

NAICC Annual Meeting:
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Researcher Session

J.J.'s Technical Services

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Special Issues Faced by QA in Mexico/South America

Field QA Issues: Requirements

- Country (Countries) in which the Field Trial(s) will be conducted
- Travel Requirements (Passport and/or Visa)
- Transportation Requirements
 - Serviced by which Airline(s)
 - Ground Transportation Availability (Safety)
 - Local Principal Field Investigator
 - Currency of the country (conversion to \$USD)

Field QA Issues: Requirements (continued)

- Test Substance Shipment, Receipt and Storage
- Test System Requirements (RAC/Decline)
- Application Techniques and/or Equipment
- Safety Equipment Availability
- Equipment Calibration (Output)
- Tank Mix Calculations

Field QA Issues: Requirements (continued)

- Sample Collection
- Sample Storage
- Sample Shipment

Test Substance Shipment, Receipt, and Storage

- How Shipped to Field Facility (Local Affiliate or from US/Chain of Custody)
- How Received at Field Facility (Ambient/Refrigerated)
- How to be Stored (Protocol, COA, MSDS, Special Instructions, etc.)
- Where to be Stored (Secured Location)

Test Substance Shipment, Receipt, and Storage (continued)

- Temperature Monitoring Devices
(Manual/Automated) and Backup Devices
- Transport of Test Substance to Field Site
 - How extremes in temperature are to be controlled

Test System Requirements (RAC/Decline)

- Bare Ground (Soil Surface Applications)
- Row Crops / Tree Fruit/Nuts
 - minimum # of rows
 - minimum # of fruit
 - minimum # of areas
 - minimum sample weight
 - minimum # of sampling events
 - measurements between rows/trees

Application Techniques and/or Equipment

- Bare Ground (Broadcast)
 - Backpack
- Row Crops (Foliar Broadcast or Foliar-Directed)
 - Backpack
 - Over-the-top / individual rows
 - Boom width (larger than planted rows)

Application Techniques and/or Equipment (continued)

- Tree Fruit / Nuts (Foliar-Directed)
 - Tractor-Mounted Airblast (Non-existent)
 - Backpack (MistBlowers)
 - High Pressure Hand Guns
 - Typically, 1/2 row width for each pass
 - Special Fruit (Bananas)

Application Techniques and/or Equipment (continued)

- Propellent
 - CO₂ (Essentially non-existent)
 - Compressed Air (Essentially non-existent)
 - Forced Air (Mistblower)
 - High Pressure (3-5 HP) Gasoline Engine

Safety Equipment

- Assure PFI has/wearing Protective Clothing and Gloves
- Assure PFI has/wearing Protective Eyewear
- Assure PFI has/wearing Earwear

Equipment Calibration (Output)

- Straight Boom (Broadcast - Soil/Foliar)
 - Type of nozzles available/used
 - number of nozzles used
 - distance between nozzles
 - measurement of the output of individual nozzles (how to be collected/measured)
 - Total Output (mL/sec) per Run
 - Determine speed (m/sec)

Equipment Calibration (Output) (continued)

- MistBlowers and/or Handguns (Foliar-Directed)
 - Single nozzle / Orifice
 - Type of nozzle / or Orifice setting used
 - Measurement of the output of the nozzle or orifice (how to be collected/measured)
 - Total Output (mL/sec) per run
 - Determine speed (m/sec)

Tank Mix Calculations

- Total volume needed for plot
- Check for calculated overage
- Check for calculated test substance needed
- QA should conduct an independent tank mix calculation to assure that all parameters agree with the protocol (separate from PFI)
- Assure that all components are in the mix

Sample Collection

- # of fruit or areas (locations) or minimum sample weight / Sample
- # of independent samples / event
- # of retain samples / event
- # of Events (Decline Phase)
- Type of fruit (small or large)
- Small Fruit - Need more to obtain weight

Sample Collection (continued)

- Large Fruit (Sample weight reduction)
 - Ex: Pineapple
 - Fruit maybe halved or quartered
 - If halved, cut longitudinally, retain one half
 - Alternatively, cut into quarters, retain opposite quarters, discard remainder

Sample Storage

- Transport of Samples from Field to Storage
 - Separate containers for UTC and TRT
 - Coolant used to transport samples
 - Duration of sample transport from field to storage

Sample Storage (continued)

- How to be Stored (Refrigerated or Frozen)
- Separation of UTC and TRT Samples
- Temperature Monitoring Devices (Manual/Automated) and Backup Devices
- Duration of storage before shipment

Sample Shipment

- How to be Shipped (Refrigerated or Frozen)
- Separation of UTC and TRT Samples
- Shipment Company
- Duration of shipment