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CONTROL OF ANNUAL WEEDS IN FLOWER BEDS

J. S. Coartney, Assistant Extension Specialist, Plant Physiology
S. W. Bingham, Associate Professor of Plant Physiology

Because of the small acreage devoted to culture of flowers and the many species of ornamentals used, the use of herbicides in ornamentals has lagged behind that of major crops. We now have a limited number of herbicides that will give selective weed control in annual flower beds. Each herbicide is an individual and thus controls a different set of weeds, is safe to use on a different set of ornamentals, and requires a different method of application. It is very important that the label directions on each chemical container be studied and followed carefully.

SOIL FUMIGATION

Soil fumigants destroy weed seed in the soil and control many soil-borne diseases and parasites. They will also destroy perennial weeds such as bermudagrass, quackgrass, and nutgrass. Soil fumigants are poisonous and extreme caution must be exercised during application. It is suggested that these materials be applied by a trained commercial applicator if such a service is available locally.

METHYL BROMIDE: Prepare beds as you would for transplanting. You must use airtight cover, and soil temperature should be above 55°F. Expose soil to chemical (1 lb. per 100 sq. ft.) for at least 24 hours and then aerate 24 to 48 hours before transplanting. The hot gas method will permit shorter exposure time.

Methyl bromide is extremely poisonous! Do not breathe methyl bromide vapor or allow it to contact your skin. In case of accidental contact of skin with methyl bromide, remove clothing, wash immediately with flowing water and call a doctor. Keep children and pets away from the treated area.

SMDC: Prepare beds as you would for transplanting. Apply to freshly prepared, moist soil when temperature is above 55°F. Soil should be moist enough to form a crumbly ball. Apply 1 qt. SMDC per 100 sq. ft. of soil--drench the chemical into the soil by adding 10 gal. of water to the 100 sq. ft. area. Use ½ rate (1 pt. per 100 sq. ft.) of SMDC if airtight cover can be installed immediately after application. Any type of cover (paper, plastic film, etc.) will add to the control obtained. Rate necessary will depend on effectiveness of the cover in preventing escape of gases. Keep cover on for 48 to 72 hours and do not disturb area for at least 14 days. Work soil to a depth of 2" at least 7 days prior to transplanting.

SAFETY PRECAUTIONS: Do not get SMDC in your eyes or on your skin, clothing, or shoes. If application requires walking over the area, wear rubber boots. Wash areas of skin exposed to chemical immediately. Do not breathe vapor. If you get sick while or after using this chemical, call your doctor immediately.

PREEMERGENT HERBICIDES

TRIFLURALIN: Apply 1 oz. of 1.47% granular trifluralin per 10 sq. ft. of flower beds. Remove all existing weeds before applying trifluralin. It kills sprouting seeds and not established plants. On seeded flowers, do not apply until the seedlings are 2" to 3" tall. If the transplants have well-developed root systems, flower beds may be treated prior to setting the flowers. Work chemical into top 1 - 1½" of soil. This herbicide may also be used around woody ornamental shrubs.
Trifluralin will kill the following weeds as they sprout from seeds: annual bluegrass, crabgrass, goosegrass, barnyard grass, foxtails, chickweed, knotweed, pigweed lambsquarter, smartweed, carpetweed, and purslane.

DIPHENAMID: Use 2 oz. (active) per 1,000 sq. ft. Apply diphenamid at time of transplanting and in spring before weeds emerge. Remove all weed growth immediately before application. Do not apply chemical to seeded annuals until plants are well established.

Diphenamid will control most annual grasses and broadleaf weeds, such as annual bluegrass, annual sedge, barnyard grass, carpetweed, cheat, common chickweed, mouse ear chickweed, corn spurry, crabgrass, fall panicum, foxtail, german moss, goosegrass, knotweed, lambsquarter, pigweed, purslane, red sorrel, sandbur, and smartweed.

DCPA: Use 10 lbs. of 2.5% granular formulation or 1/3 lb. of 75% wettable powder in 1 gal. of water per 1,000 sq. ft. Apply anytime after transplanting flowers. Annual grass control with DCPA is excellent, but DCPA is less effective on broadleaf weeds. The chemical kills sprouting seedlings, but not established weeds.

DICHLOROSULFURON: This product is recommended only for roses and woody ornamental shrubs. Use only on established ornamental plants listed on the label. Remove all existing weeds and work area to be treated. Use 3/4 oz. of 2% dichlobenil per 10 sq. ft. Shake granules uniformly over the soil. Water lightly to moisten the soil about ½" deep, but avoid washing or runoff. Do not use on extremely light, sandy soils. Do not apply to newly set transplants. Do not transplant flowers into treated area.

For a checklist of herbicides labeled for use on various ornamental flowers consult Virginia Weeder MR-VW9.

Trade and brand names are used only for the purpose of information and the Virginia Cooperative Extension Service does not guarantee nor warrant the standard of the product, nor does it imply approval of the product to the exclusion of others which may also be suitable.

KEYS TO PROPER USE OF PESTICIDES

1. Read the label on each pesticide container before each use. Follow instructions to the letter; heed all cautions and warnings, and note precautions about residues.
2. Keep pesticides in the containers in which you bought them. Put them where children or animals cannot get to them, preferably under lock and away from food, feed, seed, or other material that may become harmful if contaminated.
3. Dispose of empty containers in the manner specified on the label. If disposal instructions are not printed on the label, burn the containers where smoke will not be a hazard, or bury them at least 18" deep in a place where water supplies will not be contaminated.

SEE YOUR DOCTOR IF SYMPTOMS OF ILLNESS OCCUR DURING OR AFTER USE OF PESTICIDES.