

MANAGING WEEDS IN MISSISSIPPI COTTON WITHOUT DICAMBA

Jason Bond, Trent Irby, and Brian Pieralisi



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ENLIST

PREPLANT^{1,2}

Paraquat +
Flumioxazin, fomesafen, or trifluralin

PREEMERGENCE²

Paraquat +
Fluometuron, Prowl H2O, or (Brake + fluometuron)

POSTEMERGENCE³

(Enlist One + glufosinate⁵) or Enlist Duo
+
Group 15 herbicide⁴

POSTEMERGENCE AS NEEDED

(Enlist One + glufosinate⁵) or Enlist Duo

POST-DIRECTED⁶

Glufosinate⁵ + prometryn + MSMA

LAYBY⁷

(Glufosinate⁵ + MSMA)
+
Anthem Flex, diuron, Fierce, flumioxazin, Reflex,
Prefix, or Zidua SC

ENLIST, GLYTOL + LIBERTYLINK, XTENDFLEX, or WIDESTRIKE

PREPLANT^{1,2}

Paraquat +
Flumioxazin, fomesafen, or trifluralin

PREEMERGENCE²

Paraquat +
Fluometuron, Prowl H2O, or (Brake + fluometuron)

POSTEMERGENCE³

Glufosinate⁵ or glyphosate
+
Group 15 herbicide⁴

POSTEMERGENCE AS NEEDED

Glufosinate⁵ or glyphosate

POST-DIRECTED⁶

Glufosinate⁵ or glyphosate
+
Prometryn + MSMA

LAYBY⁷

(Glufosinate⁵ + MSMA) or (glyphosate + MSMA)
+
Anthem Flex, diuron, Fierce, flumioxazin, Reflex,
Prefix, or Zidua SC



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1. Control from flumioxazin (Valor SX, etc.) or fomesafen (Reflex, etc.; not all fomesafen formulations are labeled for preplant application in cotton) will be compromised if beds are disturbed prior to planting. An additional residual herbicide should be made before crop emergence if a do-all is utilized for final bed preparation. Preplant applications of flumioxazin at 0.064 pound active ingredient/acre to conventional tillage cotton should be made at least 30 days prior to planting. Preplant applications of fomesafen to cotton require at least 0.5 inches of rainfall prior to planting. Trifluralin (Treflan, etc.) should be mechanically incorporated within 24 hours of application.
2. The use of full labeled rates of residual herbicides is imperative for herbicide-resistant weed management. Residual herbicides require incorporation from rainfall or irrigation, and level of control and length of residual will vary with rainfall totals. When properly incorporated, residual herbicides can control weeds for 2 to 3 weeks depending on time of year, soil moisture, and weed pressure.
3. The first postemergence over-the-top application should be made when cotton is in the one- to two-leaf stage.
4. Herbicides in Group 15 are very long chain fatty acid synthesis inhibitors (VLCFAs). Group 15 herbicides recommended for use in Mississippi cotton contain metolachlor/S-metolachlor, Outlook, or Warrant. Herbicide labels should be consulted for seasonal maximum use rates and rotation intervals to other crops.
5. Glufosinate (Liberty 280, etc.) should be applied when weeds are 2 to 3 inches in height. Spray coverage is critical for weed control with glufosinate. Nozzles producing coarse droplets should not be used with glufosinate alone or mixed with group 15 herbicides. However, Enlist Duo and Enlist One have specific nozzle requirements. Manufacturer information should be consulted for appropriate nozzles for applications containing these products.
6. Post-directed applications should be made after cotton plants are at least 6 inches in height.
7. Anthem Flex should be applied after cotton is 6 inches in height until the beginning bloom stage. Diuron should be applied after cotton is 15 inches in height. Fierce and flumioxazin should be applied after cotton is 16 inches in height. Reflex and Prefix should be applied after cotton has 4 inches of bark. Zidua SC should be applied from the five-leaf to beginning bloom stage of cotton.



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