

**EVALUATION OF FINISH
(CYCLANILIDE+ETHEPHON) IN
SOUTHEAST MISSOURI**

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Abstract

Finish (Cyclanilide + Ethephon) was evaluated under the cool growing conditions in Missouri. It was fast acting however it did not work well under some conditions. The two quart rate was superior to lower rates. Harvade was a good tank mix partner; however, Dropp did not prove to be a good partner in these cool conditions.

Introduction

Improved defoliant and boll openers were needed for the cold growing conditions during the pre-harvest season. Finish (Cyclanilide + Ethephon) has been evaluated in southeast Missouri for several growing seasons.

Methods

Plots were 31 foot plots four rows wide and using 38-inch beds. In 1996 D&PL 50 was planted and in later years Stoneville 474 was used. The trials were farmed in a manner common to the region and were irrigated. The treatments were applied using a Schweiss self-propelled sprayer when the plots had 55 to 60 percent open bolls. Fifteen gallons of water per acre were used except in 1999 when ten gallons were used. The trials were rated at seven and fourteen days after treatment.

Results and Discussion

Finish showed to be very fast acting under some conditions especially seven days after treatment. Even at five days the results were good. However by fourteen days after treatment several products had results similar to Finish. Usually the two quart rate was superior to 1.5 quarts and the one quart rate would not be adequate under the cool conditions in Missouri. Tank mixes were evaluated with varying results. When Finish was used with Harvade the results were positive but when used with Dropp the effect of low temperatures did not make this a viable tank mix under these conditions.

References

Warrick, Billy E. 1998. Six Year Summary Of Harvest Aid Testing In The Southern Rolling Plains Of Texas. Proceeding Beltwide Cotton Conference, p. 1410-1413.

Vories, E.D. and Glover, R.E. 1999. Finish Performance In Northeast Arkansas. Proceeding Beltwide Cotton Conference, p. 607-610.

Witten, T.K., Jost P.H., and Cothren J.T. 1999. Evaluation Of Cotton Harvest Aids In The Brazos Bottoms. Proceeding Beltwide Cotton Conference, p. 617-620.

Stewart, A.M., Edmisten K.L., and Wells R. 1998. Use If Prep, Starfire, Cottonquik, And Finish For Boll Opening. Proceeding Beltwide Cotton Conference, p. 1382-1383.

Gerik, Tom J. and Faver Kyle L. 1998. Cotton Harvest-Aid Trials In Central Texas. Proceeding Beltwide Cotton Conference, p. 1484-1485.

Robertson W.C., Jones J, and Ballantyne P. 1999. Cotton Harvest-Aid Trials In Arkansas. Proceeding Beltwide Cotton Conference, p. 568.

Boman, R., Kelley M., and Doeberwin T. 1999. Effects Of Prep And Finish On Agronomic Characteristics Of Cotton In The Texas High Plains. Proceeding Beltwide Cotton Conference, p. 568-569.

Table 1. Finish is very fast acting. 1998 cotton defoliation test at UM Delta Center, Portageville, MO.

1998 Works Quick				
7 days after treatment	def	perform	des	% open
-Folex 1.5 pt / Prep 2 pt	47.5	53.75	1	80
-Finish 2.0 qt	90.0	92.50	3	82.5

Table 2. Effectiveness of low rate. 1996 cotton defoliation test at UM Delta Center, Portageville, MO.

1996 Low Rate				
7 days after treatment	def	perform	des	% open
-Folex 1.0 pt / Prep 1.0 qt	81	73	13	64
-Finish 1.0 qt	79	71	6	62
<u>14 days after treatment</u>				
-Folex 1.0 pt / Prep 1.0 qt	95	97	2	94
-Finish 1.0 qt	79	71	0	93
<u>Regrowth</u>				
	terminal			basal
-Folex 1.0 pt / Prep 1.0 qt	0			7
-Finish 1.0 qt	0			6

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Table 3. Finish high rate is more effective than low rate. 1996 cotton defoliation test at UM Delta Center, Portageville, MO.

1996 High Rate												
Defoliation						% Open						
October	4	8	14	18	23	4	8	14	18	23		
-Finish 1.0 qt	8	65	71	80	94	41	58	68	86	95		
-Finish 1.5 qt	8	75	81	85	96	41	58	73	90	98		
Regrowth												
						terminal	basal					
-Finish 1.0 qt						4						30
-Finish 1.5 qt						1						13

Table 4. Finish results are not always consistent. 1997 cotton defoliation test at UM Delta Center, Portageville, MO.

1997 Sometimes Inconsistent						
7 days after treatment	cost	def	perform	des	%open	
-Folex 1.5 pt / Prep 2 pt	15.48	28	19	58	73	
-Finish 2.0 qt	27.52	19	2	21	61	
14 days after treatment						
-Folex 1.5 pt / Prep 2 pt	15.48	79	39	10	80	
-Finish 2.0 qt	27.52	73	33	11	81	

Table 5. Reduce the cost of defoliation with tank mix. 1998 cotton defoliation test at UM Delta Center, Portageville, MO.

1998 Tank Mix							
7 days after treatment	cost	def	perform	des	%open		
-Harvade 6.5 oz / Finish 1 qt							
Agridex 1.0 pt	18.52	87	90	5.25	77.5		
-Finish 2.0 qt	28.50	90	92.5	3.0	82.5		
14 days after treatment							
-Harvade 6.5 oz / Finish 1 qt							
Agridex 1.0 pt	18.52	93.5	85	2.75	96.25		
-Finish 2.0 qt	28.50	96.75	93.75	2.0	99.75		
Regrowth							
						basal	terminal
Harvade 6.5 oz / Finish 1 qt /							
Agridex 1.0 pt						0.5	3.5
Finish 2.0 qt						.25	1.75

Table 6. Tank mix partner must be chosen with care. 1999 cotton defoliation trial at UM Delta Center, Portageville, MO.

1999 Choose Tank Mix Partner Carefully					
7 days after treatment	def	perform	des	%open	
-Finish 1.0 qt / Dropp .143 lbs	60.0	2.50	8.75	81.25	
-Folex 1.5 pt/Prep 2 pt/ Dropp .05 lb	75.0	5.75	10.0	86.25	
14 days after treatment					
-Finish 1.0 qt / Dropp .143 lbs	73.0	6.75	8.0	95.50	
-Folex 1.5 pt/Prep 2 pt/ Dropp .05 lb	85.25	3.25	9.5	93.75	
Regrowth					
				terminal	basal
-Finish 1.0 qt / Dropp .143 lbs				4.25	2.25
-Folex 1.5 pt / Prep 2 qt / Dropp .05 lb				3.50	3.25

Table 7. Cost and rate can be reduced with tank mix. 1999 cotton defoliation trial at UM Delta Center, Portageville, MO.

1999 Reduce The Rate With Tank Mix				
7 days after treatment	def	perform	des	%open
-Finish 1.33 qt	48.75	2.75	7.5	83.75
-Finish 1.5 qt	47.50	2.75	7.5	85.00
-Finish 1.0 qt / Harvade 8 oz	38.75	2.25	7.5	83.75
-Finish 1.33 qt / Harvade 8 oz	51.25	2.75	7.0	83.75
14 days after treatment				
-Finish 1.33 qt	57.50	1.75	8.75	97.25
-Finish 1.5 qt	56.25	2.00	5.00	97.50
-Finish 1.0 qt / Harvade 8 oz	59.00	2.00	8.50	96.75
-Finish 1.33 qt / Harvade 8 oz	65.25	3.50	7.25	97.25

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