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—it is more effective in controlling certain weeds, and it 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. For effective weed control, you must follow carefully the recommendations for the rate of application. To make sure that you *don't* kill desirable plants and that you *do* achieve the most effective weed control, follow recommendations for rate and timing of all applications.

Specific weed problems

Field bindweed (morning-glory)

Repeated treatments with 2,4-D amine or dicamba (Banvel) are required for control of this weed. Many desirable plants are susceptible to both herbicides, so be careful when making applications. Observe all precautions listed on the label.

Apply 2,4-D amine at 3 pounds acid equivalent per acre (1½ tablespoons of the 4-pound-per-gallon formulation for each gallon of spray solution) or dicamba (Banvel) at 3 pounds acid equivalent per acre (1½ tablespoons of the 4-pound-pergallon formulation for each gallon of spray solution) when the bindweed is in the early bloom stage. Do not apply dicamba where the roots of desirable plants may be growing.

In areas where spraying is not possible, paint or daub the solution on the leaves of the bindweed plants. Addition of a wetting agent (1 to 1½ teaspoons per gallon of spray solution) will improve control with both herbicides.

Canada thistle

This weed can be controlled with 2,4-D amine, dicamba, or amitrole T (Amitrol-T or Cytrol). For 2,4-D and dicamba, follow

rate recommendations and precautions given for bindweed control. Apply amitrole T at 4 pounds active ingredient per acre (3½ tablespoons of the 2-pound-per-gallon formulation for each gallon of spray solution). Add a wetting agent as recommended for 2,4-D and dicamba. Painting or daubing the leaves is effective for treatment in areas where spraying is not possible.

Horsetail rush

Apply dichlobenil (Casoron) in the spring, when precipitation or irrigation is available to move the herbicide into the soil (usually March or April). Use 2.3 pounds of the 4% granules per 1,000 square feet.

In areas where Casoron cannot be used, apply amitrole T (Amitrol-T or Cytrol) when the horsetail is fully emerged (usually late June or July). Apply amitrole T at the rate of 5½ tablespoons per gallon of water. Spray to thoroughly wet the plants, but not to the point of runoff.

Addition of a wetting agent at 1 to 1½ teaspoons per gallon of spray solution is necessary for effective control. Some followup treatment will be required for complete horsetail control.

Use pesticides safely!

- Wear protective clothing and safety devices as recommended on the label.
 Bathe or shower after each use.
- Read the pesticide label—even if you've used the pesticide before.
 Follow closely the instructions on the label (and any other directions you have).
- Be cautious when you apply pesticides.
 Know your legal responsibility as a pesticide applicator. You may be liable for injury or damage resulting from pesticide use.

Quackgrass

Amitrole T or dalapon (Dowpon or Dowpon M) will provide good quackgrass control. Addition of a wetting agent at 1 to 1½ teaspoons per gallon of spray solution will improve control. Apply amitrole T at the same rate as listed for Canadá thistle control.

Apply dalapon at 8 to 10 pounds of product per acre (approximately 1 to 2 ounces per gallon of spray solution). Treatment of individual plants by painting or daubing the leaves also is effective. Repeated treatments will be required.

Tansy ragwort

For effective control, spray this weed before it begins to flower. Applications of 2,4-D at 3 pounds per acre (1 ½ tablespoons per gallon of water), when made in April, have given complete tansy ragwort control. Later applications are much less effective.

For limited infestations, pull or dig out these plants. To prevent regrowth, be sure that all roots are removed.

Poison oak

Amitrole T or triclopyr + 2,4-D (Esteron BK) will effectively control poison oak. Repeated treatments may be required for eradication. Apply amitrole T at the rate recommended for Canada thistle control. Apply Esteron BK at 2 quarts per acre (2 teaspoons of the 4-pound-per-gallon formulation for each gallon of spray solution).

Apply both herbicides in the spring when the poison oak is fully leafed out. During warm weather, do not apply Esteron BK near desirable species that may be susceptible, as injury may result.

Blackberries

Triclopyr + 2,4-D (Esteron BK) or amitrole T, at the rates recommended for poison oak control, will control blackberries. Repeated treatments will be necessary for eradication.



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Bamboo

Eradication of established bamboo is very difficult. For small patches, dig out the entire plant and its root system. For larger areas, cut the emerged shoots each time they reach 20 to 24 inches in height. This will eventually starve the roots and result in control.

Applications of dalapon (Dowpon or Dowpon M) at 2½ ounces per gallon of spray solution or amitrole T (Amitrol-T or Cytrol) at 5 ounces per gallon of spray solution will provide control. Add a wetting agent to the spray solution at the rate of 1 to 1½ teaspoons per gallon. Repeated treatments will be necessary. Spray the foliage until it is thoroughly wet but not to the point of runoff.

Nonselective control along fences and driveways and around buildings

High rates of several herbicides will provide control of most weed species. You can use atrazine (AAtrex), simazine (Princep), diuron (Karmex), or a combination of bromacil and diuron (Krovar).

Do not use these treatments in areas where the roots of desirable plants may be growing or in areas where the chemical can be washed laterally and damage desirable plants. Lateral movement is particularly hazardous on sloped areas.

Apply 4 to 6 pounds of the 80% product of atrazine, simazine, or diuron per acre (1.5 to 2.2 ounces per 1,000 square feet). Use 3 or 4 pounds of the commercial product Krovar per acre (1 to 1.5 ounces per 1,000 square feet).

In eastern Oregon, apply your herbicide in the fall. In western Oregon, apply it in the spring.

If green vegetative growth is present at the time of application, add 1 pound active ingredient (½ gallon of the 2-pound-pergallon formulation) of amitrole T (Amitrol-T or Cytrol) per acre (3 tablespoons per 1,000 square feet).

Annual applications at one-half the above rates may be required to maintain control. Other herbicides are available also. Check with your county Extension agent for additional information.

Certain perennial weeds may invade the treated area when other plants have been eliminated. You may need to change your herbicide program to control them.

Use care in application

When making applications, avoid drift of the spray to other areas. If drift occurs, you are not only losing part of your herbicide that is needed to kill the weeds, but you also may 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—do not mix them with water.

Applying the correct amount

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 determine this is to spray the area with water, measure how much you used, and then add the appropriate amount of herbicide to the amount of water needed to spray the areas.

Measure the area to determine how many square feet you have to spray. 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, use proportionately less herbicide to spray the smaller area.

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

Handling and storing 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.

Store your sprayer in the locked cabinet with the herbicides. Do not use it 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 you have completed spraying. Flush the sprayer thoroughly with clean water and then allow it 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 by keeping good moisture levels.

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Extension Service, Oregon State University, Corvallis, O. E. Smith, director. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U. S. Department of Agriculture, and Oregon counties.

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