



Current Report

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COTTON HARVEST - AID CHEMICALS - 1977

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(NC)

Under favorable circumstances, defoliating cotton can be a desirable production practice. It can benefit the cotton grower in a number of ways.

Mechanical harvesters are more efficient in defoliated cotton. With no leaves to clog spindles of mechanical pickers or stain the lint, a higher quality lint is obtained.

It is also an aid in the reduction of trash in stripped cotton. Defoliation often helps lodged plants straighten up thereby improving machine harvesting effectiveness.

Removing the leaves from the cotton plant prior to frost helps reduce the undesirable effects caused by freezing.

When cotton matures well in advance of the expected frost date, defoliation or desiccation may permit farmers to mechanically harvest two to three weeks

earlier, thus, improving grade, preventing field losses, and increasing the price per pound received in many instances.

Exposure of the cotton plant to sun and air movement helps preserve fiber and seed qualities. When plants are free of leaves, dew dries more quickly allowing the pickers to start earlier in the morning, thus effectively lengthening the harvest day.

Removal of leaves also lowers populations of damaging insects and gives protection against boll rots, particularly in seasons of high humidity and rank plant growth.

Harvest-aid chemicals which have been approved for use in Oklahoma are listed in the following table.

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

GUIDE FOR USE OF DEFOLIANTS AND DESICCANTS

Chemical Name	Trade Name	%Active Ingred. (S)	Suggested Rate Per Acre	Max.	Residue Allowable (PPm)	Dilution Data (Gals. Water Per/A)	
				Registered Rate (Lb. Actual/A)		Ground Machine	Airplane
Sodium Chlorates (with fire Suppressants)	Oxy Leafex-3 Cotton Defoliant	28.0	1-1 1/3 gals.	5.0	Exempt	10-20	5-10
	Drop Leaf Defoliant	28.0	1-1 1/2 gals.	5.0	Exempt	10-20	5-10
	Tide Chlorate	27.2	1-1 1/2 gals.	5.0	Exempt	20-30	4-7
	Riverside Chlorates	29.5	1-1 1/4 gals.	5.0	Exempt	10-20	5-10
	FMC Corp. Leaf Dropper Defoliant	18.2	1 1/2-2 gals.	5.0	Exempt	20-30	4-7
	Super Leaf Dropper Defoliant	28.0	1-1 1/3 gals.	5.0	Exempt	20-30	7-10

Comments and Limitations

Do not apply within 7 days of harvest. Do not graze treated areas or feed gin waste to livestock. Do not add phosphate insecticides to sodium chlorate defoliants in late season weevil control, or any other chemicals under any condition unless specific directions for mixing appear on the label.

Arsenic Acid	L-10	75.0	1-1 1/2 Qts.	4.4	4 on cottonseed	10-15	5-10
	Hi-Yield	75.0	1-1 1/2 Qts.		4 on cottonseed	10-15	5-10

Comments and Limitations

Apply after 75 to 80% or more of bolls are open and unopened bolls firm. Do not apply within 4 days of harvest. Do not graze treated area or feed gin trash from treated areas to livestock. Avoid contact with or drift to other plants or crops. Do not store in unlined metal containers. Destroy containers after use.

Paraquat	Ortho Paraquat Cl	29.1	1-2 pts.	0.5	0.5 on cottonseed	10-30	3-10
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Comments and Limitations

Apply after 85% or more or bolls are open and remaining bolls to be harvested are mature. Use a non-ionic surfactant at one pint per 100 gallons spray mix. Most effective in western areas of the state. Do not apply within 3 days of harvest. Do not pasture livestock in treated field within 15 days after treatment. Remove livestock from treated areas 30 days before slaughter. Do not feed treated gin trash to livestock. Avoid getting in eyes or on clothing. This compound is extremely hazardous when ingested. Avoid getting the material in the mouth or in feed or drink containers.

S.S.S-Tributyl- Phosphorotri- thidate	DEF-6	70.5	1 1/3-2 pts.	1.5	4.0 on cottonseed 6.0 on cottonseed hulls	10-20	5-10
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Tributyl- Phosphorotri- Thioite	Folex	72	1 1/2-2 pts.	1.5	0.25 on cottonseed	10-20	5-10
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Comments and Limitations

Do not apply within 7 days of harvest. Apply specified rate per acre in recommended gallons of water or diesel oil to give thorough coverage. May be applied in diesel oil where night temperature drop below 60° F on stripper varieties, or if cotton is moisture stressed. Higher rates may be necessary in rant cotton. Certain phosphate insecticides are compatible with DEF or Folex defoliant for late season weevil control.

A second application of TributylPhosphorotrithioite of up to 1.25 lbs. per acre (liquid) may be made 5 to 7 days following the initial application.

Endothall	Accelerate	15.9	1-1 1/2 pts.	0.13	0.1 on cottonseed	15-25	5-12
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Comments and Limitations

This rate will not give satisfactory defoliation if used alone. Improves the activity of other harvest-aid chemicals. May be used with sodium chlorate (with suitable fire suppressant) or organic phosphate cotton defoliant. Avoid contact with or drift to other crops, trees, or plants. Wash our sprayer immediately. Do not contaminate water.

Sodium Caco dylate Cacodylic Acid	Bolls-Eye	28.4	2-3 pts.	1.3 of Cacodylic Acid	2.8 as on Cottonseed	15-25	5-10
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Comments and Limitations

Do not contaminate water used for domestic consumption or by animals, wildlife, and aquatic life or for irrigation purposes. Apply 7 to 10 days prior to anticipated harvest. Do not feed treated foliage to livestock or graze treated areas. Do not reuse empty containers. Wash thoroughly with water and detergent. Crush containers and discard in safe place.

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NOTE:

1. Consult chemical label for further comment and limitations.
2. Wear protective clothing when mixing and applying chemical.
3. The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied. No claim is made that this list is complete.