

USHRL 2014 Open House – Public Tour Stops

In covered parking area:

Know Your Farmer – Know Your Food – Anita Neal [11:00 to 1:00]

Meet and greet some of our local farmers and growers.

Catch a glimpse of what is produced right here in this area.

Taste of Florida – Anita Neal [11:00 to 1:00; Rear Covered Parking Area]

Join us for a tasting of Florida's agricultural abundance and experience new culinary sensations.

Tour stops for guided tours:

- **Plant Tissue Culture Lab – Dr. Randy Niedz [Lab 2012]**

Plant tissue culture is growing plants and plant parts in sterile containers for various purposes. The tour will show the basic equipment and procedures used in a plant tissue culture lab. Additionally, applications of plant tissue culture will be explained, including research applications at the USDA lab as well as popular commercial uses.

- **Genomics Labor – Dr. Robert Shatters [Genomics; Lab 2057]**

Stop by the USDA/ARS Genomics laboratory and discover how researchers use robotic liquid handlers and instrumentation to read the genetic code of a vast majority of organisms. There will also be a discussion covering how this genetic information is used by scientists to create new solutions to today's agricultural problems, and how this technology is paving the way for future agricultural sustainability.

- **STEM – Drs. El-Desouky Ammar and Kent Morgan [STEM Facility; lab 2042]**

We will show our STEM (scanning & transmission electron microscope) and its use in biological and agricultural sciences, e.g. examining plant infecting viruses and bacteria, insect pests etc. at very high magnifications (up to 100,000X). Some of the economically important projects include investigating the citrus greening disease bacterium and its relationship with its psyllid vector, studying the feeding mechanism of psyllids, aphids, etc., and selecting insect or disease resistant citrus varieties.

- **Use of emerging RNAi-based technologies to improve the health of Honey Bees!**

Dr. Wayne Hunter will discuss "Basically how can we protect honey bees from viruses and ectoparasites (Varroa mites), using a highly specific product that only reduces survival of the Virus and/or the Mites allowing the bees to be healthier, more vigorous, and surviving better. Field trials providing bees with this 'medicine' resulted in 4 times greater bee survival through the winter time, and they produce 3X more honey.

- **USDA Insectary presents "The Cycles of Life" – Anna Sara Hill and Hendricksa Ferdinand**

Stop by the USHRL Insectary, home of a few of S. Florida's most damaging and economically insignificant agricultural pests.

Meet some of the resident insects; learn about their lifecycles and find out why and how we rear them.

- **Sensory Evaluation of Foods – Dr. Ann Plotto [Covered Parking]**

Orange juice is a large component of Florida agriculture. Visitors will learn how orange juice is made, and all the research done to understand its flavor, health benefits and find value added products from orange peel. Visitors will have the opportunity to taste different varieties of orange juice.

- **Greenhouse Operations – Lynn Faulkner [Greenhouse]**

Visit the main greenhouse head house area and discuss sanitation requirements for handling plant material, growth media, etc. Learn about nutritional treatments for plants and insect control in the greenhouses.

- **Products from Citrus Juice Waste Stream – PeiLing Li [Pilot Plant]**

See the research equipment used for the production of ethanol and other co-products from juice processing waste streams. Citrus juice processing operations produce approximately 8 billion pounds of waste which when dried for use as a feed supplement for cattle is worth 6 to 8 ¢ per pound. Research is directed towards development of new high value products and processes for their production from citrus processing waste streams that increase the value of Florida's citrus crop.

Tours of Research Farm on Picos Road

Farm Tour - Take a shuttle to our Research Farm on Picos Road.

Tour the farm and see the field research being conducted on citrus diseases, citrus pests, new citrus varieties and other crops, different grafting and inoculation techniques, as well as a demonstration of methods being used to rear HLB infected psyllid for experimental use.