

Hello pecan growers from the Mesilla Valley & Las Cruces area,

My name is Alexander J. Armijo and I have lived in the area my whole life. I graduated from New Mexico State University with my bachelor's degree in agricultural biology this past fall, and I've been given the opportunity to continue my education here in Las Cruces at NMSU. I'm a new graduate student in the Economic Entomology Lab at New Mexico State University in the department of Entomology, Plant Pathology, and Weed Science (EPPWS). Pecan aphids are perennial pests that are commonly controlled in the Mesilla Valley each season. My research will attempt to improve our understanding of how cultural and control practices used by growers affect aphid populations and ultimately correlate with nut quality/yield.

I am looking for field sites representing the many different management practices used in the valley. This research will be a 2-year survey study where I will attempt to visit sites weekly to record aphid numbers. I need to find growers willing to share dates and details of their cultural practice events including irrigation, fertilization, insecticide, herbicide, and anything else that you may consider important via survey like the one in the following pages at the beginning and end of each season. I hope to communicate closely with growers to make sure that we aren't disturbing fields after irrigations, herbicide/insecticide applications, or fertilization events when going to scout for aphids. One key piece of information that I will need at the end of harvest is yield data from each grower, including total tonnage per block, and nut quality. I will record tree spacing, tree height, trimming status and trunk diameter once per year. Soil samples will be taken during the winter to gather soil structure, type, and mineral complex. Leaf nutrient analysis will be measured in July. Ideally, I would like to establish sites that are between 2 and 20 acres and harvested and recorded as a block. By combining data from all of the sites and associated management practices, I hope to quantify the importance of aphid populations while controlling for different cultural techniques on the final yields. I ensure that personal information such a name of grower, name of orchard, and location of orchards will not be released. Summaries of data collected throughout the study will be made available to all participating growers.

In the following pages you will find a brief survey about your field. If you would be willing to provide multiple blocks/sites please fill out one form for each location and email it/them back to me at alexmijo@nmsu.edu. I look forward to communicating closely with all of you and visiting your orchard.

Sincerely,

Alexander J. Armijo
New Mexico State University
505-946-8884
alexmijo@nmsu.edu

The personal information below including name through location, will not be included in any summaries or other written documents, they will remain anonymous.

Date: _____

Name: _____

Email: _____

Phone Number: _____

Name of Orchard: _____

Size of Orchard: _____

Location:

Lat/Long: _____

Or

Physical description (crossroads, address, etc.):

These questions are just to give me a general idea of your management program:

1. Is your orchard organic?

Yes

No

2. How old is the orchard?

7 – 20 years old

21 – 40 years old

41 – 60 years old

61 – 80 years old

80 and above

3. What main cultivar are you producing?

Western Schley

Wichita

Other (please specify)

4. What pollinizer is being used?

Ideal (Bradley)

Burkett

Wichita

Other (please specify)

5. What was your total yield per acre and nut quality in this block during the past three years if available?

Year	Yield	Quality
2018		
2019		
2020		

6. Typically, how much water do you apply?

Less than 3-acre feet

3-to-4-acre feet

4-to-5-acre feet

5-to-6-acre feet

Greater than 6-acre feet

7. Typically, how much nitrogen do you apply annually?

None

10 to 50 lbs./acre

51 to 100 lbs./acre

101 to 200 lbs./acre

201 to 300 lbs./acre

Greater than 300 lbs./acre

8. Which of the following do you apply annually? (check all that apply)

Zinc

Potassium

Phosphorus

Micronutrients

9. How often do you hedge trim your orchard?

Never

Every year

Every 2 years

Every 3 years

Every 4 years

Occasionally

10. Which of the follow do you typically spray annually with an insecticide?

Pecan nut casebearer (larvae)

Pecan nut casebearer (adult moths)

Yellow aphid complex

Black pecan aphid

11. Do you buy and spread beneficial insects for pest control?

Yes

No

12. How do you typically control weeds? (check all that apply in ranked order 1 being the most used method)

Mowing

Herbicides

Cultivation

Thank you for time! Once you've completed this form, please email it to alexmijo@nmsu.edu. If you have any comments about your orchard, please put them below. I look forward to meeting you all in person and visiting your orchards.

Comments: