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Weed Control in Cotton

EXTENSION DIVISION

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

WEED CONTROL IN COTTON

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Because of the small amount of cotton grown in Virginia, no herbicide evaluation program has been conducted for three years. In order to offer suggestions for chemical and weed control practices in cotton, information has been compiled from neighboring states currently conducting evaluations.

Preplant

Weed Problem	Chemical Rate/A (Product/A)	Remarks
<u>Annual grasses:</u> Barnyardgrass, <u>Brachiaria</u> sp., crabgrass, fall panicum, foxtails, goosegrass, johnsongrass from seed, Texas panicum. <u>Some broadleaf weeds:</u> Carpetweed, Florida pusley, lambsquarters, pigweed or redroot, and purslane (common)	dinitramine 0.3-0.5 lb (Cobex 1.3-2 pt)	Apply immediately before seeding and incorporate within 24 hours to depth of 1.5-2". Follow soil incorporation directions on label. Do not incorporate too deep as crop injury may occur.
<u>Annual grasses:</u> Barnyardgrass, crabgrass, goosegrass, signalgrass, johnsongrass from seed, Panicum sp., <u>Broadleafed weeds:</u> pigweed, lambsquarters, purslane, carpetweed, annual sparges	penoxalin 0.5-1.0 (Prowl 0.5-1 qt)	Apply and incorporate 1-3" deep within 6 hours after application. May be applied 60 days before and up to immediately before planting. Do not feed forage or graze livestock in treated cotton fields. Cotton or soybeans can be replanted the same year into the penoxalin treated soil.
<u>Annual grasses:</u> Barnyardgrass, crabgrass, foxtails, goosegrass, johnsongrass from seed, Texas panicum. <u>Broadleafed weeds:</u> Florida pusley, lambsquarters, pigweed	profluralin 0.5-1.0 lb (Tolban 4E 1-2 pt)	Apply to dry soil surface before planting and incorporate immediately or within 4 hours into the top 2-3" of soil. Poor weed control may result from delayed incorporation, especially if applied to wet, warm soil surface or when wind speed is more than 10 mph, or by shallow incorporation (less than 2" deep). Use lower rate on sand to sandy loam soil and higher rate on sandy clay laom to silt soils. Do not plant to any crop other than soybeans or cotton within 12 months after application. Root crops should not be planted in soils previously treated with profluralin. Do not graze or feed treated cotton to live stock.
<u>Annual grasses:</u> Barnyardgrass, <u>Brachiaria</u> sp., crabgrass, fall panicum, foxtails, goosegrass, johnsongrass from seed, stinkgrass, sandbur, Texas panicum,	trifluralin 0.5.75 lb (Treflan 1-1.5 pt or 5G 10-15 lb)	Apply to well worked dry soil surface and incorporate according to label directions to a depth of 2-3" immediately or within 8 hours with a power driven rotary tiller or with a tandem disc set to cut 3-4" deep and operated at 4-6 mph. Thorough and uniform incorporation is a necessity. If stand failure occurs, cotton or soybeans may be planted. Do not reapply or overapply. Do not apply within 90 days of harvest. Will not control cocklebur, jimsonweed, nutsedge, ragweed or velvetleaf. Fall panicum requires 1 lb ai/A for control.

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Cotton (Cont'd)

Preemergence

Weed Problem	Chemical Rate/A (Product/A)	Remarks
<p><u>Most annuals:</u> Barnyardgrass, crabgrass, foxtails, lambsquarters, pigweed, purslane, ragweed <u>Partial control of:</u> Cocklebur, prickly sida, morningglory, ragweed, smartweed</p>	<p>diuron 0.5-1 lb (Karmex 80W 0.6-1.25 lb)</p>	<p>Use immediately after planting. Use lower rate on lighter soils. Rainfall needed soon after application for effectiveness. If drought occurs, use shallow cultivation; rotary hoe or sweeps. If stand failure occurs, replant only to corn or cotton within 4 months. Do not retreat with second preemergence rate. Other crops can be planted 4 months after treatment. Diuron may also be used after pre-plant application of Trifluralin, consult label.</p>
<p>Barnyardgrass, <u>Brachiaria</u> sp., cocklebur, crabgrass, fall panicum, Florida pusley, foxtails, goosegrass, ground cherry, jimsonweed, lambsquarters, morningglory, pigweed, purslane, ragweed, ryegrass, smartweed, sesbania, sicklepod, prickly sida.</p>	<p>fluometuron 1-2 lb (Cotoran 80W 1.25-2.5 lb or Lanex 80W 1.25-2.5 lb)</p>	<p>May be applied pre-or postemergence or at Layby. Do not make more than 3 applications to the same crop or field in the same year. Do not feed treated foliage or gin trash to livestock. Do not apply within 60 days of harvest. Do not plant crops other than cotton within 6 months. More effective on cocklebur and morningglory than other treatments.</p>
	<p>prometryne 1.6-2.4 lb (Caparol 80W 2-3 lb)</p>	<p>Apply after planting and preemergence to crop and weeds. Do not use on sandy or loamy sand soils or on furrow planted cotton. If stand failure occurs, rework soil and plant only to cotton. Do not graze or feed treated forage to livestock.</p>

Postemergence

Weed Problem	Chemical Rate/A (Product/A)	Remarks
<p>Most annuals less than 2"</p>	<p>diuron* 0.2-0.4 lb (Karmex 80W 0.25-0.5 lb)</p>	<p>See diuron precautions above. Spray after cotton is 6" high. If both pre and post applications are made, corn, cotton, soybeans and grain sorghum could be seeded the next spring.</p>
	<p>fluometuron 1-2 lb (Cotoran 80W or Lanex 80W 1.2-2.5 lb)</p>	<p>See fluometuron precautions above. This may be used as an over-the-top spray when cotton is 3-6" tall. Do not make more than 3 applications per year. Do not apply within 60 days of harvest.</p>
	<p>prometryne* 0.5-0.6 lb Caparol 80W 0.6-0.8 lb</p>	<p>See prometryne precautions for preemergence treatment. Cotton should be 12" or more high. Do not graze or feed treated foliage to livestock.</p>

Cotton (Cont'd)

Postemergence (Cont'd)

Weed Problem	Chemical Rate/A (Product/A)	Remarks
Most annuals and also partial control of: johnsongrass seedlings, sand-bur, yellow nutsedge	DSMA*2 lb ai or MSMA 2 lb ai (several trade names)	Apply as directed spray after cotton is at least 3" high. Do not use after first bloom opens. Usually at least 2 applications required. Make the second application 1-3 weeks after the first. Do not graze or feed plants from treated areas to livestock.
	fluometuron, diuron, prometryne plus DSMA or MSMA with surfactant	These can be purchased in mixtures or tank mixed. Follow all directions on the container as to cotton size, directional application and precautions.
Johnsongrass	TCA, oil soluble ester 1 lb (Glytac 1 qt/5 gal diesel fuel or fuel oil)	Apply as a spot treatment when weeds are 12" tall or more or actively growing. Treat only the lower stems of johnsongrass to run-off. Use care to spray weeds only as it is toxic to cotton. Handle chemical with care as it will cause burns to skin. Do not graze treated fields or feed forage to livestock.

*Do not apply postemergence treatments over the top of cotton as injury may occur. Use precision applicating equipment (branch or leaflifters, precision placement nozzles, etc.) so that spray may be accurately directed off of the cotton and still thoroughly cover weeds and soil surface beneath cotton. Use surfactant according to manufacturer's directions.

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.

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