

# Weed Control in Home Orchards and Vegetable Gardens

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The most important thing in deciding on a weed control program is to identify the weeds you are trying to control. Many weed control chemicals (herbicides) are available to help solve weed problems. Each herbicide is unique in that it is more effective in controlling certain weeds and must be applied at the proper time for best results. Contact your county Extension office for identification of weeds that you do not know.

The adage, "If a little is good, then a lot is better," is *not* true for herbicides. Careful adherence to recommendations for the rate of application must be followed for effective weed control. To insure that desirable plants are not killed and that most effective weed control is achieved, follow manufacturer's recommendations for rate and timing of all applications.

## Home Gardens

Because of the variety of vegetables found in most home gardens, chemical weed control usually is not advisable. The crop plants, like the weeds, vary in their tolerance to a particular herbicide; therefore, no single herbicide can be used safely where a large number of different crops are grown.

Good seedbed preparation will aid in rapid establishment of the crop plants and will reduce weed competition. The seedbed should be firm and free of clods. Once the crop plants have emerged, hand-pulling, hoeing, or cultivation are effective methods of weed control. Mulches, either black plastic or organic materials, also can be used effectively. Where organic mulches are used, additional nitrogen will be required for good plant growth.

## Orchards and Small Fruits (Established Plantings)

In orchards (apples, cherries, plums, pears, peaches) simazine (Princep) and dichlobenil (Casoron) can be used. Simazine at 3.2 pounds active ingredient (4 pounds of the 80% wettable powder) per acre (1½ ounces per 1,000 square feet sprayed) will provide control of annual weeds. Once good control has been established, make subsequent annual applications at one-half the original rate. Dichlobenil (Casoron) is sold as a 4 percent granular material. Follow label directions for application. A rate of 4 to 6 pounds active ingredient (100 to 150 pounds of the 4% granules) per acre (2.3 to 3.4 pounds of 4%

granules per 1,000 square feet) will control most annual weeds and many deep-rooted perennials. Quackgrass, Canada thistle, and horsetail are three of the most troublesome perennial weeds that can be controlled at this rate of application.

Weed control in cane and bush fruits such as blackberries and blueberries can be obtained with simazine (Princep), diuron (Karmex), or dichlobenil (Casoron). Applications of simazine at 2 to 4 pounds of 80 percent product per acre (¾ to 1½ ounces of the 80% product per 1,000 square feet) or diuron at 2 pounds of 80 percent product per acre (¾ ounce of the 80% product per 1,000 square feet) will provide seasonal control of most annual weeds. Dichlobenil at 100 pounds of the 4 percent granules per acre (2.3 pounds of the 4% granules per 1,000 square feet) will control most annual weeds and some troublesome perennial weeds.

Many annual weeds in strawberries can be controlled with simazine at 1½ pounds of the 80 percent product per acre (¾ ounce of the 80% product per 1,000 square feet). Mechanical control may be most practical for small plantings.

## Use Care in Application

When making applications, avoid drift of the spray to other areas. If drift occurs, you are losing part of your herbicide that is needed to kill the weeds and may also be damaging or killing some desirable plants. To reduce the chance of drift, do not spray on windy days.

Herbicides are sold in different formulations (liquids, powders, or granules). Liquid herbicides generally are easier to use and require a minimum amount of mixing. Some powders require frequent agitation or mixing to insure uniform application for effective weed control and adequate safety to desirable plants. Granular materials are applied dry and should not be mixed with water.

## Applying the Correct Amount of Herbicide

Generally, garden hose sprayers are not satisfactory for applying herbicides. Pressurized hand-carried or backpack sprayers usually work best. If possible, reserve the sprayer for herbicides only.

Before starting your spray operation, be sure that you know how much solution you are applying. One way to



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determine this is to spray the area with water, measure how much you used, and then add the appropriate amount of herbicide to enough water to spray the area. To determine how many square feet you have to spray, take time to measure this area. Keep a record of these measurements where you keep your sprayer, so you will not have to measure the area each year. For example, an area 20 ft x 50 ft or 25 ft x 40 ft equals 1,000 square feet, which is the area most commonly used as a basis for making home-use recommendations. If you have less than 1,000 square feet to spray, then use proportionately less herbicide to spray the smaller area.

For best results, the herbicide should be applied in two applications, each at one-half the suggested rates, and sprayed at right angles to each other. This will result in better coverage of the weeds and reduce the risks from over-application of the weed killer and possible injury to desirable plants.

### **Handling and Storage of Herbicides and Equipment**

Herbicides, like all pesticides, always should be kept in their original containers with the label clearly visible. *Do not put chemicals in empty food or drink containers.*

Store herbicides in a locked cabinet, out of the reach of children, away from foodstuffs, and in an area that is well ventilated and protected from freezing.

The sprayer also should be stored in the locked cabinet with the herbicides. *It should not be used to apply insecticides or fungicides to desirable plants because small residues remaining in the sprayer may damage susceptible species.*

To minimize the amount of residue remaining, rinse the sprayer thoroughly as soon as spraying has been completed. The sprayer should be thoroughly flushed with clean water and then allowed to dry to prevent rusting.

### **Preventive Weed Control**

Preventing weed seed formation is one of the most effective ways of reducing weed problems in future years. Weed seeds can persist in the soil for as long as 40 years, so allowing your weeds to mature and produce seed can give you weed problems for many years. When composting organic matter that contains seeds, it is important to maintain composting conditions that will kill the seeds. High temperatures best achieve this and can be maintained by aeration (periodic turning) of the compost and maintenance of good moisture levels.