FIELD ID NO:	

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS-GREENHOUSE TRIALS

A. EQUIPMENT		
INSTRUCTIONS: Complete a separate form for each piece of test	t substance application equipment use	d in the trial.
EQUIPMENT USED FOR APPLICATION NUMBER(S)		
EQUIPMENT IDENTIFIER ¹ Lach test substance application equipment must have a second control of the second co		
APPLICATION EQUIPMENT TYPE (Check one) WAIST-BE		
PROPELLANT (Check one) CO2 COMPRESS OTHER (Describe)		
TYPE OF APPLICATION (Check one)		
FOLIAR BROADCAST FOLIAR DIRECTED	TO THE GROWING MEDIUM	(SOIL)
OTHER(<i>Describe</i>)		
NUMBER OF PASSES THAT ARE NEEDED TO TREAT THE	PLOT	_
NUMBER OF NOZZLES OR HOPPER OUTLETS USED		
MESH SIZE USED IN THE STRAINERS	SPACING BETWEEN NOZZLES OR HOPPER OUTLETS	
NOZZLE BRAND/TYPE/SIZE (e.g. T-Jet 8004, even flat fan)		
TREATED AREA ²		
² Calculated width of nozzle discharge pattern (CWNDP) For a broadcast application, CWNDP = (# of nozzles X nozzles X swath per nozzle. If application is foliar directe sprayed or treated; treated row width may differ from act narrower than local commercial practices. In this circum local commercial row width, and an explanation should be Contact the Study Director if guidance is needed.	nozzle spacing). For a banded applicated enter treated row width X # of rows tual row width when the actual row winstance, the application rate should be	tion, CWNDP = # of X length of plot dth is wider or e calculated using a
DOES AREA USED FOR APPLICATION RATE CALCS. = PLO	OT AREA (from Parts 5C/5D)? YES_	NO
(For foliar directed and soil directed applications, check "YES" ab the actual row width on the research plot. This prompt is intended IF NO, PLEASE EXPLAIN:	to help data reviewers calculate the ra	
ABOVE DATA ENTERED BY:	DATE:	
PART 6 PAGE _	Trial	Year 2024
Total number of pages in this section at initial pagination	on:	
COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE	IE ORIGINAL"	

FIELD ID NO: _	
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COMPLETE IF APPROPRIATE:

PART 6 PAGE	Trial Year 2024	
ABOVE DATA ENTERED BY:	DATE:	
Include the following required items in the sketch or image: 1) Relative location and size of the target crop 2) Nozzle or hopper outlet placement in relation to crop 3) Application pattern in relation to crop 4) Assign each nozzle or hopper outlet a unique number		
INSTRUCTIONS: Complete a separate form for each piece of test substance applicate diagram and/or provide clear photograph or other image of application equipment.	ion equipment used in the trial. Sk	≀tch c
EQUIPMENT USED FOR APPLICATION NUMBER(S)		
B. DIAGRAM OF APPLICATION EQUIPMENT		

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FIELD ID NO: _	
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IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS-GREENHOUSE TRIALS

C. DISCHARGE CALIBRATION FOR APPLICATION NUMBER ____

INSTRUCTIONS: Use this form when conducting full (3-run) calibrations or rechecks. If conducting a recheck, please provide calculations to verify that the output is within $\pm -5\%$ of the most recent full calibration.

If you are conducting a 3-run target check, please use the target check form provided on the IR-4 website.

EQUIPMENT IDENTIFIE	ER						
DISCHARGE CALIBRATION DATE			TIME		PERFORM	ED BY	(INITIALS)
LOCATION WHERE TH	E CAL	LIBRATION WA	AS PERFORMED _				
INSTRUMENT USED TO) MEA	ASURE WATER	(e.g. 100 ml gradua	ted cylinder	·)		
BRIEFLY DESCRIBE PR	COCEI	OURE USED TO	CHECK DISCHAR	GE CALIB	RATION_		
PRESSURE (psi)			UNIT	S (e.g. ml,	grams)		
Output Run Num	ber	1	2	3			
Nozzle/Hopper	1					Is this	a recheck?
Outlet Number	2					**	
Along Boom	3						es
(If more than 6 nozzles, use the alternate form	4					No)
Part-6C. Large Boom	5						
provided on the website.)	6					Total	
Total Boom Vol	ume				A		
Mean per nozzle or o	utlet				В		
Time (seco	nds)				С		
Discharge	Rate				Ave	erage	
							* D
*Indicate whether discharge i	rate is c	alculated for: Tota	l Boom Volume	Mean Nozzl	e Volume		(A or B)/C=D
Is the discharge rate of e	each r	un within 5% c	of the mean?		YES	_ NO	NA
Are individual nozzle or	utputs	within 5% of t	he mean during ea	ch run?	YES	_ NO	NA
If this is a recheck, are r	esults	within 5% of	original output?		YES	_ NO	NA
ABOVE DATA ENTERE	D BY:					DAT	`E:
		PA	RT 6 PAGE			Tria	l Year 2024
COMPLETE IF APPROPRIATHE ORIGINAL IS IN IR-4				RIGINAL" _ INITIALS		DATE	

FIELD ID NO:	
IR-4 FIELD	DATA BOOK

D. SPEED CA	LIBRATION I	FOR APPLIC A	ATION NUMBI	ER(S)			
	NS: Complete a uipment is requ		for additional tir	nes when a comp	lete calibration or o	calibration-	recheck of
EQUIPMENT	IDENTIFIER_						
SPEED CALIF	BRATION DAT	TE	TIME	PERFOR	MED BY	(INI	TIALS)
TERRAIN OF	CALIBRATIO	N TRACK (e.g	g., tilled field)				
LOCATION W	WHERE THE C	ALIBRATION	WAS PERFOR	MED			
BRIEFLY DES	SCRIBE PROC	EDURE USED	FOR SPEED C	ALIBRATION _			
GEAR	RPM		LENGTH OF T	EST TRACK (in	clude units)		
setting used in was tested to d additional runs	the speed calib etermine speed s. If this is a red (one run) is red	ration. Indicat (e.g. speed of a check, calculate quired wheneve	e the distance (in application equip e the result is with e r an output rec l	n feet or meters) o oment tested for 10 thin 5% of the ori	Cappropriate, note of the track on whice of the track on whice of the track on whice of the track of the trac	h the applice pts have bee Show all cal	ntion equipment n provided for 2 culations. A
RUN#	1	2	3	TOTAL	AVERAGE		OR ORIGINAL RATION TIME
TIME (sec)							
CALCULATIO	ONS:						
IF YES, WERI		ITHIN 5% OF	BRATION? ORIGINAL CA must be in this f		(Check one) YE		NO NO
full speed calib WAS THIS A	oration must be CHECK OF A	conducted, and TARGET SPE	the mean of the	three runs must b	e mean of three runs e within 5% of the (Check one) YE	target speed. S	
ABOVE DATA	ENTERED BY	:			<i>1</i>	DATE:	
			PART 6 PAG	E		Trial Yea	r 2024
COMPLETE IF	APPROPRIATE	: "THIS IS	A TRUE COPY O	F THE ORIGINAL INITIAL		.TE	

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PART 6 PAGE	Trial Year 2024
ABOVE DATA ENTERED BY:	DATE:
PROTOCOL SPECIFIED SPRAY VOLUME (from Part 15, in gallons per acre <i>Enter "NA" if a spray volume is not applicable.</i>	or liters per hectare):
CALCULATIONS:	
PROCEDURE/FORMULA:	
same equipment, and have performed a recheck to confirm the result of the full of from the application equipment. Briefly describe the procedure, including form calibration. Show all calculations and units. Equations used in electronic (conbe transcribed or printed out and attached here.	calibration. Determine the rate of delivery ulas used to determine delivery rate
E. DELIVERY RATE CALIBRATION FOR APPLICATION NUMBER(S) _ <i>INSTRUCTIONS: Complete a separate form for each application, unless the same property of the complex compl</i>	ne parameters are used you are using the
PART 6. APPLICATION RECORDS-GREENHOUSE TRIALS	

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F.	VOLUME, MIXING AND DILUTION	N CALCULATIONS FOR APPLICATION NUMBER(S)	
г.	VOLUME, MIMING AND DILUTION	N CALCULATIONS FOR ALL LICATION NUMBER(S)	

INSTRUCTIONS: Complete a separate form for each application, unless there are no changes in multiple applications. Show all calculations, formulas, and results below, and define units of measure. Equations used in electronic (computer software) calculations in this trial must be transcribed or printed out and attached here.

ALCULATIONS ENTERED BY:		DATE:
	TEGE GUDGEANGE ED 33.6	MODAGE AREA MOLOGAMICA CEMA
XING (E.g.: "Test substance held securely in a	an insulated cooler hand-carr	
ESCRIBE HOLDING AND TRANSPORT OF TIXING (E.g.: "Test substance held securely in a sank mix prepared within walking distance of the	an insulated cooler hand-carr e chemical storage building")	
IXING (E.g.: "Test substance held securely in a fank mix prepared within walking distance of the	an insulated cooler hand-carr e chemical storage building'')	ied during transport to greenhouse site" or
IXING (E.g.: "Test substance held securely in a cank mix prepared within walking distance of the cank mix prepared within the cank mix	an insulated cooler hand-carr e chemical storage building'')	ied during transport to greenhouse site" or

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PART 6. APPLICATION RECORDS-GREENHOUSE TRIALS

	TRT Number
NUMBER OF DAYS SINCE PREVIOUS APPLICATION	TIME OF ADDITIONAL AGITATION
TEST SUBSTANCE	(if applicable) e.g. "10:00" or "continuous" or "just pr
BATCH/LOT NUMBER	to application"
TIME MIXED/BY WHOM ¹	
TIME APPLIED/BY WHOM ¹	
EQUIPMENT IDENTIFIER	
APPLICATION TYPE ³	
(e.g., foliar broadcast, soil directed) TANK MIX AMOUNTS	MEASURING EQUIPMENT with INCREMENTS*
CARRIER (starting volume of water)	
VOLUME of WATER REMOVED from starting volume (if applicable)	
TEST SUBSTANCE (formulated product)	
ADJUVANT	
TOTAL VOLUME OF TANK MIX	*e.g. 1000 mL grad. cylinder/10 mL in
NOZZLE DISTANCE from TARGET	ORDER IN WHICH ITEMS WERE ADDED TO SPRAY MIXTURE*
PSI AT BOOM	W=Water, TS=Test Substance A=Adjuvant *e.g. 1-W, 2-TS, 3-A, 4-W
CARRIER SOURCE/TYPE	C.g. 1 W, 2 10, 3 M, 1 W
CARRIER pH/TEMPERATURE	
EQUIPMENT used to MEASURE pH	
itials are acceptable for identification.	ntered by the person entering the rest of the data on this pag t is indicated in Part 6A, then a new 6A must be completed.
YES, IDENTIFY LOCATION:	

FIELD ID NO:

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PART 6. APPLICATION RECORDS-GREENHOUSE TRIALS

ABOVE DATA ENTERED BY: _____

H. ADDITIONAL INFORMATION FROM **APPLICATION NUMBER** APPLICATION DATE (Complete a separate form for each application date) PLANT GROWTH & ENVIRONMENTAL DATA AT THE TIME OF APPLICATION Enter data in this column CROP HEIGHT (Measure or estimate crop height, include units of measurements) CROP GROWTH STAGE (e.g. seed, vegetative, bud, bloom, fruiting, #true leaves) CROP VIGOR (e.g. poor, fair, good, variable)* DAMP___ PLANT SURFACE MOISTURE (Check one) SATURATED_ DRY___ NA___ ESTIMATED % OF GROWING MEDIUM AREA COVERED BY CROP CANOPY MEASURED AIR TEMPERATURE (Check F or C) (E.g. 75 $^{\circ}$ F $_{\underline{\hspace{1cm}}}$ $^{\circ}$ C $_{\underline{\hspace{1cm}}}$) $^{\mathrm{o}\mathrm{F}}$ $^{\mathrm{o}}\mathrm{C}$ ESTIMATED % OF CLOUD COVER (or indicate below if shade cloth was closed) SHADE CLOTH OPEN CLOSED MEASURED RELATIVE HUMIDITY% TYPE OF SURFACE THAT APPLICATOR WALKED ON DURING APPLICATION DESCRIPTION OF GROWING MEDIUM TILTH (smooth, firm, packed, cloddy, etc.) ESTIMATE OF GROWING MEDIUM SURFACE MOISTURE (wet, moist, dry, etc.) $^{\mathrm{o}}\mathrm{F}$ ^{0}C GROWING MEDIUM TEMPERATURE (Check F or C) DEPTH OF MEASUREMENT OF GR. MED. TEMPERATURE (Check INCHES or cm) INCHES cm_ *IF CROP VIGOR IS POOR OR VARIABLE, EXPLAIN:

BRIEFLY DESCRIBE PROCEDURE USED TO CLEAN APPLICATION EQUIPMENT AND IDENTIFY WHO CLEANED IT:

CLEANING DESCRIPTION ENTERED BY: ______ DATE: _____

NAME(S) OF PERSON(S) WHO CLEANED EQUIPMENT:

____ DATE: ____

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PART 6. APPLICATION RECORDS-GREENHOUSE TRIALS

I. PASS TIMES FOR APF RECORD PASS TIME AN application equipment thro	D PASS DIRECTI	ON - Complete the ta		e required to m	ake each pass of the
	TREAT	MENT	TREATMENT		
PASS NUMBER	TIME	DIRECTION	PASS NUMBER	TIME	DIRECTION
1			1		
2			2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		
9			9		
10			10		
11			11		
12			12		
TOTAL PASS TIME					
ABOVE DATA ENTERE. PROVIDE A BRIEF NARI (E.g. "Test substance was a side. Each pass was applie	RATIVE SUMMAR	ed plot in two passes;	one pass down each side	e of the row, sto	ORMED IT: arting with the east
WERE THERE ANY PRO If YES, then contact the Stu APPLICATION WAS MA	dy Director as soor DE BY:	n as possible.		O	
NARRATIVE ENTERED	BY			<i>DATE</i>	:

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PART 6. APPLICATION RECORDS-GREENHOUSE TRIALS
J. POST APPLICATION RATE CONFIRMATION FOR APPLICATION NUMBER
APPLICATION DATE
CALCULATION OF ACTUAL APPLICATION RATE AND SPRAY VOLUME - Show all calculations and label all units. If a target rate was used for the pre-application calculations, the data from the calibration (average of 3 outputs) must be used for calculating the application rate. Convert this amount to the amount applied per acre (or hectare), and determine deviation from target application in the protocol, rounded to the nearest whole percent.
EXAMPLE FORMULAS: The formulas below may be used to calculate the amount of test substance (TS) applied per acre as required in Part 6I. Other formulas may be used instead; however, it is not sufficient to merely compare the actual pass times to the "practice" pass times. 1) Total Pass Time x Discharge Rate = Volume of Tank Mix applied to Plot 2) Volume of Tank Mix applied to Plot x Amount of TS in Tank Mix Amount of TS applied to Plot Total Volume of Tank Mix 3) Amount of TS applied to Plot x 43,560 sq ft per acre Plot area treated in sq ft 4) Volume of Tank Mix applied to Plot x 1 gallon x 43,560 sq ft per acre Plot area treated in sq ft WDEVIATION FROM THE PROTOCOL RATE SHOULD BE ROUNDED LIKE THIS: -5% OR THIS: +10% ***********************************
Note: Use bed width for plots with multi-row beds.

(Check one) YES NO IF NO, <u>C</u>	contact the Study Director immediately
AS ACTUAL APPLICATION RATE WITHIN -5% TO +10% OF PI (Check one) YES NO IF NO, C AS ACTUAL SPRAY VOLUME WITHIN THE PROTOCOL RANG (Check one) YES NO NA IF NO, C	Sontact the Study Director immediately GE?
(Check one) YES NO IF NO, <u>C</u> S ACTUAL SPRAY VOLUME WITHIN THE PROTOCOL RANG	Contact the Study Director immediately GE? Contact the Study Director immediately

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K. POST TREATMENT RECORDS FOR APPLICATION NUM		
APPLICATION DATE		
Was There Any Visible Phytotoxicity? (Check one) YES N	NO	
If YES, fill in the box below* (or 6P if required by the protocol) and Provide a detailed description and if possible email pictures.	d contact the Study Director.	
Is a phytotoxicity rating required in the protocol? (Check one)	YES NO	
If YES, fill in the box below* (or 6P if required by the protocol).		
Date Crop Was Observed:	_ Initials/date:	
*Alternatively, a separate sheet with a description of the phytotoxic	ity may be inserted at the bac	k of Part 6.
DESCRIPTION OF PHYTOTOXICITY SYMPTOMS:		
PHYTOTOXIC	ITY DESCRIBED BY:	(Initials/date)
DATE STUDY DIRECTOR WAS CONTACTED:	CONTACTED BY:	(Initials/date)
substance, or if the test substance is applied by irrigation, then "NONE BEFORE HARVEST" or "NONE BEFORE SAMPLING.	NG" may be entered, if appl	licable.
TYPE OF IRRIGATION (e.g. overhead, trickle, flood)	1	
DATE OF FIRST IRRIGATION AFT	TER THIS APPLICATION	
TIME AFTER APPLICATION THAT PLOTS WERE EXPOSED (Check DAYS or HOURS) (Enter #hours if first irrigation was on the content of t	i	DAYS HOURS
(C	AMOUNT OF WATER Theck INCHES, mm, or mL)	INCHES mm mL
		11112
IRRIGATION INFORMATION RECORDED BY(Initials/date)	<u> </u>	<u></u>
IRRIGATION INFORMATION RECORDED BY(Initials/date) If the data entered above differ from the irrigation data included in	Part 9, explain:	
<u> </u>		
<u> </u>	Initials/date:	

FIELD ID NO:	
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PART (6. A	PPLICATION RECORDS
L. DIFF	ERI	ENTIATION OF MULTIPLE TRIALS CONDUCTED IN CLOSE PROXIMITY*
Are yo	ou co	onducting more than one trial in this study? YES NO
		field research director in this study conducting ain 30 kilometers (18.6 miles) of your trial(s)? YES NO
If "YE studies	ES" i s in	checked twice, then no other input is needed except for signing and dating at the bottom of each page is checked at least once, then an independently prepared tank-mix must be used in each trial, except in which this is not applicable such as studies with granular formulations.
		o differentiate these trials, select one option from the list below.
		re trials in this study cannot be differentiated by the same options, then you should check all options been used, and explain below which options are differentiating between which trials.
why th	nese Vari	t crop varieties are being used as a differentiation option, then enter below information that explains varieties were chosen. Examples: Variety A produces large fruit, whereas Variety B produces small ety A produces fruit with a smooth skin, whereas Variety B produces fruit with a rough skin. Variety by foliage that shields the commodity, whereas Variety B has light foliage that exposes the commodity
If options below.		are used that are listed in the protocol but are not listed in the table below, then enter descriptions
person	n or	nducted in different calendar years are exempt from these requirements. (If separate trials by the same within 30 km are conducted in late fall/early winter, then the differentiation options should be used to epossibility of data rejection by a regulatory agency.)
Check	the	options used to differentiate the trials that you are conducting in this study:
Option		Description
Α		Trial sites must be separated by at least 30 km (18.6 miles) [measured as straight line distance]
В		Planting date (for annual crops) or first application date in each trial is separated by at least 30 days
С		Different crop variety (different size or shape at maturity, rough vs. smooth surface, different amount of foliage shielding the commodity, different rate of growth)—confirm with Study Director if this option will be chosen
		of other trials in this study to which these options are being applied: w any additional information that will improve the understanding of the options that have been chosen

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ABOVE DATA ENTERED BY: _______DATE: _____

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M. APPLICATION EQUIPMENT MAINTENANCE AND REPAIR LOG

INSTRUCTIONS: Complete this form or attach true copies of maintenance logs. Provide dates and a brief description of maintenance and repair work completed on the application equipment relevant to this trial. Date and initial all entries.

APPLICATION EQU	IPMENT I	DENTIFIE	ER			
EQUIPMENT USED	FOR APP I	LICATIO	N NUMI	BERS		
INITIALS/DATE						
	(Check o	routine?				
Initials and Date	Yes	No ¹	SOP#	Description		
¹ If non-routine,	include in	the descrip	otion the	nature of the defect, when	discovered, and the action taken.	
			PART	6 PAGE	Trial Year 2024	
COMPLETE IF APPRO				E COPY OF THE ORIGINA		