

Yard and Garden WEED CONTROL

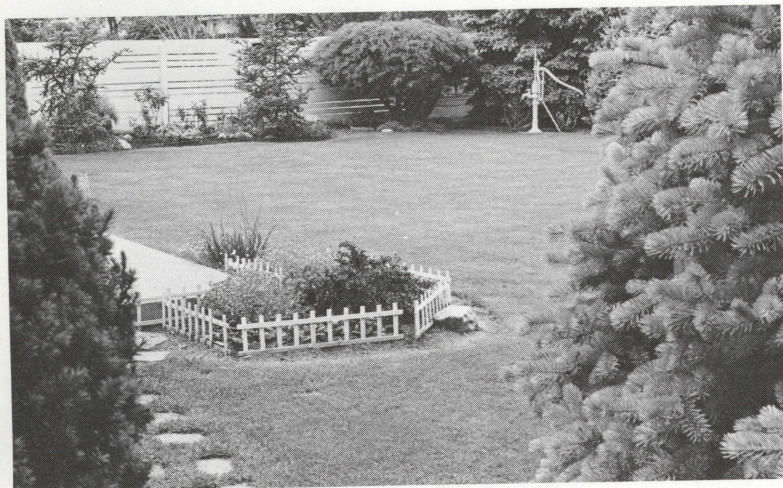
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Beautiful, weed-free lawn, garden and shrubs give the homeowner a feeling of satisfaction. The drudgery of weed control is greatly reduced with tools called herbicides. However, weed control still takes time, money and effort and a hand tool such as a hoe, "spud," or shovel still is most suitable for some weed control jobs.

Most weeds come from seed. Prevent weeds from going to seed in the yard and garden and in a short time the reduced weed population will make the job of maintaining the yard and growing a garden easier. When planting be sure lawn and garden seed is free of weed seeds. Also, weeds may be in mulch, barnyard manure and fill dirt. Rhizomes of quackgrass or other perennial weeds may come with plants from friends or neighbors, or even with trees, shrubs or flowers from nurseries.

Herbicides are designed to kill plants. Some kill only broadleaf plants, others kill only grasses, and some kill both. To get the most satisfactory results and avoid unnecessary damage, the homeowner must be familiar with the herbicide he is using and the conditions that contribute to its effectiveness. Herbicides work best when soil, water and fertility are ideal for crop growth.

Selective herbicides will kill one type of plant without seriously injuring another. **Non-selective herbicides** will affect all types of plants. Selectivity is affected by rate, timing and placement

of the herbicide. It is also influenced by species tolerance.

Contact herbicides affect only the plant part in contacts. **Systemic herbicides** enter the plant either through the leaf or root and move to other



Vegetable garden. (Weed control by cultivation but herbicides could be used.)

How-When-On What To Use Herbicides

SITUATION	CONTROL	APPLICATION, TIMING, PRECAUTIONS
Dandelion, pliantain, mustard, healall and bull thistle in lawns.	2,4-D amine	Apply as a spray when the weeds are growing vigorously. Mix enough of the formulation (according to the label) in water to spray 1000 sq. ft. Example: 3 Tablespoons in 1 gal. water. Avoid spraying foliage or ornamentals. September application will reduce infestation the following year.
Chickweed, dock, blackmedic, yarrow, mallow, speedwell, English lawn daisy, clover in lawn.	Dicamba (Banvel) mecoprop or Silvex. Don't use Dicamba over root zone of trees and shrubs.	Apply according to label. Apply when weeds are growing vigorously. Avoid contact with ornamentals. Avoid over-dosage. Manage to thicken turf.
To prevent crabgrass and other annual grasses in lawn. Safest and most practical control.	Dacthal, Bensulide, Balan, Glenbar, Azak, Tupersan, Bandane, Siduron.	Apply early in the spring (March or April) before crabgrass seed germinates. Uniform, accurate coverage is essential. Avoid overlapping with spreader.
Crabgrass control after it emerges.	DSMA, MSMA, KOCN	Apply when crabgrass is in 5-leaf to pre-head stage. Repeat application at weekly intervals. Injury to lawn grass will occur.
Quackgrass and other perennial grasses in lawns.	Dalapon, Amitrole or Amitrole T, or fumigation	Apply according to label when grass is growing vigorously and several days after mowing. Use a wetting agent. Avoid spraying foliage of ornamentals. Repeat treatment will be necessary. All grass will be killed. Complete infestations by quackgrass may require fumigation and reseeding. Dry cultivation will also work.
Quackgrass in ornamental shrubs or herbs.	Dalapon, Amitrole or Amitrole T	Apply when the grass is 4 to 6 inches high. Use a wetting agent. Avoid spraying foliage of ornamentals. Some injury may occur to some ornamentals from root uptake.
Annual weeds and grass in perennial herbaceous plantings.	Trifluralin, DCPA, EPTC, CIPC, Amiben	Apply to bare soil. Trifluralin and EPTC must be incorporated immediately and thoroughly with a roto-tiller or other tilling machine. DCPA must be raked in and/or sprinkled in for effective results. These herbicides are weak on some weeds.
Perennial noxious weeds, (bindweed, Canada thistle, whitetop etc.) in shrubs and herbaceous plantings.	2,4-D or cultivation	With care, 2,4-D amine can be used to control perennial broadleaf weeds. Use a controlled spray or a dauber to put 2,4-D on the leaves of the weeds. Avoid getting 2,4-D on ornamental plantings.
Annual weeds in gardens.	EPTC, Amiben, Trifluralin, Balan	Apply before planting vegetable garden. Incorporate immediately and thoroughly with roto-tiller or disc. Read label before using.
	Dacthal	Apply to bare soil after planting or after garden plants emerge. Incorporate lightly with a rake or harrow or sprinkle in. Read label before use.
	2,4-D	Apply for broadleaf weed control in corn as a directed spray before tassels appear.
Weeds in driveways and other areas where complete weed control is needed and where no trees or shrubs are adjacent.	Any good non-selective soil applied herbicide, Chlorate Borate, Diuron, Atrazine, Simazine, Prometone, Linuron.	Apply in late fall or early spring. Use rates recommended on label. Avoid flushing area with water that would move herbicide to adjacent ground.
Weeds in driveways and other areas where complete weed control is needed and where trees and shrubs are immediately adjacent.	Cacodylic acid, Dinoseb, 2,4-D + Dalapon	Apply when weeds are emerged but not over 2 inches high. Repeat applications as needed. Avoid application to foliage of ornamentals. Banvel is especially good on knotweed. 2,4-D + Dalapon is effective for broadleaf grass complex.
Grass and weeds around coniferous evergreens.	Simazine, Atrazine, Dichlobenil	Apply in fall or early spring around established trees. Read label before application.
Grass and weed around deciduous trees and shrubs.	Dichlobenil	Apply in fall or spring around established plantings. Read label before use.

Some Small-Package Herbicide Sources

2,4-D—Is contained in Raid Weed Killer, Ortho Weed-B-Gon Bar, Blackleaf Spot Weed Killer, Scott's Plus 2 For Grass, Pax Total for Lawns.

2,4-D and Dicamba (Banvel)—Is contained in Weedone Super D Lawn Weed Killer, Super D Weedone Foam Weed Killer, Scott's Turf-builder + 2, Sears Broadleaf Weed Killer, Spot Weeder, Kensel, Purina Exit Lawn Weed Killer, Ortho Weed-B-Gon, Ortho Super Lawn Groom, Sears Weed Killer, Pax Action.

2,4-D + Silvex—Is contained in Weedit, Moregrow, 2-in-1 Weed Feed, Acme Weed-No-More Lawn Weed Killer, Ortho Weed-B-Gon, Ortho Lawn Groom, Ortho Weed and Feed, Sears Weed Killer and Lawn Feed, Ded-Weed For Lawns, Jet Weed Killer Power Pellets, Killer Kane Kartridges for Dandelion and Broad-leaf Weeds, Moregro Weed-it Lawn Spray, Miller's Lawn and Weed Killer, Miller's Weeder.

2,4-D + KOCN—Is contained in Osrow Weed Killer Pellets.

2,4-D + Banvel + Crabgrass Killer—Is contained in Scott's Turf-builder plus 4, Pax Total for Lawns.

Silvex—Is contained in Miller's Lawn Silvex, Ortho Chickweed and Clover Killer, Weedone Chickweed Killer, Orotho Spurge Oxalis Killer, Ortho Weed-B-Gon.

MCPP (mecoprop)—Is contained in Moregrow Mecopar, Morgro Mecopex, Pax Total for Lawns.

CIPC (Chloro IPC)—Is contained in Miller's Grass and Weed Killer.

Dichlobenil (Casoron)—Is contained in Casoron Granular G-10 or Casoron W-50.

DCPA (Dacthal)—Is contained in Acme Garden Weed Preventer, Acme Garden Weed Preventer Spray.

Dalapon—Is contained in Chemagro Dowpon Grass Killer, Dowpon, Ortho Dowpon Grass Killer, Purina Grass Killer Bar.

Trifluralin (Treflan)—Is contained in Ortho Floral Weed and Feed, Sears Banish, Ortho 3-Way Rose and Flower Care.

EPTC (Eptam)—Is contained in Moregrow Eptam Granular, Ortho Garden Weed and Feed.

Amitrole—Is contained in Amitrole and Amitrole T, Cytrol.

Cacodylic Acid—Is contained in Moregrow Joint Grass and Weed Killer, Sears Lawn Renovator, Erase, Acme Weed Killer.

Paraquat—Is contained in Ortho Spot-Weed and Grass Killer.

Amiben—Is contained in Amchem Ornamental Weeder.

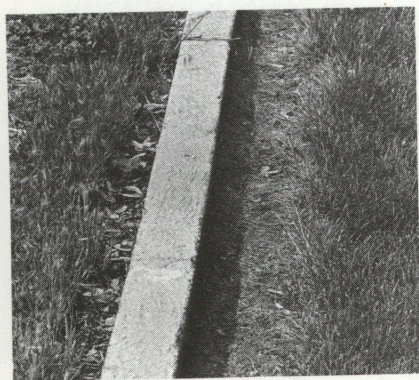
Balan—Is contained in Moregrow Pre-emerge Liquid, Moregrow Pre-emerge Granular.

Pre-emergent Crabgrass Killers. Herbicide contained in each product is in parenthesis—Are contained in Ortho Crabgrass Control (Bensulide), Tupersan (Siduron), Scott's Turf-builder + 4 (Bensulide), Pre-Turf Weed Grass Preventer, Moregrow 3-in-1 Crabgrass Killer (Dacthal), Ortho Western Crabgrass Control (Bensulide), Halts Plus (Bandane), Super Halts Plus, Pax Total for Lawns (Dacthal), Super Pax Crabgrass Control (Dacthal), Sears 3-in-1 Crabgrass Killer (Dacthal), Purina Crabgrass Killer (Balan), Morgro 6-10-4 Crabgrass Killer (Dacthal).

Post-emergent Crabgrass Killers—Are contained in Ortho Crabgrass Killer (Methane arsonate), Weedone Crabgrass Killer (Methane arsonate), Pax 3 Year Crabgrass Control (Lead arsonate—arsenic trioxide), Killer-Kane Kartridges for Crabgrass (KOCN), Purina Stop-it Liquid Crabgrass Killer (DSMA), Sears Liquid Crabgrass Killer (DSMA), Pax Total for Lawns (DSMA), Ortho Liquid Crabgrass Killer (Methane arsonate), Moregro Crabgrass Spray (MSMA).

Non-selective soil applied (soil sterilants)—Are contained in Moregrow Liquid Weed and Grass Killer (Prometone), Ortho New Formula Triox (Prometone), Ortho Triox Granular Vegetation Killer (Borate-Chlorate-Simazine), X-All (Amitrole and Simazine), Sears Weed and Grass Killer (Prometone), Sears Liquid Edger (Erbon), Purina Grass-N-Weed Vegetation Killer (Prometone), Ortho Triox Liquid Vegetation Killer (Prometone), Miller's Granular Noxall (Borate, Chlorate, Diuxon).

Fumigants—Are SMDC (Vapam), Methyl Bromide, DMTT (Mylone).



Curb. (Weedy on left, four-inch strip treated with Simazine on right, giving weed and grass-free strip between curb and lawn.)



Inviting backyard with expanse of weed-free lawn. (Herbicides and hoe play an important part.)

parts of the plant. **Foliage applied herbicides** usually cause little soil residue. **Soil-applied herbicides** may break down quickly or may remain in the soil for a long time. Herbicides that prevent all plant growth for a long period are called **soil sterilants**. Most soil sterilants are relatively insoluble in water but can move downward in the soil in quantities sufficient to cause injury to some deep-rooted plants.

The type of soil determines whether certain

herbicides should be used or not. Usually loam to heavy soils permit the use of most herbicides, and sandy soils limit use.

You must be as familiar as possible with the herbicide and what it will do if you are to use it effectively and safely. No one herbicide will do every job. Before buying any herbicide read the

label and ask questions to be sure you are getting what you want.

FORMULATION: The formulation of an herbicide is important to safe use. In 2,4-D and related materials the **amine** formulation is safer to use around the yard than is the **ester**. Esters are volatile at normal temperatures.

Granular formulations are less subject to drift than are sprays. They are also easier to use and may be more effective.

Herbicides formulated as wettable powders require constant agitation to prevent them from settling out.

Herbicides come in different concentrations and formulations. Recommendations are usually based on the active-ingredient (a.i.) content of the commercial product. Usually the label will tell what the a.i. is of the weed-killing part of the formulation. For instance most "large package" 2,4-D materials have 4 pounds of actual (a.i.) of 2,4-D per gallon of material. Many "small package" 2,4-D materials have less than 4 pounds (a.i.) per gallon.

Granular products are labeled with a percentage figure. A 10 G is 10 percent active ingredient. For each ten pounds of product there is one pound of actual weed killer. The rest of the product is filler of some kind.

The a.i. of wettable powders is expressed in figures such as: 80 W means 80 percent active ingredient in a wettable powder form. For each 10 pounds of product there are 8 pounds of actual weed killer.

PRECAUTIONS: Since herbicides kill plants, the applicator must avoid application of the material to the foliage, fruit, flower or roots of desirable plants. Avoid spraying on windy days, with high pressure. Some herbicides are volatile, that is, at temperatures warm enough for plant growth they go into the air as a gas. This fume is toxic to sensitive plants. **Proper use is imperative.**

To use herbicides you must have proper equipment for application. Compressed air sprayers in various sizes and types are available. For granular or other dry material application various types of spreaders are also available. Under some conditions and with some herbicides, application can be made with a sprinkler can or by hand.

Be sure to know how much you are applying. Calibrate the application equipment.

Even though herbicides are chemicals that kill plants, they are safe to use if instructions are followed. Each herbicide must have federal registration and the label must be registered in Idaho before it can be legally sold. If it is sold for use in commercial food crops it must be registered for use in a specific crop and must have a tolerance established for any residue which may be found in the crop.

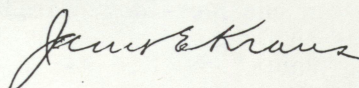
Don't take herbicides internally or allow them to contact the skin or eyes in large amounts. After using an herbicide, wash thoroughly. All unused herbicides should be kept in their original containers and locked up where children cannot get to them. Do not smoke while using herbicides.

Do not pour unused herbicides down the drain or in the irrigation or drainage ditch.

Most herbicides are decomposed by microorganisms.

NOTE: Trade names are used for better understanding of information presented. No endorsement of named products is intended nor criticism implied for similar products not mentioned.

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