Agricultural workers received safety training at a recent University of Florida event. The workers were also given instruction for a new Occupational Safety and Health Administration, or OSHA, requirement to use respirators under specific circumstances.

Topics covered were new respirator use standards; fertilizer and pesticide best management practices; fire safety; spill control and cleanup; worker protection standards, ladder and tractor safety; and heat exhaustion and heat stroke. In the afternoon, organizers prepared a hands-on Tractor Rodeo and pest and disease identification.

Leading the event was the UF/IFAS Citrus Horticulture Laboratory team: Dr. Kayla Thomason, Clarence King, Shameka Finkley-Hines, Ricardo Lesmes, Sara Cornejo, and Dr. Guocheng Fan. Dr. Haibing Pan from Dr. Ritenour’s lab also supported the event with audiovisual installation.
“The training provides key aspects to prevent accidents and show how to respond quickly to an emergency,” said Ferrarezi.

“The workers learn new safety techniques and are reminded of all industry hygiene standards.”

Also leading the event were IRREC’s Dr. Mark Ritenour, Associate Professor of Horticultural Sciences; Christine Kelly-Begazo, UF/IFAS Indian River County Extension Service Director; Dr. Garmina Kakkar, a Multi-county Fruit Crops Extension Agent, based in St. Lucie County; and, Darren Cole, Indian River County 4-H and Youth Development Extension Agent.

Presenters included Jamie Burrow, Extension Program Manager at the UF/IFAS Citrus Research and Education Center, in Lake Alfred, and Kayla Thomason, IRREC Biological Scientist III.

Appearing as a guest presenter was E. Vanessa Campoverde, UF/IFAS Miami Dade County Extension Agent.

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“The workers learn new safety techniques and are reminded of all industry hygiene standards.”

New to this year’s training were new respirator requirements and heat stress illness standards.

**TRACTOR POWER TAKE-OFF**

Many agricultural safety techniques are presented every year, such as heavy mechanical equipment operation. Operating tractors can be hazardous if they are not operated correctly.

Albert Byrd, a longtime employee with Blue Goose Growers, said he attends the event annually and always learns something new.
This year he said he was grateful the learning modules included instructions to stay away from a tractor’s Power Take-Off, or PTO. The PTO is a tractor shaft, which extends from the tractor cab body to its trailer.

“If a worker moves too close to the PTO, it could grab them into its live spin,” said the video training segment narrator.

The narrator stressed three times throughout the taped presentation, “Accidents involving the tractor PTO are often fatal.”

Byrd said he had once seen a co-worker become entangled in a tractor PTO some years ago. But, the man did survive.

“I am glad others can see how quickly this type of accident can happen if they don’t stay away from the PTO,” said Byrd.

“The PTO got a hold of a worker’s shirt and pulled him into it,” said Byrd. But the shirt saved his life—the PTO tore it off him and he got free.”

Dr. Mark Ritenour said the PTO is an extremely useful device to power a number of implements that might be attached to a tractor. In the normal course of work, people will come in proximity to the PTO, but the safety issues the training video present are important to minimize injury.

“Issues of things like wearing loose clothing, jewelry, and when to safely engage the PTO are some of the important safety points,” said Ritenour.

The PTO is an important tool and an incredibly powerful piece of equipment that could definitely kill someone if not respected. Stay vigilant and remember your safety training to use these tools without injury, said Ritenour.
The narrator said the PTO makes 13 revolutions per second or 540 per minute. Following the video presentation attendees moved out of the auditorium to see a PTO swirling on the back of a tractor.

Using heavy equipment safely requires training. And so too does using a smaller piece of equipment to protect workers’ health: a respirator.

NEW RESPIRATOR REQUIREMENTS

New to worker protection standards this year is respirator requirements.

E. Vanessa Campoverde, UF/IFAS Miami Dade County Extension Agent, presented the respirator-use mandates from OSHA.

Campoverde said, “You are required to use a respirator when applying insecticides; if you are allergic to dust or have other allergies; if a respirator is required on a product label; and if a worker smokes tobacco.”

Respirators may protect a worker’s health by preventing impaired thinking that may lead to accidents.

FACE MASK TYPES

Three types of face mask respirators are available for use by agricultural workers: half mask filtering face piece respirators; half mask elastomeric respirators; and a full face piece elastomeric respirator. Compoverde showed images of a tight-fitting atmosphere-supplying respirator worn partially on a worker’s face and partly on their back. A loose-fitting air-purifying respirator is also worn on the face and back, powered with an air purifier. A third type of powered respirator is worn with a hood, said Campoverde.

“If a product label requires a respirator, the employer must provide handlers with a medical evaluation, fit test and respirator training prior to the activity which requires the respirator,” said Campoverde.

Following Campoverde’s presentation members of the audience posed questions about fitting the respirator mask and making a seal on their faces. She responded that trainers would be in a position to assure the workers they will properly fit the mask during the “fit test” segment of the requisite fitting.

Campoverde recommended workers ask their supervisors to contact their local UF/IFAS Extension Service to bring in an extension agent who will assist with the training.

To read more about respirators, access a University of Florida/IFAS EDIS document, Respirators for Pesticide Applications, at: http://edis.ifas.ufl.edu/pi114
HEAT EXHAUSTION AND HEAT STROKE

On an unseasonably cool Florida morning, Jamie Burrow presented the dangers of dehydration and heat illnesses which can occur even on cool days.

Burrow began with the fact that Florida agricultural workers are exposed to high temperatures combined with humidity for much of the work year. She noted that while workers often believe there is no heat stress danger to their health, they must recognize symptoms and know how to treat them quickly, on behalf of themselves, and their co-workers.

“Heat builds up in a worker’s body as muscles are used and from the warm environment while they work,” said Burrow.

Burrow recommended workers drink water continually when working outdoors and to adapt to the heat gradually.

“Hydration and rest breaks are important to keep your body temperature within a healthy range,” said Burrow. “We recommend you drink at least one pint of water every hour while working in the heat.”

Burrow said workers need to recognize heat exhaustion symptoms in themselves and recognize the same symptoms in their co-workers. She added that a worker suffering with heat illness will lose judgment and fail to realize the danger. Heat stroke is the most severe stage of heat illness and can take human life, she emphasized.

Heat exhaustion usually comes with heavy sweating, dizziness, nausea and vomiting, fatigue, and pale, moist skin. Burrow said heat exhaustion may be treated by getting the victim to a cooler area and providing water or another electrolyte solution such as a sports drink or coconut water. She said the worker should sip the water gradually.

Heat stroke, however, is an emergency.

Heat stroke occurs when a worker’s body becomes so hot that their natural cooling system collapses. The potentially deadly situation presents with a very high body temperature, above 103 degrees Fahrenheit. Its victims suffer with red hot, dry skin; a rapid, weak pulse; shallow breathing, confusion and then fainting. Burrow urged attendees that if they become a victim of heat stroke, or recognize the symptoms in a co-worker, to call emergency services at 911 first.

While awaiting emergency services, Burrow said to take action by moving the victim to a cool location. The third step to treat the victim is to apply cool packs, an ice bath, or to hose them with cool water. Other steps to assist the victim are to monitor their body temperature, and to fan them.
DRINKING WATER PROGRAM

“To prevent dehydration, heat exhaustion and heat stroke, we recommend a drinking water program for agricultural workers,” said Burrow.

“A good way to determine if you are drinking enough water is to weigh yourself in the morning before work and then again after the work day is over. Your weight should remain a constant amount.”

Thirst is not a good way to determine if workers are drinking ample water.

Replacing body fluid lost from sweat is the best way to control heat stress and to prevent heat illness, said Burrow.

Burrow’s guidelines for a drinking water program are following:

- Drink at least 1 pint of water, sports drink or coconut water every hour
- Avoid caffeneinated, carbonated, sugary and alcoholic beverages
- Monitor the color of your urine—it should not be dark in color—and if it is, you are not getting ample fluids.

FIRE SAFETY

Sessions about heat illness on a cold day seemed to warm the chilly lecture auditorium. And the segment about fire safety involved even higher temperatures.

Florida Forest Service Firefighter, Ethan Brooks, presented a tractor used to fight major forest and field fires.

Brooks reminded attendees that the winter is Florida’s dry season and dead trees and grasses ignite easily. He said that when it is necessary to burn small amounts, or “pile-burns,” to ensure the fire is contained so that embers will not move to areas of dry grass or branches.

“You may burn in a drum or on a small area no larger than 8 square feet, but you will need a permit for any land size larger than that,” said Brooks.”

Agricultural workers may become certified to do prescribed burns in a course offered by the Florida Forest Service. He provided his email address for those who have an interest in the course. To contact Brooks:

ethan.brooks@freshfromflorida.com
LUNCHEON, TRACTOR RODEO AND CITRUS DISEASE ID

Following the morning program was a barbecue pork luncheon served by Carter’s Grocery, a family-owned country grocery store and casual restaurant popular with St. Lucie County’s agricultural workers.

During the lunch, about 25 attendees worked their way through a stand of about 15 young citrus trees in pots, positioned in two long rows. Using materials to assist in the identification of citrus diseases, competitors used a checklist to identify citrus greening, diaprepes root weevil, canker and other citrus problems.

The activity was led by Dr. Garima Kakkar and Jamie Burrow.

Lunch was followed by a rousing Tractor Rodeo event inside the Adams Auditorium.

Leading the competition were UF/IFAS 4-H and Youth Development Extension Agent Darren Cole; Dr. Kayla Thomason, IRREC Biological Scientist III; and Ward Gunter, representing event sponsor ICL Specialty Fertilizers.

Gunter trained participating drivers to operate a state-of-the-art 5075E John Deere Tractor. The machine was provided for the rodeo by Everglades Farm Equipment of Fort Pierce.

The competition objective was to operate the tractor safely through an obstacle course that ran the entire length of the auditorium. Drivers lost points if the tractor tapped any of the track boundary stakes. Drivers who may fail to secure a seat belt would lose a large number of points.
Comrades in the auditorium stands cheered on their co-workers as they handled the large green tractor with precision and confidence. All of the contestants remembered to secure their seatbelts before starting.

Some drivers did tap or knock down the lightweight course boundaries, adding seconds to their finishing score. Gunter presented gift cards and back packs stocked with work-appropriate gifts to each of the place award winners.

Ivan Morales, who placed first in the Tractor Rodeo, said, “It’s fun to win, but it’s more important to be safe when we work.”

Individual place winners for the Citrus ID and Disease competition were:
- First Place: Matt Adair, The Florida Research Center
- Second Place: Ricard Lesmes, UF/IFAS IRREC PhD candidate
- Third Place: Pat Hall, The Florida Research Center

Individual place winners for the Tractor Rodeo were:
- First Place: Ivan Morales, Premier Citrus
- Second Place: Salvador Arias IMG Citrus Inc.
- Third Place: Juan Pablo Zamora, IMG Citrus Inc.

Team Trophy winners were:
- First Place: The Florida Research Center
- Second Place: UF/IFAS Ferrarezi Citrus Horticulture Laboratory
- Third Place: IMG Citrus Inc.