

FIELD ID NO: _____
IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

E. DELIVERY RATE CALIBRATION FOR APPLICATION NUMBER(S) 2

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:

$$\text{Average discharge (mls/sec)} \times \text{Average pass time (sec/pass)} \times \text{No. passes} = \text{mls/plot}$$

$$\text{mls/plot} \div 3785.41 \text{ mls/gal} \times 43560 \text{ ft}^2/\text{ac} \div \text{treated area ft}^2/\text{plot} = \text{gal/ac}$$

CALCULATIONS:

$$\underline{40.19} \text{ mls/sec} \times \underline{12.27} \text{ sec/pass} \times \underline{1} \text{ passes} = \underline{493.13} \text{ mls/plot}$$

$$\underline{493.13} \text{ mls/plot} \div 3785.41 \text{ mls/gal} \times 43560 \text{ ft}^2/\text{ac} \div \underline{190} \text{ treated area ft}^2/\text{plot} = \underline{29.87} \text{ gal/ac}$$

PROTOCOL SPECIFIED SPRAY VOLUME (from Part 15, in gallons per acre or liters per hectare): 20-60 GPA
Enter "NA" if a spray volume is not applicable.

ABOVE DATA ENTERED BY: _____ DATE: 6/4/20

FIELD ID NO: Lightle

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

F. VOLUME, MIXING AND DILUTION CALCULATIONS FOR APPLICATION NUMBER(S) 2

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.

Treated area: 6.33 ft swath width x 30 ft length x 1 passes = 190 ft²

Required spray volume: Target gal/ac x ft²/plot x 3785.41 ml/gal ÷ 43560 ft²/ac = mls/plot

30 gal/ac x 190 ft²/plot x 3785.41 ml/gal ÷ 43560 ft²/ac = 495.34 mls/plot req'd

Overage 65 % = 495.34 mls/plot x 1.65 = 817.30 mls/mix req'd

TS calculation: Protocol rate g/ac or ml/ac x treated area ft²/plot ÷ 43560 ft²/ac = g/ac or ml/ac

608 ml/ac or g/ac x 190 ft²/plot ÷ 43560 ft²/ac = 2.65 g or ml/plot TS req'd

Overage 65 % = 2.65 g or ml TS x 1.65 = 4.37 g or ml/mix TS req'd

Adjuvant calculation: pt/gal ÷ 3785.41 ml/gal x 473 ml/pt x total ml/plot = mls/plot

0.25 pt ÷ 100 gal ÷ 3785.41 ml/gal x 473 ml/pt x 495.34 total ml/plot = 0.15 ml/plot adjuvant req'd

Overage 65 % = 0.15 ml adjuvant x 1.65 = 0.25 ml/mix adjuvant req'd

Carrier (water) volume/mix calculation: mls total volume - mls TS - mls adjuvant = mls carrier (water)

817.30 mls total - 4.37 mls TS - 0.25 mls adjuvant = 812.68 mls water/mix

Tank mix amounts: Water 810 mls

Adjuvant 0.25 mls

TS 4.4 g or ml

Total volume 814.65 mls

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")

TS measured / tank mix prepared at IR-4 modular at NWREC
then driven to the field site in bed of pickup truck.

ABOVE DATA ENTERED BY: _____

DATE: 6/4/20