IR-4 Western Region Training Webinar: May 4th

11:00 am – 12:00 pm Pacific Time

Western Region Training Webinar: May 4th

- Differences between IR-4 and Canadian Trials
- eQA Migration to NC State
- Lab Notification of Sample Shipment
- Application Types and Equipment
- Sprayer Safety
- Feedback from QC

Avast Ye Protocol Followers!

- The "Pirate Code" is more of a *suggestion;* IR-4's "Protocols" are **not.**
- IR-4 protocols list *requirements* that if not followed result in deviations

RDFN and FDB Comparison

Northeast Region Field Coordinator's Office
Marylee Ross (mross@umd.edu) & Megan James (mjames14@umd.edu)

WSR Training Webinar – May 4, 2021

Overview

- Review Terminology
- Protocol & FDB Delivery Process
- GLP Acceptance Form & Trial Tracking Form
- Raw Data Summary
- RDFN Cover Page
- Order of Book
- Weighing Test Substance
- Adjuvant Expiration
- Calculations & Calibrations
- Application Records

"Any work conducted in the USA will be conducted according to EPA Good Laboratory Practice standards, 40 CFR part 160, which are acceptable to OECD standards."

– Section 5, AAFC Pesticide Residue Study Plan

Terminology

IR-4		AAFC
Field Data Book	→	Raw Data Field Notebook
Test Substance	→	Test Item
Protocol	→	Study Plan
Part	→	Section
Field Research Director	→	Principle Investigator
Regional Field Coordinator	→	Test Site Manager

Protocol & FDB Delivery

IR-4

RFC physically sends:

- GLP Acceptance Letter
- Signed Protocol
- Blank Field Data Book
- Self Addressed Blue Card

HQ physically sends:

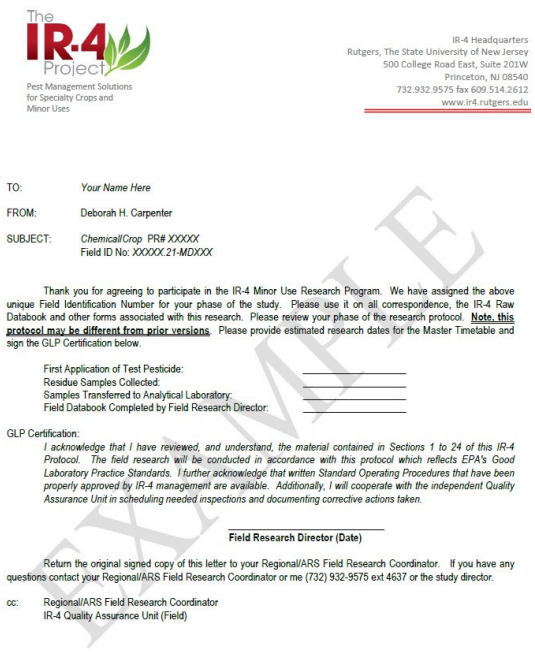
- Protocol Changes

AAFC

- Study Director electronically sends:
- Trial Tracking Form
- Signed Study Plan (with GLP Acceptance Form – Appendix A)
- Raw Data Field Notebook
- Study Plan Amendments

GLP Acceptance & Tracking

IR-4 GLP Acceptance Form



The IR-4 Project
Pest Management Solutions for Specialty Crops and Minor Uses

IR-4 Headquarters
Rutgers, The State University of New Jersey
500 College Road East, Suite 201W
Princeton, NJ 08540
732.932.9575 fax 609.514.2612
www.ir4.rutgers.edu

TO: *Your Name Here*

FROM: Deborah H. Carpenter

SUBJECT: *Chemical/Crop PR# XXXXX*
Field ID No: *XXXXX.21-MDXXX*

Thank you for agreeing to participate in the IR-4 Minor Use Research Program. We have assigned the above unique Field Identification Number for your phase of the study. Please use it on all correspondence, the IR-4 Raw Databook and other forms associated with this research. Please review your phase of the research protocol. **Note, this protocol may be different from prior versions**. Please provide estimated research dates for the Master Timetable and sign the GLP Certification below.

First Application of Test Pesticide: _____
Residue Samples Collected: _____
Samples Transferred to Analytical Laboratory: _____
Field Databook Completed by Field Research Director: _____

GLP Certification:
I acknowledge that I have reviewed, and understand, the material contained in Sections 1 to 24 of this IR-4 Protocol. The field research will be conducted in accordance with this protocol which reflects EPA's Good Laboratory Practice Standards. I further acknowledge that written Standard Operating Procedures that have been properly approved by IR-4 management are available. Additionally, I will cooperate with the independent Quality Assurance Unit in scheduling needed inspections and documenting corrective actions taken.

_____
Field Research Director (Date)

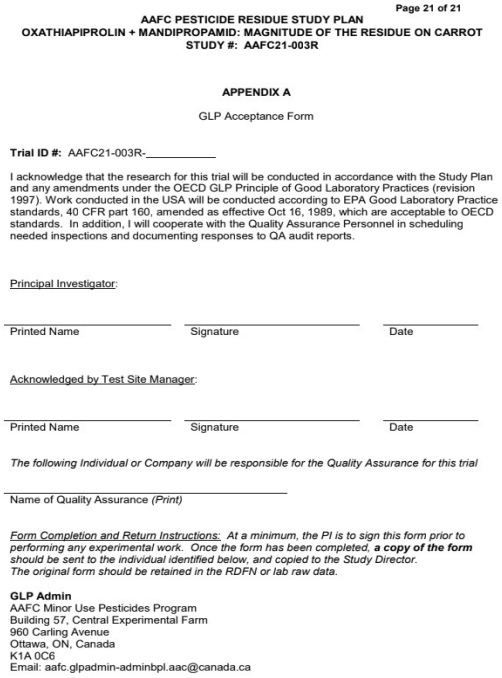
Return the original signed copy of this letter to your Regional/ARS Field Research Coordinator. If you have any questions contact your Regional/ARS Field Research Coordinator or me (732) 932-9575 ext 4637 or the study director.

cc: Regional/ARS Field Research Coordinator
IR-4 Quality Assurance Unit (Field)

EXAMPLE

IR-4 asks for tentative dates on GLP Acceptance Form, AAFC does not.

AAFC GLP Acceptance Form



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AAFC PESTICIDE RESIDUE STUDY PLAN
OXATHIAPIPROLIN + MANDIPROPAMID: MAGNITUDE OF THE RESIDUE ON CARROT
STUDY #: AAFC21-003R

APPENDIX A

GLP Acceptance Form

Trial ID #: AAFC21-003R-_____

I acknowledge that the research for this trial will be conducted in accordance with the Study Plan and any amendments under the OECD GLP Principle of Good Laboratory Practices (revision 1997). Work conducted in the USA will be conducted according to EPA Good Laboratory Practice standards, 40 CFR part 160, amended as effective Oct 16, 1989, which are acceptable to OECD standards. In addition, I will cooperate with the Quality Assurance Personnel in scheduling needed inspections and documenting responses to QA audit reports.

Principal Investigator:

Printed Name _____ Signature _____ Date _____

Acknowledged by Test Site Manager:

Printed Name _____ Signature _____ Date _____

The following Individual or Company will be responsible for the Quality Assurance for this trial

Name of Quality Assurance *(Print)* _____

*Form Completion and Return Instructions: At a minimum, the PI is to sign this form prior to performing any experimental work. Once the form has been completed, **a copy of the form** should be sent to the individual identified below, and copied to the Study Director. The original form should be retained in the RDFN or lab raw data.*

GLP Admin
AAFC Minor Use Pesticides Program
Building 57, Central Experimental Farm
960 Carling Avenue
Ottawa, ON, Canada
K1A 0C6
Email: aafc.glpadmin-adminbpl.aac@canada.ca

GLP Acceptance & Tracking

- IR-4 does not have a trial tracking form.
- Trial Tracking Form is to be continually updated and sent to SD and QA upon completion of GLP events.
- Original trial tracking form stays with the book.

TRIAL TRACKING FORM Trial ID:

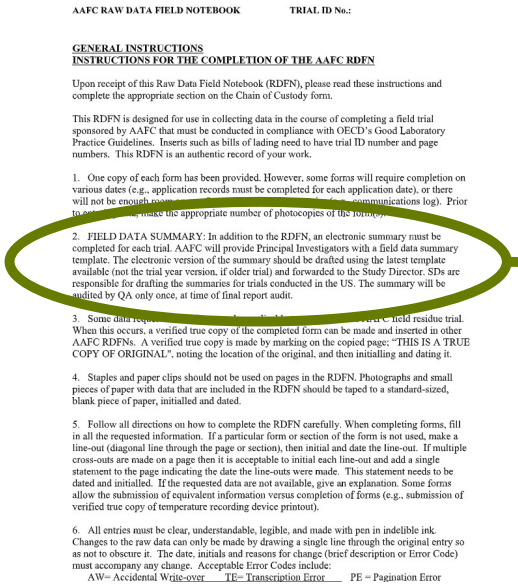
INSTRUCTIONS: *This form is used to keep the Study Director (SD) and Quality Assurance (QA) informed of anticipated and completion dates for the listed activities. Scan and email this form to the SD and QA when* ***all*** *anticipated activities have been scheduled. Scheduled dates can be changed in the future if needed, but should be communicated to the SD and QA if significant changes occur (more than one week). After the first application is completed, scan and email this form to the SD, or simply email the SD within 48 hours to inform that the activity was completed. The same should be done once all the samples have been collected.*

Study Director Name: _____

Activity		Anticipated date	Initials & date	Completion date	Initials & date
Test Item received					
Trial site established					
Test Item applied (App. #)	1				
	2				
	3				
	4				
	5				
	6				
Harvest(s)	1				
	2				
	3				
	4				
	5				
	6				
Samples shipped to Lab					
RDFN shipped to QA					

The IR-4 Project

Raw Data Summary



AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

GENERAL INSTRUCTIONS
INSTRUCTIONS FOR THE COMPLETION OF THE AAFC RDFN

Upon receipt of this Raw Data Field Notebook (RDFN), please read these instructions and complete the appropriate section on the Chain of Custody form.

This RDFN is designed for use in collecting data in the course of completing a field trial sponsored by AAFC that must be conducted in compliance with OECD's Good Laboratory Practice Guidelines. Inserts such as bills of lading need to have trial ID number and page numbers. This RDFN is an authentic record of your work.

1. One copy of each form has been provided. However, some forms will require completion on various dates (e.g., application records must be completed for each application date), or there will not be enough [illegible] communications log). Prior to [illegible] make the appropriate number of photocopies of the form(s).

2. FIELD DATA SUMMARY: In addition to the RDFN, an electronic summary must be completed for each trial. AAFC will provide Principal Investigators with a field data summary template. The electronic version of the summary should be drafted using the latest template available (not the trial year version, if older trial) and forwarded to the Study Director. SDs are responsible for drafting the summaries for trials conducted in the US. The summary will be audited by QA only once, at time of final report audit.

3. Some data requ[illegible] AAFC field residue trial. When this occurs, a verified true copy of the completed form can be made and inserted in other AAFC RDFNs. A verified true copy is made by marking on the copied page; "THIS IS A TRUE COPY OF ORIGINAL", noting the location of the original, and then initialling and dating it.

4. Staples and paper clips should not be used on pages in the RDFN. Photographs and small pieces of paper with data that are included in the RDFN should be taped to a standard-sized, blank piece of paper, initialled and dated.

5. Follow all directions on how to complete the RDFN carefully. When completing forms, fill in all the requested information. If a particular form or section of the form is not used, make a line-out (diagonal line through the page or section), then initial and date the line-out. If multiple cross-outs are made on a page then it is acceptable to initial each line-out and add a single statement to the page indicating the date the line-outs were made. This statement needs to be dated and initialled. If the requested data are not available, give an explanation. Some forms allow the submission of equivalent information versus completion of forms (e.g., submission of verified true copy of temperature recording device printout).

6. All entries must be clear, understandable, legible, and made with pen in indelible ink. Changes to the raw data can only be made by drawing a single line through the original entry so as not to obscure it. The date, initials and reasons for change (brief description or Error Code) must accompany any change. Acceptable Error Codes include:
AW= Accidental Write-over TE= Transcription Error PE = Pagination Error

A Field Data Summary is mentioned in the instructions. IR-4 FRDs are not required to do this.

2. FIELD DATA SUMMARY: In addition to the RDFN, an electronic summary must be completed for each trial. AAFC will provide Principal Investigators with a field data summary template. The electronic version of the summary should be drafted using the latest template available (not the trial year version, if older trial) and forwarded to the Study Director. SDs are responsible for drafting the summaries for trials conducted in the US. The summary will be audited by QA only once, at time of final report audit.

RDFN Coverpage

- IR-4 does not have this page.
- Instructions on how to complete this page can be found on Page 2 of the instructions, item #10.

Agriculture and Agri-Food Canada
Pest Management Centre
Minor Use Pesticides Program

Raw Data Field Notebook for the Magnitude of the Residue Study of:

_____

(Test Item)

In / On

_____

(Crop name)

Study Number:		Trial Initiation Date: (Actual date on which the 1st study specific data are collected (Usually plot layout)	
Trial ID:			
Trial Location:		Trial Completion Date: (Usually actual sample shipment)	
Crop Zone:			

The IR-4 Project

Order of Book

FDB Parts

1. GLP Compliance
2. Personnel
3. Notes & Communication
4. Test Substance
5. Trial Site
6. Application
7. Sample Collection
8. Sample Shipping
9. Weather & Irrigation
10. Protocol & Changes

RDFN Sections

1. Study Plan, Amendments & Deviations
2. GLP Compliance
3. Communications & Activities Log
4. Test Item
5. Trial/Plot Site Information
6. Application
7. Harvest & Sampling
8. Shipping
9. Meteorological Data

Weighing Test Substance

AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

SECTION 4. TEST ITEM
4.A. TEST ITEM INFORMATION, RECEIPT AND STORAGE
Info collected on this form is considered study specific raw data upon first TI use (see form 4B).

Name of the test product found on the container label: *(including concentration & formulation e.g. Eradicator 2 SC)*	Test Item Name (a.i.):
Lot or Batch Number *(As it appears on the TI container label)*:	Unique ID Code assigned (if used) :
Expiration Date:	Source of Expiration Date: *(e.g. C of A)*:
Courier and Bill of Lading #	application date? Yes: No: *If yes, contact the Study Director immediately.*

Number of Containers:	Weight(s) (including container):	Balance ID: GLP-maintained and used? *(check one)* Yes: No:

Description of Test Item and container(s):
(e.g., yellow liquid in 1 gallon plastic jug)

Condition of Container(s): *(e.g., good; bags broken)*	
Certificate of Analysis Included with Shipment? Yes: No: *(check one)*	**If the GLP status of the Test Item at time of receipt cannot determined; contact the Study Director.** Date contacted:
Test Item identified as "GLP" at the time of Receipt? Yes: No: *(check one)*	
If yes, Source of GLP identification : *(e.g. C of A; container)*	
Chain of Custody included? Yes: No: *(check one)*	MSDS included? Yes: No: *(check one)*
Required Storage Conditions *(e.g., from the C of A, MSDS, or Label)*:	Source of storage conditions: *Include copy of the source document for storage conditions in RDFN*
Storage Location:	
Additional Notes: *(e.g. if the test item was held temporarily in another location prior to transfer to the storage location noted above describe the circumstances, length of time and approximate temperature conditions)*:	
Date TI received and placed in temperature-monitored storage:	Received by:
Date TI logged in inventory *(i.e.: date paperwork verified and product is weighed)*:	Logged-in by:

Insert Certificate of Analysis, Chain of Custody Forms, and Shipping Documents after this page

Signature: _____ Date: _____

If yes, contact the Study Director immediately.

Number of Containers:	Weight(s) (including container):	Balance ID: GLP-maintained and used? *(check one)* Yes: No:

Description of Test Item and container(s):

The RDFN requires that the test substance be weighed upon receipt in the original container.

Weighing Test Substance

The RDFN requires that the test substance and container be weighed once applications are complete.

UNLESS STATED OTHERWISE, ALL TEST ITEM AMOUNTS WEIGHED PRIOR TO THE APPLICATION DAY ARE STORED IN THE SAME AREA AS THE MAIN CONTAINER.

Trial ID number	Appl. number or Purpose	Balance ID or Instrument used to measure *(e.g. pipette, syringe,...)*	Container TI measured into *(e.g., 50 mL flask; 250 mL Nalgene bottle, spray tank, ...)*	Amount measured *units (____)*	Initials/ Date
Sum of test item removed for all uses:					
If liquid TI, total weight (g) of TI removed for all uses:[3]					
Weight (g) of TI plus container after all applications have been completed:					

[1] If Test Item is used for more than one study include a certified copy of the facility record for this Test Item.
[2] A transit container is defined as a secondary labelled container containing a premeasured amount of test item for application.
[3] For liquid TI use the density/specific gravity to calculate the mass of TI removed (if the density/specific gravity is not available, contact the Study Director for advice, and note the procedure used below).

Weighing Test Substance

AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

4.C. DISPOSITION OF TEST ITEM

INSTRUCTIONS: Before disposal of the Test Item, contact the SD for approval. Test Item may be disposed of according to local regulations, or used as a maintenance chemical on crops for which it is already registered in your area. Provide an explanation below on disposal of test item.

Test Item ID: _____ Lot No.: _____

Approval for disposition of test item obtained from Study Director:

Yes:____ No:____ If Yes, date obtained: _____

If no, where is test item held: Remains in GLP storage *(check)*: ____ Other ____ *(describe below)*

Date of Test Item Disposal: _____

Description of Test Item disposal *(check)*: Transferred to maintenance pesticide storage? Yes:___ No:___

If no; Returned to Registrant? ___ ___ ___

Total Quantity Removed For All Uses (e.g. applications)*

Weights of Test Item Plus Container	
At Receipt *(From RDFN Section 4A)*:	At Disposal *(From RDFN Section 4B)*:
Difference Between Receipt and Disposal *(Calculated Amount of TI Removed)*:	Actual Amount of TI removed *(sum from RDFN Section 4B)*:

* Include Units

Comments (e.g. reason for discrepancy between actual and calculated amount removed, notes regarding disposal method, use of transit containers, etc.):

_____

_____

_____

_____

_____

Signature: _____ Date: _____

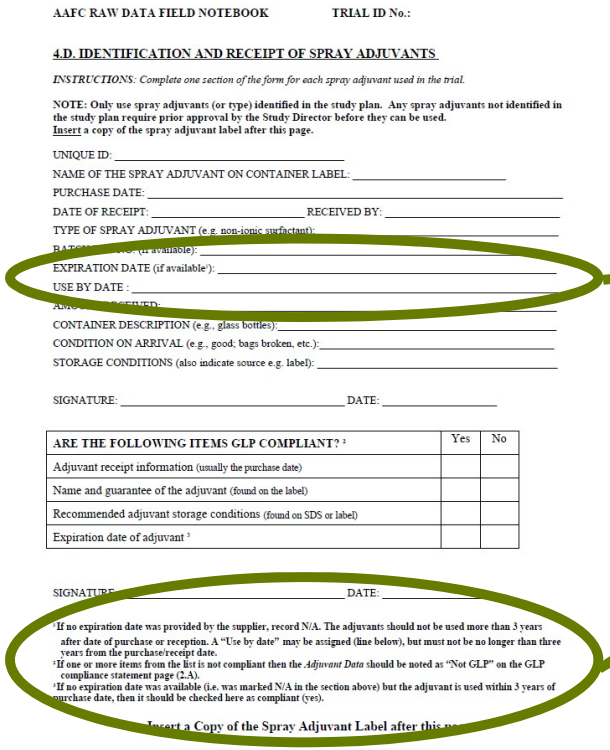
Total Quantity Removed For All Uses (e.g. applications)*

Weights of Test Item Plus Container	
At Receipt *(From RDFN Section 4A)*:	At Disposal *(From RDFN Section 4B)*:
Difference Between Receipt and Disposal *(Calculated Amount of TI Removed)*:	Actual Amount of TI removed *(sum from RDFN Section 4B)*:

* Include Units

The RDFN also requires that the weight of the test substance and container be verified at disposal.

Adjuvant Expiration



AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

4.D. IDENTIFICATION AND RECEIPT OF SPRAY ADJUVANTS

INSTRUCTIONS: Complete one section of the form for each spray adjuvant used in the trial.

NOTE: Only use spray adjuvants (or type) identified in the study plan. Any spray adjuvants not identified in the study plan require prior approval by the Study Director before they can be used.
Insert a copy of the spray adjuvant label after this page.

UNIQUE ID: _____

NAME OF THE SPRAY ADJUVANT ON CONTAINER LABEL: _____

PURCHASE DATE: _____

DATE OF RECEIPT: _____ RECEIVED BY: _____

TYPE OF SPRAY ADJUVANT (e.g. non-ionic surfactant): _____

RATE (if available): _____

EXPIRATION DATE (if available[1]): _____

USE BY DATE : _____

AMOUNT RECEIVED: _____

CONTAINER DESCRIPTION (e.g., glass bottles): _____

CONDITION ON ARRIVAL (e.g., good; bags broken, etc.): _____

STORAGE CONDITIONS (also indicate source e.g. label): _____

SIGNATURE: _____ DATE: _____

ARE THE FOLLOWING ITEMS GLP COMPLIANT? [2] [3]	Yes	No
Adjuvant receipt information (usually the purchase date)		
Name and guarantee of the adjuvant (found on the label)		
Recommended adjuvant storage conditions (found on SDS or label)		
Expiration date of adjuvant [3]		

SIGNATURE: _____ DATE: _____

[1] If no expiration date was provided by the supplier, record N/A. The adjuvants should not be used more than 3 years after date of purchase or reception. A "Use by date" may be assigned (line below), but must not be no longer than three years from the purchase/receipt date.
[2] If one or more items from the list is not compliant then the *Adjuvant Data* should be noted as "Not GLP" on the GLP compliance statement page (2.A).
[3] If no expiration date was available (i.e. was marked N/A in the section above) but the adjuvant is used within 3 years of purchase date, then it should be checked here as compliant (yes).

Insert a Copy of the Spray Adjuvant Label after this page

EXPIRATION DATE (if available[1]): _____

USE BY DATE : _____

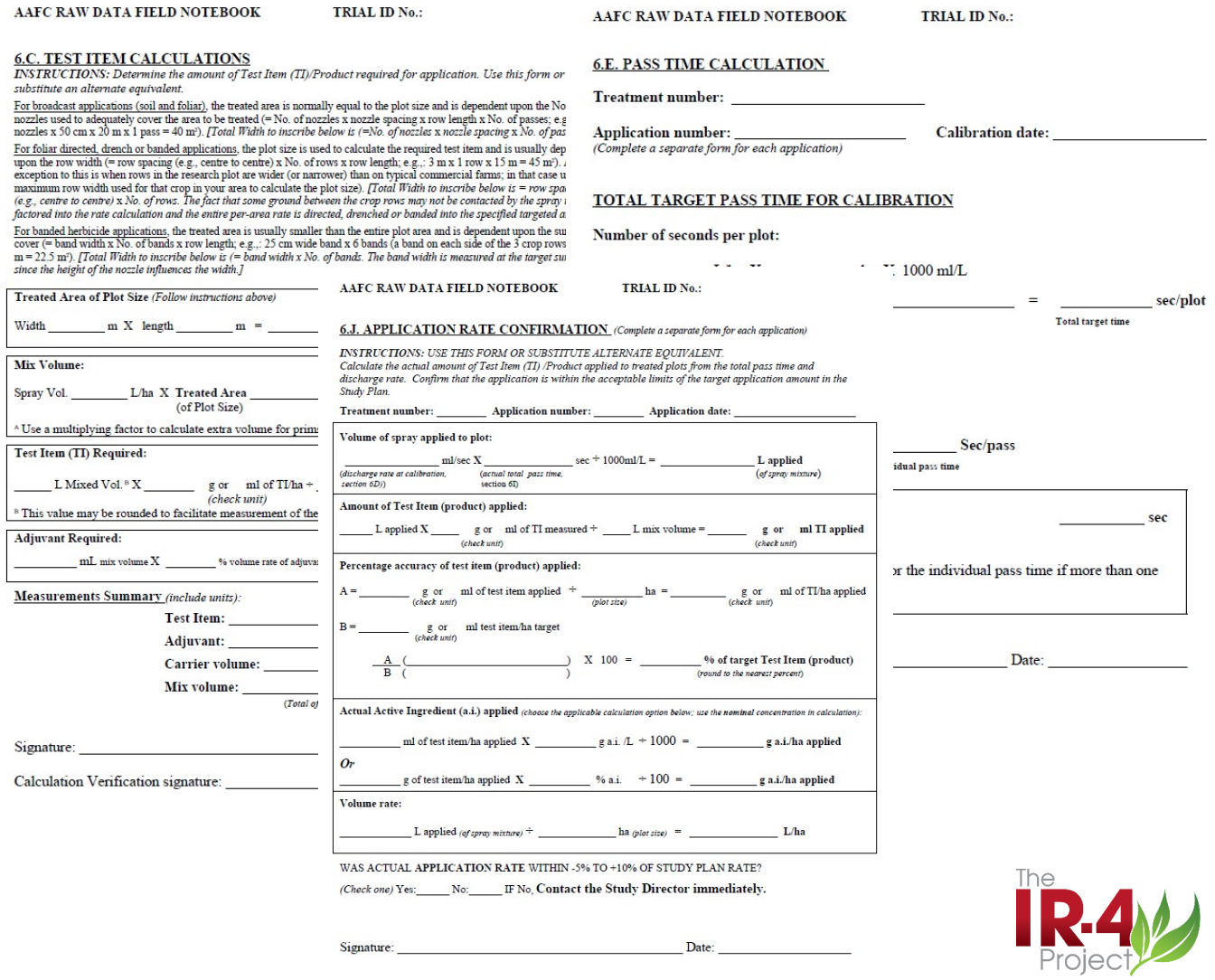
The RDFN specifies an expiration date and a "Use By" date. They are defined below in a footnote.

[1] If no expiration date was provided by the supplier, record N/A. The adjuvants should not be used more than 3 years after date of purchase or reception. A "Use by date" may be assigned (line below), but must not be no longer than three years from the purchase/receipt date.
[2] If one or more items from the list is not compliant then the *Adjuvant Data* should be noted as "Not GLP" on the GLP compliance statement page (2.A).
[3] If no expiration date was available (i.e. was marked N/A in the section above) but the adjuvant is used within 3 years of purchase date, then it should be checked here as compliant (yes).

Please note: IR-4 allows an assigned expiration date of up to 5 years from receipt. The RDFN's "Use By" date only permits 3 years.

Calculations

- It is acceptable for IR-4 FRD's to lineout the RDFN calculation pages and use their calculation pages as they would in a FDB.



AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

6.C. TEST ITEM CALCULATIONS

INSTRUCTIONS: Determine the amount of Test Item (TI)/Product required for application. Use this form or substitute an alternate equivalent.

For broadcast applications (soil and foliar), the treated area is normally equal to the plot size and is dependent upon the No nozzles used to adequately cover the area to be treated (= No. of nozzles x nozzle spacing x row length x No. of passes; e.g nozzles x 50 cm x 20 m x 1 pass = 40 m²). *[Total Width to inscribe below is (=No. of nozzles x nozzle spacing x No. of pas*

For foliar directed, drench or banded applications, the plot size is used to calculate the required test item and is usually dep upon the row width (= row spacing (e.g., centre to centre) x No. of rows x row length; e.g.,: 3 m x 1 row x 15 m = 45 m²). exception to this is when rows in the research plot are wider (or narrower) than on typical commercial farms; in that case u maximum row width used for that crop in your area to calculate the plot size). *[Total Width to inscribe below is = row spa (e.g., centre to centre) x No. of rows. The fact that some ground between the crop rows may not be contacted by the spray factored into the rate calculation and the entire per-area rate is directed, drenched or banded into the specified targeted a*

For banded herbicide applications, the treated area is usually smaller than the entire plot area and is dependent upon the su cover (= band width x No. of bands x row length; e.g.,: 25 cm wide band x 6 bands (a band on each side of the 3 crop rows m = 22.5 m²). *[Total Width to inscribe below is (= band width x No. of bands. The band width is measured at the target su since the height of the nozzle influences the width.]*

Treated Area of Plot Size *(Follow instructions above)*

Width _____ m X length _____ m = _____

Mix Volume:

Spray Vol. _____ L/ha X **Treated Area** _____ (of Plot Size)

[A] Use a multiplying factor to calculate extra volume for prim

Test Item (TI) Required:

_____ L Mixed Vol.[B] X _____ g or ml of TI/ha ÷ (check unit)

[B] This value may be rounded to facilitate measurement of the

Adjuvant Required:

_____ mL mix volume X _____ % volume rate of adjuva

Measurements Summary *(include units):*

Test Item: _____

Adjuvant: _____

Carrier volume: _____

Mix volume: _____

(Total of

Signature: _____

Calculation Verification signature: _____

AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

6.J. APPLICATION RATE CONFIRMATION *(Complete a separate form for each application)*

INSTRUCTIONS: USE THIS FORM OR SUBSTITUTE ALTERNATE EQUIVALENT.
Calculate the actual amount of Test Item (TI) /Product applied to treated plots from the total pass time and discharge rate. Confirm that the application is within the acceptable limits of the target application amount in the Study Plan.

Treatment number: _____ **Application number:** _____ **Application date:** _____

Volume of spray applied to plot:

_____ ml/sec X _____ sec ÷ 1000ml/L = _____ **L applied** *(of spray mixture)*
(discharge rate at calibration, section 6D)) *(actual total pass time, section 6I)*

Amount of Test Item (product) applied:

_____ L applied X _____ g or ml of TI measured ÷ _____ L mix volume = _____ g or **ml TI applied**
(check unit) *(check unit)*

Percentage accuracy of test item (product) applied:

A = _____ g or ml of test item applied ÷ _____ ha = _____ g or ml of TI/ha applied
(check unit) *(plot size)* *(check unit)*

B = _____ g or ml test item/ha target
(check unit)

$\frac{A}{B}$ (_____) X 100 = _____ **% of target Test Item (product)**
(round to the nearest percent)

Actual Active Ingredient (a.i.) applied *(choose the applicable calculation option below; use the **nominal** concentration in calculation):*

_____ ml of test item/ha applied X _____ g a.i. /L ÷ 1000 = _____ **g a.i./ha applied**

Or

_____ g of test item/ha applied X _____ % a.i. ÷ 100 = _____ **g a.i./ha applied**

Volume rate:

_____ L applied *(of spray mixture)* ÷ _____ ha *(plot size)* = _____ **L/ha**

WAS ACTUAL **APPLICATION RATE** WITHIN -5% TO +10% OF STUDY PLAN RATE?

(Check one) Yes:_____ No:_____ IF No, **Contact the Study Director immediately.**

Signature: _____ Date: _____

AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

6.E. PASS TIME CALCULATION

Treatment number: _____

Application number: _____ **Calibration date:** _____
(Complete a separate form for each application)

TOTAL TARGET PASS TIME FOR CALIBRATION

Number of seconds per plot:

: 1000 ml/L

_____ = _____ **sec/plot**
Total target time

_____ **Sec/pass**
idual pass time

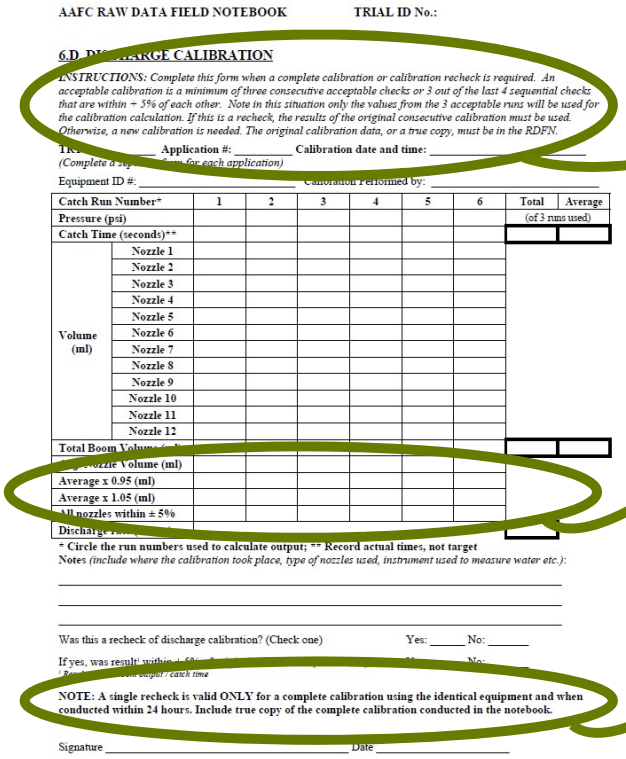
_____ **sec**

or the individual pass time if more than one

_____ Date: _____

The IR-4 Project

Output Calibrations



AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

6.D. DISCHARGE CALIBRATION

INSTRUCTIONS: Complete this form when a complete calibration or calibration recheck is required. An acceptable calibration is a minimum of three consecutive acceptable checks or 3 out of the last 4 sequential checks that are within + 5% of each other. Note in this situation only the values from the 3 acceptable runs will be used for the calibration calculation. If this is a recheck, the results of the original consecutive calibration must be used. Otherwise, a new calibration is needed. The original calibration data, or a true copy, must be in the RDFN.

TR… Application #: _____ Calibration date and time: _____
(Complete a sep… for each application)

Equipment ID #: _____ Calibration Performed by: _____

Catch Run Number*		1	2	3	4	5	6	Total	Average
Pressure (psi)								(of 3 runs used)	
Catch Time (seconds)**									
Volume (ml)	Nozzle 1								
	Nozzle 2								
	Nozzle 3								
	Nozzle 4								
	Nozzle 5								
	Nozzle 6								
	Nozzle 7								
	Nozzle 8								
	Nozzle 9								
	Nozzle 10								
	Nozzle 11								
	Nozzle 12								
Total Boom Volume (…									
…Nozzle Volume (ml)									
Average x 0.95 (ml)									
Average x 1.05 (ml)									
All nozzles within ± 5%									
Discharge …									

* Circle the run numbers used to calculate output; ** Record actual times, not target

Notes *(include where the calibration took place, type of nozzles used, instrument used to measure water etc.)*:

_____

_____

_____

Was this a recheck of discharge calibration? (Check one) Yes: _____ No: _____

If yes, was result within … No: _____
(Recheck … from original / catch time

NOTE: A single recheck is valid ONLY for a complete calibration using the identical equipment and when conducted within 24 hours. Include true copy of the complete calibration conducted in the notebook.

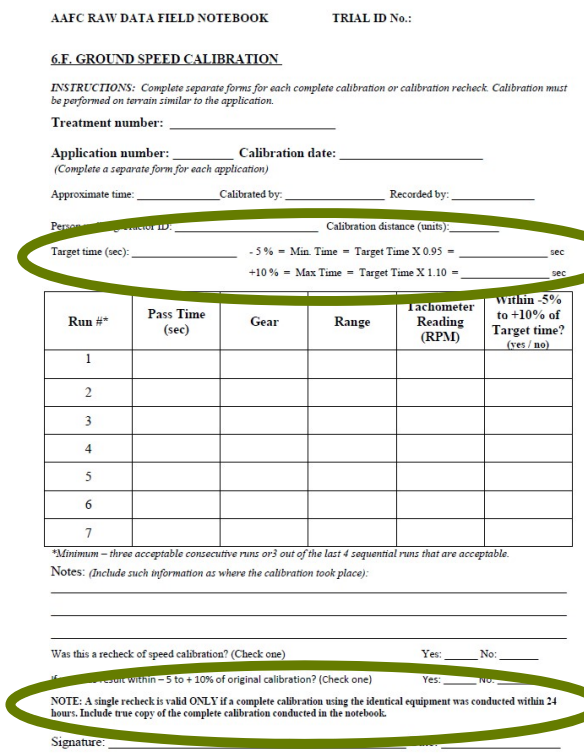
Signature _____ Date _____

INSTRUCTIONS: Complete this form when a complete calibration or calibration recheck is required. An acceptable calibration is a minimum of three consecutive acceptable checks or 3 out of the last 4 sequential checks that are within + 5% of each other. Note in this situation only the values from the 3 acceptable runs will be used for the calibration calculation. If this is a recheck, the results of the original consecutive calibration must be used. Otherwise, a new calibration is needed. The original calibration data, or a true copy, must be in the RDFN.

Avg. Nozzle Volume (ml)						
Average x 0.95 (ml)						
Average x 1.05 (ml)						
All nozzles within ± 5%						

NOTE: A single recheck is valid ONLY for a complete calibration using the identical equipment and when conducted within 24 hours. Include true copy of the complete calibration conducted in the notebook.

Speed Calibrations



AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

6.F. GROUND SPEED CALIBRATION

INSTRUCTIONS: Complete separate forms for each complete calibration or calibration recheck. Calibration must be performed on terrain similar to the application.

Treatment number: _____

Application number: _____ **Calibration date:** _____

(Complete a separate form for each application)

Approximate time: _____ Calibrated by: _____ Recorded by: _____

Person ... Tractor ID: _____ Calibration distance (units): _____

Target time (sec): _____ - 5 % = Min. Time = Target Time X 0.95 = _____ sec

+10 % = Max Time = Target Time X 1.10 = _____ sec

Run #*	Pass Time (sec)	Gear	Range	Tachometer Reading (RPM)	Within -5% to +10% of Target time? (yes / no)
1					
2					
3					
4					
5					
6					
7					

**Minimum – three acceptable consecutive runs or3 out of the last 4 sequential runs that are acceptable.*

Notes: *(Include such information as where the calibration took place):*

_____

_____

_____

Was this a recheck of speed calibration? (Check one) Yes: _____ No: _____

If ... result within – 5 to + 10% of original calibration? (Check one) Yes: _____ No: _____

NOTE: A single recheck is valid ONLY if a complete calibration using the identical equipment was conducted within 24 hours. Include true copy of the complete calibration conducted in the notebook.

Signature: _____ ... _____

Target time (sec): _____ - 5 % = Min. Time = Target Time X 0.95 = _____ sec

+10 % = Max Time = Target Time X 1.10 = _____ sec

The RDFN prompts for % Deviation calculations.

NOTE: A single recheck is valid ONLY if a complete calibration using the identical equipment was conducted within 24 hours. Include true copy of the complete calibration conducted in the notebook.

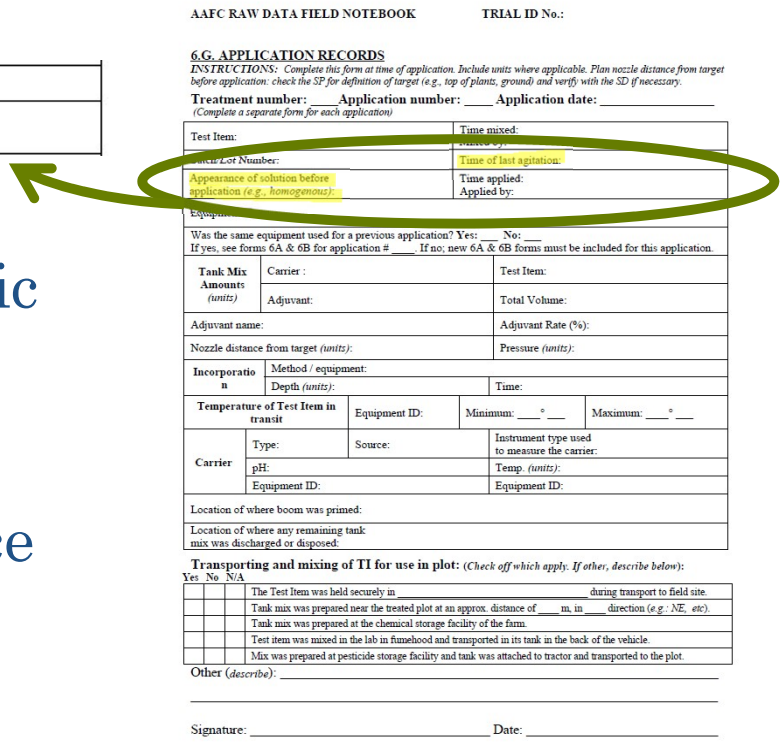
Be aware, their guidance for "rechecks" is also different .

Application Records

Batch/Lot Number:	Time of last agitation:
Appearance of solution before application *(e.g., homogenous)*:	Time applied: Applied by:

The RDFN requests a specific time for agitation.

They also prompt for a description of the appearance of the tank mixture, "if practical".



AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

6.G. APPLICATION RECORDS

INSTRUCTIONS: Complete this form at time of application. Include units where applicable. Plan nozzle distance from target before application. check the SP for definition of target (e.g., top of plants, ground) and verify with the SD if necessary.

Treatment number: ___ **Application number:** ___ **Application date:** _____

(Complete a separate form for each application)

Test Item:			Time mixed:
Batch/Lot Number:			Time of last agitation:
Appearance of solution before application *(e.g., homogenous)*:			Time applied: Applied by:
Was the same equipment used for a previous application? Yes: ___ No: ___ If yes, see forms 6A & 6B for application # ___. If no; new 6A & 6B forms must be included for this application.			
Tank Mix Amounts *(units)*	Carrier :		Test Item:
	Adjuvant:		Total Volume:
Adjuvant name:			Adjuvant Rate (%):
Nozzle distance from target *(units)*:			Pressure *(units)*:
Incorporation	Method / equipment:		
	Depth *(units)*:		Time:
Temperature of Test Item in transit	Equipment ID:	Minimum: ___ ° ___	Maximum: ___ ° ___
Carrier	Type:	Source:	Instrument type used to measure the carrier:
	pH:		Temp. *(units)*:
	Equipment ID:		Equipment ID:
Location of where boom was primed:			
Location of where any remaining tank mix was discharged or disposed:			

Transporting and mixing of TI for use in plot: *(Check off which apply. If other, describe below)*:

Yes	No	N/A	
			The Test Item was held securely in _____ during transport to field site.
			Tank mix was prepared near the treated plot at an approx. distance of ____ m, in ____ direction *(e.g.: NE, etc)*.
			Tank mix was prepared at the chemical storage facility of the farm.
			Test item was mixed in the lab in fumehood and transported in its tank in the back of the vehicle.
			Mix was prepared at pesticide storage facility and tank was attached to tractor and transported to the plot.

Other (*describe*): _____

_____

Signature: _____ Date: _____

Application Records

AAFC RAW DATA FIELD NOTEBOOK TRIAL ID No.:

6.H. ENVIRONMENTAL RECORDS *(Complete a separate form for each application)*

Treatment number: _____

Application number: _____ **Application date:** _____

Crop growth stage *(e.g., seedling, cotyledon, 1st leaf, mature, BBCH)*: _____

Crop height (*units*): _____

Crop condition (*Check one*): Normal: ____ Stressed: ____ Other (*e.g, damaged*): _____

Plant surface moisture (*Check one*): Wet: ____ Moist: ____ Dry: ____ NA: ____

Soil moisture surface (*Check one*): Wet: ____ Moist: ____ Dry: ____

Average wind speed:_____ km/h: ___MPH: ___ Equipment ID:_____
(preferably during application) *(Check one)*

Wind speed was measured (*Check one*): Prior: ___ During: ___ After: ___ the application.

Did a gust of wind over 10 km/h occur during the application? Yes: ___ No: ___
If yes, what was the maximum gust speed? _____ km/h; and contact the Study Director.

Wind direction from the *(e.g., W, S, NW, or No wind)*: _____

Measured air temp: °C: °F: Equ
(Check one)

Measured % relative humidity: _____ Equipment ID: _____

Estimated % cloud cover: _____

Soil/growing media temperature: _____°C: ___°F: ___Equipment ID: _____
(Check one)

Depth of measurement of soil temperature: _____ cm: ___ in: ___
(Check one)

Notes (*include any unusual climatic conditions or events (e.g. damaging hail, frost, tropical storm, forest fire smoke, unusually excessive rain or high wind events etc. Items of importance should be summarized in Section 9.A*):

_____
_____
_____
_____
_____

Average wind speed:_____ km/h: ___MPH: ___ Equipment ID:_____
(preferably during application) *(Check one)*

Wind speed was measured (*Check one*): Prior: ___ During: ___ After: ___ the application.

Did a gust of wind over 10 km/h occur during the application? Yes: ___ No: ___
If yes, what was the maximum gust speed? _____ km/h; and contact the Study Director.

Wind direction from the *(e.g., W, S, NW, or No wind)*: _____

The RDFN requests more specific information regarding the wind at application.

"Any work conducted in the USA will be conducted according to EPA Good Laboratory Practice standards, 40 CFR part 160, which are acceptable to OECD standards."

– Section 5, AAFC Pesticide Residue Study Plan

Thanks to our Canadian Partners for their contributions!

eQA Update

May 4, 2021

eQA transition to NC State

- **The move to the NC State server went well**
- **This move has caused a change in logging into the eQA system**
- **To login with an NC State credentials:**
  - **Use wolftech\(your NC State Unity ID) and password**
  - **If you forget your password, please do not reset it in eQA**

eQA transition to NC State

- **To login as a member of IR-4 without NC State credentials:**
  - **No longer need to include "cits\"**
  - **Use your current login (ex: jsmith)**
  - **First time you log in use your current password and will be prompted to change your password**
  - **There is a "forget password" option located below the login if you have forgotten your password**
- **Please contact Debbie Carpenter or Johanna Mazlo if you have any issues**

Thank you

Notifying the Analytical Lab of Sample Shipment

- Protocol Section 19. Residue Sample Handling and Shipment
  - Method of shipment determines when lab needs to be notified
- Document notification made to the sample destination by email, fax, phone log, field data book communication note, etc.

Overnight Carriers such as Federal Express Or Airborne

Contact designated person from the analytical lab **prior** to sample shipment for any specific shipping instructions.

Freezer Truck

Acceptable to contact the lab **prior to or on the day of shipment**, before or after samples have been loaded on the truck.

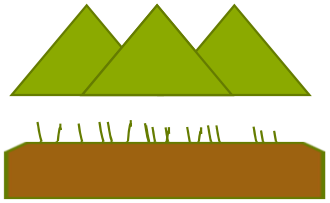
OR

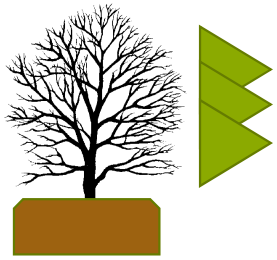
2020 and early 2021 protocols: Contact lab on the **day before or the day of shipment**, before or after the samples have been loaded on the truck.

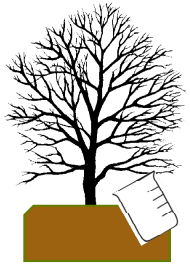
Hand-delivered

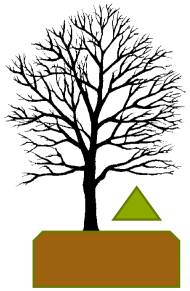
Timing of notification not specified in the protocol, but common sense to contact lab prior to delivering the samples.

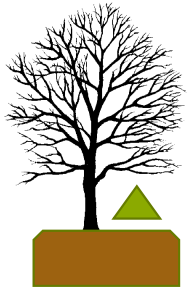
Application Types and Equipment

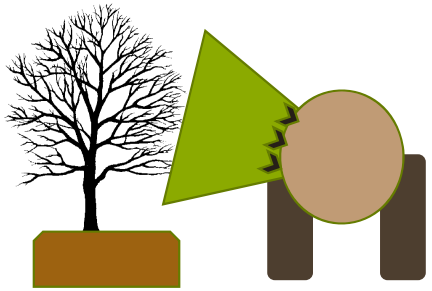
A:  F/H/I

B:  F/I

C:  F/I

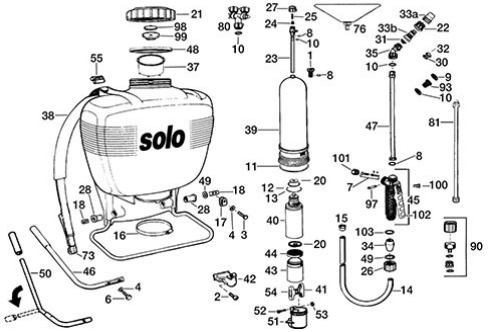
D:  Herbicides

E:  F/I

F:  F/I

Sprayer Safety:
Thoughts from Seasoned Veterans…aka The Old Guys

- Pressurized sprayer
  - Be careful of distractions
  - Michael – grad school
  - Stephen's example
- Maintenance
  - Hoses and couplers
  - Test system with water first
- Cleaning and Disposal
  - With PPE; Michael – gloves
  - Appropriate disposal area
- Bystander exposure
  - Airblast sprayer
  - Michael – citrus orchard
  - Stephen – cycling
- Other stories – what did we learn?



Feedback from QC Reviewers

- **Stacked Plots**
  - Make sure permission from all study directors involved is documented and included in Part 3 (even if allowed by protocol)

ID No. 08552.19-CA18
Kyser

From: Guy B Kyser <gbkyser@ucdavis.edu>
Sent: Thursday, March 21, 2019 12:27 PM
To: Kenneth Samoil <samoil@njaes.rutgers.edu>
Cc: Michael J Horak <mjhorak@ucdavis.edu>; Thomas Pike <tpike@njaes.rutgers.edu>
Subject: Flonicamid and cyflumetofen trials - cucumber and melon

Hi Ken & Thomas,

Regarding the following trials –

11786.19-CA30 Cyflumetofen / cucumber
12667.19-CA452 Flonicamid / cucumber

11787.19-CA31 Cyflumetofen / melon
11787.19-CA33 Cyflumetofen / melon
08552.19-CA18 Flonicamid / melon
08552.19-CA20 Flonicamid / melon

I wanted to clear with you if it's OK to share untreated plots in these studies.

Thanks,
GUY

From: Kenneth Samoil <samoil@njaes.rutgers.edu>
Sent: Thursday, March 21, 2019 12:30 PM
To: Guy B Kyser <gbkyser@ucdavis.edu>; Thomas Pike <tpike@njaes.rutgers.edu>
Cc: Michael J Horak <mjhorak@ucdavis.edu>
Subject: RE: Flonicamid and cyflumetofen trials - cucumber and melon

Yes; it is acceptable to share the untreated plot between the studies.

From: Thomas Pike <tpike@njaes.rutgers.edu>
Sent: Thursday, March 21, 2019 9:30 AM
To: Kenneth Samoil <samoil@njaes.rutgers.edu>
Cc: Michael J Horak <mjhorak@ucdavis.edu>; Guy B Kyser <gbkyser@ucdavis.edu>
Subject: RE: Flonicamid and cyflumetofen trials - cucumber and melon

Fine with me as well.

From: Guy B Kyser <gbkyser@ucdavis.edu>
Sent: Tuesday, April 2, 2019 11:55 AM
To: Pearson, Nicholas <npearson@mriglobal.org>

GK 10/8/19

Part 3 Page 7

QC Feedback

- **Crop Stage**
  - If protocol specifies a particular crop stage at application or harvest, record the details in the FDB

15. APPLICATION TREATMENTS AND TIMING:

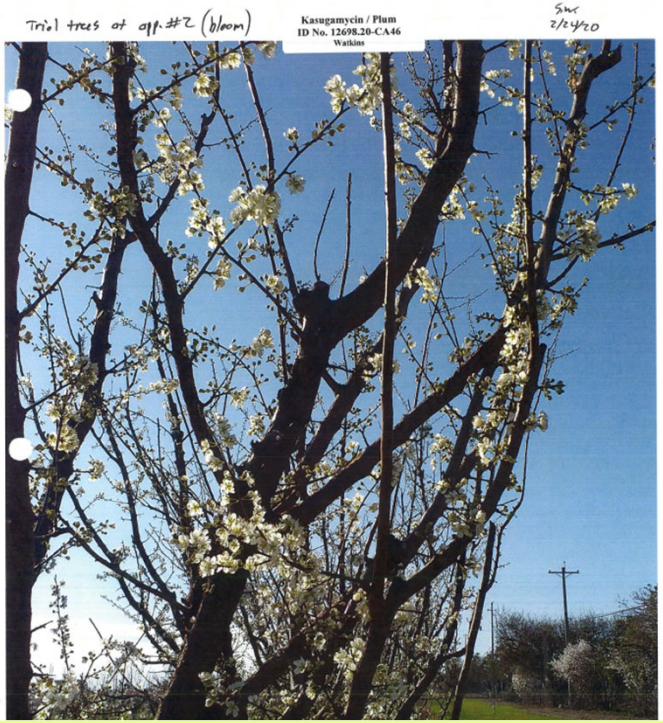
15.1 These treatments shall be applied in all trials EXCEPT processing trial 12698.20-CA48:

Trt#	Treatment	Target Rate of active ingredient	Target Rate of formulated product*	Application Type****	Spray Volume Range**
01	Untreated	Not Applicable	Not Applicable	Not Applicable	Not Applicable
02	KASUGAMYCIN	0.084 lb ai/acre	1,893 ml/acre + adjuvant*** (64 fl oz Kasumin 2L/A)	Foliar Directed	50 to 150 GPA

*The nominal concentration of the formulated test substance will be used in calculating application rates (see Section 13 for the nominal concentration).
**GPA=gallons per acre
***All applications shall include an adjuvant at a rate recommended by the adjuvant label unless the absence of an adjuvant has been chosen to differentiate two trials conducted by the same Field Research Director (see Part 11.4). Include a copy of the adjuvant label in the Field Data Book.
****Note that the treated area for directed applications is calculated as row spacing X number of rows X plot length

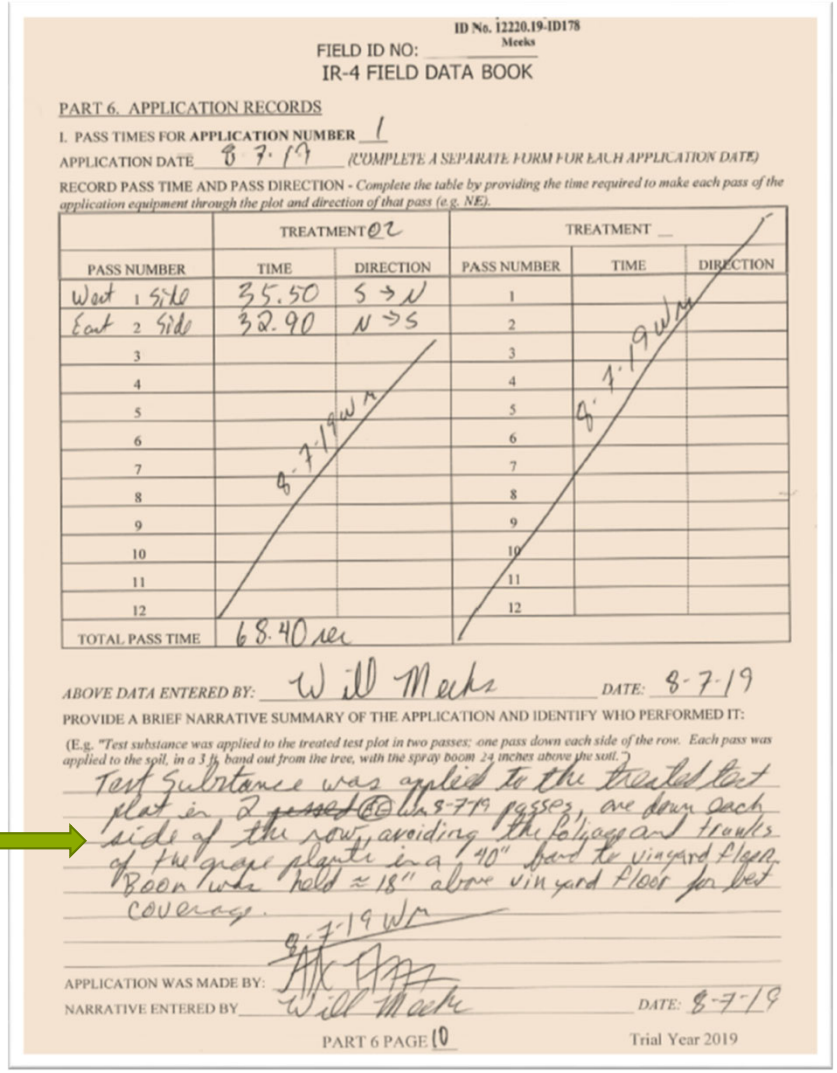
If it appears that phytotoxicity has resulted from applications made in this trial, contact the Study Director. If possible, take one or more photographs and send them to the Study Director via email to facilitate the evaluation of crop/ test substance effects.

All trials except Decline Trial 12698.20-CA45: Make the first application at dormancy at approximately 2 weeks before expected/historical 1st bloom. Make the second application at full bloom. Make the third application at petal fall. Make the final (fourth application) 60 (± 2) days before harvest.



QC Feedback

- **Spray Contact with Plants**
  - If the protocol specifies whether the spray is not to contact the plants or a specific overlap with the base of the plants
  - Include verification of this in the application description



ID No. 12220.19-ID178

FIELD ID NO: Meeks

IR-4 FIELD DATA BOOK

PART 6. APPLICATION RECORDS

I. PASS TIMES FOR APPLICATION NUMBER 1

APPLICATION DATE 8.7.19 (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 02		TREATMENT __		
PASS NUMBER	TIME	DIRECTION	PASS NUMBER	TIME	DIRECTION
West 1 Side	35.50	S → N	1		
East 2 Side	32.90	N → S	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		
9			9		
10			10		
11			11		
12			12		
TOTAL PASS TIME	68.40 sec				

ABOVE DATA ENTERED BY: Will Meeks DATE: 8-7-19

PROVIDE A BRIEF NARRATIVE SUMMARY OF THE APPLICATION AND IDENTIFY WHO PERFORMED IT:

(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 spot, in a 3 ft. band out from the tree, with the spray boom 24 inches above the soil."*)

Test Substance was applied to the treated test plot in 2 ~~passes~~ @ 8-7-19 passes, one down each side of the row, avoiding the foliage and trunks of the grape plants in a 40" band to Vineyard Floor. Boom was held ≈ 18" above vineyard floor for best coverage.

8-7-19 WM

APPLICATION WAS MADE BY: [signature]

NARRATIVE ENTERED BY Will Meeks DATE: 8-7-19

PART 6 PAGE 10 Trial Year 2019

Thank You for Attending!

- Please send ideas for future training or questions to wrfield@ucdavis.edu

- **GLP training certificates will be sent to all attending**
  - If multiple people connected on one computer, send chat or email with all names + emails

- **2021 Webinars:**
  August, November