

May 2020: Agenda

2020 New Field Season

- Soil and foliar applications: Banded v Directed
- Notebook entry shortcuts: Cautions
- Adjuvant expiration dates and storage
- New requirements for grape studies
- Protocol and sampling reminders

Message from Captain Horak



Soil Applications

Banded v. Directed

- What's the target pest? (check protocol)
 - If weeds, generally banded
 - If insects or diseases, generally directed
- Calculating test substance mix
 - Banded: just the area sprayed
 - Directed: whole plot area

Soil Applications

What is the Banded Area?

- Boom swath width x length
- Swath width
 - Number nozzles x distance between
 - Depends on where boom is held (inches above soil)
 - 4 nozzles, 20 inches apart = 80" swath width
- Or spray ground with water using boom held at same height as application
 - Measure the width of the wet area

Nathan @Riverside, 4x20" broadcast



Notebook Entry Shortcuts: Cautions

- In effort to save time
- Pre-typed entries often copied from other books
 - Descriptions
 - Calculations
- What could possibly go wrong?



What you did...not what you might do

Description is
what you did

Typed
information
pertains to this
event

Highlighted
section is
contingency that
did not occur

BRIEFLY DESCRIBE PROCEDURE USED FOR SPEED CALIBRATION Applicator, carrying CO2 Backpack sprayer
equipment walks through actual plot using a metronome to aid in maintaining pace. Timer using digital stopwatch and
flags or stakes at plot boundaries to time applicator. Time(s) recorded below. If not within 5% of target speed three pass
times are required to recalibrate. *Typed in information pertains to this event. Initials/Date

Typed entries – Did you do what it says?

PART 6. APPLICATION RECORDS

C.2. DISCHARGE CALIBRATION FOR APPLICATION NUMBER 2 TRT02

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.

Output Run Number	1	2	3	Total (Required)	Average (Optional)
Pressure (psi)	15 psi	15 psi	15 psi		
Units (e.g. ml, grams)	ml	ml	ml		
Time (seconds)	15 sec	15 sec	15 sec	45 sec	15 sec
Nozzle/Hopper	1				
Output number	2				
	540 ml	540 ml	540 ml		
	540 ml	540 ml	550 ml		

Trial Terminated

CALIBRATION CALCULATIONS:

$$\frac{\text{Average total boom volume}}{\text{Number of nozzles}} = \frac{5980 \text{ ml}}{11 \text{ nozzles}} = 543.6 \text{ ml}$$

$$\frac{543.6 \text{ ml}}{20 \text{ sec}} \times \frac{60 \text{ sec}}{\text{min}} \times \frac{1 \text{ Liter}}{1000 \text{ ml}} \times \frac{0.2642 \text{ gal}}{1 \text{ Liter}} = 0.431 \text{ gal/min/nozzle}$$

0.574

Typed entries – Did you do what it says?

Application
made 9/6/19
Typed 9/9/19

Corrected
12/18/19

Make sure
data reflects
what you did

PART 6. I. APPLICATION RECORDS

PROVIDE A BRIEF NARRATIVE SUMMARY OF THE APPLICATION.

applied TS over chile plants in 50-foot long beds, 1000 square-foot plot. ~~Three~~ ^{Four} passes were performed using a 3-nozzle boom. Applications were made approximately 20 inches above canopy, using T-Jet nozzles 11006. Times were entered and recorded by ¹²⁻¹⁸⁻¹⁹. Event occurred as stated.

9-6-19

Write up entered into
FDB on 9-9-19

9-9-19

Data sheet to capture critical data

Blank spaces
for study
specific data

Notes section

Date and
initials or
signature

PINEAPPLE PROCESSING DATA SHEET

TREATMENT 01- Untreated DATE PROCESSED 8/23/16
Sample ID PA Out of cooler at 11:00 am Sample Size 24 fruit Sample Weight 91.68 lbs.
Processing equipment clean before use? Yes SOP 8-1.1 followed? Yes
Cut off fruit ends, peel fruit and scrape peels: START 11:30 am STOP 12:00 pm.
Grab sample GA weight = 11.18 lbs, Into bag at 11:15 am. Into Freezer
RF-17 at 11:15 am.

JUICE PROCESSING

Juice peeled fruit, scraped flesh and end cuts: START 12:00 pm STOP 12:45 pm
SOP 8-2.1 followed? Yes
Antifoam added to juice: Type KFO 305 Amount 3.04 mL Time 1:15 pm.
Juice held at 88°C for 30 seconds Juice into ice water bath at 2:40 pm Juice cooled to 8°C at 3:32 pm
Juice stirred at 3:33 pm Juice Sample ID JA poured into container(s) at 3:39 pm
Total Juice volume 9060 mL Juice Sample JA volume 1800 mL Remaining juice volume 7860 mL
Juice Sample placed into Freezer RF-17 at 3:41 pm
NOTES: Discarded remaining juice. Mike juiced the fruit and end
cuts.

ABOVE DATA ENTERED BY Julie Cox DATE 8/23/16
PART 4 PAGE 1 TRIAL YEAR 2016

Study Specific Procedure

Steps of
procedure

Blank
spaces for
raw data

Date/initial
procedure
followed

Cautions:

- Use present tense: All people are wearing gloves.
- "Procedure approved by" doesn't necessarily mean that it was done.

Documentation of this procedure is supplemental data recorded in the field notebook.

1. All people will wear disposable gloves when sampling hop cones. UTC will always be harvested first.
2. To avoid contamination, hop sampling will be done from lowest to highest treated samples. New gloves will be changed between sample treatments.
3. Sampling of cones will be taken from top, middle and bottom of the hop bine.
4. Cones will be taken from both sides of the row, sampling inner and out cones with minimum of 12 locations.
5. Hop sample hops will be placed in a cooler at ambient temp for transit to the field office.
6. Hop dryers and screens are cleaned prior to use, with that information placed into a log.
7. Upon arrival at the field office, hop cones samples are removed from coolers to clean surface.
8. Hops are removed from bags and placed in a single layer on metal screens trays.
 - a. Samples are placed in separate dryers, which are used for UTC and each treatment rate
9. Dryers are set for number of hours to run and temperature not to exceed 147 degrees.
10. During the sample drying process, care is taken that each dryer processes only one sample at a time to avoid transposition.
11. Hop cones will be dried to 7-10% moisture content.
12. Check samples will always be removed from dryers first.
13. To avoid contamination, drying will be done from lowest to highest treated samples.
14. All equipment is cleaned thoroughly after each hop drying event.

Drying Temperature 140°F Total Time in Dryers 7 hrs 15 min *615 HRS COLLECTED ALL MATTER 2-6-2020*


Hop moisture content estimated to be 8-9% *If internal hop cone stem pulls apart easily then moisture is estimated to be 8-9%. (1)*

Procedure Approved By:
Craig Collins, Director of Research


Signature

8-30-18
date


Checklist as Reminder



Check off steps as you do them



Notes section



Date and initial to acknowledge stated procedure done

WORKSHEET: PROCEDURES FOR DRIP APPLICATIONS

APPLY T.S. MIX WITH CALCULATED VOLUME OF IRRIGATION WATER:

- ✓ • Add water to drip tank, filling to an exact gallonage mark, if applicable, or to the next lowest gallonage mark on tank.
- ✓ • If needed, add additional water in 5-gal increments to approximate total required.
- ✓ • In lab, form a concentrated mix by adding calculated amt. of t.s. to ~2 Liters water. Thoroughly agitate mix.
- ✓ • Add concentrated mix to the drip tank, while stirring the tank mix.
- ✓ • Rinse concentrate container, add rinsate to tank mix and stir mix.
- ✓ • Run tank mix through drip lines, stirring tank mix occasionally.

Note: due to the design of drip tank, there will be a small amount of mix (approx. 1 L) remaining in tank. This will be rinsed out of tank in a highly diluted form during the remaining irrigation event.

NOTES/COMMENTS:

*used additional tank for part of irrigation water application since tank volume is 125gal and irrigation volume (2/3 total volume) is 170gal.
Drip system was primed during discharge verification.*

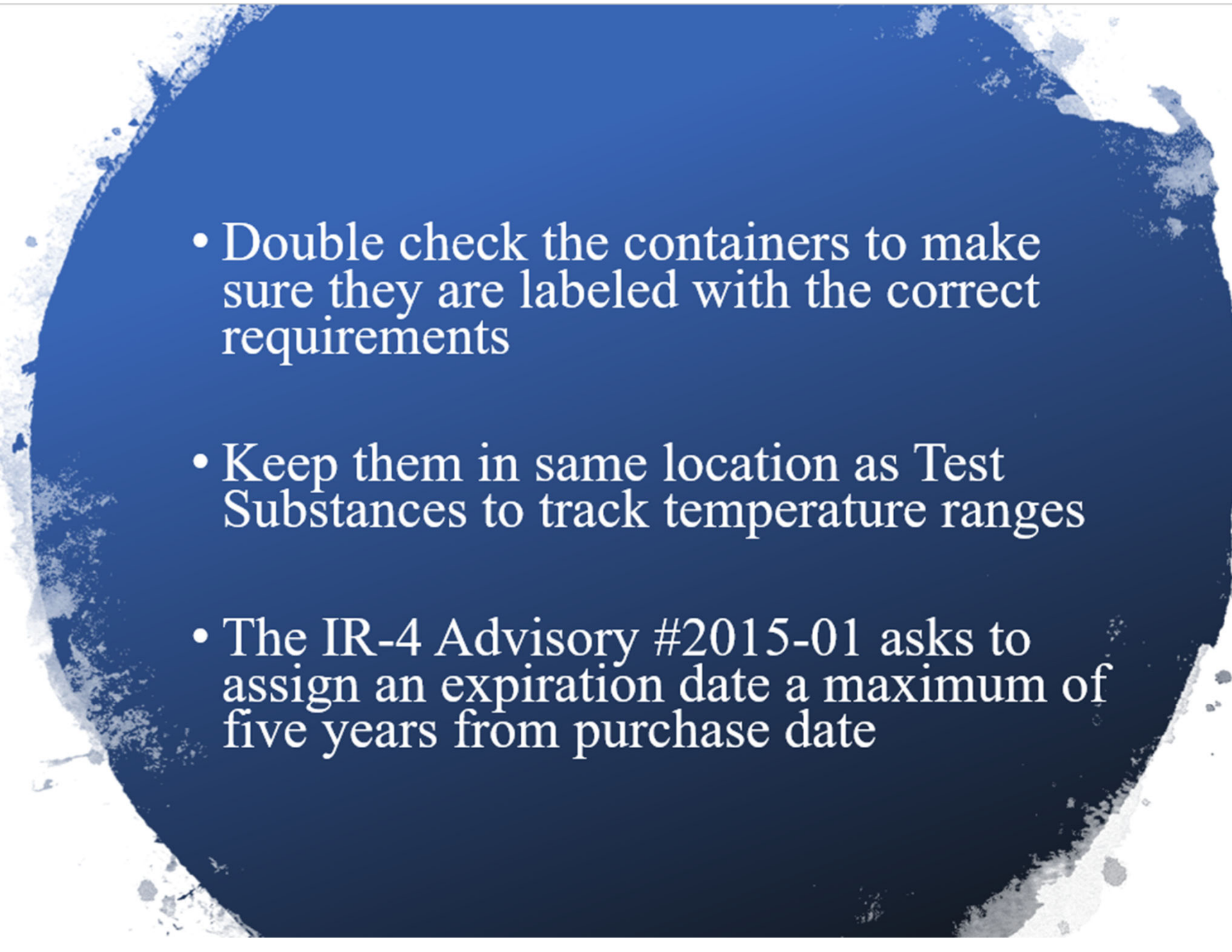
Application was made as described above:

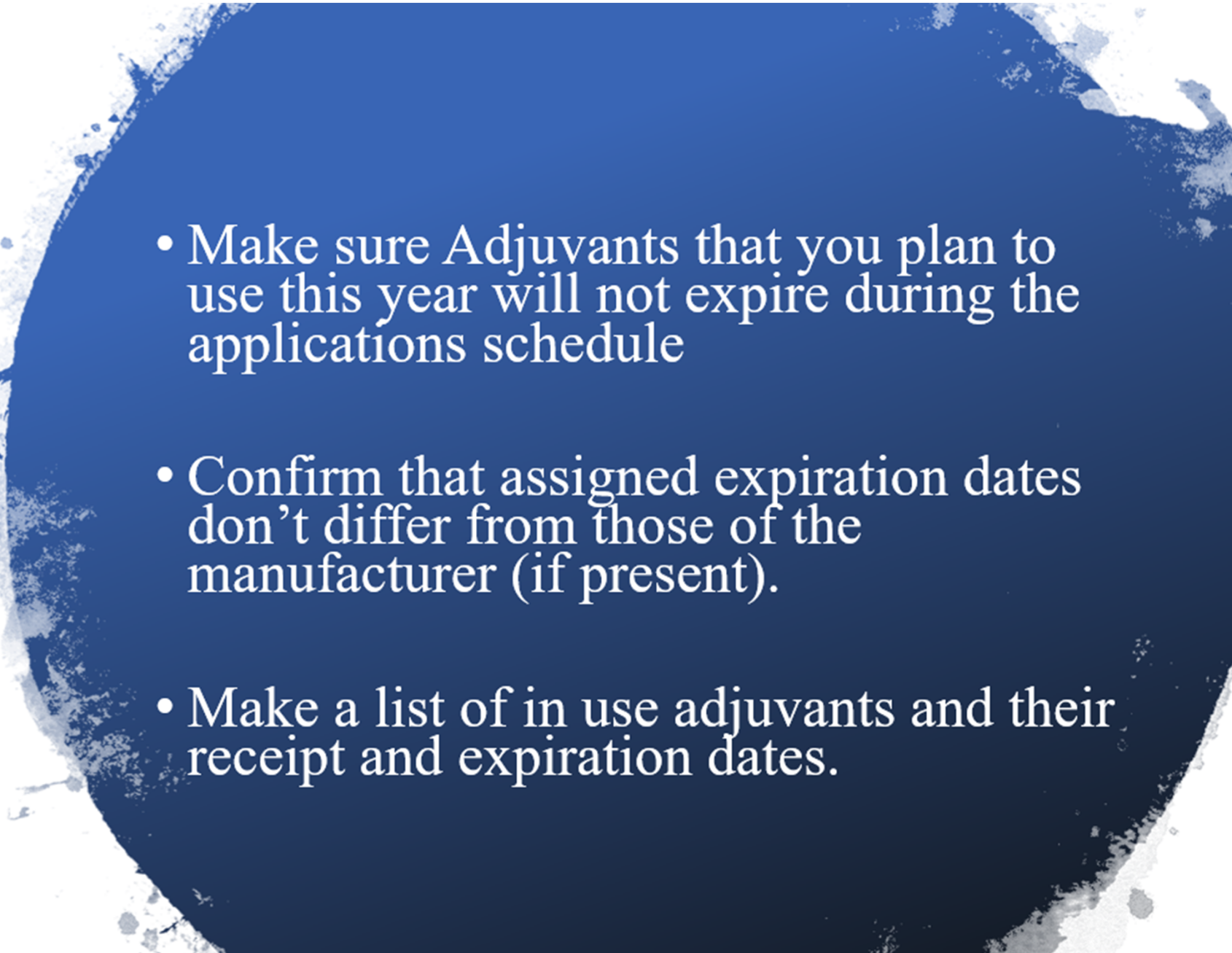
By Wla

Date 5-22-12



Helpful Hints for Adjuvant Use

-
- 
- Double check the containers to make sure they are labeled with the correct requirements
 - Keep them in same location as Test Substances to track temperature ranges
 - The IR-4 Advisory #2015-01 asks to assign an expiration date a maximum of five years from purchase date

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- Make sure Adjuvants that you plan to use this year will not expire during the applications schedule
 - Confirm that assigned expiration dates don't differ from those of the manufacturer (if present).
 - Make a list of in use adjuvants and their receipt and expiration dates.

12715 Fluazinam/Grape

New plot requirements:

17. RESIDUE SAMPLE COLLECTION:

All trials except decline trial 12715.20-XX: Collect two samples from each plot. Each sample should be representative of the entire plot (except plot ends). At 21 (± 2) days after the last application, starting with the untreated samples, collect at least 12 bunches of grapes (or portions of 12 bunches) from (at least 12) separate vines (separate plants). Each sample should be collected during a separate run through the entire plot.



Protocol

Not just a suggestion
like the Pirate Code

Protocols list
requirements if not
followed result in
deviations that must
be written up and
submitted...



Sampling

Not always the same as last time...

- Lots of experience with the crop?
- Sampling requirements may have changed
- *Carefully read the protocol*
- Examples of differences
 - Cutting/reducing
 - Pitting
 - Weighing pits before discarding
 - Peeling

