June
2016

Vegetable Crops Newsletter

University of California
Agriculture and Natural Resources
Cooperative Extension
UC CE

Introducing the New Vegetable Crops Advisor in Colusa, Sutter and Yuba Counties

Hello everyone, my name is Amber Vinchesi (pronounced "Vincasey") and I have recently joined UCCE as the new Vegetable Crops Farm Advisor serving Colusa, Sutter and Yuba counties. Most of my work will focus on processing tomatoes and cucurbits. Please contact me if you would like me to visit your farm or to discuss the problems facing vegetable crops in this area. I look forward to meeting all of you.

Current Projects

I have already started a small Fusarium wilt race 3 resistant variety trial in processing tomatoes with the help of UCCE Yolo County Farm Advisor Gene Miyao. This trial is being conducted in five counties in collaboration with various Farm Advisors to evaluate resistant varieties. We will be looking at rates of disease, yield and fruit quality. This work is supported by the California Tomato Research Institute with cooperation by seed dealers and growers.

Background

I grew up in Massachusetts but moved to the Midwest for college, where I obtained my B.S. in Entomology from Purdue University in 2009. I have an M.S. and Ph.D. in Entomology from Washington State University, where I worked under Dr. Doug Walsh. My research focused on the alkali bee, a solitary, ground-nesting pollinator native to the western United States. The alkali bee is an extremely important and efficient pollinator of alfalfa grown for seed and coveted by the seed producers in southeastern Washington State. The bees nest in dense aggregations called "bee beds" which are commercially maintained by the growers. For my Masters, I manipulated soil temperatures on the alkali bee beds with plastic agricultural mulches to accelerate or delay bee emergence for more efficient pollination services if alfalfa bloom was early or late in a given year.

My Ph.D. was funded by the Washington State Department of Transportation due to environmental mitigation needs after the proposal of a highway upgrade that would bisect alkali bee nesting sites and potentially impact alfalfa seed yield in the area. The alfalfa seed producing regions of southeastern Washington can produce alfalfa seed yields up to 10x the national average. I conducted a population survey of various bee beds in the area by comparing surface sampling techniques with soil core sampling of nesting bees. I determined how high the bees were flying over county roads using a truck with nets attached to it in order to assess the impact of vehicular traffic on foraging bees. Finally, I estimated the foraging range of the alkali bee using genetically-engineered alfalfa pollen.

After receiving my Ph.D. in 2014, I began a postdoctoral position with Oregon State University under Dr. Silvia Rondon working on alternative control methods (thiamine a.k.a. Vitamin B_1) to control insect-vectored diseases on potatoes. Vitamin B_1 had been shown in other crops to boost a plant's immunity. I specifically focused on Potato Virus Y transmitted by aphids and Zebra Chip transmitted by the potato psyllid. I also conducted preliminary surveys of wireworms in the area and various pesticide trials in the greenhouse.

In 2015, I rejoined Dr. Walsh's lab at WSU as a Postdoctoral Research Associate working on Integrated Pest Management (IPM) of alfalfa seed, focusing on beneficial predators and their impact on Lygus bugs when new candidate insecticides were sprayed and other prey options (aphids) were eliminated. I have consistently participated in various extension and IPM programs and activities during my seven years in the inland Pacific Northwest. Though my direct experience has not been in vegetable crops, I am looking forward to learning from all of you and applying my skills to this new position.

Thank you!

Amber can be contacted at the Colusa UCCE office at 530-458-0575, by cell phone at 508-254-4490, or at acvinchesi@ucanr.edu.