PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS

A. EQUIPMENT

INSTRUCTIONS: Complete a separate form for each piece of planting equipment used for planting seed in the trial.

EQUIPMENT USED FOR PLANTING

EQUIPMENT IDENTIFIER\(^1\)

\(^1\)Each piece of equipment must have a unique identifying name or code

ANY OTHER EQUIPMENT EMPLOYED WITH THE PLANter: (e.g., tractor)

NUMBER OF PASSES THAT ARE NEEDED TO PLANT THE PLOT

NUMBER OF HOPPER OUTLETS USED

SPACING BETWEEN HOPPER OUTLETS

DESCRIPTION OF PLANTER (HOPPER/DRILLS)[Please include a picture in Part 6B]

PLANTED AREA (include units)

ABOVE DATA ENTERED BY: __________________________ DATE: ________________

PART 6 PAGE ___         Trial Year 2019

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

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"
THE ORIGINAL IS IN IR-4 FIELD DATA BOOK NO. _______ INITIALS _______ DATE _______
PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS

B. DIAGRAM OF PLANTING EQUIPMENT

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

ABOVE DATA ENTERED BY: ____________________________________________________ DATE: __________

PART 6 PAGE ___          Trial Year 2019

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"
THE ORIGINAL IS IN IR-4 FIELD DATA BOOK NO. ________________ INITIALS ___________ DATE ___________
PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS

C. SEEDING RATE CALIBRATION FOR PLANTING EQUIPMENT

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

EQUIPMENT IDENTIFIER___________________________________________________________________________

DISCHARGE CALIBRATION DATE__________________________ PERFORMED BY_________________ (INITIALS)

APPROXIMATE TIME OF DAY THAT THE CALIBRATION WAS PERFORMED________________________ _______

LOCATION WHERE THE CALIBRATION WAS PERFORMED__________________________________________ 

DISCHARGE UNITS MEASURED (e.g. kg, lbs, g, oz) _______________________________________________

INSTRUMENT USED TO MEASURE SEED WEIGHT____________________________________________________

BRIEFLY DESCRIBE PROCEDURE USED TO CALIBRATE EQUIPMENT ______________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________

(INSERT ADDITIONAL PAGES IF NECESSARY).

Instructions for recording Discharge Calibrations (6.C.2): Record time that applicator discharges and units measured. Collect output from each hopper outlet. Record this value in “RUN” column next to the appropriate outlet. Calculate the total and average discharge for all the outlets. Entry prompts have been provided for three discharge calibration runs. For each run, calculate the total output of all outlets, the mean output per outlet, the outlet discharge rate, and the total hopper discharge rate in grams per second. Also confirm whether the output of each outlet during a run is within 5% of the mean output. If a recheck or confirmation of a target output is being performed, determine whether the results are within 5% of the full calibration or target. Enter all calculations on 6.C.1, below.

CALIBRATION CALCULATIONS:

ABOVE DATA ENTERED BY: ____________________________________________________ DATE: __________

PART 6 PAGE ___          Trial Year 2019

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"
THE ORIGINAL IS IN IR-4 FIELD DATA BOOK NO. ____________ INITIALS _________ DATE__________
C.2. DISCHARGE CALIBRATION FOR APPLICATION NUMBER ____

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.

<table>
<thead>
<tr>
<th>Output Run Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total (Required)</th>
<th>Average (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure (psi)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units (e.g. oz., grams)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time (seconds)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hopper Outlet Number on Planting Equipment (These numbers should match those shown in the equipment diagram in 6.B)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Total Volume (sum of outlet outputs)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean per outlet (oz. or g)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hopper discharge rate (total hopper volume/time in oz. or g/second)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Was this a recheck of discharge calibration or a 3-run target check? (Check one)  

YES____  NO____

If yes, were results within 5% of original calibration or target output?  

YES____  NO____

If this is a 3-discharge calibration run or a 3-run target check, is each hopper discharge rate (bottom row in columns 1, 2, and 3) within 5% of the mean?  

YES____  NO____  NA____

Are individual outlet outputs within 5% of the mean during each run?  

YES____  NO____  NA____

An output consisting of an average of three runs or a target output may be used when calculating the planter output and amount of seed 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: ____________________________________________________ DATE: __________
**FIELD ID NO:** ______________

**IR-4 FIELD DATA BOOK**

**PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS**

**D. SPEED CALIBRATION FOR PLANTING EQUIPMENT**

*INSTRUCTIONS:* Complete a separate form for additional times when a complete calibration or calibration-recheck of planting 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:** Calculate the speed of the planting 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 planting equipment was tested to determine speed (e.g. speed of planting 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 plantings within a study that are made on the same day on the same farm.

<table>
<thead>
<tr>
<th>RUN</th>
<th>GEAR</th>
<th>RPM</th>
<th>Length of test track (include units)</th>
<th>TIME (sec)</th>
<th>CALCULATED SPEED (include units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Average time (sec)</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Average speed</strong></td>
</tr>
</tbody>
</table>

**CALCULATIONS:**

**WAS THIS A RECHECK OF SPEED CALIBRATION?**

(Check one) YES____ NO_____

**IF YES, WERE RESULTS WITHIN 5% OF ORIGINAL CALIBRATION?**

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 planting calculations, rather than the mean of three runs, but for each planting a full speed calibration must be conducted (except for multiple plantings within a study made on the same day on the same farm), 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?**

YES____ NO____

**ABOVE DATA ENTERED BY:** __________________________ DATE: __________

**PART 6 PAGE ____**

**Trial Year 2019**

---------------------------------------------------------------

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

**THE ORIGINAL IS IN IR-4 FIELD DATA BOOK NO. ____________ INITIALS _______ DATE _________

-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**COMPLETE IF APPROPRIATE:** "THIS IS A TRUE COPY OF THE ORIGINAL"
PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS

E. SEEDING RATE CALIBRATION FOR PLANTING

INSTRUCTIONS: Complete a separate form for each planting, unless the same parameters are used; such as you are using the same equipment, and have performed a recheck to confirm the result of the full calibration. Determine the seeding rate delivery from the planting equipment. Briefly describe the procedure, including formulas used to determine seeding 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:

CALCULATIONS:

ABOVE DATA ENTERED BY: ________________________________ DATE: __________
PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS

F. MIXING CALCULATIONS FOR ANY INOCULANT

INSTRUCTIONS: Complete a separate form for the inoculant calculations. 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.

DESCRIBE HOW THE INOCULANT WAS APPLIED AND IF THERE WERE ANY AFFECTS ON THE TREATED SEED (i.e., loss of colorant)

_____________________________________________________________________________________________________________

_____________________________________________________________________________________________________________

_____________________________________________________________________________________________________________

_____________________________________________________________________________________________________________

DESCRIBE HOLDING AND TRANSPORT OF SEED FROM STORAGE AREA TO LOCATION OF TEST SITE (E.g.: “Seed held securely in an insulated cooler during transport to field site in the bed of a pickup truck” or “Seed mixed with additive within walking distance of the storage building”)

_____________________________________________________________________________________________________________

_____________________________________________________________________________________________________________

_____________________________________________________________________________________________________________

_____________________________________________________________________________________________________________

ABOVE DATA ENTERED BY: ___________________________ DATE: __________

PART 6 PAGE ___          Trial Year 2019

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"
THE ORIGINAL IS IN IR-4 FIELD DATA BOOK NO. _______________ INITIALS ___________ DATE __________
PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS

G. PLANTING INFORMATION

HAS THE PLANTING EQUIPMENT BEEN USED SINCE THE LAST CALIBRATION/RECHECK WAS PERFORMED?
(Check one) YES______  NO_______
(If you are about to check YES, then a recheck is usually required.)

INSTRUCTIONS: Complete information in the space provided below. Provide the name of the test substance on the seed; the batch or lot number of the seed; the approximate time the seed was weighed and the approximate time the seed was planted in the plots, along with starting and ending weight of the seed, the name and weight of the additive used, if any.

<table>
<thead>
<tr>
<th>TEST SUBSTANCE ON SEED</th>
<th>TRT Number______</th>
<th>TRT Number ______</th>
</tr>
</thead>
<tbody>
<tr>
<td>BATCH/LOT NUMBER OF SEED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIME WEIGHED /INITIALS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIME PLANTING BEGAN/INITIALS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIME PLANTING ENDED/INITIALS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EQUIPMENT IDENTIFIER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STARTING WEIGHT OF SEED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Include units: kg, lb, g, or oz)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENDING WEIGHT OF SEED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Include units: kg, lb, g, or oz)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL SEED PLANTED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Include units: kg, lb, g, or oz)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADDITIVE INCLUDED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEIGHT OF ADDITIVE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Include units: kg, lb, g, or oz)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ABOVE DATA ENTERED BY: ____________________________________________________  DATE: __________

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"
THE ORIGINAL IS IN FIELD DATA BOOK NO. _________________  INITIALS ____________ DATE ____________

PART 6 PAGE ____  Trial Year 2019
**PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS**

H. ADDITIONAL INFORMATION FROM **FOR PLANTING OF SEED**

**PLANTING DATE**

**ENVIRONMENTAL DATA AT THE TIME OF PLANTING**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured Air Temperature (Check F or C)</td>
<td>°F___ °C___</td>
</tr>
<tr>
<td>Measured Wind Speed (Check MPH or Km/Hr)</td>
<td>MPH___ Km/Hr___</td>
</tr>
<tr>
<td>Wind Direction From (Check one)</td>
<td>N___ NE___ E___ SE___ S___ SW___ W___ NW___ or NO WIND___</td>
</tr>
<tr>
<td>Estimated % of Clouds in the Sky</td>
<td></td>
</tr>
<tr>
<td>Measured Relative Humidity%</td>
<td></td>
</tr>
<tr>
<td>Dew (heavy, light, none, etc.)</td>
<td></td>
</tr>
<tr>
<td>Description of Soil Tilth (smooth, firm, packed, cloddy, etc.)</td>
<td></td>
</tr>
<tr>
<td>Estimate of Soil Surface Moisture (wet, moist, dry, etc.)</td>
<td></td>
</tr>
<tr>
<td>Soil Temperature (Check F or C)</td>
<td>°F___ °C___</td>
</tr>
<tr>
<td>Depth of Measurement of Soil Temperature (Check INCHES or cm)</td>
<td>INCHES___ cm___</td>
</tr>
</tbody>
</table>

BRIEFLY DESCRIBE PROCEDURE USED TO CLEAN PLANTING EQUIPMENT BEFORE AND AFTER PLANTING THE UNTREATED AND TREATED PLOTS, AND IDENTIFY WHO CLEANED IT:

_____________________________________________________________________________________________________
_____________________________________________________________________________________________________
_____________________________________________________________________________________________________
_____________________________________________________________________________________________________

CLEANED BY: ____________________________________________________________

CLEANING DESCRIPTION ENTERED BY: __________________________ DATE: ______________

**ABOVE DATA ENTERED BY:** ___________________________________ DATE: ______________

COMPLETE IF APPROPRIATE:  "THIS IS A TRUE COPY OF THE ORIGINAL"
THE ORIGINAL IS IN FIELD DATA BOOK NO. __________________ INITIALS ___________ DATE ___________
PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS

I. PASS TIMES FOR PLANTING OF SEED

PLANTING DATE_____________________

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

<table>
<thead>
<tr>
<th>PASS NUMBER</th>
<th>TIME</th>
<th>DIRECTION</th>
<th>PASS NUMBER</th>
<th>TIME</th>
<th>DIRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td>8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL PASS TIME

ABOVE DATA ENTERED BY: __________________________________________ DATE: __________

PROVIDE A BRIEF NARRATIVE SUMMARY OF THE SEED PLANTING

(E.g. "Treated seed was planted in the treated test plot in two passes; one pass down each side of the row.")

____________________________________________________________________________________________________
____________________________________________________________________________________________________
____________________________________________________________________________________________________
____________________________________________________________________________________________________
____________________________________________________________________________________________________
____________________________________________________________________________________________________
____________________________________________________________________________________________________
____________

SEED WAS PLANTED BY________________________________________________________ DATE: __________

NARRATIVE ENTERED BY_______________________________________________________ DATE: __________

____________________________________________________________________________________________________

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

PART 6 PAGE ___ Trial Year 2019
PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS

J. POST PLANTING RATE CONFIRMATION FOR SEED TREATMENT

PLANTING DATE____________________

EXAMPLE FORMULAS: The formula below may be used to calculate the amount of TREATED SEED planted per hectare. Other formulas may be used instead; however, it is not sufficient to merely compare the actual seeding rate to the “practice” seeding rate.

1) $X$ g seed planted in plot $\times$ 1 plot $\frac{10,000 \text{ m}^2}{\text{hectare}}$ OR
   $\frac{(\text{width (m)} \times \text{length (m)})}{\text{plot dimensions (hectare)}}$
   $=$ grams seed applied per hectare

2) $X$ g seed planted in plot $\times$ 1 plot $\frac{43,560 \text{ ft}^2}{\text{acre}} \times \frac{453.6 \text{ g}}{1 \text{ lb}}$
   $\frac{(\text{width (ft)} \times \text{length (ft)})}{\text{plot dimensions (acre)}}$
   $=$ lbs seed applied per acre

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

(Check one) YES____ NO____ IF NO, **Contact the Study Director immediately.**

ABOVE DATA ENTERED BY: ___________________________________________ DATE: __________

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"
THE ORIGINAL IS IN FIELD DATA BOOK NO. _______________ INITIALS ____________ DATE __________

PART 6 PAGE ___ Trial Year 2019
Was There Any Visible Phytotoxicity Damage? (Check one) YES___ NO___

Date Crop Was Observed: ____________________________  Initials/date: ____________________________

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, unless the protocol requires a phytotoxicity rating. If so, fill in the box below*.

*Alternatively, a separate sheet with a description of the phytotoxicity may be inserted at the back of Part 6.

Enter the requested information below for both the first rainfall and first irrigation after each planting. The rainfall/irrigation data entered below should be transcribed from the data included in Part 9 unless otherwise indicated on this page. “NONE BEFORE HARVEST” or “NONE BEFORE SAMPLING” may be entered, if applicable.

| DATE OF FIRST RAIN (Note the date of first rainfall after this planting.) | DAYS___ | HOURS___ |
| AMOUNT OF WATER (Check INCHES or mm) | INCHES___ | mm___ |

RAIN INFORMATION RECORDED BY (Initials/date)

| TYPE OF IRRIGATION (e.g. overhead, trickle, flood) |
| DATE OF FIRST IRRIGATION (Note the date of first irrigation after this planting.) | DAYS___ | HOURS___ |
| AMOUNT OF WATER (Check INCHES, mm, or mL) | INCHES___ | mm___ | mL___ |

IRRIGATION INFORMATION RECORDED BY (Initials/date)

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

___________________________________________________________  Initials/date: ____________________________

PART 6 PAGE ___          Trial Year 2019

COMPLETE IF APPROPRIATE: "THIS IS A TRUE COPY OF THE ORIGINAL"
THE ORIGINAL IS IN FIELD DATA BOOK NO. ____________  INITIALS _______ DATE _________
PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS

L.1. DIFFERENTIATION OF MULTIPLE TRIALS CONDUCTED IN CLOSE PROXIMITY*

ARE YOU CONDUCTING MORE THAN ONE TRIAL IN THIS STUDY? YES___   NO___

IS ANOTHER FIELD RESEARCH DIRECTOR IN THIS STUDY CONDUCTING A TRIAL WITHIN 20 MILES OF YOUR TRIAL(S)? YES___   NO___

If “NO” is checked twice, then no other input is needed except for signing and dating at the bottom of each page.
If “YES” is checked at least once, then an independently prepared tank-mix must be used in each trial, except in studies in which this is not applicable such as studies with granular formulations.

In order to differentiate these trials, select one option from Set 1 OR two options from Set 2.

If 3 or more trials in this study cannot be differentiated by the same options, then you should check all options that have been used, and explain below which options are differentiating between which trials.

If different crop varieties are being used as a differentiation option, then enter below information that explains why these varieties were chosen. Examples: Variety A produces large fruit, whereas Variety B produces small fruit. Variety A produces fruit with a smooth skin, whereas Variety B produces fruit with a rough skin. Varieties A and B are the two most commonly grown cultivars in this state.

If options are used that are listed in the protocol but are not listed in the table in Part 6.L.2, then enter descriptions of those options below.

Enter below any additional information that will improve the understanding of the options that have been chosen.

*Trials conducted in different calendar years are exempt from these requirements. (If separate trials by the same person or within 20 miles are conducted in late fall/early winter, then the differentiation options should be used to reduce the possibility of data rejection by a regulatory agency.)

Trial IDs of other trials in this study to which these options are being applied:

__________________________________________________________________________________________________

Additional information:

__________________________________________________________________________________________________

__________________________________________________________________________________________________

__________________________________________________________________________________________________

__________________________________________________________________________________________________

__________________________________________________________________________________________________

__________________________________________________________________________________________________

__________________________________________________________________________________________________

ABOVE DATA ENTERED BY: ___________________________ DATE: _________________

PART 6 PAGE ___          Trial Year 2019
Some options included in this table may not be acceptable for use in this study. Refer to Protocol Section 11.4 for the study-specific list of options.

Check the options (in the third column) used to differentiate the trials that you are conducting in this study:

<table>
<thead>
<tr>
<th>Set</th>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>Trial sites must be separated by at least 20 miles (32 km) [measured as straight line distance]</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>First application or planting date (for annual crops) in each trial is separated by at least 30 days</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Different crop variety (different size or shape at maturity, rough vs. smooth surface, different amount of foliage shielding the commodity, different rate of growth, or representative of the major varieties grown within the region)—confirm with Study Director if this option will be chosen</td>
</tr>
</tbody>
</table>
| 2   | A      | Spray volume must vary by at least 25% of the lower volume (minimum 10 GPA difference)  
Example 1, Trial A has a volume of 20 GPA and Trial B has a volume ≥ 30 GPA  
Example 2, Trial A has a volume of 60 GPA and Trial B has a volume ≥ 75 GPA  
The trial with the lowest spray volume for the first application must remain the lowest for each application; the trial with the highest must remain the highest for each, and so on |
|     | B      | Use of an adjuvant (of any suitable type) in the tank mix for one trial vs. no adjuvant in the tank mix for another trial |
|     | C      | Different foliar application type: foliar directed or foliar broadcast  
(Do not use this option if the label instructions for this commodity will specify one type or the other) |
|     | D      | Different granular application type: broadcast or banded (only if label supports both types) |
|     | E      | Different types of application equipment be used in each trial (for example, tractor-pulled boom sprayer, tractor-pulled spreader, airblast sprayer, axial fan orchard sprayer, proptec sprayer, cannon mist sprayer, tower sprayer, over-row sprayer, tunnel sprayer, backpack sprayer, waist pack sprayer, hand gun, hand-held spreader, or shaker can) |
|     | F      | Different spray droplet size (fine, medium, coarse, very coarse, or extra coarse)  
This may be accomplished by changing nozzles and/or by changing spray pressure  
Document in the Field Data Book the droplet size that results from the pressure and nozzles used in the trial (nozzle catalog may be used as a reference)  
Coarse, very coarse, and extra coarse are appropriate for herbicides only |
|     | G      | Different incorporation method for soil-applied test substance: mechanical or irrigation |
|     | H      | Different band width for soil applications: band width must vary by at least 50% of the lower width |
|     | I      | Different irrigation type (drip or furrow or sprinkler/over-the-top)  
(Irrigation must be applied at least once after each application, but over-the-top irrigation must not be applied within one hour of an application, and irrigation is not needed following the last application if samples are to be collected on the same day) |
|     | J      | For test substances that must be applied through drip irrigation: surface drip line or buried drip line |
|     | K      | Different planting arrangement for annual crops: single row beds or multi-row beds (two or more rows on each bed) |
|     | L      | One trial shall have trellised plants and the other shall not |
|     | M      | Different training system for fruit trees (for example, central leader or open center) |
|     | N      | Different maturity of trees or bushes in fruit and nut studies—young trees or bushes in one trial and mature trees or bushes in the other (minimum 5 year age difference); all trees/bushes must be commercially productive |
|     | O      | Different soil series, type, or texture (only in trials in which applications are made to the soil) |
|     | P      | Different formulations of the test substance (within the types generally considered equivalent) |
PART 6. PLANTING RECORDS-SEED TREATMENT TRIALS

M. EQUIPMENT MAINTENANCE AND REPAIR LOG

INSTRUCTIONS: Complete this form or provide equivalent information. Provide dates and a brief description of maintenance and repair work completed on the application equipment relevant to this trial. Be sure to date and initial all entries.

APPLICATION EQUIPMENT IDENTIFIER______________________________________________________________

EQUIPMENT USED FOR APPLICATION NUMBERS____________________________________________________

INITIALS/DATE________________________________

RECORD DATES AND BRIEF DESCRIPTION OF ANY MAINTENANCE AND REPAIR WORK DONE ON THE APPLICATION EQUIPMENT, OR ATTACH TRUE COPIES OF THE LOGS. ALSO RECORD SOP# FOLLOWED, IF APPLICABLE.

<table>
<thead>
<tr>
<th>Initials and Date</th>
<th>Was Maintenance or Repair routine? (Check one)</th>
<th>SOP#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PART 6 PAGE ___          Trial Year 2019

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