

FIELD ID NO: Ennes

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

A. EQUIPMENT

INSTRUCTIONS: Complete a separate form for each piece of test substance application equipment used in the trial.

EQUIPMENT USED FOR APPLICATION NUMBER(S) 1, 2 - OK 9-16-16

EQUIPMENT IDENTIFIER¹ Drip irrigation system with mazzei injector
¹Each test substance application equipment must have a unique identifying name or code unit #1

APPLICATION EQUIPMENT TYPE (Check one) TRACTOR BACKPACK GRANULAR
OTHER (Describe) drip irrigation system with mazzei injector

PROPELLANT (Check one) CO₂ COMPRESSED AIR PUMP
OTHER (Describe) water under pressure

TYPE OF APPLICATION (Check all that apply)
1) FOLIAR TO THE GROUND
2) BROADCAST BANDED DIRECTED IN-FURROW
3) OTHER (Describe) drip irrigation through emitters

NUMBER OF PASSES THAT ARE NEEDED TO TREAT THE PLOT Applied through 8 drip irrigation lines

NUMBER OF NOZZLES OR HOPPER OUTLETS USED		<u>880 drip emitters</u>	
MESH SIZE USED IN THE STRAINERS	<u>Does not apply</u>	SPACING BETWEEN NOZZLES OR HOPPER OUTLETS	<u>12 in. between emitters</u>
NOZZLE BRAND/TYPE/SIZE (e.g. T-JET 8004, even flat fan):		<u>Eurodrip USA drip line 18mm 0.5GPH</u>	

TREATED AREA² 20 ft x 110 ft = 2200 ft²

²Calculated width of nozzle discharge pattern (CWNDP) at proper boom height X length of plot sprayed or treated. For a broadcast application, CWNDP = (# of nozzles X nozzle spacing). For a banded application, CWNDP = # of nozzles X swath per nozzle. If application is foliar or soil directed enter row width X # of rows X length of plot sprayed or treated; treated row width may differ from actual row width when the actual row width is wider or narrower than local commercial practices. In this circumstance, the application rate should be calculated using a local commercial row width, and an explanation should be included on this page or inserted behind this page. Contact the Study Director if guidance is needed.

DOES TREATED AREA (for application rate calculations) = PLOT AREA (from Parts 5C and 5F)? YES NO

(For foliar directed and soil directed applications, check "YES" above unless local commercial row widths are used instead of the actual row width on the research plot. This prompt is intended to help data reviewers calculate the application rates correctly.)

IF NO, PLEASE EXPLAIN: The actual plot area is 20 ft x 105 ft = 2100 ft². Treated an area larger than plot so that the 1st and last emitters could be caught. The drip line in plot area is under plastic
ABOVE DATA ENTERED BY: David Ennes DATE: 9-9-16

Total number of pages in this section at initial pagination: 69

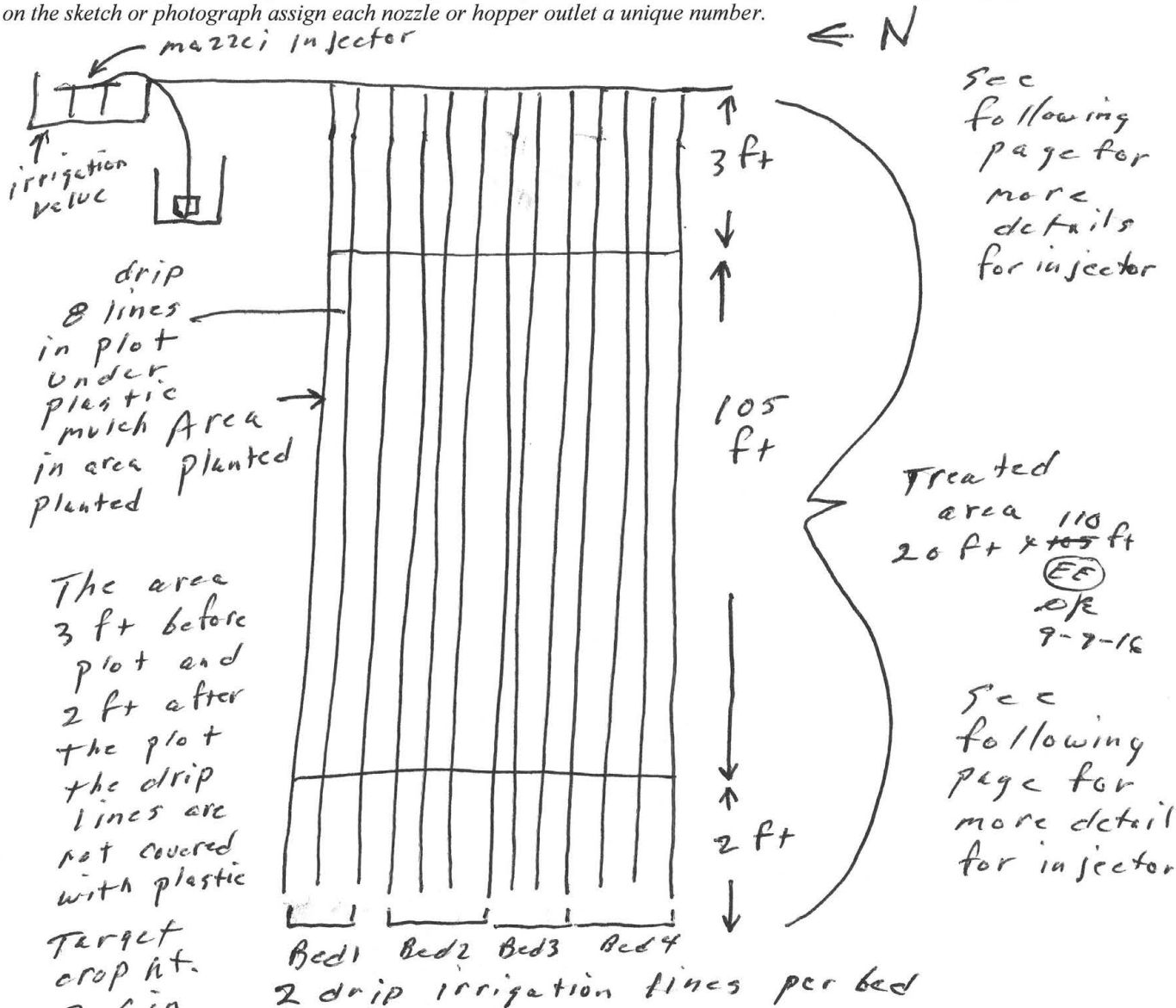
IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

B. DIAGRAM OF APPLICATION EQUIPMENT

EQUIPMENT USED FOR APPLICATION NUMBER(S) 1, 2 OR 9-16-16

INSTRUCTIONS: Complete a separate form for each piece of test substance application equipment used in the trial. Sketch a diagram and/or provide clear photograph of application equipment. Include the relative location and size of the target crop and the nozzle/hopper outlet placement and application pattern in relation to crop, in the sketch or photograph. In addition, on the sketch or photograph assign each nozzle or hopper outlet a unique number.



ABOVE DATA ENTERED BY: Daniel Ennes DATE: 9-9-16
OR 9-16-16

Test material
in plastic
bucket

Mazzei crew
here in bucket

Mazzei flow rate valve
Setting 1-5 At
① application setting 2

Valves to activate
the Mazzei injector

① For APP2
Setting #1
9-16-16 Irrigation
Valve

Back flow
prevention
check valve

Valve to
act. this
pressure in
irrigation line



we open berry
valve
to 10 x
this valve off
shut

pressure
gauge
for irrigation
line set
at 10 PSI

David Ennes
9-9-16

Part
Page: 306

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IR-4 FIELD DATA BOOK

Drip irrigation emitters

PART 6. APPLICATION RECORDS

C.1. DISCHARGE CALIBRATION FOR APPLICATION NUMBER 1

INSTRUCTIONS: Complete a copy of this form (PHOTOCOPY IF NECESSARY) for additional times when a complete calibration or calibration-recheck of application equipment is required.

EQUIPMENT IDENTIFIER Drip irrigation system with muzzi injector unit #1

DISCHARGE CALIBRATION DATE 9-9-16 PERFORMED BY DJEcdks (INITIALS)

APPROXIMATE TIME OF DAY THAT THE CALIBRATION WAS PERFORMED 9:20 Am

LOCATION WHERE THE CALIBRATION WAS PERFORMED Drip lines in TRT 02 test plot at UCR ARE

DISCHARGE UNITS MEASURED (e.g. ml, oz., grams) ml

INSTRUMENT USED TO MEASURE WATER (e.g. 100 ml graduated cylinder) 50 ml graduated cylinder - 1 ml increments

BRIEFLY DESCRIBE PROCEDURE USED TO CHECK DISCHARGE CALIBRATION Drip irrigation emitter 1 and 110 were caught three times into plastic trays on each line (2). The volume in trays was measured in a graduated cylinder. The time that each emitter was caught for was measured with a stop watch.

DJE 9-9-16

The table for entering output results is now on 6.C.2 (next page).

CALIBRATION CALCULATIONS:

ABOVE DATA ENTERED BY: David Ennes DATE: 9-9-16

FIELD ID NO: Ennes

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

C.2. DISCHARGE CALIBRATION FOR APPLICATION NUMBER 1

INSTRUCTIONS: Complete a copy of this form (PHOTOCOPY IF NECESSARY) for additional times when a complete calibration or calibration-recheck of application equipment is required.

DISCHARGE CALIBRATION Record time applicator is allowed to discharge. Collect output from each nozzle or hopper. Record this value in "RUN" Column 1 next to the appropriate outlet. Calculate the total and average discharge for all the nozzles/hoppers. Entry prompts have been provided for 3 discharge calibration runs. Calculate sums and averages of each nozzle/hopper outlet AND whether the results are within 5% (if applicable). Enter all calculations on 6.C.1.

Output Run Number	1	2	3	Total (Required)	Average (Optional)	
Pressure (psi)						
Time (seconds)						
Nozzle/Hopper Outlet Number Along Boom (These numbers should match those shown in the equipment diagram in 6.B)	1					
	2					
	3	Refer to the following page 0/2 9-9-16				
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
Total						
Output per Nozzle or Outlet						
Output per Second						

Was this a recheck of discharge calibration or a target output? (Check one) YES NO

If yes, were results within 5% of original calibration or target output? (Check one) YES NO

If this is a 3-discharge calibration run, is each "output per second" (bottom row in Columns 1, 2, and 3) within 5% of the mean? (Check one) YES NO

An output consisting of an average of three runs or a target output may be used when calculating the sprayer output and amount of test substance to use. If this is a recheck (one run) then the results of the original calibration must be used. If the output result of the recheck is more than 5% different than the original calibration result, then two more runs are needed to produce a new, full calibration. The original calibration data, or a true copy, must be in this field data book.

ABOVE DATA ENTERED BY: Daniel Ennes DATE: 9-9-16

① EE OK
9-9-16

Drip Irrigation Emitter Output

Irrigation Line	1	Catch Time (sec)	2	Catch Time (sec)	3	Catch Time (sec)	4	Catch Time (sec)
First Emitter								
Run 1 ml	31	60.19	31	60.02	32	60.07	31	60.11
Run 2 ml	32	60.22	32	60.19	31	60.12	30	60.06
Run 3 ml	32	60.16	31	60.10	32	60.15	30	60.04
Last Emitter		60.19						
Run 1 ml	33	60.19	32	60.02	31	60.07	32	60.11
Run 2 ml	32	60.22	33	60.19	31	60.12	31	60.06
Run 3 ml	32	60.16	31	60.10	32	60.15	31	60.04
Total	192	361.14	190	360.62	189	360.68	185	360.42
Irrigation Line	5	Catch Time (sec)	6	Catch Time (sec)	7	Catch Time (sec)	8	Catch Time (sec)
First Emitter								
Run 1 ml	32	60.08	31	60.10	31	60.08	32	60.16
Run 2 ml	32	60.10	31	60.12	32	60.13	31	60.04
Run 3 ml	33	60.16	30	60.03	31	60.07	31	60.06
Last Emitter								
Run 1 ml	31	60.08	33	60.10	32	60.08	33	60.16
Run 2 ml	32	60.10	33	60.12	32	60.13	31	60.04
Run 3 ml	32	60.16	32	60.03	31	60.07	32	60.06
Total	192	360.68	190	360.50	189	360.56	190	360.52
Total ml Line 1-8	1517							
Total sec Line 1-8	2885.12							

$1517 \text{ ml} \div 48 \text{ catches} = 31.60 \text{ ml/emitter}$
average

$2885.12 \text{ sec} \div 48 \text{ catches} = 60.11 \text{ sec}$
average catch time

The system was set at 10 PSI

Part: 6
Page: 6

Signature

David Ennes

Date

9-9-16

FIELD ID NO: Ennes

IR-4 FIELD DATA BOOK

Mazzei injector

PART 6. APPLICATION RECORDS

C.1. DISCHARGE CALIBRATION FOR APPLICATION NUMBER 1

INSTRUCTIONS: Complete a copy of this form (PHOTOCOPY IF NECESSARY) for additional times when a complete calibration or calibration-recheck of application equipment is required.

EQUIPMENT IDENTIFIER Drip irrigation system with Mazzei injector unit #1

DISCHARGE CALIBRATION DATE 9-9-16 PERFORMED BY DJE (INITIALS)

APPROXIMATE TIME OF DAY THAT THE CALIBRATION WAS PERFORMED 10:30 AM

LOCATION WHERE THE CALIBRATION WAS PERFORMED Irrigation Leve north of plot at UCR ARE

DISCHARGE UNITS MEASURED (e.g. ml, oz., grams) ml

INSTRUMENT USED TO MEASURE WATER (e.g. 100 ml graduated cylinder) 4000 ml graduated cylinder - 50 ml increments

BRIEFLY DESCRIBE PROCEDURE USED TO CHECK DISCHARGE CALIBRATION The mazzei injector was set up and operational. Then filled a 4000 ml graduated cylinder to the 4000 ml mark and timed how long required to draw water down to the 3000 ml mark with a stop watch. Filled the cylinder back to the 4000 ml mark and repeated the same steps. This was done a total of 3 times.

The table for entering output results is now on 6.C.2 (next page).

CALIBRATION CALCULATIONS: Mazzei setting #2

$$\frac{1000 \text{ ml}}{86.12 \text{ sec}} \therefore \frac{x \text{ ml}}{1866 \text{ sec}} = 21667.4 \text{ ml} \div$$

time to deliver

$\frac{1}{3}$ of irrigation water

2 mixes =

10833.7 ml per mix

ABOVE DATA ENTERED BY: David Ennes DATE: 9-9-16

FIELD ID NO: Ennes

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

C.2. DISCHARGE CALIBRATION FOR APPLICATION NUMBER 1

INSTRUCTIONS: Complete a copy of this form (PHOTOCOPY IF NECESSARY) for additional times when a complete calibration or calibration-recheck of application equipment is required.

DISCHARGE CALIBRATION Record time applicator is allowed to discharge. Collect output from each nozzle or hopper. Record this value in "RUN" Column 1 next to the appropriate outlet. Calculate the total and average discharge for all the nozzles/hoppers. Entry prompts have been provided for 3 discharge calibration runs. Calculate sums and averages of each nozzle/hopper outlet AND whether the results are within 5% (if applicable). Enter all calculations on 6.C.1.

Output Run Number	1	2	3	Total	Average	
Pressure (psi)	10	10	10	(Required)	(Optional)	
Time (seconds)	85.34	85.56	87.47	258.37	86.12	
Nozzle/Hopper Outlet Number Along Boom (These numbers should match those shown in the equipment diagram in 6.B)	1	1000	1000	1000	3000	1000
	2					
	3					
	4					
	5					
	6				OK 9-9-16	
	7					
	8					
	9					
	10					
	11					
	12					
Total	1000	1000	1000	3000	1000	
Output per Nozzle or Outlet	1000	1000	1000	OK 3000	1000	
Output per Second	11.72	11.69	11.43	34.84	11.61	

Was this a recheck of discharge calibration or a target output? (AW) (Check one) YES NO
 If yes, were results within 5% of original calibration or target output? (Check one) YES NO OK 9-9-16
 If this is a 3-discharge calibration run, is each "output per second" (bottom row in Columns 1, 2, and 3) within 5% of the mean? (Check one) YES NO

An output consisting of an average of three runs or a target output may be used when calculating the sprayer output and amount of test substance to use. If this is a recheck (one run) then the results of the original calibration must be used. If the output result of the recheck is more than 5% different than the original calibration result, then two more runs are needed to produce a new, full calibration. The original calibration data, or a true copy, must be in this field data book.

ABOVE DATA ENTERED BY: David Ennes DATE: 9-9-16

FIELD ID NO: Ennes

IR-4 FIELD DATA BOOK

MEMO to the FILE

Treated area 20 ft x 110 ft = 2200 ft²31.60 ml / 60.11 sec Average output and time
per emitter

31.60 ml x 880 emitters in treated area =

27808 ml ÷ 3785 ml/GAL = 7.35 GAL

$$\frac{7.35 \text{ GAL}}{2200 \text{ ft}^2} \times \frac{43560 \text{ ft}^2/\text{A}}{1 \text{ GAL}} = 145.53 \text{ GAL/A}$$

60.11 sec Ave. catch time = 1.00 min

60 sec / min

$$\frac{1 \text{ min}}{145.53 \text{ GAL}} \times \frac{13577 \text{ GAL}}{1 \text{ min}} = 93.79 \text{ min}$$

$$\frac{145.53 \text{ GAL}}{13577 \text{ GAL}} \times 1 \text{ min} = 0.0107 \text{ min}$$

(0.5 acre in)

$$93.79 \text{ min} \div \frac{1}{3} \text{ of irrigation water} = 31.10 \text{ min}$$

31.10 min x 60 sec/min = 1866 sec

D/E 10-19-16

PART 6 PAGE 9

ABOVE DATA ENTERED BY:

David EnnesDATE: 9-9-16

Trial Year 2016

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"

THE ORIGINAL IS IN IR-4 FIELD DATA BOOK NO. _____

INITIALS _____

DATE _____

FIELD ID NO: _ Ennes

IR-4 FIELD DATA BOOK

MEMO to the FILE

$27154 \text{ GAL/Acre in} \div 2 = 13577 \text{ GAL/0.5 acre in}$

Irrigation started at 11:41 AM

Irrigation stopped at 1:15 PM

output of the irrigation system

$7.35 \text{ GAL/min on } 2200 \text{ ft}^2$

Irrigation system ran for 1 hr 34 min =

94 minutes

$$\frac{7.35 \text{ GAL}}{1 \text{ min}} \times \frac{94 \text{ minutes}}{1} = 690.9 \text{ GAL per } 2200 \text{ ft}^2$$

$$\frac{690.9 \text{ GAL}}{2200 \text{ ft}^2} \times \frac{43560 \text{ ft}^2}{1} = 13679.82 \text{ GAL per acre}$$

$$\frac{13679.82 \text{ GAL/Acre}}{27154 \text{ GAL/Acre in}} = 0.50 \text{ in of water applied to plot}$$

DE 10-19-16

PART 6 PAGE 10

ABOVE DATA ENTERED BY: David Ennes

DATE: 9-9-16

Trial Year 2016

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"

THE ORIGINAL IS IN IR-4 FIELD DATA BOOK NO. _____

INITIALS _____

DATE _____

FIELD ID NO: _ Ennes

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

D. SPEED CALIBRATION FOR APPLICATION NUMBER(S) 1

INSTRUCTIONS: Complete a separate form for additional times when a complete calibration or calibration- recheck of application equipment is required.

EQUIPMENT IDENTIFIER _____

SPEED CALIBRATION DATE _____ PERFORMED BY _____ (INITIALS)

TERRAIN OF CALIBRATION TRACK (e.g. tilled field) _____

LOCATION WHERE THE CALIBRATION WAS PERFORMED _____

BRIEFLY DESCRIBE PROCEDURE USED FOR SPEED CALIBRATION _____

*speed calibration not needed
OR 9-9-16*

*SPEED CALIBRATION: Calculate the speed of the application equipment. If appropriate, note the gear setting and/or RPM setting used in the speed calibration. Indicate the distance (in feet) of the track on which the application equipment was tested to determine speed (e.g. speed of application equipment tested for 100 ft.). The speed is calculated by dividing the length of test track (in feet or meters) by the time needed to cover that length (in seconds). Entry prompts have been provided for 2 additional runs. If this is a recheck, calculate the result is within 5% of the original calibration. Show all calculations. A **speed recheck (one run) is required whenever an output recheck is performed, except for multiple applications within a study that are being made on the same day on the same farm.***

RUN	GEAR	RPM	Length of test track (include units)	TIME (sec)	CALCULATED SPEED (include units)	
1						
2						
3						
Total of test run times (sec)			Average time (sec)		Average speed	

CALCULATIONS:

WAS THIS A RECHECK OF SPEED CALIBRATION? (Check one) YES _____ NO _____
 IF YES, WERE RESULTS WITHIN 5% OF ORIGINAL CALIBRATION? (Check one) YES _____ NO _____
The original calibration data, or a true copy, must be in this field data book.

NOTE: A target speed may be used for application calculations, rather than the mean of three runs, but for each application a full speed calibration must be conducted, and the mean of the three runs must be within 5% of the target speed.

WAS THIS A CHECK OF A TARGET SPEED? (Check one) YES _____ NO _____
 IF YES, WERE RESULTS WITHIN 5% OF TARGET SPEED? (Check one) YES _____ NO _____

ABOVE DATA ENTERED BY: Daniel Ennes DATE: 9-9-16

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"
THE ORIGINAL IS IN IR-4 FIELD DATA BOOK NO. _____ INITIALS _____ DATE _____

FIELD ID NO: Ennes
IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

E. DELIVERY RATE CALIBRATION FOR APPLICATION NUMBER(S) 1

INSTRUCTIONS: Complete a separate form for each application, unless the same parameters are used-- you are using the same equipment, and have performed a recheck to confirm the result of the full calibration. Determine the rate of delivery from the application equipment. Briefly describe the procedure, including formulas used to determine delivery rate calibration. Show all calculations and units. Equations used in electronic (computer software) calculations in this trial must be transcribed or printed out and attached here. Computer-generated values (as opposed to those entered by the field cooperators) must be reviewed and clearly delineated by circling, initialing, and dating.

PROCEDURE/FORMULA:

*Form not needed
OK 9-9-16*

CALCULATIONS:

ABOVE DATA ENTERED BY: David Ennes DATE: 9-9-16

PART 6 PAGE 12

Trial Year 2016

FIELD ID NO: Ennes

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

F. VOLUME, MIXING AND DILUTION CALCULATIONS FOR APPLICATION NUMBER(S) 1

INSTRUCTIONS: Complete a separate form for each application, unless there are no changes in multiple applications. Show all calculations, formulas, and results below, define units of measure, and cite the initials of the person performing the calculations. Equations used in electronic (computer software) calculations in this trial must be transcribed or printed out and attached here. Computer-generated values (as opposed to those entered by the field cooperators) must be reviewed and clearly delineated by circling, initialing, and dating.

$$\text{Treated area } 20 \text{ ft} \times 110 \text{ ft} = 2200 \text{ ft}^2$$

$$\text{Test substance rate } 0.143 \text{ lb ai/A} \quad 0.834 \text{ lb ai/GAL}$$

$$\frac{0.143 \text{ lb ai}}{\text{Acre}} \times \frac{2200 \text{ ft}^2}{43560 \text{ ft}^2/\text{A}} \times \frac{1.0 \text{ GAL}}{0.834 \text{ lb ai}} \times \frac{3785 \text{ ml}}{\text{GAL}} =$$

$$32.8 \text{ ml} \div 2 \text{ mixes} = 16.4 \text{ ml/mix}$$

As bucket mix #1 empty the solution from bucket mix #2 was poured into the first bucket

DESCRIBE HOLDING AND TRANSPORT OF TEST SUBSTANCE AND ADJUVANT (if applicable) FROM STORAGE AREA TO LOCATION OF TANK MIXING (E.g.: "Test substance held securely in an insulated cooler during transport to field site in the bed of a pickup truck" or "Tank mix prepared within walking distance of the chemical storage building")

The test substance was transported ambient in a plastic tray inside a utility box on the back of a pickup truck.

DR 9-9-16

ABOVE DATA ENTERED BY: David Ennes DATE: 9-9-16

PART 6 PAGE 13

Trial Year 2016

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"
THE ORIGINAL IS IN IR-4 FIELD DATA BOOK NO. _____ INITIALS _____ DATE _____

FIELD ID NO: _____

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

G. APPLICATION INFORMATION FOR APPLICATION NUMBER 1 APPLICATION DATE 9-9-16

HAS THE APPLICATION EQUIPMENT BEEN USED SINCE THE LAST (Check one) YES _____ NO
CALIBRATION/RECHECK WAS PERFORMED? (If you are about to check YES, then a recheck is usually required.)

INSTRUCTIONS: Complete a separate form for each application date and for each treatment on one application date (use the Treatment Number as indicated in the protocol). Provide the name of the test substance (common chemical name or chemical code number); the batch or lot number of the test substance; the approximate time the test substance was mixed with the carrier and the approximate time the mixture was applied to the plots, along with the initials of the person(s) mixing and spraying the tank mix; the time of additional agitation (if any); the unique name or code for the application equipment used to apply this treatment; the placement of the test substance (e.g. broadcast, in-furrow, directed, knifed-in, banded); the amount of carrier, formulated product and other additives in the mix; the measuring equipment with increments; the distance (include units) of the nozzles above the canopy or ground (indicate which); the pressure in pounds per square inch at the boom; if treatment(s) were incorporated, the method and/or equipment used to incorporate the test substance mix (e.g. disked, rotovator, irrigated, etc.), depth to which the test substance was incorporated or the amount of water used to move the test substance into the soil; the time after treatment the incorporation activity was performed; and the carrier (normally water), its source (e.g. farm pond, city water), pH of the carrier and its temperature, and the equipment used to measure the carrier pH.

		TRT Number <u>02</u>
NUMBER OF DAYS SINCE PREVIOUS APPLICATION	<u>NA</u>	TIME OF ADDITIONAL AGITATION/INITIALS (if applicable) e.g. "10:00" or "continuous" or "just prior to application"
TEST SUBSTANCE	<u>A20941A OK TP 100 OD</u>	
BATCH/LOT NUMBER/Container# ¹	<u>916099 Batch code CA08-01</u>	The spray solution was stirred several times during the application <u>OK</u>
TIME MIXED/INITIALS	<u>Mix 1 - 11:25 Am Mix 2 - 11:26 Am</u> <u>OK</u>	
TIME APPLIED/INITIALS	<u>11:41 Am</u> <u>OK</u>	
EQUIPMENT IDENTIFIER	<u>Drip irrigation system with mazzzi injector #1</u>	
PLACEMENT OF TEST SUBSTANCE	<u>Drip irrigation water to soil at base of plants</u>	MEASURING EQUIPMENT with INCREMENTS* <u>See following page</u> <u>OK 9-9-16</u>
TANK MIX AMOUNTS	<u>mix 1 mix 2</u>	
CARRIER (starting volume of water)	<u>10833.7ml for both</u>	
VOLUME of WATER REMOVED from starting volume (if applicable)	<u>16.4ml from each mix</u>	
TEST SUBSTANCE (formulated product)	<u>16.4ml / mix</u>	
ADJUVANT OR SURFACTANT	<u>None</u>	
TOTAL VOLUME OF TANK MIX	<u>10833.7 ml / mix</u>	
NOZZLE DISTANCE from TARGET	<u>8 lines of drip emitters in plot at soil surface</u>	
PSI AT BOOM	<u>10 PSI at Irrigation Valve</u>	
INCORPORATION - Methodology and/or Equipment - DEPTH - TIME	<u>Drip irrigation system depth not known 11:41 Am - 1:15 pm</u>	
CARRIER SOURCE/TYPE	<u>UCKARE well water</u>	ORDER IN WHICH ITEMS WERE ADDED TO SPRAY MIXTURE* W=Water, TS=Test Substance, A=Adjuvant *e.g. 1-W, 2-TS, 3-A, 4-W <u>1-W</u> <u>2-TS</u>
CARRIER pH/TEMPERATURE	<u>7.0</u> <u>86°F</u>	
EQUIPMENT used to MEASURE pH	<u>pH strip</u>	

¹ If more than one test substance container was received for this trial. If not, only batch or lot number is needed.

ABOVE DATA ENTERED BY: David Ennes DATE: 9-9-16

**Description of Equipment Used
to Measure Test Substances, Adjuvant and Carrier Water**

Oxathiapiprolin/Strawberry

FIELD ID No. ID No. 11719.17.CA3 Application No. 1
Ennes

The following equipment was used in this study:

To remove volume of water: 25 ml pipette

Scale for solid Test Substance:

- ~~_____ Mettler Toledo Scale, Model PL 303 (0.001gr increments)~~
 - ~~_____ Ohaus Portable Advanced Scale, Serial No. 16625 (0.01 gr increments)~~
- OK 9-9-16*

Pipettes:*

Test Sub. (Liquid)	Adjuvant
_____ 5 ml	_____ 5 ml
_____ 10 ml	_____ 10 ml
<input checked="" type="checkbox"/> 25 ml	_____ 25 ml

OK 9-9-16

Cylinders:**

Test Substance	Adjuvant	Carrier Water
_____ 50 ml	_____ 50 ml	_____ 50 ml
_____ 100 ml	_____ 100 ml	_____ 100 ml
_____ 250 ml	_____ 250 ml	_____ 250 ml
_____ 500 ml	_____ 500 ml	_____ 500 ml
_____ 1000 ml	_____ 1000 ml	<input checked="" type="checkbox"/> 1000 ml
_____ 4000 ml	_____ 4000 ml	<input checked="" type="checkbox"/> 4000 ml
		_____ Scienco Flow meter

Also 10 ml pipette

*The pipettes used to measure test substances or adjuvants are 5 ml, 10 ml and 25 ml (TD) plastic pipettes. The 5 ml and 10 ml pipettes measure in 0.1 ml increments and the 25 ml pipette measures in 0.2 ml increments.

**The graduated cylinders used to measure test substance, adjuvant or carrier water are 50,100, 250, 500, 1000 and 4000 mls. The 50 and 100 ml cylinders measure in increments of 1 ml, 250 ml cylinder in 2 ml increments, 500 ml cylinder in 5 ml increments, 1000 ml cylinder in 10 ml increments and the 4000 ml cylinder in 50 ml increments. Carrier water for airblast sprays is measured with a Scienco flow meter which measures water out to hundredths (i.e. 1.00)

Signature: David Ennes Date: 9-9-16

FIELD ID NO: Ennes
IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

I. PASS TIMES FOR APPLICATION NUMBER 1

APPLICATION DATE 9-9-16 (COMPLETE A SEPARATE FORM FOR EACH APPLICATION DATE)

RECORD PASS TIME AND PASS DIRECTION - Complete the table by providing the time required to make each pass of the application equipment through the plot and direction of that pass (e.g. NE).

TREATMENT <u>02</u>			TREATMENT <u> </u>				
PASS NUMBER	TIME	DIRECTION	PASS NUMBER	TIME	DIRECTION		
1	35 min 37 sec	E-W	1	\			
2	/		2		OK		
3			3		9-9-16		
4			4				
5			5				
6			OK		6		
7			9-9-16		7		
8					8		
9					9		
10					10		
11					11		
12					12		
TOTAL PASS TIME		35 min 37 sec					

ABOVE DATA ENTERED BY: David Ennes DATE: 9-9-16

PROVIDE A BRIEF NARRATIVE SUMMARY OF THE APPLICATION

(E.g. "Test substance was applied to the treated test plot in two passes; one pass down each side of the row. Each pass was applied to the soil, in a 3 ft. band out from the tree, with the spray boom 24 inches above the soil.")

The test substance was applied to the treated test plot with a 8 line drip irrigation system and a mezzci injector. There are 110 emitters spaced 12 inches apart per line. The test substance was injected into the irrigation system in the first 1/3 of the irrigation set. As the test substance was being injected the solution was stirred several times with a plastic pipette. After the application the irrigation system was run until the remaining 2/3 of the irrigation set was completed. Applied 0.50 inches of water to the treated plot

NARRATIVE ENTERED BY David Ennes DATE: 9-9-16

FIELD ID NO: _____ Ennes

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

J. POST APPLICATION RATE CONFIRMATION FOR APPLICATION NUMBER 1

APPLICATION DATE 9-9-16 (COMPLETE A SEPARATE FORM FOR EACH APPLICATION DATE)

CALCULATION OF ACTUAL APPLICATION RATE - Using information such as total pass time, plot size, tank mix amounts, and discharge rate (average of 3 outputs) determine the actual amount of formulated test substance applied to treated plots. Even 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. (If the protocol does not include a rate of formulated product, then the amount of active ingredient should be determined.) 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. Show all calculations and label all units. It is not sufficient to merely compare the actual pass times to the "practice" pass times. The example formulas listed at the bottom of 6J may be used to calculate the application rate. Calculations may be entered on a separate page placed after this one, if there is not enough space below.

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/Nozzle x #Nozzles = Volume of Tank Mix applied to Plot
- 2) Volume of Tank Mix applied to Plot x $\frac{\text{Amount of TS in Tank Mix}}{\text{Total Volume of Tank Mix}}$ = Amount of TS applied to Plot
- 3) Amount of TS applied to Plot x $\frac{43,560 \text{ sq ft per acre}}{\text{Plot area treated in sq ft}}$ = Amount of TS applied per acre

%DEVIATION FROM THE PROTOCOL RATE SHOULD BE ROUNDED LIKE THIS: -5% OR THIS: +8%,
NOT LIKE THIS: -5.4% OR THIS: +8.29% OR THIS: +3.141592653589793238462643383279502884197169399%

DISCHARGE RATE (ml/sec or g/sec): 31.60 ml/60.11 sec
drip emitter

ACTUAL AREA TREATED (swath width or treated row or bed width x # of passes x length of plot): 20ft x 110ft = 2200ft²

Note: Use bed width for plots with multi-row beds.

Applied 32.8 ml of test substance ~~foliation~~
onto 2200 ft² (EF) O/E
9-9-16

$$\frac{32.8 \text{ ml} \times 43560 \text{ ft}^2/\text{A}}{2200 \text{ ft}^2 \text{ treated area}} = 649.44 \text{ ml/Acre}$$

$$\frac{649.44 \text{ ml/A (Actual rate)}}{649 \text{ ml/A (Protocol rate)}} \times 100 = 100.07\% \text{ of target rate}$$

0% deviation from target

WAS ACTUAL APPLICATION RATE WITHIN -5% TO +10% OF PROTOCOL RATE?

(Check one) YES NO

IF NO, Contact the Study Director immediately.

ABOVE DATA ENTERED BY: David Ennes DATE: 9-9-16

FIELD ID NO: Ennes

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

K. POST TREATMENT RECORDS FOR APPLICATION NUMBER 1

APPLICATION DATE 9-9-16 (Complete a separate form for each application date)

Was There Any Visible Phytotoxicity Damage? (Check one) YES ___ NO

Date Crop Was Observed: 9-16-16 Initials/date: DK 9-16-16

If YES, then contact the Study Director, fill in the box below, and if a digital camera is available, email digital photograph(s) to the Study Director along with a detailed explanation of the damage. If NO, then line out the entire box with initials and date.

DESCRIPTION OF PHYTOXICITY SYMPTOMS:	
<u>DK 9-16-16</u>	
PHYTOTOXICITY DESCRIBED BY: _____ (Initials/date)	
DATE STUDY DIRECTOR WAS CONTACTED: _____	CONTACTED BY: _____ (Initials/date)

Enter the requested information below for **both** the first rainfall and first irrigation after each application, regardless of whether subsequent applications were made prior to the first rainfall or irrigation. The rainfall/irrigation data entered below should be transcribed from the data included in Part 9 unless otherwise indicated on this page. **If irrigation is required by the protocol to incorporate the test substance, or if the test substance is applied by irrigation, then that event should be recorded below.** "NONE BEFORE HARVEST" OR "NONE BEFORE SAMPLING" MAY BE ENTERED, IF APPLICABLE.

DATE OF FIRST RAIN (Note the date of first rainfall after this application.)		
TIME AFTER APPLICATION THAT PLOTS WERE EXPOSED TO FIRST RAINFALL (Check DAYS or HOURS) (Enter #hours if first rainfall was on the date of application.)		DAYS ___ HOURS ___
AMOUNT OF WATER (Check INCHES or mm)	<u>None before Sampling</u>	INCHES ___ mm <u>DK 11-2-16</u>
RAIN INFORMATION RECORDED BY (Initials/date)		
TYPE OF IRRIGATION (e.g. overhead, trickle, flood)	<u>Drip</u>	
DATE OF FIRST IRRIGATION (Note the date of first irrigation after this application.)	<u>9-13-16</u>	
TIME AFTER APPLICATION THAT PLOTS WERE EXPOSED TO FIRST IRRIGATION (Check DAYS or HOURS) (Enter #hours if first irrigation was on the date of application.)	<u>4</u>	DAYS <input checked="" type="checkbox"/> HOURS ___
AMOUNT OF WATER (Check INCHES, mm, or mL)	<u>~0.44</u>	INCHES <input checked="" type="checkbox"/> mm ___ mL ___
IRRIGATION INFORMATION RECORDED BY (Initials/date)	<u>DK 9-13-16</u>	

If the data entered above differ from the rainfall/irrigation data included in Part 9, explain: _____

DK 10-19-16
Initials/date: _____