Bayer

Herbicide Formulation/Low Tunnel
Low Tunnel Formulation Evaluations

TD/Protocol ID: HD20USABP2 Country: USA Protocol Edition No.: 1.01
Project ID: LOCAL_PROJ
Project Number(s): 0 % EXPL % 100 % FDDW0002
Protocol Developer: Philbrook, Brent
License User: Philbrook, Brent

General

TD/Protocol Status:1
TD/Protocol Edition:1.01 **TD/Protocol Status Date:**May-5-2020
Last change done by: Philbrook, Brent **Date of last export:**May-5-2020 12:38 PM

Change Description May-5-2020 Final protocol adjustments
Apr-23-2020

	1
TD Number(s):	LOCALCREATED

License User: Philbrook, Brent

Protocol Developer: Philbrook, Brent

Summary

Previous Technical Experience

Similar Low Tunnel Procedures with minor modifications as described below and in attachment.

- Untreated is two passes of a blank spray
- Rates are 2X field rates for all components, sprayed twice
- 3 reps per treatment
- Use a Dicamba sensitive line such as LLGT27
- Tunnels are two rows by approximately 20 feet
- Spraying 2 to 3 greenhouse flats per treatment
- Soil flats wetted to field capacity the night before trial
- treat Soil Flats at a remote location and move into center of respective hoop houses
- Flats exposed to crop for 48 hours, after which remove flats and tunnel plastic from trial area. Care to not contaminate surrounding unexposed soy.
- Care for walking path through soy
- No weed targets necessary for trial conduct
- Visual crop injury ratings from the worst hoop house quadrant at 14 and 28 DAT (removal of flats)
- Visual rating at 1' increments of worst quadrant (No plant heights in this trial), until no further symptoms can be discerned.
- Temperature in hoop houses monitored with weather station.

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Technical Questions

1. Determine the intensity of crop injury responses at each 1 ft incremental from each treatment source.
2. Compare treatments of new dicamba formulations and premixes for the intensity of crop injury responses and distances moved from each treatment source.

Site and Design

Number of Replicates: 3
Number of Treatments: 8
Plot Width: 56 cm **Plot Length:** 108 cm
Plot Area: 6048 cm2
Site Type: FIELD
PLOT
Application Intervals: 0 days

Number of trials (total): 10
Number of applications / trials: 2
Number of assessments / trials: 2
Number of harvest / trials: 0
Experimental Season: 2020
Location of Control: ADJACENT

Application/Assessments

Please note that local Standard Operation Procedures (SOPs) for trial execution have to be followed.
Any inventions, discoveries, and/or ideas made or conceived by Researcher in course of performing this Protocol shall be owned by Bayer. Researcher agrees to promptly notify Bayer of any such invention, discovery, or idea and Bayer shall have full power and authority to protect such invention, discovery or idea. Researcher agrees to keep samples secured, not to provide samples to any third party, to only use supplied samples in accordance with the Protocol, and to return surplus sample material to Bayer. Researcher agrees to provide the results of testing under this protocol to Bayer as they become available and to allow Bayer to review and comment on the results before any presentation or publication. Note that one of the objectives of this protocol is to evaluate all products tested for any unexpected response.

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Safety: Follow all local, state, federal laws, rules, and regulations. For registered products, follow all PRECAUTIONARY STATEMENTS and personal protection equipment (PPE) instructions on the approved label. Always use proper (PPE) to avoid potential direct or indirect contact with experimental compounds during mixing/loading, application, and reentry. Applications of non-registered compounds should be made under the oversight of a certified pesticide applicator. Required PPE includes: Coveralls over long-sleeved shirt and long pants, Waterproof gloves, footwear and socks, Protective eyewear, and a Respirator. For overhead exposure wear waterproof head gear. Early entry into treated areas during the restricted entry interval (REI), requires PPE to avoid direct dermal contact. REIs are 11 weeks for Phase 1 and 2 products and 1 week for Phase 3 products. Confirm with Bayer representative what Phase Products are being tested. Required PPE for REI includes: coveralls, waterproof gloves, and chemical resistant footwear plus socks.

Experimental Field Trials must be clearly and continuously marked to avoid unauthorized entry or accidental harvest. Any harvestable portion of the crop treated with non-registered compounds or registered products experimentally tested off-label must be destroyed. Crop destruction date and method shall be reported to Bayer.

Crop Description

Crop 1: GLXMA **Discipline:** C **Crop Scale:** BSOY **Use Group:** P
Glycine max (L.) MERR.
Soybean
Dicamba sensitive line such as LLGT27

Crop Stage at Application

	A	B
Crop 1/Disc./Scale	GLXMA C BSOY	GLXMA C BSOY
Stage Majority	13	13
Stage Minimum	12	12
Stage Maximum	14	14

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Assessment Table

	1
SE ID	PE12AD3
SE Label	phytotoxicity replanting, estimation % PHYGEN, in untreated
Part Rated	PLANT
Assessment Class	
Assessment Type	PHYGEN
Assessment Unit	%
Sample Size	1 PLOT
Collection Basis	1 FT
# Subsamples	1
ARM Action Codes	P
Untreated	CANOPY
Assessment Code	B14, B28

Application Equipment

	A	B
Application Timing	MIPOCR	MIPOCR
Application Method	SPRAY	SPRAY
Application Placement	BROFOL	BROFOL
Application Equipment	TRMOSP	TRMOSP
Carrier	WATER	WATER
Appl./Slurry Volume	140	140
Appl./Slurry Volume Unit	L/HA	L/HA

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Protocol Study Rules

Rule	Rule ID	Editor	Field	Condition	Permissions	GDM ID	Rule Details
1	Recommended	Site Description	15. Summary - Trial Summary	Final	All protocol owners	BCRORA	
2	Required	Site Description	2. Site and Design - Latitude	Assessments started/Interim/Multi-Year/Interim	All protocol owners	BCRORA	
3	Required	Site Description	2. Site and Design - Longitude	Assessments started/Interim/Multi-Year/Interim	All protocol owners	BCRORA	

Entry No.	Entry Type	Entry/Trt. Description	Identification Code	Form. Type	AI Conc.	AI Conc. Unit	Specific Gravity	Dose	Dose Unit	Trans. Dose	Trans. Dose Unit	Appl. Timing	Appl. Code	Comment
1	PRODUCT	UNTREATED + BLANKET SPR	UNTREATED + BLANKET SPR									MIPOCR	AB	Blank spray
2	PRODUCT	MON 76980	BCMOSI_17022302	LF	350	GA/L	1.204	1125	g ai/ha	44	oz/a	MIPOCR	AB	
	PRODUCT	MON 79789	BCADDM_03120101	SL	540	GA/L	1.357	2525	g ai/ha	64	oz/a	MIPOCR	AB	
	PROD_ADJ	MON 301656	BCSCMA_19022701	XL	43.2	%AW/W	1.06	1	% v/v	1	% v/v	MIPOCR	AB	
3	PRODUCT	MON 76980	BCMOSI_17022302	LF	350	GA/L	1.204	1125	g ai/ha	44	oz/a	MIPOCR	AB	
	PRODUCT	MON 79789	BCADDM_03120101	SL	540	GA/L	1.357	2525	g ai/ha	64	oz/a	MIPOCR	AB	
	PROD_ADJ	MON 301656	BCSCMA_19022701	XL	43.2	%AW/W	1.06	1	% v/v	1	% v/v	MIPOCR	AB	
	PROD_ADJ	MON 51817	SP102000037640	SL	394	GA/L	1.27	2	% v/v	2	% v/v	MIPOCR	AB	
4	PRODUCT	MON 301822	SP102000053791	EW	424	GA/L	1.25	1425	g ai/ha	46	oz/a	MIPOCR	AB	
	PRODUCT	MON 79789	BCADDM_03120101	SL	540	GA/L	1.357	2525	g ai/ha	64	oz/a	MIPOCR	AB	
5	PRODUCT	MON 301859	SP102000053792	ME	409	GA/L	1.23	1434	g ai/ha	48	oz/a	MIPOCR	AB	
	PRODUCT	MON 79789	BCADDM_03120101	SL	540	GA/L	1.357	2525	g ai/ha	64	oz/a	MIPOCR	AB	
6	PRODUCT	MON 301621	SP102000053793	ME	564	GA/L	1.27	5275	g ai/ha	128	oz/a	MIPOCR	AB	
7	PRODUCT	MON 301848	SP102000053795	ME	645	GA/L	1.27	5184	g ai/ha	110	oz/a	MIPOCR	AB	
8	PRODUCT	MON 301848	SP102000053795	ME	645	GA/L	1.27	5184	g ai/ha	110	oz/a	MIPOCR	AB	
	PROD_ADJ	MON 51817	SP102000037640	SL	394	GA/L	1.27	2	% v/v	2	% v/v	MIPOCR	AB	

Replications: 3, Untreated treatments: 1, Reference treatment number: 1, Design: RCBD, Treatment units: Treated 'Plot' experimental unit size, Treated 'Plot' experimental unit size Width: 56 cm, Treated 'Plot' experimental unit size Length: 108 cm,

	3	4
Orig./Calc. Flag:	O	O
SE Group:	1	2
SE ID:	PE12AD3	PE12AD3
SE Label:	phytoto	phytoto
Part Rated:	PLANT	PLANT
Assessment Type:	PHYGEN	PHYGEN
Assessment Unit:	%	%
Sample Size:	1	1
Sample Size Unit:	PLOT	PLOT
Sample Size (total):	1	1
Assessment Code:	B14	B28
Decimals Printed:	0	0

ARM Action Codes:	P	P
Untreated:	CANOPY	CANOPY

No assessment footnotes entered in study