

# NEW TECHNOLOGIES IN COTTON WEED CONTROL

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# Enlist and Xtend Systems

- ▣ Both events de-regulated by USDA
- ▣ Enlist cotton in 16'; Xtend cotton in 15'
- ▣ Enlist Duo use approved by EPA
- ▣ Dicamba use NOT approved by EPA (Roundup Xtend, Engenia, all other formulations); crop destruct if applied; label restrictions to cotton apply (8 oz and 1" rainfall 21 d before planting)
- ▣ Reduced volatility and drift potential (herbicides can only do so much)
- ▣ Label application restrictions (wind speed, boom height etc.)



# Enlist and Xtend Systems

- ▣ If no resistance issues do I need it?
- ▣ Not silver bullets; programs approach
- ▣ Glufosinate component
- ▣ Advantages/Disadvantages?
  - ▣ Varieties
  - ▣ Offensive/Defensive technology
  - ▣ Weed control efficacy



Dicamba  
@ 0.5 lb/A  
5/2/18



Dicamba  
@ 1.0 lb/A  
6/9/14



2,4-D  
@ 0.75 lb/A  
6/9/14





LIBERTY  
@ 32 oz/A  
6/9/14

Dicamba  
@ 0.5 lb/A  
6/9/15





VALOR  
@ 2.0 oz/A  
6/9/14



Dicamba @ 0.9 lb/A  
+  
Valbr @ 2 oz/A  
6/2/14



WARRAMI  
@ 3 pl/A  
5/9/14



Dicamba @ 0.5 lb/A  
+  
Glyphosate @ 3 pt/A  
2018



COTORAN  
@ 1.015/A  
6/9/14





Dikampur @ 0.5-10/A  
Cotoran @ 1.0-10/A  
8/9/14

Dieamba Glyphosate  
Pre-mix @ 64 oz/A  
2.8" weeds  
6/24/14



2 7-D Glyphosate  
976 mix @ 75 cc/A  
2-4" weed  
07/24/11





LIBERTY @ 32-02/A  
2-4" Weeds  
6/24/11



Dicamba Glyphosate  
Pre-mix @ 64 oz/A  
4-8" weeds  
6/24/10





Zn - diphosphate  
Preml @ 75 lb/A  
4-8" weeds



LIBERTY @ 32 oz/A  
4-8" weeds  
6/24/14



*Diuraphis brassicae*  
Bugs on soybean  
0.5% infestation

2.4-D glyphosate  
Pre-mix @ 75 or 7A  
8-12" weeds  
6/24/14







ROUNDUP XTEND





ROUNDUP XTEND



RINSE #1  
WATER ONLY

**RINSE #1  
WATER ONLY**



RINSE #2  
WATER + 1%  
AMMONIA



RINSE #3  
WATER ONLY



RINSE #4  
WATER ONLY

# PRE tolerance to Enlist Duo



PHY 375 cotton - Enlist Duo PRE



Enlist cotton - Enlist Duo PRE

# POST tolerance to Enlist Duo



PHY 375 cotton - Enlist Duo POST



Enlist cotton - Enlist Duo POST



# POST tolerance to Enlist Duo



RR soybean - Enlist Duo POST    Enlist soybean - Enlist Duo POST

# Simulated Tank Contamination following 75 oz/A of Enlist Duo



5% dilution (3.75 oz) of Enlist Duo



Cotton - 5% dilution (3.75 oz) of Enlist Duo



Soybean - 5% dilution (3.75 oz) of Enlist Duo

# Simulated Tank Contamination following 75 oz/A of Enlist Duo



1% dilution (0.75 oz) of Enlist Duo



Cotton - 1% dilution (0.75 oz) of Enlist Duo



Soybean - 1% dilution (0.75 oz) of Enlist Duo