause an unsafe herbicide residue in the crop.

Purchase a set of measuring spoons, a measuring cup or a baby bottle. All can help you accurately measure herbicides. Make sure you label all of them as being for use with herbicides, and do not use these tools when measuring fertilizer or fungicides!

To reduce the potential for herbicide drift, avoid spraying on windy days. A tiny bit of drift from a nonselective herbicide like glyphosate could cause major damage to vegetable crops. Also, remember that both the weed and the vegetable crop must be listed on the label!

Wear the proper clothing. Some herbicides require applicators to wear long-sleeved shirts, safety glasses and/or gloves.

Product labels also will have an interval of time between the last application of the pesticide and the safe harvest and consumption of the crop.

There are several categories of herbicides:

Pre-emergent: Herbicides that control weeds as they germinate prior to their emergence from the soil.

Post-emergent: Herbicides that kill existing weeds that have germinated and are actively growing.

Within each of these categories there are herbicides that are:

Selective: Herbicides that kill certain weed species but release or cause minimal injury to a particular crop. For example, a selective herbicide like sethoxydim is effective at killing grassy weeds in several broadleaf crops such as field peas and tomatoes.

Nonselective: Herbicides that kill or injure most plants.

Common Herbicides Used in Home Vegetable Gardens

Herbicide (Active Ingredient)	Common or Trade Name	Pre- or Post-Emergent	Selective or Nonselective
Corn gluten	Preen Organic Vegetable Garden	Pre-emergent	Nonselective
Pelargonic acid	Scythe	Post-emergent	Nonselective
Clove oil, citric acid, lecithin	Perfectly Natural Weed, Grass and Moss Killer	Post-emergent	Nonselective
Acetic acid	Vinegar	Post-emergent	Nonselective
Sethoxydim	Poast, Hi-Yield Grass Killer, Ferti-lome Over the Top II	Post-emergent	Selective (grass killer)
Trifluran	Preen Garden Weed Preventer	Pre-emergent	Nonselective
Glyphosate	Roundup, various generics	Post-emergent	Nonselective

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