A photograph of four people standing in a field with rows of crops. From left to right: a man in a red RVCA cap and white shirt, a man in a black cap and glasses wearing a plaid shirt, a woman in a plaid jacket, and a woman in a bright green t-shirt. A white semi-transparent box is overlaid on the left side of the image, containing the title and author's name.

# On-Boarding a New Researcher

Lee West



# Process

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Recruit wisely

Develop rapport

Communicate Expectations

Train all the time

Support with compassion

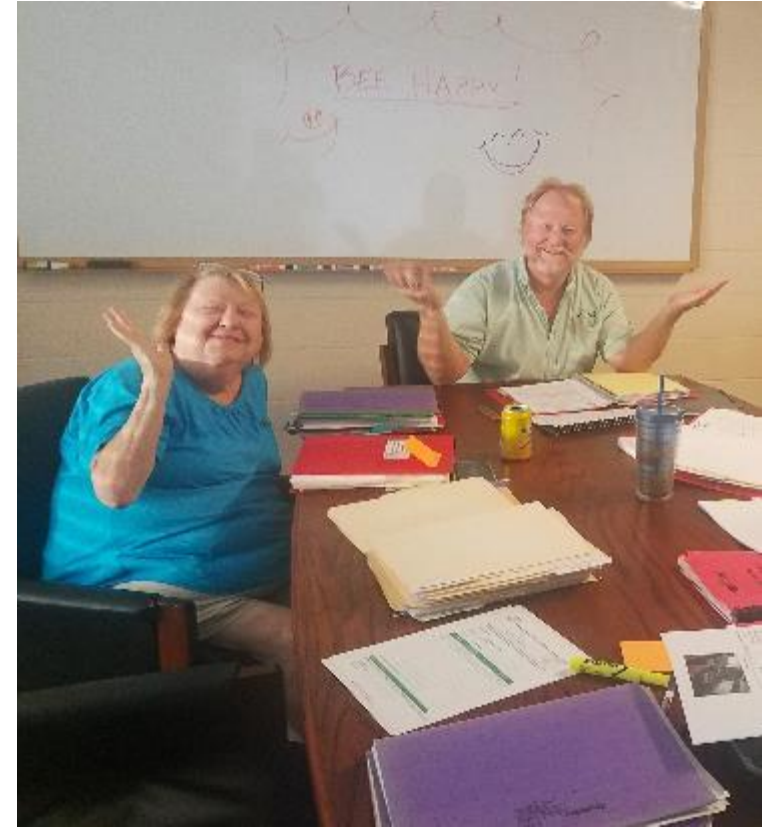
Check in often

Repeat forever

# Recruit for Success

- Look for alignment in values
- Hire for Attitude, train for skills
- Humble \* Hungry \* Smart  
Lencioni model for selection
- Right person in the right seat
- It's better to be short handed than to bring in an ineffective person
- Hire slow, fire fast





Have a written/shared On-Boarding plan

Use the entire team to train. Remember that on-boarding NEVER ENDS.



**RD4AG**  
On-Boarding Training Plan

**Phase 1 training: Business Organization and Operation**

Mentor - Amy Spencer

- Employment paperwork
- Company policies
- How to use MS Teams; Importance of communication
- EPA GLP documentation training
- USDA Regulated Article training
- Read SOPs (7001-7045 addendum)
- Establish training log and record-keeping rules
- Timekeeping; Importance of Quickbooks Time tracking software
- Facility tour and establishing your workspace

Mentor - Lee West

- Project management role review
- Life cycle of a field trial graphic and flow chart
- Protocols and Methodologies
- Preparation for and purpose of PM meeting
- Communication ppt
- Documentation, documentation, documentation

Mentor - Steve West

- RD4AG Capabilities and underlying concepts for success
  - Considerations for accepting new trials
  - Considerations for protocol development and trial design
  - Considerations for selection of assessment methodologies
  - Considerations for field placement
- SharePoint Tour: how to find all the everything
- Overview of MS Project – show them the tutorial
- Data collection rules (and always document growth stage!)

**Phase 2 training: Research Technician role**

Mentor – Jose Carrillo and Alan Cruz

- Read thru SOPs (0100 – 2725) together
- Data entry expectations
- Flagging/field layout
- NDVI techniques and operation
- Stand/leaf counts
- Growth stage
- Insect Evaluations / Disease Evaluations
- Sampling

**Phase 3 training: Research Biologist role**

Mentor – Jesus Urquides

- Read thru SOPs (3005-4545) together
- Mixing/dilution calculations and calibration
- Sprayer Calibration and Operation
  - High Cycle
  - Research Sprayer
  - Mirus applications
  - CO2 Backpack
- Sprayer/equipment decontamination
- Equipment logbooks
- Drip irrigation manifold assembly and set up
- SharePoint
- Microsoft Project
- ARM
- Data review

**Phase 4 training: Project Management role**

Mentor – Cesar Melendrez

- Read thru SOPs (5005-6005) together
- Coordinate team planning and field activities
- Protocol review processes
- Reports
- Project Manager Dash Board slides
- Client communication
- Trial site selection
- Field Mapping
- Field Inspections
- Facility maintenance

**Phase 5 training: Technology and Process Improvement**

Mentor – Connor Osgood

- Concepts for method development and process improvement
- Projects in the hopper and perspectives on needs
- Moisture measuring
  - Tensiometers
  - RANCH system
  - Campbell 6311
- Image J
- Plant phenotyping
- Canopy cover
- Rhizotrons

# Phase 1 training: Business Organization and Operation - Part 1

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MENTOR - AMY SPENCER Operations and HR Director

- Employment paperwork
- Company policies
- How to use MS Teams; Importance of communication
- EPA GLP introductory training and raw data documentation
- USDA Regulated Article training
- Read SOPs (Transgenics 7001-7045 addendum)
- Establish training log
- Confidentiality agreement
- Timekeeping; Importance of Quickbooks Time tracking software
- Facility tour and establishing your workspace



STANDARD OPERATING PROCEDURES	Level One Orientation to the SOPs			Level Two On the Job Training		Level Three Demonstrated Competence & Compliance with this SOP.	
	Trainee's Initials and Date	Trainee's Initial and Date	Trainer's Initials and Date	Trainee's Initial and Date	Trainer's Initials and Date	Trainee's Initial and Date	Trainer's Initials and Date
0500 Curriculum Vitae and Training Logs							
0100 Use of Standard Operating Procedures.							
0105 EPA Inspections							
1005 Procedures for Recording Raw Data							
1010 Designating RDA Trial Numbers							
1015 Protocol Review							
1020 Maintenance of the Archives							
2005 Trial Design and Identification							
2505 Test System Establishment & Maintenance							
2507 Test System Monitoring							
2510 Obtaining, Caging, and Maintaining Honeybees							

Revised 27 February 2023



Yuma, Arizona 85365

Employee Training Log

Name: \_\_\_\_\_

Date \_\_\_\_\_ Event \_\_\_\_\_  
 \_\_\_\_\_

Trainee initials \_\_\_\_\_ Trainer Signature \_\_\_\_\_

Date \_\_\_\_\_ Event \_\_\_\_\_  
 \_\_\_\_\_

Trainee initials \_\_\_\_\_ Trainer Signature \_\_\_\_\_

Date \_\_\_\_\_ Event \_\_\_\_\_  
 \_\_\_\_\_

Trainee initials \_\_\_\_\_ Trainer Signature \_\_\_\_\_

Date \_\_\_\_\_ Event \_\_\_\_\_  
 \_\_\_\_\_

Trainee initials \_\_\_\_\_ Trainer Signature \_\_\_\_\_

# Phase 1 training: Business Organization and Operation - Part 2

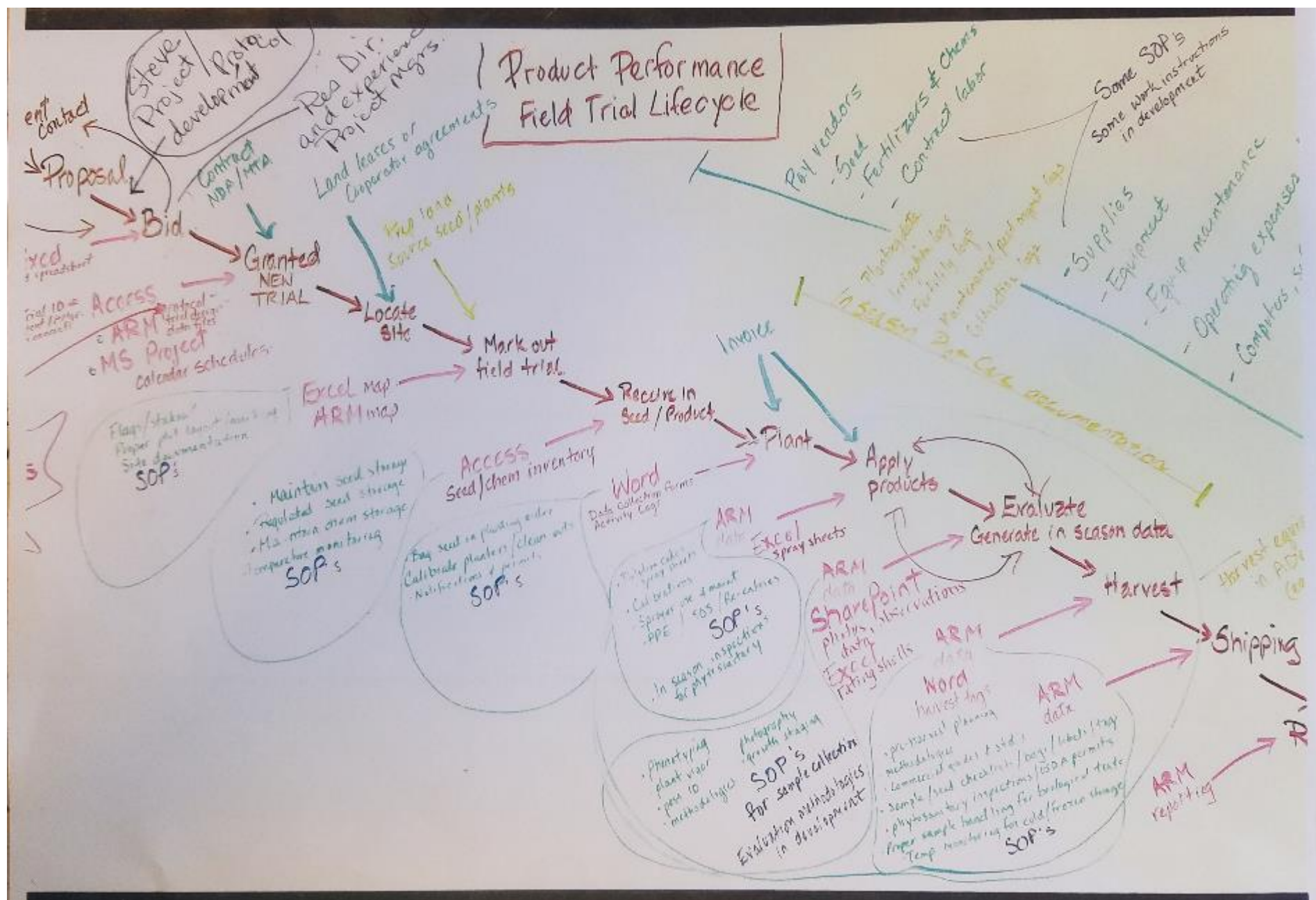
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MENTOR - LEE WEST Organizational Director

- Life cycle of a field trial graphic and flow chart
- Protocols and Methodologies
- Project management role review
  - Discussion of Expectations and metrics
- Preparation for and purpose of PM meetings
- Teamwork coaching
- Communication, communication, communication
  - How What Why Where When (show .ppt)
- Documentation, documentation, documentation
  - How What Why Where When







# Communicate Expectations

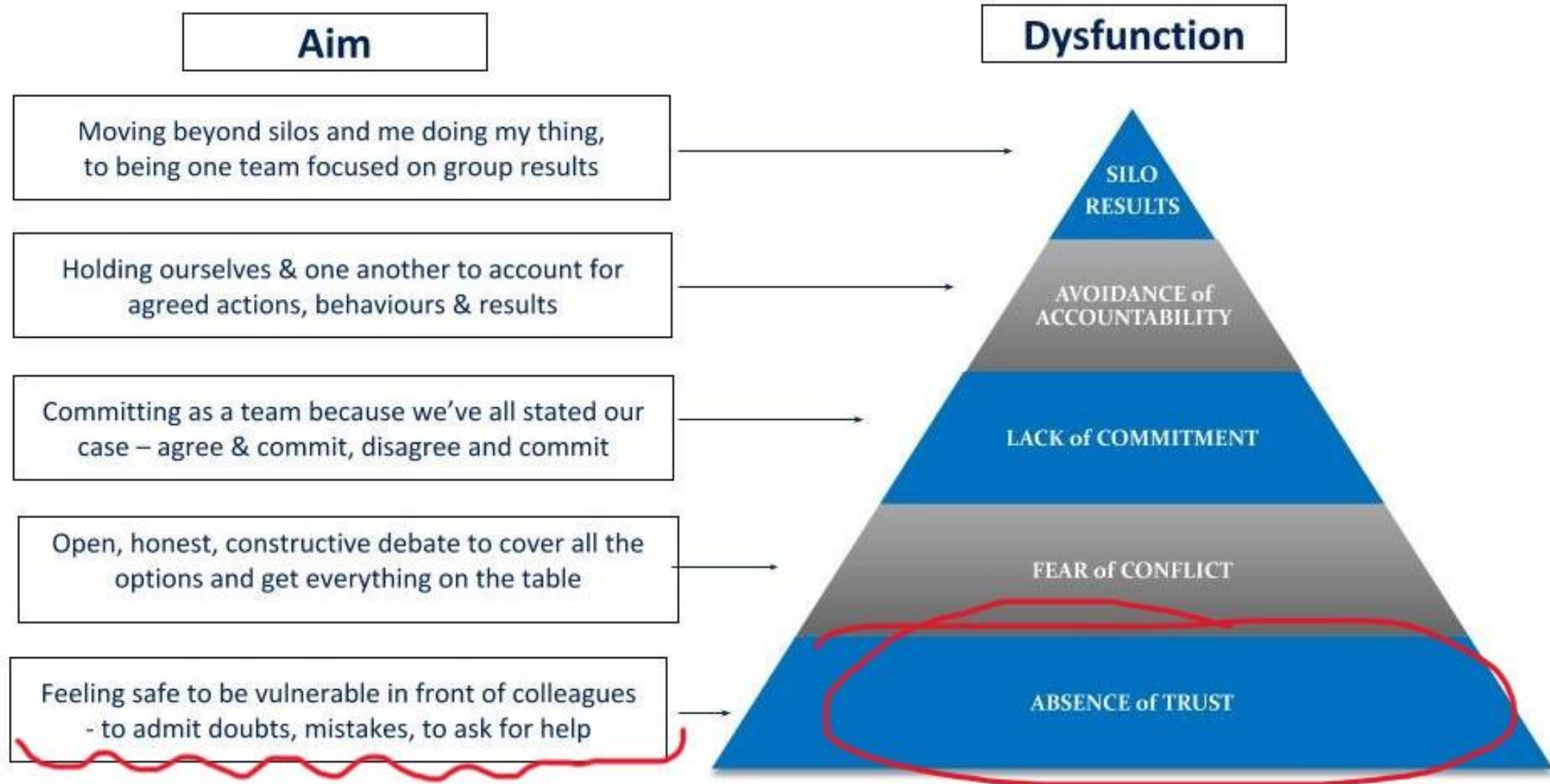
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Have clear and detailed written expectations

- You can use the job description and then break it out into described metrics
- Review the expectations together in a friendly and collaborative environment
- New researcher signs to each performance metric that they understand and agree
- Frequent collaborative review of performance – more often in the first year

# Patrick Lencioni - 'The Five Dysfunctions of a Team'

## TEAMWORK COACHING



# Phase 1 training: Business Organization and Operation – Part 3

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MENTOR - STEVE WEST Research Director

- RD4AG Capabilities and underlying concepts for success
  - Considerations for accepting new trials
  - Considerations for protocol development and trial design
  - Considerations for selection of assessment methodologies
  - Considerations for field placement
- SharePoint Tour: how to find all the everything
- Overview of MS Project – direct them to the tutorial
- Overview of ARM – direct them to the tutorial
- Bidding process – show how this informs conduct of events
- Data collection rules (and always document growth stage!)



# Phase 2 training: Research Technician role

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MENTOR – JOSE CARRILLO and ALAN CRUZ Research Technicians

- Read thru SOPs (0100 – 2725) together
- Data entry expectations
- Flagging/field layout
- Technology, techniques, and operation
- Stand counts/leaf counts
- Growth stage determination
- Insect Evaluations / Disease Evaluations
- Sampling and sample handling



# Phase 3 training: Research Biologist role

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MENTOR – JESUS URQUIDES Research Biologist/Project Manager

- Read thru SOPs (3005-4545) together
- Mixing/dilution calculations and calibration
- Sprayer Calibration and Operation – hands on training
  - High Cycle
  - Research Sprayer
  - Mirus applications
  - CO2 Backpack
- Sprayer/equipment decontamination
- Equipment logbooks
- Drip irrigation manifold assembly and set up
- SharePoint – in-depth training
- Microsoft Project – Hands-on training
- ARM Hands-on Training and Tutorial
- Data review



# Phase 4 training: Research Biologist role

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MENTOR – CESAR MELENDREZ Research Agronomist/Project Manager

- Read thru SOPs (5005-6005) together
- Coordinate team planning and field activities
- Protocol review processes
- Reports
- Project Manager Dash Board slides
- Client communication
- Trial site selection
- Field Mapping
- Field inspections
- Facility maintenance





## Great Guy, Ph.D – Best Client Ever, Inc.

Trial #:1234-56

Timeline: Spring 2023

Crop: Tomato

Location: River Ranch

Objective:

Effect of a new Fabulous product in Tomatoes via Drip

Crop Care:

Grower Standard with Reduction of Fertilizer

### Events and Deliverables

- App A via Drench
- Phyto/Vigor 7DAA
- NDVI/Mortality 14DAA
- Plant Evaluation
- NDVI weekly
- Yield Evaluation

Brix/Individual weight/diameter cm (10 fruit per plot ?)

- Report

8106 3	8206 2	8306 1
8105 2	8205 1	8305 2
8104 1	8204 2	8304 3
8103 3	8203 3	8303 1
8102 1	8202 3	8302 2
8101 2	8201 1	8301 3







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Objective:

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Crop Care:

Grower Standard with Reduction of Fertilizer

### Review and consider each of the following points:

- ✓ **Photos** – [View on SharePoint](#) – Photos taken June 2.
- ✓ **Data review** – [View in Excel](#) or ARM – 4 charts with data from May 10 and June 2 evaluations showing some separation of treatments. All data to date is in ARM and run.
- ✓ **Equipment needs** – [Manifold System can be pulled now and regular drip reconnected](#)
- ✓ **Plot care needs** – Field inspection reports – [Whiteflies are present. Maintenance app may be needed soon.](#)
- ✓ **Client communication** – Provide last client update, [Last email to Dr. Guy with brief data update sent May 12<sup>th</sup>, need to send new data charts this week.](#)
- ✓ **Schedule** – View in MS Project – mark past as 100%, [Next NDVI is scheduled for June 5th](#)
- ✓ **Invoicing** – [Final yield assessment will not be until July.](#)

# Phase 5 training: Technology and Process Improvement

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MENTOR – CONNOR OSGOOD Research Biologist/Special Projects

- Concepts for method development and process improvement
- Projects in the hopper and perspectives on needs
- Moisture measuring
  - Tensiometers
  - RANCH system
  - Campbell 6311
- Image J
- Plant phenotyping
- Canopy cover
- Rhizotrons



# Personal Development Plan

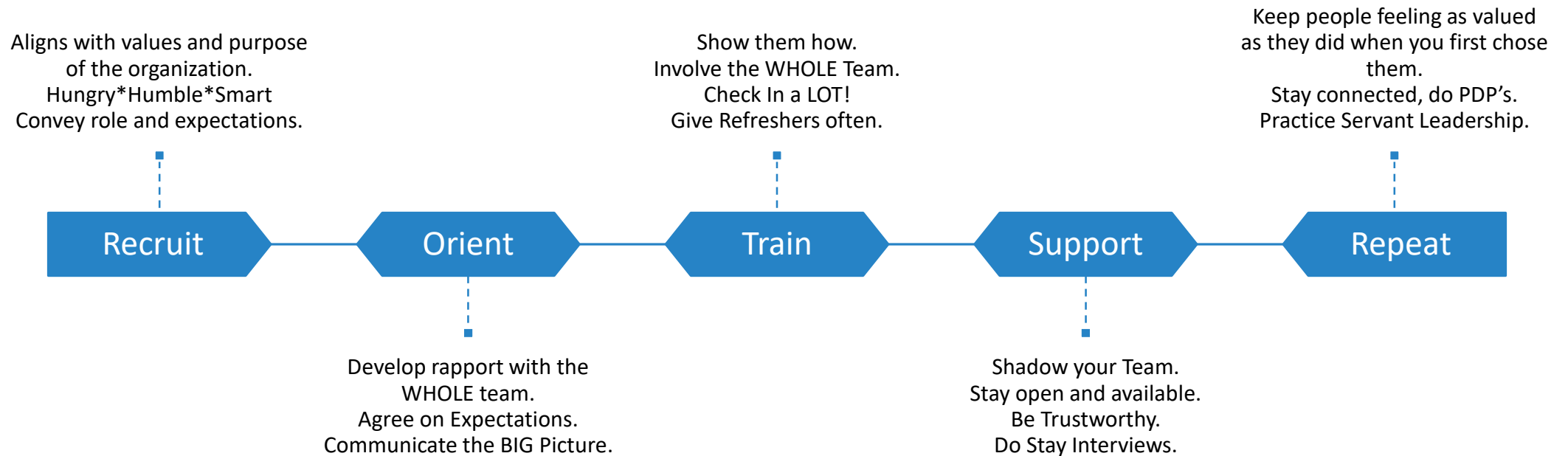
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Conduct PDP reviews at least annually, separately from the performance review

- What's MOST important to you right now? Challenge? Security? Money?
- How can this job fulfill your professional and life goals?
- What can we do to help you in your role?
- What's your favorite part of this job?
- What would you like to see improved/changed?
- What external learning opportunities you would enjoy?

# The Process is Eternal

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**TEAMS:**

**Either EVERYBODY  
gets a ring or  
NOBODY does**



# Summary

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Recruit wisely

Develop rapport

Communicate Expectations

Train all the time

Support with compassion

Check in often

Repeat forever





# Thank you

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Lee West

[westyuma@gmail.com](mailto:westyuma@gmail.com)