

# *Weed Control Notes*

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## NONSELECTIVE CHEMICAL WEED CONTROL RECOMMENDATIONS FOR NONCROP LAND:

- A. MIXED ANNUAL SPECIES
- B. SPECIFIC PERENNIAL WEEDS

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#### 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.

**CAUTION!!** All use recommendations of herbicides as listed under this category must be regarded as nonselective. Therefore do not use in crop areas except as shown under "Selective Chemical Weed Control Recommendations" of the latest VIRGINIA WEED CONTROL GUIDE, published by the Extension Division, Virginia Polytechnic Institute. When treating land that will later be used to grow crops, observe all label precautions with respect to critical dosages, waiting intervals before cropping, and residue tolerances in the crops. Avoid spray drift onto crops and ornamentals to prevent injury and illegal residues. Do not apply soil sterilants within the root development area of adjoining crops, ornamentals or other desirable species; also avoid use in areas where there is danger of chemical runoff.

#### A. MIXTURE OF ANNUAL GRASSES AND BROADLEAVED WEEDS

##### Apply These Herbicides During the Growing Season As Foliar Sprays

Herbicide	Application Rate	Spray Volume	Remarks
2,4-D amine + dalapon + wetting agent	2 lb (ae) + 6 lb + 1/2 pt/100 gal	100 gal/a or spray to wet	Spray to wet all foliage. Volume of spray/acre will depend on height and density of growth. Apply when weeds are 3-4" high. Repeat applications when additional weeds appear.
amitrole + wetting agent	2 lb + 1/2 pt/100 gal		

Herbicide	Application Rate	Spray Volume	Remarks
weed oil	Emulsion of oil and water (15-50 gal oil plus water to make 100 gal of mix). Agitate to maintain emulsion.	Spray to wet 50-200 gal/a depending on size and density of weeds	Use lower rate of oil on young, tender weeds; increase amount of oil for older, larger weeds. Add 1 qt DNBP (dinitro general) per 100 gal of mix when air temperature is below 60°F at time of spraying and to improve kill of broadleaved weeds.
diesel oil	Follow weed oil recommendations but increase amount of oil by 10 gal and DNBP (dinitro general) by 1 pt.		
paraquat	1/2-1 lb paraquat cation plus 1/2 pt wetting agent/100 gal	50 to 100 gal water/a or full coverage of weed foliage	Most effective on young succulent weeds up to 6 in. high. Application in late afternoon preferred.
amitrole + simazine	1.05 lb + 3.15 lb (7 lb/a AMIZINE product)	100 gal/a or spray to wet	This treatment provides both foliar kill and some residual control of annual weeds.

Apply These Herbicides When They Will Be Leached Into  
The Soil By Precipitation Or By Supplemental Irrigation

Herbicide	Application Rate	Spray Volume	Remarks
atrazine bromacil simazine monuron diuron	2.4-4.8 lb/a	50-100 gal/a	Apply before or just after weeds emerge. Adequate rainfall must follow to move chemicals into the root zone of weeds. Use lower volume for boom spraying, higher volume for off-set nozzles. Continuous agitation of spray mixture is necessary to avoid settling out in the spray tank.

Herbicide	Application Rate	Spray Volume	Remarks
atrazine bromacil simazine monuron diuron (cont.)			Nozzle screens of 50 mesh are desirable. Finer screens may clog. Where weeds are up, add 1 lb amitrole/a to simazine, monuron, and diuron; add to atrazine and bromacil if weeds are 6" high.
borate and mixture of borate with other herbicides, eg. chlorate, monuron, 2,4-D, bromacil, etc.	variable depending on the formulation	variable	Several products are available. Follow manufacturer's directions.

#### B. SPECIFIC PERENNIAL WEEDS

(See also V.P.I. publication on "SOIL STERILIZATION" for general nonselective control, including perennial weeds.)

Weed	Herbicide	Application Rate	Remarks
Johnsongrass	dalapon + wetting agent	5 to 10 lb/a in 50 to 100 gal + 1 to 2 qt/100 gal	Apply any time when grass is 8-16" tall and actively growing. Repeat at 10 to 20 day intervals for 2 or 3 applications. The area should not be disturbed for at least 3 days after treatment but tillage after this period will improve control and hasten the dissipation of the herbicide. Wait 3 weeks before planting susceptible crop. <u>Spot treatment:</u> Use 1 lb/5 or 10 gal of water and spray to wet the foliage.

Weed	Herbicide	Application Rate	Remarks
Johnsongrass (cont.)	MSMA or DSMA	3 to 5 lb/a in 50 to 100 gal	Weed control is most effective when air temperature is 70°F or above. Some commercial products are formulated with wetting agent. If not, add surfactant at 1 to 2 qt/100 gal. Treat any time when grass is growing vigorously. If regrowth occurs, reapply. For complete kill, 3 to 5 applications may be required.
	TCA	100-150 lb/a in 50 to 100 gal	Apply during growing season. Late fall or early spring applications on treatments right after plowing or tilling are often most effective. Either very low rainfall or excess leaching may reduce effectiveness. These rates will sterilize the soil for 6 to 9 weeks during summer months.
Bermudagrass	dalapon + wetting agent	5 to 7 lb/a in 30 to 60 gal + 1 to 2 pt wetting agent	Same as for Johnsongrass, except Bermudagrass should be treated when 4 to 6 in tall.
	TCA	50 to 100 lb/a in 50 to 100 gal	Same as for Johnsongrass
Nutsedge (nutgrass)	EPTC	6 lb/a in 30 to 60 gal	Apply any time after existing stands of nutsedge have been destroyed by tillage. Mix into the soil 6 in deep immediately after spraying by cross disking or use of a power driven rotary tiller. Will suppress nutsedge for 8 to 12 weeks. Follow only with tolerant crops for which label clearance has been granted.

Weed	Herbicide	Application Rate	Remarks
Nutsedge (nutgrass) (cont.)	2,4-D	1 to 2 lb/a in 30 to 60 gal	Make first application when nutsedge is 8 in tall, completely wetting all leaves. Repeat at 3 week intervals or when regrowth reaches 4 to 6 in. Several retreatments may be required for eradication.
Quackgrass	amitrole or amitrole-T	4 lb/a in 50 gal or 2 lb/a in 50 gal	Spray when vigorous young growth is 4 to 6 in tall. Plow when plants appear white, usually 10 to 14 days after treatment. Spot treat any green regrowth.
	atrazine	4 lb/a in 20 to 40 gal	Treat in fall or spring. Leave land undisturbed until just prior to spring plowing. Split appli- cations of 2 to 2 1/2 lb/a in fall and/or spring before and after plowing are also effective. Plant only to corn or other tolerant species. Cultivation subsequent to herbicide treatment further enhances control.
	dalapon + wetting agent	10 to 15 lb/a in 30 to 60 gal + 1 to 2 pt wetting agent	Treat in early fall or early spring when grass is actively growing and 6-12 in tall. Other- wise same as for Johnsongrass.
	dichlobenil	6 to 8 lb/a or 5 to 6 lb/a (incorporated)	Use granular formulation only. Apply to soil surface, nonincorporated treatments from Nov. 15 to Jan. 1; incorporated treatments may be made in late fall or spring (before May 1).
	MSMA + wetting agent (already included in some formulations)	2 to 4 lb/a in 30 to 60 gal + 1 to 2 pt wetting agent	Make first application when nutsedge is 4 to 6 in tall, completely wetting all foliage. Respray new growth as often as necessary when it reaches 4 to 6 in.

Weed	Herbicide	Application Rate	Remarks
Quackgrass (cont.)	TCA	75 to 100 lb/a in 50 to 100 gal	Same as for Johnsongrass.
Mugwort	dichlobenil	6 to 8 lb/a or 5 to 6 lb/a (incorporated)	Same as for quackgrass.
	2,4-D (LVE) + fenac (EC)	5 lb/a + 3 lb/a in 30 to 60 gal	Apply in early spring when mugwort is less than 4 in tall.
General contact (all species)	Weed oils, fortified oils and emulsions	Spray to wet (usually 50 to 200 gal/acre, depending on size and density of weeds)	Apply as contact spray anytime top growth becomes a problem. Oils may be used undiluted or emulsified with water. Effectiveness is often increased by the addition of oil soluble DNBP (2 to 3 pts/100 gal of oil or emulsion), or other fortifier. For eradication, apply about every 3 weeks for a total of 4 to 8 applications. Repeat the following year as regrowth demands. More oil is required when temperature is low.