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Herbicide Guide Guide 1976 FOR COMMERCIAL VEGETABLE GROWERS

WEED GROWTH reduces vegetable growers' income in the United States by millions of dollars annually as a result of lower yields, poorer quality, and added labor in harvesting and processing.

This guide should be used together with the grower's knowledge of soil types and the crop and weed history of the area to be treated. Whether to use herbicides or other means of weed control depends in part on the severity of past weed infestations. In many instances mechanical control is sufficient alone or is needed in addition to herbicide use. Several herbicides may be suggested for some crops. These herbicides have shown good control with no injury to the vegetables under test conditions. Not all herbicides cleared for use on a species are necessarily listed. Where the choice of more than one herbicide is suggested, the decision rests with the grower and is based on his knowledge of past weed infestation and cost of material. Where one herbicide will not control the weeds present a combination of herbicides is suggested. When using an herbicide for the first time, use a small-scale trial.

These suggestions for chemical weed control in vegetables are based on research at the Illinois Agricultural Experiment Station, the U.S. Department of Agriculture, and other research institutions. The University of Illinois and its agents assume no responsibility for results from the use of these herbicides, whether or not they were used in accordance with suggestions, recommendations, or directions of the manufacturer or any governmental agency.

Reading the label of the herbicide container is the most profitable time you spend in weed control. Use of the material and methods of application and use depend on registration of the herbicide by federal and state Environmental Protection Agencies (EPA). Do not use any herbicide unless the label states that it is cleared for the use on the crop to be treated.

Where mixtures of chemicals are applied the *user* will assume the responsibility for freedom from residues if such applications are not labeled by the EPA as a mixture.

Suggestions sometimes change during the growing season based on EPA clearances after date of issue. This circular is printed only once each year, and is therefore subject to change without notification.

Watch for notice of changes in EPA registration of herbicides (as released by the EPA) in the Illinois Vegetable Farmer's Letter. The Letter is available on request from the Department of Horticulture, University of Illinois, Urbana 61801.

Note: In the suggestions table on the following pages, the trade names of the herbicides are usually used. The list immediately below shows trade names and their corresponding common names.

Common name T	Trade name	Common name	Trade name	Common name	Trade name
alachlor	and others Balan Prefar Sutan+ Randox Vegiben 2E x, Maloran Furloe Bladex	dalaponBa DCPA dinitramine dinoseb diphenamid diuron EPTC linuron MCPA MCPB metribuzin	Dacthal Cobex Premerge, Sinox Dymid, Enide Karmex Eptam Lorox Numerous	naptalam nitrofen profluralin propachlor pyrazon simazine trifluralin Petroleum solventSto 2,4-D (amine)	TOK Tolban Ramrod Pyramin Princep Treflan oddard Solvent

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN COLLEGE OF AGRICULTURE COOPERATIVE EXTENSION SERVICE Prepared by H. J. Hopen, Department of Horticulture CIRCULAR 907

USE THESE SUGGESTIONS IN 1976 ONLY

	Rat	e of active			
	ingr	edient per e actually	Weeds	Best time of application	
Crop		overed ¹	controlled	(based on crop stage)	Remarks, cautions, limitations
Asparagus (seedlings)	Amiben	3 lb.	Annuals	Immediately after seeding	Irrigation or rainfall after treatment will give maximum control.
Asparagus (established	dalapon	5-10 lb.	Perennial grass	End of harvest season following disking	Apply when grass weeds are 3 to 4 inches tall. Direct spray under fern growth. Use surfactant as directed on label.
plantings)	Karmex	3 lb.	Annuals	In spring before spears emerge and/or immediately following harvest	Apply after disking. Do not exceed 6 lb. per growing sea- son. Use lighter rate on sandy soil.
	Princep	3-4 lb.	Annuals	In spring and after harvest	Apply after disking. Do not treat during last year in aspar- agus because of residue. With Karmex and Princep—usually weed infestation will be reduced and spring application may be sufficient after first year.
Beans, lima and dry	Amiben	2-3 lb.	Broad spectrum of annual weeds	Immediately after seeding	Field may be rotary-hoed without destroying herbicide action. Do not feed foliage to livestock.
	Treflan	0.5-0.75 lb.	Annuals ² (primarily grasses)	Preplant soil application Incorporate with soil immediately	Plant crop immediately or within 3 weeks after application. Can be used up to 1 lb. on dry beans.
Beans, snap	Eptam	3 lb.	Annual grasses and nutgrass ⁴	Preplant soil application Incorporate with soil immediate	elv
	Treflan	0.5-0.75 lb.	0	Preplant soil application Incorporate with soil immediate	Plant crop immediately or within 3 weeks after application.
	Dacthal	6-10 lb.	Annuals ^a (primarily grass)	Immediately after seeding	Do not feed treated plant parts to livestock.
	Vegiben 2E (2E for- mulation <i>only</i>)	1.5-3 lb.	Broad spectrum of annual weeds	Immediately after seeding	This ester form of chloramben may leach less readily in sandy soils. Use on other than sandy soils.
Beans, dry	Cobex	0.3-0.6 lb.	Annuals	Preplant soil incorporation	TRIAL USE IN 1976.
Beans, dry, lima, and snap	Tolban	0.5-1 lb.	Primarily annual grasses	Preplant soil incorporation	TRIAL USE IN 1976.
Beets, garden	Pyramin	4 lb.	Annuals (primarily broad-leaved)	Preemergence or after beets emerge and before weeds have 2 true leaves	Where grasses are a severe problem, use 4 lb. Pyramin + 4 lb. Ro-Neet.
	Ro-Neet	4 lb.	Annual grasses	Preplant soil application Incorporate with soil immediately	Use a combination treatment with Pyramin to broaden control spectrum.
	Preemergence				
Broccoli Brussels sprouts	Treflan	0.5-0.75 lb.	Annuals ² (primarily grasses)	Preplant soil application Incorporate with soil immediately	Stunting or growth reduction may occur at recommended rates under growth stress conditions.
Cabbage Cauliflower	Dacthal	6-10 lb.	Annuals ^a (pri- marily grasses)	Immediately after seeding	Can also be used preemergence on transplants.
	Preemergence Treflan	0.5-1 lb.	Annuals² (primarily grass)	Preplant soil application Incorporate with soil immediately	Transplant after application to 3 weeks later.
	Postemergence TOK ⁷	e — direct-see 3-5 lb.	ded or transplanted Broad-leaved weeds ⁸	One to 2 weeks after crop emergence or transplanting, while weeds are in seedling stage	Use wettable powder formulation to reduce injury poten- tial. Use in combination with preplant or preemergence material for annual grass control.
Carrots	Preemergence Treflan	0.5-1.0 lb.	Annuals ²	Preplant soil incorporation	Seed after application to 3 weeks later.
Carrots	I I GIIAII	0.0-1.0 10.	(primarily grass)	Incorporate with soil immediately	occu arter application to o weeks later.
	Postemergence Lorox	e 1-1.5 lb.	Annuals	Postemergence on carrots only after crop is 2-6 inches tall	Do not feed treated foliage to livestock or replant treated area for 4 months.
	ТОК	3-5 lb.	Broad-leaved weeds ⁸	While weeds are in seedling stage	Can also be used on celery and parsley. Use in combination with preplant or preemergence material for annual grass control.
	Stoddard Solvent	60-80 gal.	Annuals	After 2 true leaves have appeared (do not apply to carrots or parsnips after they are ¼ inch diameter, since oily taste may result)	Most effective when sprayed on cloudy days or during high humidity, and when weeds are not more than 2 inches high. May not control ragweed. Do not apply within 40 days of harvest. Can also be used on celery, dill, parsnips, and parsley.

¹ Based on active ingredients (actual amount of active herbicide in material or acid equivalent). Use lower rate on sandy soil and higher rate on clay and loam soils. When using a band application over the row, adjust amount of material applied to the part of an acre treated. See Illinois Circular 1047. ² May not control ragweed and panicum. ³ May not control ragweed, smartweed, and velvetleaf. ⁴ May not control smartweed. ⁶ May not control crabgrass. ⁷ Use of 50% wettable powder is suggested for cabbage and horseradish. ⁸ May not control ragweed or chickweed. Grass control is sometimes marginal. ⁹ Do *not* use Alanap Plus, Solo, Whistle, or Amoco Soybean herbicide. These materials all contain Alanap plus another ingredient which may cause injury.

Стор	ingred acre	of active dient per actually vered ¹	Weeds controlled	Best time of application (based on crop stage)	Remarks, cautions, limitations
	Preemergence				
Corn, pop	atrazine Bladex	2-3 lb. 2.5-4 lb.	See sweet corn Annuals	See sweet corn Preemergence	See sweet corn except section on combinations. May injure crop on light sandy soil. Has been shown to have less soil residue than atrazine.
	Lasso Princep	2-2.5 lb. 2-3 lb.	See sweet corn Annuals	Preemergence	Plant only crops so specified on the label the following year. Do not graze treated areas.
	Postemergence 2,4-D	½ lb.	Broad-leaved	Postemergence	Apply when corn is 3 to 10 inches tall.
Corn, sweet	Preemergence atrazine	2-3 lb.	Annuals, annual and perennial grasses ⁶	Preemergence, apply no later than 3 weeks after seeding Shallow cultivation may improve weed control during dry weather	Grow corn a second year without atrazine treatment. This chemical has a high soil residue. Do not plant other vege- table crops on a sprayed area until a second year of corn has been grown. Use atrazine where quackgrass is a problem. Residue hazard decreased when banded or in combination with Lasso, Ramrod or Sutan.
	Bladex	2.5-4 lb.	Annuals	Preemergence	May injure crop on light sandy soil. Has been shown to have less soil residue than atrazine.
	Lasso	2-2.5 lb.	Annuals	Preemergence	Preplant incorporation may aid control of nutgrass. Do not apply in nitrogen solutions.
	Ramrod	4-5 lb.	Annuals	Preemergence	Do <i>not</i> use on sandy soils. Is an excellent herbicide on high organic matter soils.
	Sutan+	3-4 lb.	Primarily annual grasses	Preplant soil application Incorporate with soil	Use on sandy soil and where nutgrass is a problem.
	Preemergence c atrazine plus Lasso	ombinations 1.5 lb. +2.0 lb.	Annuals and perennial grasses	Preemergence or preplant incorporated	See label for slightly higher rate of Lasso for preplant in corporated.
	atrazine plus Ramrod	1.5 lb. +3 lb.	Annuals and perennial grasses	Preemergence	Use to reduce atrazine residue.
	atrazine plus Sutan +	1 lb. +3-4 lb.	Annuals and perennial grasses	Preplant soil incorporation Incorporate with soil immediately	Use where nutgrass is a problem and to reduce atrazine residue.
	Bladex plus Lasso	1-2 lb. +2 lb.	Annuals	Preemergence or preplant incorporated	
	Bladex plus Sutan +	1 2 lb. +3-4 lb.	Annuals	Preplant soil incorporation Incorporate with soil	Use where nutgrass is a problem and to broaden annua grass control.
	Postemergence 2,4-D (amine)	½ lb.	Broad-leaved	Postemergence	Preferably, apply before corn is 6 inches tall. If corn is ove 12 inches reduce rate to $\frac{1}{4}$ lb.
	atrazine	2 lb.	Annuals, annual and perennial grasses ⁶	Directed spray 3 weeks after emergence	Can be combined with crop oils for postemergence application as an emergency measure. This may increase residue to following year. Preemergence use preferred. Do not graze or feed treated foliage for 21 days after treatment.
Cucumbers Muskmelons Watermelons	Alanap ⁹	3-5 lb. 3-3.5 lb.	Annuals ⁴	Immediately after seeding or transplanting After transplanting or vining	Do not use on cold soil. Rainfall or irrigation after treat- ment gives maximum control. Use granular form. Keep away from foliage. Apply to soi
	Prefar	4-6 lb.	Annuals (primarily grasses)	Preplant soil incorporation Incorporate with soil immediately	after weeds have been removed. Is primarily a grass killer. Consult label for sensitive crop- within 18 months after application. Prefar can be used in rotation with tomatoes, broccoli, cauliflower, and lettuce carrots, onions, summer squash within 18 months of appli cation.
	Prefar plus Alanap ⁹	4 lb. +2-3 lb.	Grasses and broadleaves	Preplant soil incorporation for Prefar; Alanap as an immediate post seeding application.	Has value for broad spectrum weed control. Consult labe for sensitive crops within 18 months after Prefar applica- tion. Has EPA approval as a tank mixture.
	Vegiben 2E (2E for- mulation only)	1.5-3 lb.	Broad spectrum of annual weeds	Immediately after seeding	This ester form of chloramben may leach less readily ir sandy soils. Above 1.5 to 2 lb. per acre injury chances in crease during moist soil conditions. Some muskmelon cul- tivars may be susceptible to Vegiben injury.
Eggplant	Dacthal	6-10 lb.	Annuals ³ (pri- marily grass)	Immediately after transplanting	
Greens	Dacthal	6-10 lb.	Annuals ³ (pri- marily grasses)	Immediately after seeding	For use on collards, kale, mustard greens and turnips.
	Treflan	0.5-0.75 lb.	Annuals ² (pri- marily grasses)	Preplant soil application. In- corporate with soil immediately	For use on collards, kale, mustard greens and turnip greens
	Furloe	1-2 lb.	Primarily broad- leaf annuals	Preemergence	For spinach only. Use lower rates in cool, wet weather.

(See footnotes on page 2.)

Crop Herkickle controlled (based mirrip isage) Remarking, institutions, limitations Horneradiuk TON* 3-5 lb. Before weeds are 1 inch tall Before weeds are 1 inch tall Before weeds are 1 inch tall Control and tabely representations of the second incorporation incorporation incorporation incorporate with control second representation to 3 week and tabely representations. Onions Preemergence Annuals Prephane soli incorporate with control second representation of 3 week and tabely representations. In primarily grasses my be controlled by this treatment. Onions Preemergence Annuals Prephane soli incorporate with one solitation of 3 week and tabely representations. In primarily grasses my be controlled by this treatment. Onions Preemergence Annuals Internative grasses) Internative grasses) May not kill sonattweed or constant representations. May not kill sonattweed or constant representation. Preemergence Annuals Just before onions emergent grasses and the second in the se		ingre	le of active redient per e actually	Weeds	Best time of application	
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Onions Datchal 6:10 lb. (primarily grasses) Annuals (primarily grasses) Immediately after seeding or transplanting May not kill annutesed or common ragewed. Can be up they rate on sections, set, set, or seeding, sub evil or ominant load. If they rate on sections, set, set, or seeding, sub evil or ominant load. If they rate on sections, set, set, or seeding, sub evil or ominant load. If they rate on sections, set, set, or seeding, sub evil or ominant load. If they rate on sections and provided they reaced pattern and apprecision. Postemargence TOK 3-4 lb. Broadleaf weed control When weeds are in seeding tage and not ver 1 lack and not ver 1 lack tage and the ver 1 lack tage and not ver 1 lack tage ver 1 ver 1 do tage an stady soil. Partone tage and ver 1 lack tage and not ver 1 lack tage ver 1 do tage and ver 1 lack	Lettuce	Balan	1.5 lb.	Annuals	Incorporate with soil	Is primarily a grass killer. Seed after application to 3 weeks later. Do not plant wheat, barley, rye, grass, onions, oats, beets, or spinach for 12 months after application.
Randox 4.6 lb. Annuals (primarily grasses) Just before onions emerge effective on purshead and pigweed. Due on muck soils. Heavy rainfall may reduce stand. Ve effective on purshead and pigweed. Postemergence TOK 3-4 lb. Broadleaf weed control When words are in seeding and out over 1 inch- tall Due on single application of E.C. or W. P. pre proving seeso preserver use of TOK with heavy rainfall may reduce stand. Ve effective on purshead grass control. Peas Ramod 4-4 9 lb. Broadleaf control (sepecially amartweed) On seeled onions: flop stage or alter 3- to tall Do not use on single application of E.C. or W. P. pre proving seeso tall. In the heavy rainfall may reduce stand. Ve effective on purshead grass control. Peas Ramod 4-4 9 lb. Broadleaf control (sepecially amartweed) Premergence preserver with soil inmediately May delay matrix 1 be 4 days. Use at least 20 gal. MCPB 11b. Broad-leaved weed and dinoseb Annuals (pri- lawed) Premergence preserver with soil inmediately May delay matrix 1 to 4 days. Use at least 20 gal. Protones, Iriah Sol 1b. Annuals (pri- lawed) Premergence or preserver with soil inmediately Use a light incorporation. MCPA 3-3 bl. Annuals (pri- lawed) Premergence are 6 to 9 bl. Postemergence us 6 to 9 bl. Postemergence also 1 to 1 preserepreserve us 6 to	Onions	Ŷ		(primarily		May not kill smartweed or common ragweed. Can be used on seeds, sets, or seedlings. Use only on mineral soils. Use lower rates on sandy soils. A double application of Dacthal can be used at seeding, layby, or both. In most situations, the weed spectrum on mineral soils will respond well to a combination of Dacthal preemergence and TOK postemer- gence.
TOK 3-4 lb. Broadleaf veed control When weeds are in seedling tage and net verv 1 inch tal Use a single application of E.C. or W. P. per growing sense be not apply E.C. antil onins are in the 2-3 feed stag presentegence use of TOK with heavy rainfall may redu- tant Furlee 3-6 lb. Breadleaf control (sepceially smartweed) On seeded onions: and association is applied to not exceed bit. per a for the easean. Use lower rates in cool, user seedling. Use a single application is E.C. or W. P. per growing sense tand. Use in combination as with the avy rainfall may redu- tater than 30 adays before harvest. Peas Ramod 4-4.9 lb. (s. 50.75 lb. Annuals Preemergence Preplate soil incorporation Incorporate with soil immediately Do as deel on andy soil. Seed after application to Sayle do not exceed after than 30 adays before harvest. Peas Ramod 4-4.9 lb. (s. 50.75 lb. Annuals Preemergence Preplate soil incorporation Incorporate with soil immediately MCPB 11b. MCPA Broadleagree 34.3 (br) Broadleagree Canada thiste Preemergence presentegence and nutgense Do not fagily adays before harvest. Potatoes, Irish Eptam 3-6 lb. Annuals (pri- mergine Preemergence presentegence and nutgense Do not fagily adays before harvest. Irish Gas add nutgense Annuals (pri- mergine Preemergence presentegence ad nutgenses) Do not there at east 2 inches deep. Do not treplant treat on the presentegence with soil immediately Prestness, Irish Eptam				(primarily	Just before onions emerge	Use on muck soils. Heavy rainfall may reduce stand. Very
Furdee3-6 lb. Broadleaf control (sepecially smartweed)Broadleaf control (sepecially smartweed)On seeded onions: loop stage or after 3- to 4-leaf stageIn the later sprays, direct at base of onion plant. If mo than one application is application. Tereflan 0.5-1 lb. Annuals application is application. Treflan 0.5-1 lb. Annuals At very start of potato emergenceDrag-off treatment at emergence emergenceUse a light incorporation. Plant tubers at least 2 inches deep. Do not replant treat and plantingPotatoes, dalapon1.5-1 lb. AnnualsAt very start of potato emergencePlant tubers at least 2 inches deep. Do not replant treat emergenceIndoor for a substance dalapon-2-3 lb. AnnualsAt very start of potato emergencePlant tubers at least 2 inches deep. Do not replant treat emergence in a season. Do not plant portose		•			stage and not over 1 inch	Use a single application of E.C. or W.P. per growing season. Do not apply E.C. until onions are in the 2-3 leaf stage. <i>Preemergence</i> use of TOK with heavy rainfall may reduce stand. Use in combination with preplant or preemergence material for annual grass control.
Treflan0.5-0.75 lb.Annuals*Preplant soil incorporate immediatelySeed after application to 3 weeks later. Some reduction growth and stand reduction possible under stress. growth and stand reduction possible under stress.MCPB1 lb. MCPAFreedat stress.Seed after application to 3 weeks later. Some reduction growth and stand reduction possible under stress.MCPA1/4-1/2 lb.Canada thistleModes prior to pea blossom marily broad- leaved)May delay maturity 1 to 4 days. Use at least 20 gal. water per acre. Do not feed vines to livestok. Modes prior to postmergence use 0.3 to 1.1 Apply prior to bloom when pess are 2 to 8 inches tall. S label for further precautions.Potatoes, IrishEptam3-6 lb.Annuals grasses and nutgrasse grassesDrag-off treatment at emergence or preplant soil application Incorporate with soil immediatelyUse lower rate on sandy soil.Potatoes, IrishLorox1-2 lb.Annuals (primarily grasses)At very start of potato emergencePlant tubers at least 2 inches deep. Do not replant treat are a to other crops for 4 months after treatment. May i jure crop on light sandy soil. Do not harvest in marily broad-leaved)dalapon7 lb.QuackgrassBefore plowing in spring; wait 4 days before plowing a proad-leaved)May injure crop on light sandy soil. Do not exceed 1 lb. po to not safter applying.Lasso2.5-3 lb.AnnualsApply at drag-offCan be used preemergence also. Do not texceed 1 lb. po the dolt or distander or ansly soils. TRIAL USE IN 1976 ALON Or IN COMBINATION WITH LOROX OR DINOSE Do not usen or safty soils. TRIAL USE IN 1976 ALON <br< td=""><td></td><td>Furloe</td><td>3-6 lb.</td><td>(especially</td><td>loop stage or after 3- to</td><td>In the later sprays, direct at base of onion plant. If more than one application is applied do not exceed 6 lb. per acre for the season. Use lower rates in cool, wet weather. Use no</td></br<>		Furloe	3-6 lb.	(especially	loop stage or after 3- to	In the later sprays, direct at base of onion plant. If more than one application is applied do not exceed 6 lb. per acre for the season. Use lower rates in cool, wet weather. Use no
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(See footnotes on page 2.)

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Crob	Herbicide	Rate of active ingredient per acre actually covered ¹	Weeds controlled	Best time of application (based on crop stage)	Remarks, cautions, limitations
Squash	Prefar	4-6 lb.	Annuals (pri- marily grasses)	Preplant soil application Incorporate with soil immediately	Is primarily a grass killer. Consult label for sensitive crops within 18 months after application. Prefar can be used in rotation only with tomatoes, broccoli, cauliflower, lettuce, carrots, onions, and summer squash within 18 months of application. Use in combination with Alanap as suggested for cucumbers.
Tomatoes, direct-seeded	Dymid, Enide	4-6 lb.	Annuals	Preemergence	Do not plant other food crops on treated areas for 6 months. If used under dry soil conditions, a shallow (1 inch) in- corporation as a preplant treatment may improve weed control. Can also be used on transplanted tomatoes and peppers.
Tomatoes and Peppers, transplanted	Amiben Treflan	3-4 lb. 0.5-1 lb.	Annuals Annuals² (pri- marily grasses)	Wait 3 days after transplanting to apply Preplant soil application Incorporate with soil immediately	Use granular formulation only. Do not use on sandy soils. Some reduction of growth may be possible under growth stress conditions or if rates are higher than suggested for soil type.

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(See footnotes on page 2.)

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Storage of Pesticides and Containers

Keep pesticides and containers in a separate building, room, or enclosure used only for this purpose. Such buildings or rooms should be dry, ventilated, and locked. Fence outside storage areas to protect children and animals and to discourage pilferage. CAU-TION: Do not store weedkillers, herbicides, or defoliants in the same room with insecticides. Chlorate salts can create a fire or explosion hazard. Remove only the pesticides needed for one day's operation and return empty containers — and any unused pesticide — to the storage area each day.

Disposing of Pesticides and Containers

Disposal methods and precautions depend on the type of container and facilities available. Drain any left-over pesticide into a pit dug in sandy soil. Rinse glass and small metal containers several times with the diluent being used and include the rinse in your spray. Keep lids and bungs tightened.

Spray. Keep hids and bungs tightened. Do not burn volatile weedkiller containers. Weedkillers such as 2,4-D and its derivatives can volatilize, and the resulting vapor nay damage nearby plants, crops, and shrubbery. Herbicides or defoliants containing chlorates may explode when heated. *Dispose f containers in this manner:* break glass containers and chop holes in the top, bottom, and sides of metal containers so they cannot be sed again or collect water; bury all weedkiller containers 18 inches deep at a safe disposal site or take them to a dump to be covred with soil.

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OTHER WEED CONTROL PUBLICATIONS

Obtain the following publications on weed control from the office of your county Extension adviser (agriculture) or by writing to the Office of Agricultural Publications, 123 Mumford Hall, Urbana, Illinois 61801.

Prevent 2,4-D Injury to Crops and Ornamental Plants -- Circular 808;

Legal Aspects of Crop Spraying - Circular 990;

Calibrating and Adjusting Granular Row Applicators -- Circular 1008;

Calibrating and Maintaining Spray Equipment - Circular 1038;

Band Spraying Preemergence Herbicides - Circular 1047;

Controlling Weeds in the Home Garden — Circular 1051;

Turfgrass Pest Control — Circular 1076;

Herbicides for Commercial Fruit Crops in Illinois - H-659;

1976 Field Crops Weed Control Guide.

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