

BIO-PESTICIDE RESEARCH 2018

GENA MOORE

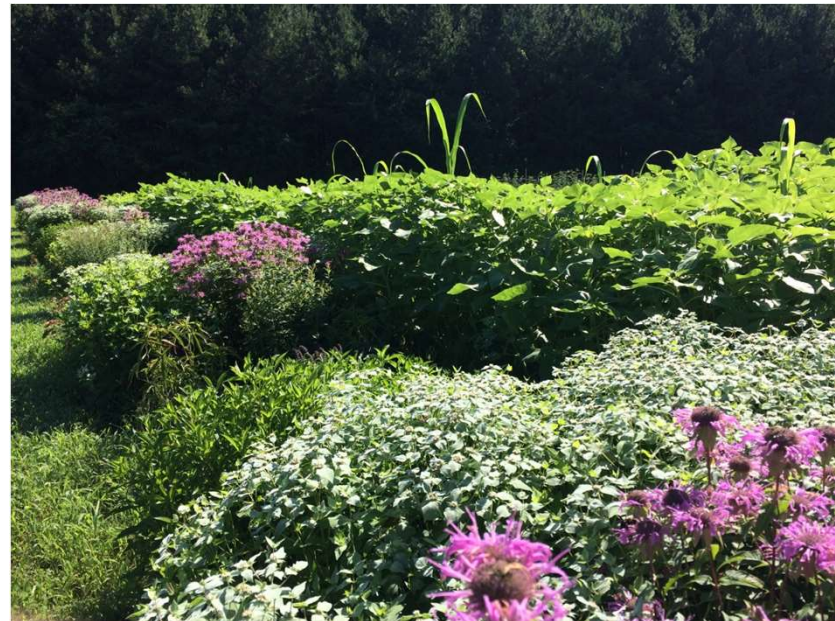
Organic Research Coordinator

carolina farm
stewardship association



IPM and Research

- Holistic research on IPM is difficult
- Too many moving parts to determine influences in data
- Specific Research Trial Examples:
 - Impact of beetle banks
 - Mulch use to reduce weed pressure
 - Released predator species to control aphid populations
 - Effect of pesticides



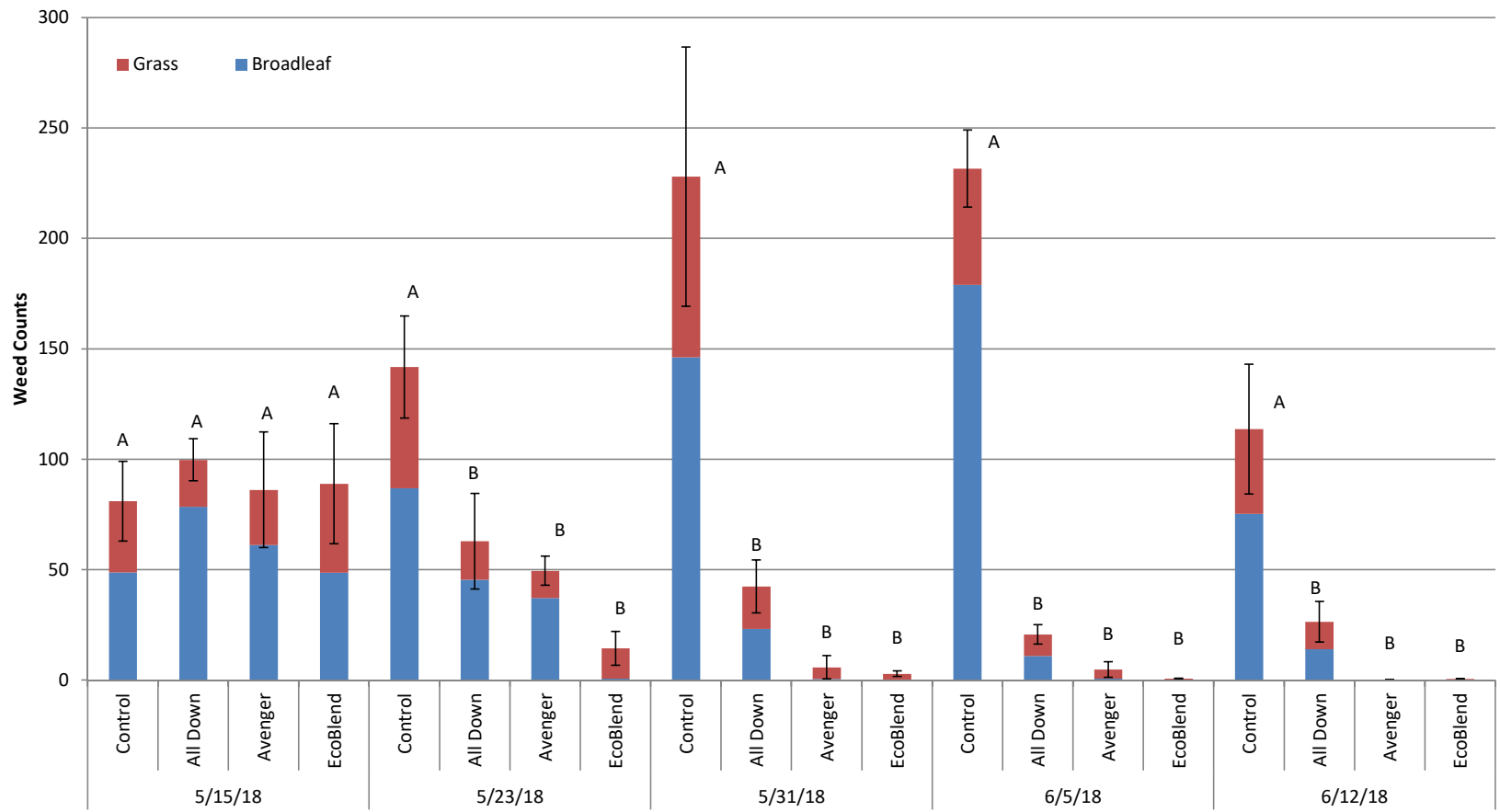
Evaluating the Efficacy of Organic Pesticides

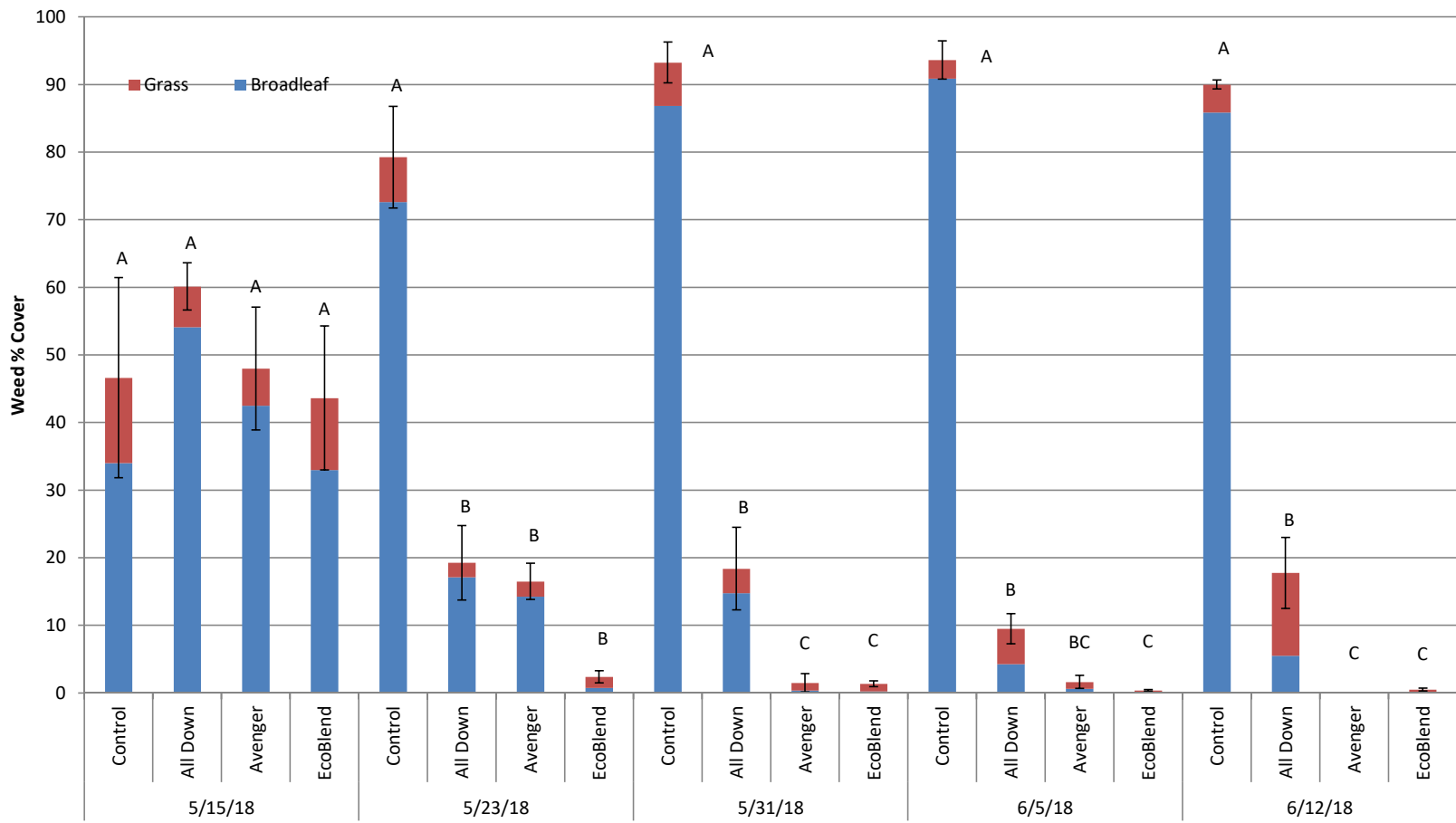
- Research study launched in January 2018 at Lomax Farm
- How did we come up with the idea?
 - Format
 - Materials
 - Procedure
- What did we test?
 - Herbicides, Fungicides, Insecticides





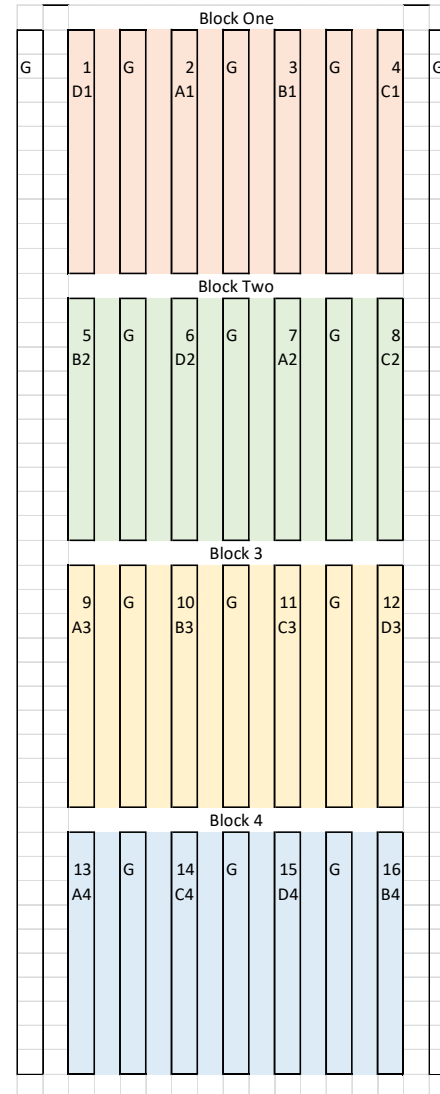






Fungicide

- Dunja Zuccinni
- Fungicides
 - Champ WG (Copper Hydroxide)
 - Stargus (Bacillus amyloliquefaciens strain F727*)
 - Lifeguard (Bacillus mycoides isolate J*)
- Sprayed per label instructions for 5 weeks ~ after threshold was met
- Harvest, Horsfall-Barret Disease Rating

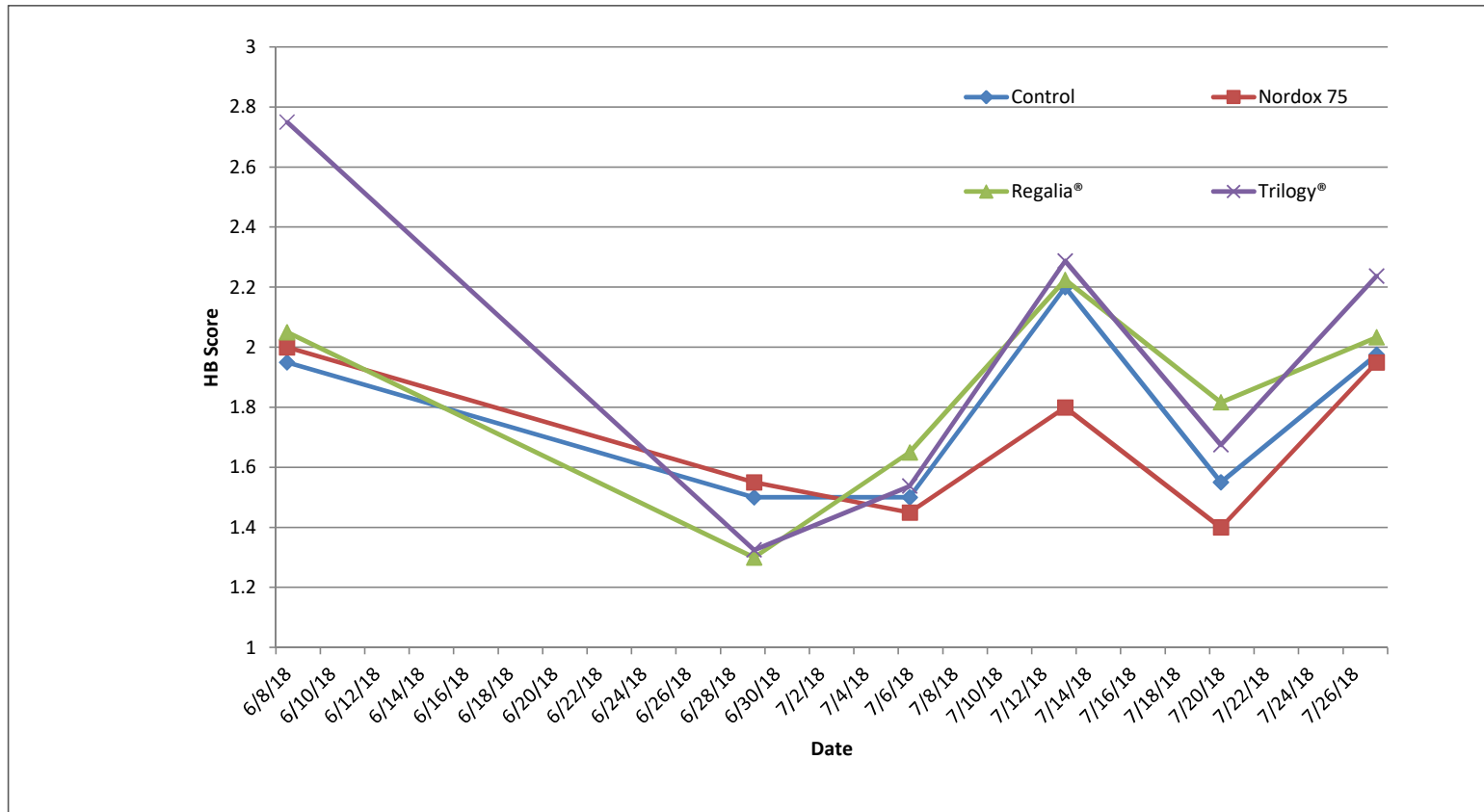


Treatments	
A	Control
B	(Champ WG, Nufarm Americas Inc., Alsip, IL)
C	(Stargus®, Marrone Bio Innovations, Davis, CA)
D	(Lifeguard®, Certis USA LLC, Columbia, MD)
.75m	
.75m	

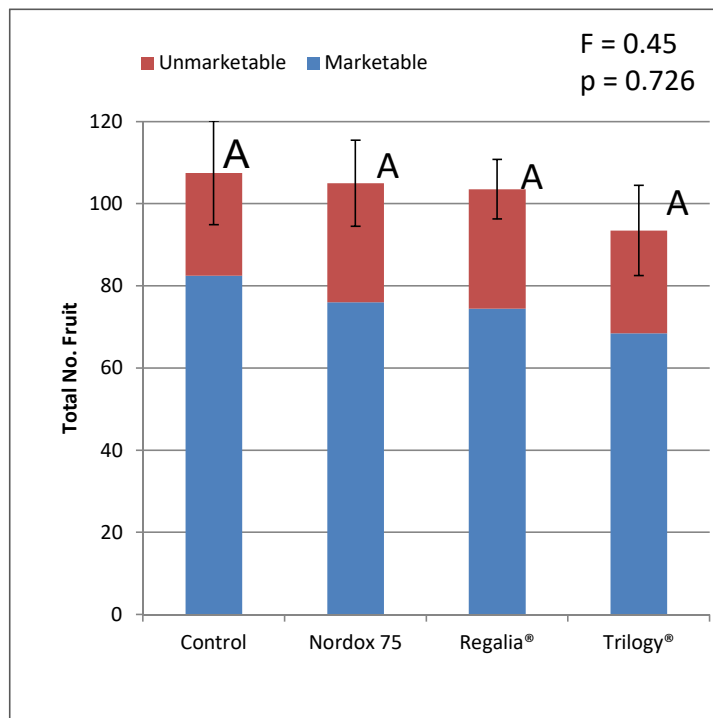




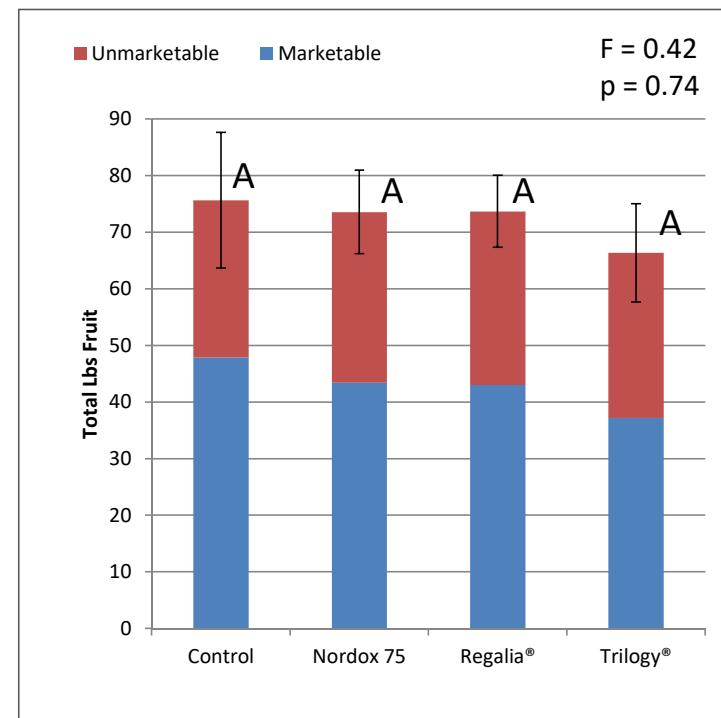
Horsfall_Barrest Comparison



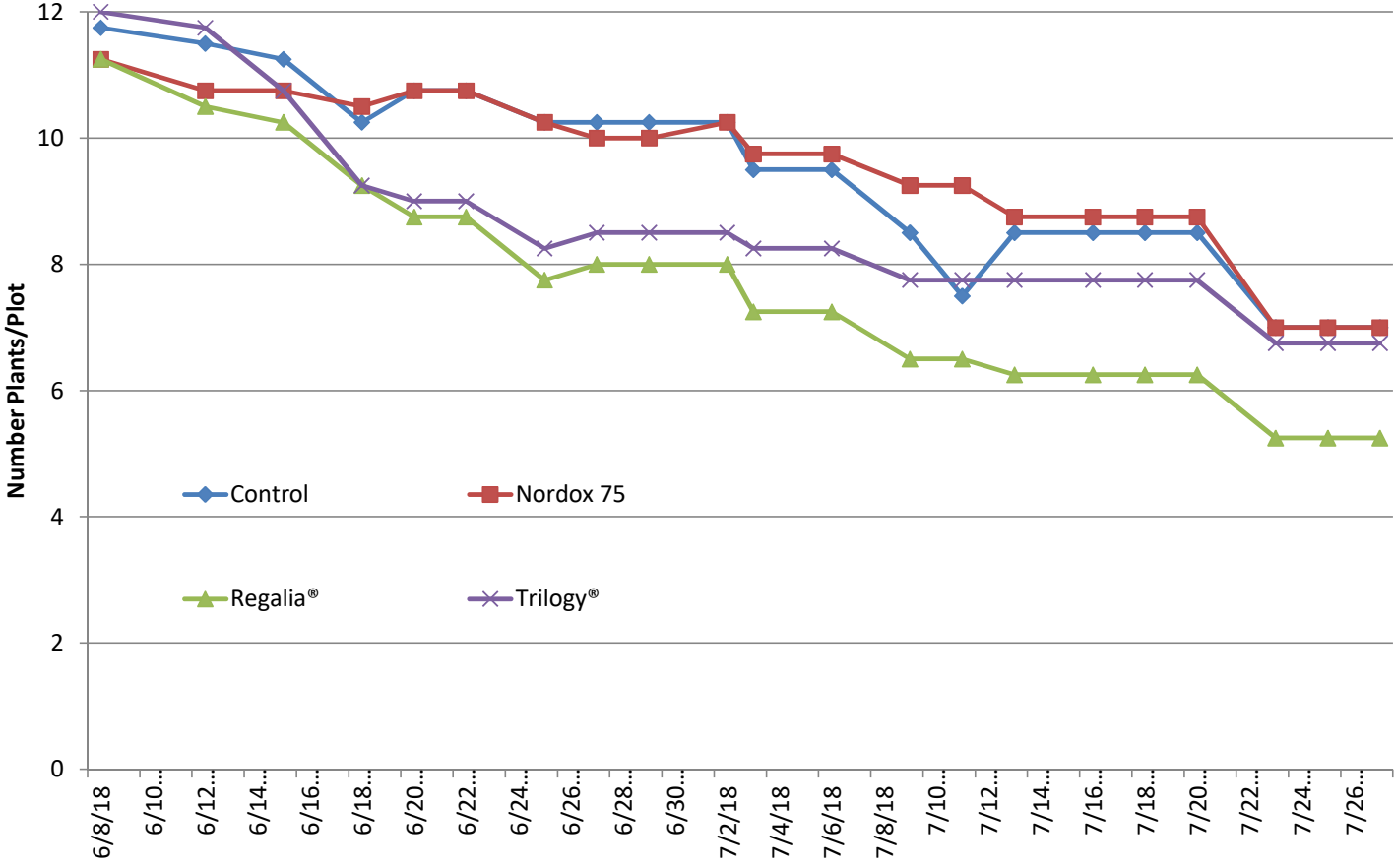
Harvest by Number of Fruit



Harvest in Pounds

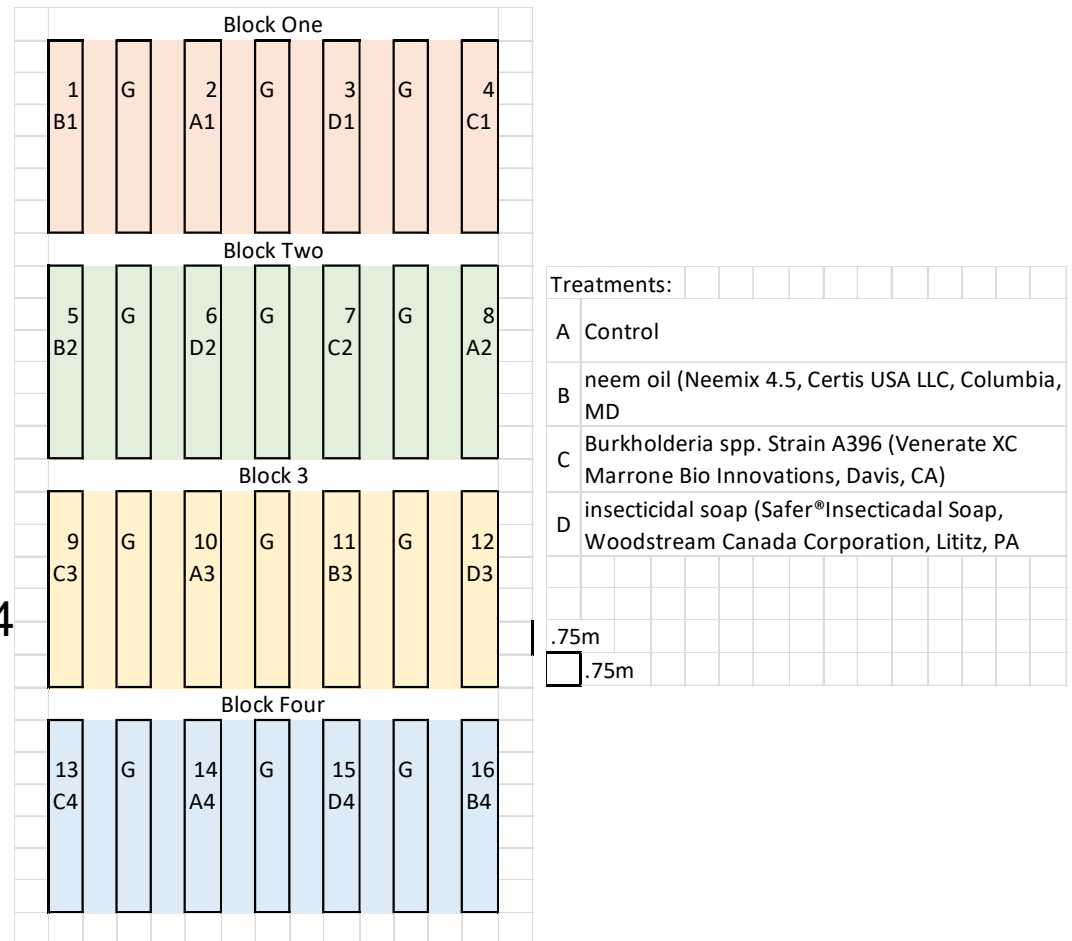


Number of Plants Throughout Season



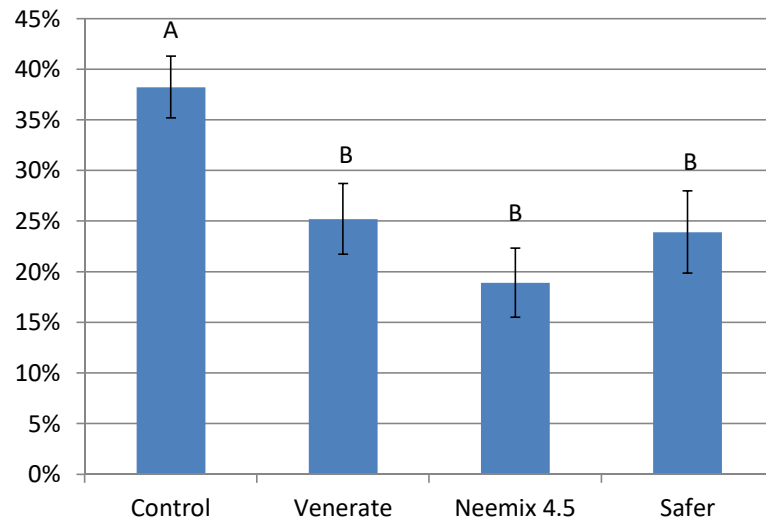
Insecticide

- Tat Soi
- Insecticides
 - Neemix
 - Safer Insect Soap
 - Venerate
- Sprayed per label instructions for 4 weeks ~ after threshold was met
- Insect identification, percent damage, harvest

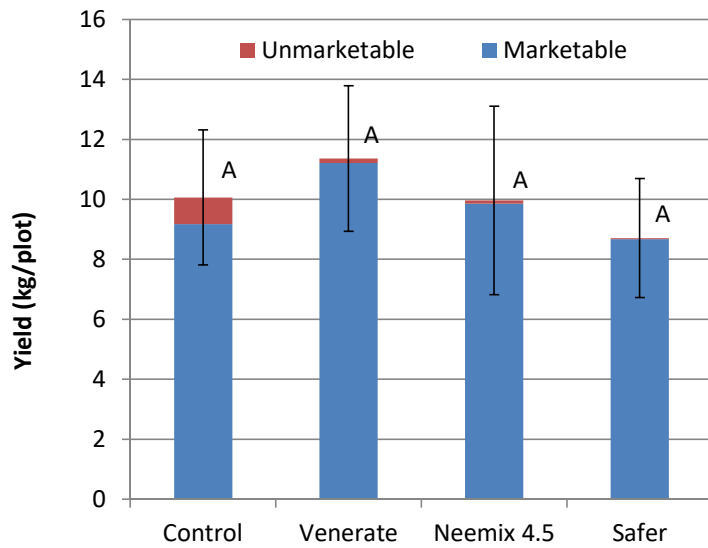




Percent of Leaves Damaged by Insects



Average Percent
Insect Damage
for all Treatments
by Date



Marketable and Unmarketable Harvest by Treatment





Equipment



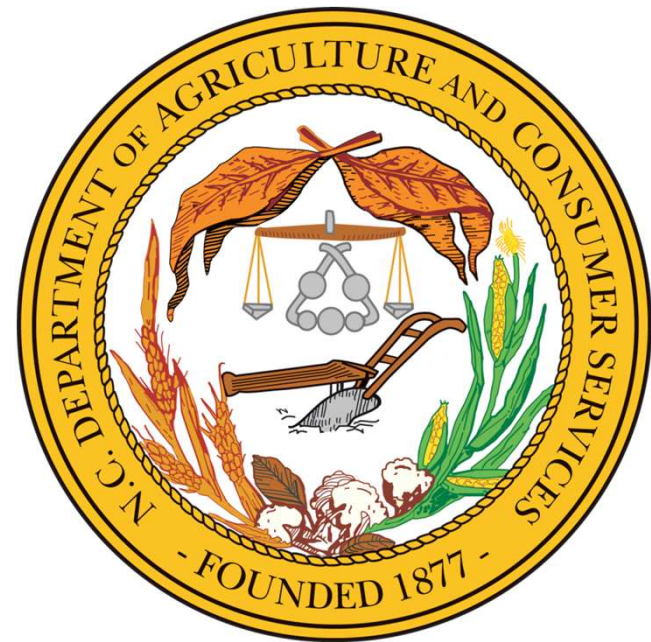
Reading Your Label

- Always follow label instructions
 - Application Amount
 - Personal Protective Equipment
 - Re-entry and Days to Harvest
 - Environmental Hazards
- What your spraying/applying **MUST** be labeled for your target control or crop



Pesticide Safety and Your Farm

- What is a pesticide license?
- When do you need a license?
- Beyond proper application:
 - Beneficial Insects
 - Pollinators
 - Farm animals/livestock
 - Customer Concerns



How can you be involved in CFSA research?

- Complete our surveys and evaluations!!!
- Visit Lomax Farm
 - Annual Lomax Field Day: May, 2019
 - Volunteer Days: April and October 2019
 - Schedule a tour
- Interested in on-farm research?
Contact me!
 - gena@carolinafarmstewards.org



COMMENTS

Thank you!