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Southeastern Coastal Center for Agricultural Health and Safety

Enhancing the health and safety of agricultural, forestry, and fishery workers

Southeastern Coastal Center for Agricultural Health and Safety
J. Glenn Morris, Jr., MD, MPH&TM, Director

Background

The **National Institute for Occupational Safety and Health (NIOSH)** awarded the **University of Florida** a grant of nearly $10 million for a 5-year project to work with other Southeastern states to explore the occupational safety and health challenges of people working in **agriculture, fishing and forestry** in the Southeast.

Background: NIOSH and OSHA

NIOSH is a research agency that is part of the U.S. Centers for Disease Control and Prevention; its role is to:

- develop recommendations for health and safety standards;
- develop information on safe levels of exposure to toxic materials and harmful physical agents and substances; and
- Conduct research on new safety and health problems

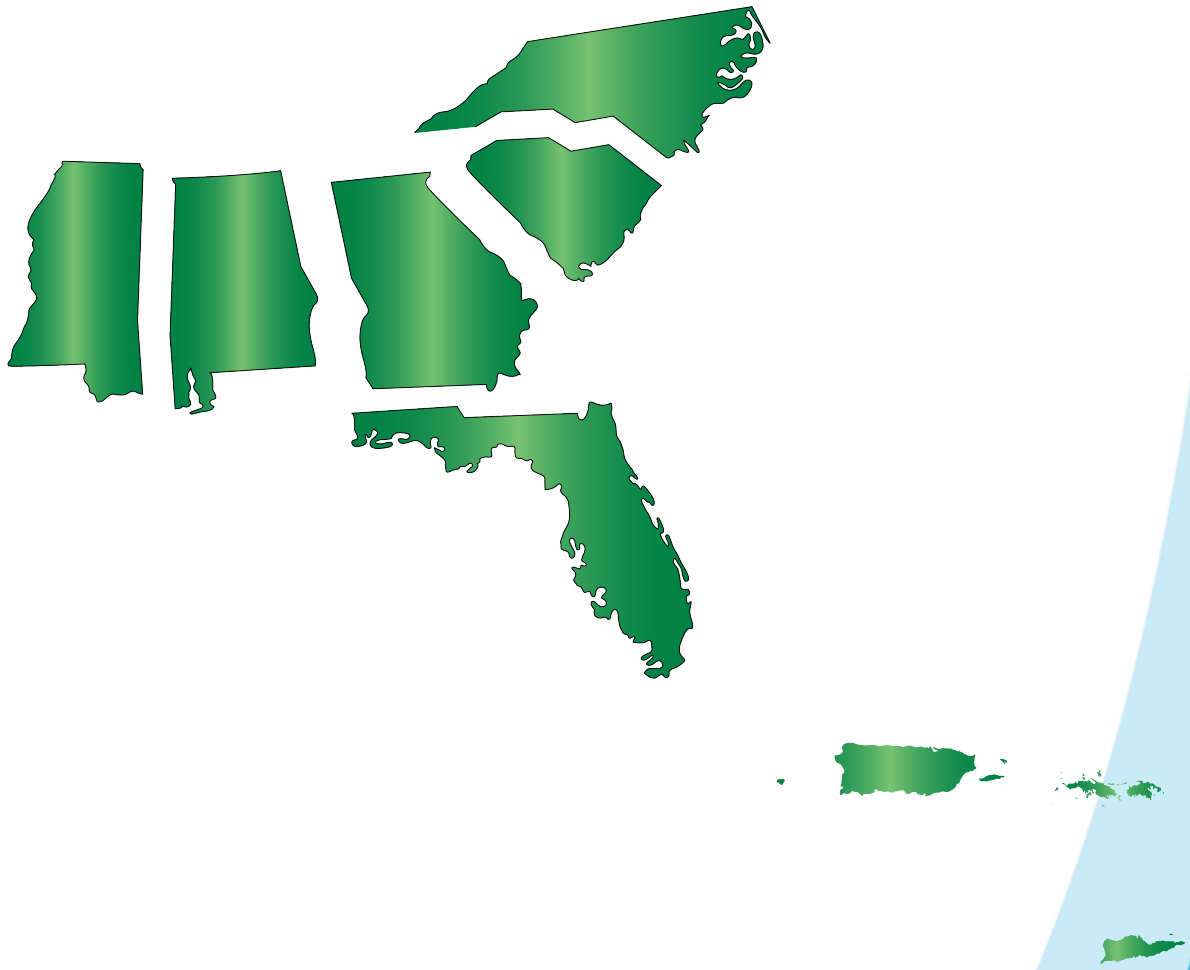
It is NOT a regulatory agency

NIOSH is different from the Occupational Safety and Health Administration (OSHA), a regulatory agency that develops and enforces regulations. OSHA is an agency in the U.S. Department of Labor.

Background

The NIOSH **Southeastern Coastal Center for Agricultural Health and Safety (SCCAHS)** includes:

- Florida
- Georgia
- South Carolina
- North Carolina
- Alabama
- Mississippi
- Puerto Rico
- U.S. Virgin Islands



Background

- Other universities involved:
  - University of South Florida
  - Florida State University
  - Florida A&M University
  - Emory University
  - University of the Virgin Islands
- These universities are working together on a range of interdisciplinary research and educational projects designed to promote occupational health and safety among employers, families, and workers at the 240,000 farms estimated by the US Department of Agriculture to be operating in the region, as well as forestry and fishery industries.

Background

- As the lead on this project, the **UF College of Public Health & Health Professions** brought **IFAS** into the project to work on the Extension, evaluation, outreach and community engagement efforts.

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Background

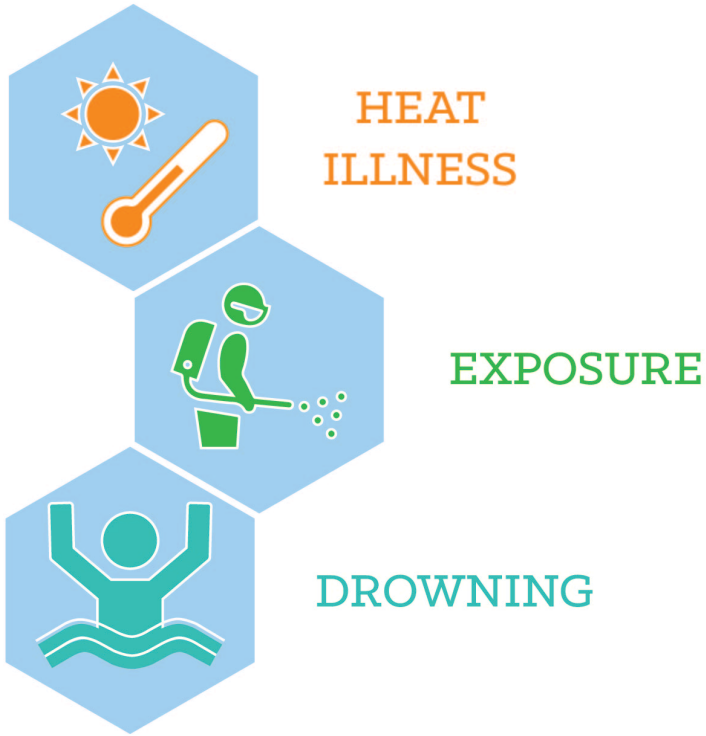
- **SCCAHS** joins **10 other agricultural health/safety centers** around the country that have been funded since 1990.

Need for the Center

- Nationally, the annual cost from agriculture injuries is **$8.3 billion** in medical costs and lost productivity.
- Much of the information about the region's agricultural safety and health is outdated.
- Center will conduct research to learn about current status, relevant to farming, fishing, and forestry workers in the region.
- Center will develop new data sources to provide a **more complete picture of safety and health issues**.

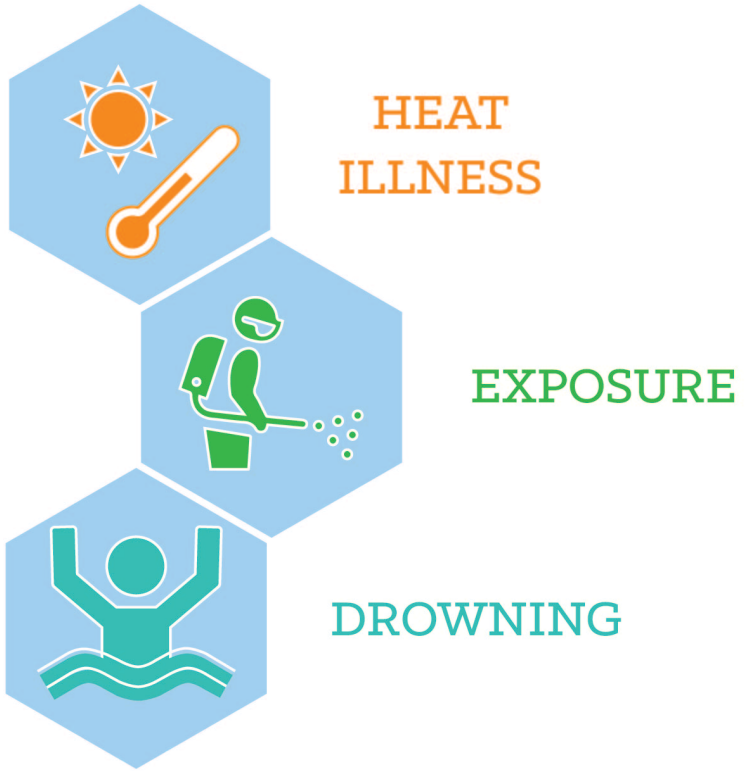
Hazards in agriculture, forestry and fishing

- Hazards include, but are not limited to:
  - Accidents
  - Falls
  - Excessive heat
  - Repetitive motion
  - Adverse agrichemical exposure
  - Lifting heavy objects
  - Injuries caused by machinery
  - Drowning
  - Entanglements in fishing gear
  - Slippery decks
  - Tidal surges and waves



Initial focus of the center

- **Innovative approaches to foster research-to-practice** (pesticide and heat stress education for Latino farmworkers)
- **Agrichemical exposure**
- **Coastal fishery worker safety and health**

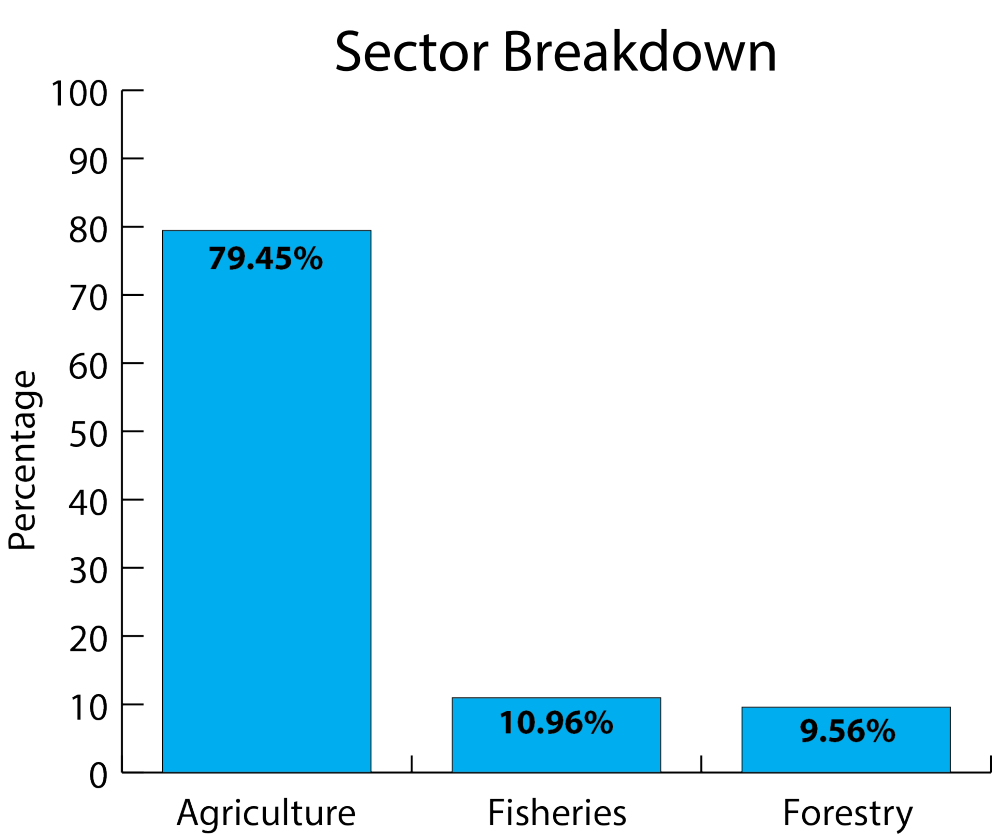


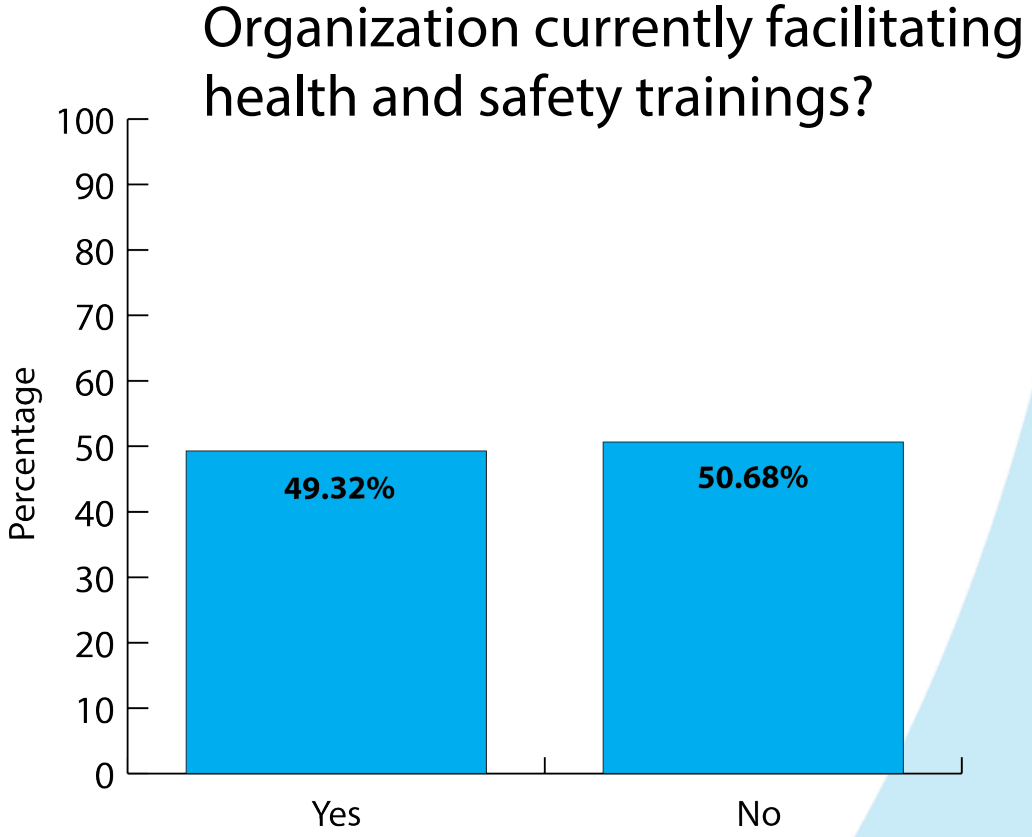
Needs assessment

- Currently conducting a statewide **needs assessment.**
- Surveying Extension agents, farmworker organizations, commodity associations.
- Needs assessment being done to determine:
  - What agricultural health and safety programs are in existence.
  - What programs may be needed.
  - What communication channels are appropriate to disseminate information.

Preliminary needs assessment results

Responses as of June 23, 2017





Preliminary needs assessment results

- Occupational health and safety issues identified as **most critical** (in order):
  - Heat stress
  - Access to healthcare
  - Injuries from equipment
  - Agrichemical exposure
  - Transportation accidents in work vehicles
  - Worker mental health/substance abuse

Sampling of topics researched at existing ag safety/health centers…

- Emerging technologies
- Accident reporting & analysis
- Falls (workers)
- Safety around machinery
- Agritourism
- First aid/response time
- Chemical safety
- Opioid abuse
- Exposure methods
- Community health worker programs
- Hearing and eyesight protection
- Personal protective equipment (PPE)

SCCAHS Structure

- Planning and Evaluation Core
  - Emerging Issues Program
  - Evaluation Program
- Research Core
  - **Innovative approaches to foster research to practice**: Pesticide and heat stress education for Latino farmworkers that is culturally appropriate.
  - **Agrichemical exposure**: Extent of agrichemical applications in Florida, using best practices.
  - **Coastal fishery worker safety and health**: Occupational health and safety surveillance of Gulf seafood workers.
  - **PILOT GRANT PROGRAM**
    - Chronic low back pain in seafood workers
    - App for heat stroke prevention among migrant farm workers
- Outreach Core

Innovative approaches to foster research-to-practice

- *Pesticide & Heat Stress Education for Latino Farmworkers that is Culturally Appropriate*
  - Florida State University, Department of Family and Child Sciences
  - This project aims to reduce pesticide and heat-related poor health outcomes among Latino farmworkers, through a community-advocate-university partnership.
  - Joseph Grzywacz

Heat-related illness

- Nine out of the 10 hottest years on record have occurred in the past decade.
  - The Southern United States is of particular concern.
  - Recent data from South Florida indicates an increasing number of days with a high temperature above 90 degrees.
- At a global level, average air temperatures are predicted to increase by 0.1°C per decade.
  - With every degree Centigrade increase, mortality rates related to heat rise by 2-5%.

Heat-related illness

- Workers face severe risk of **heat stroke** when the core body temperature rises to 105 degrees in 10 to 15 minutes. Death or permanent disability can occur if emergency treatment is not provided immediately.
- Farmworkers are more than 20 times at risk for heat-related deaths compared to other occupational groups.

Heat-related illness

- From 1992 to 2008, more than 400 workers in agricultural and non-agricultural settings combined suffered heat-related deaths, most of whom were workers between the ages 20 to 54 (CDC).

Agrichemical exposure

- *Extent of Agricultural Pesticide Applications in Florida Using Best Practices*
  - University of Florida, Department of Geography
  - Study proposes to develop estimates of the potential site-specific environmental exposures to agrichemicals that should be expected.
    - Utilize **remote sensing technology** to map locations of projected agrichemical use.
  - Gregory Glass

Agrichemical exposure

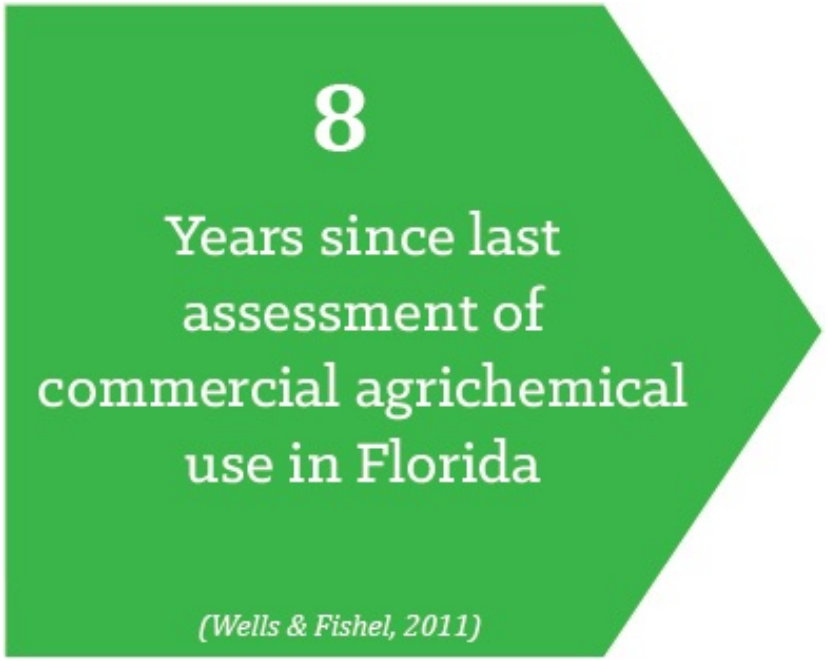
- Exposure to agrichemicals can be dermal, oral, and respiratory and can occur through direct contact with agrichemicals during application, contact with residue on plants, upon entering a recently treated area, or through drift from nearby application.
- Farmworkers' family members may also be exposed to residues that are brought home on farmworkers' clothing, skin, and equipment.

Agrichemical exposure

- Exposure acute health effects
  - Nausea
  - Dizziness
  - Vomiting
  - Headaches
  - Stomach pain
  - Rashes
  - Eye problems
- Research has indicated that populations with increased, regular exposure to agrichemicals have higher rates of some kinds of cancers.

Agrichemical exposure

- There is limited understanding of the cumulative, additive, synergistic, and chronic effects of long-term exposure to multiple agrichemicals among high-risk populations.



Coastal fishery worker safety and health

- *Occupational Health and Safety Surveillance of Gulf Seafood Workers*
  - University of Florida, Department of Environmental and Global Health
  - Project will assess the current status of commercial fishery worker safety in the coastal Gulf of Mexico, with emphasis on Florida and Alabama.
  - Andrew Kane

Coastal fishery worker safety and health

- What makes Gulf of Mexico fisheries unique:
  - Regional fishing and seafood industries have historically shaped the local economies of communities along the Gulf Coast.
  - Third or fourth generation seafood workers.
  - Fishing and seafood industry plays a central role in the culture.
  - Coastal seafood industries provide capital, infrastructure, and small businesses that generate tens of thousands of jobs in the region.

Coastal fishery worker safety and health

- What makes Gulf of Mexico fisheries unique:
  - Commercial fisheries support an historic multi-billion dollar industry that supplies some 70 million pounds of finfish, shrimp, oysters, and crab to US markets annually, representing approximately 78% of the shrimp, 62% oyster, 16% finfish, 7% blue crab domestic harvests.

Coastal fishery worker safety and health

- Commercial fishing industry hazards
  - Prolonged shift work and fatigue.
  - Unpredictable conditions and often unstable work platforms.
  - Use of heavy equipment with remarkable forces and torque.
  - Exposure to bites, spines, poisons, and associated infections.

Coastal fishery worker safety and health

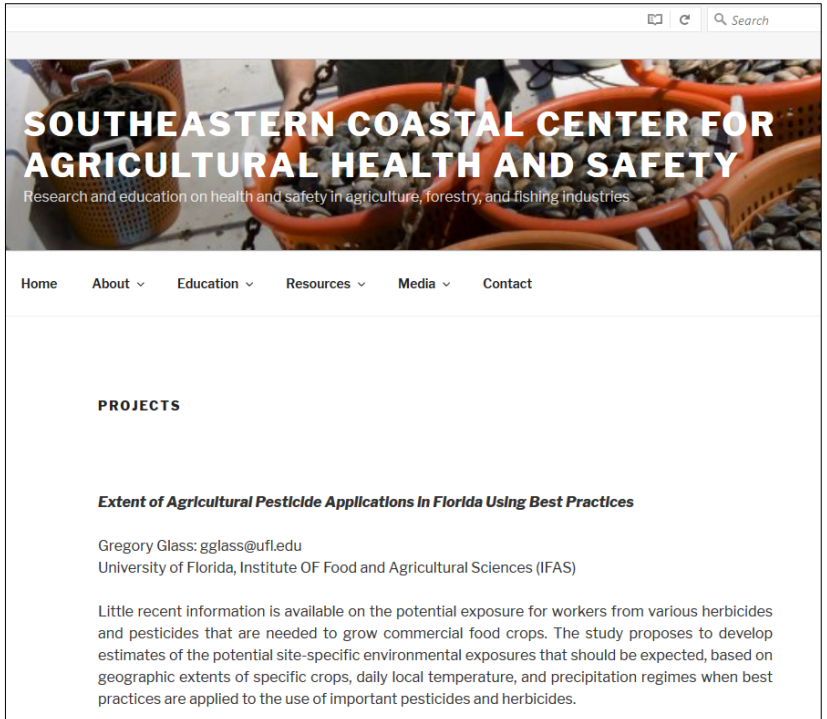
- Commercial fishing industry hazards
  - Commercial ocean fishing is one of the most dangerous occupations in the world.
  - The rate of fatal injury for US fishery workers is among the highest of any civilian occupation: 203.6 per 100,000 full-time workers, more than 50 times the all-worker rate of 3.5.
  - Within the Southeastern US, Florida has the highest percentage of fatal injuries for the fisheries industry (9%), and nationally is third to Alaska (21%) and Massachusetts (12%).

Coastal fishery worker safety and health

- Commercial fishing industry hazards
  - Under-reporting of injuries is reflected in the number of fishery-related Worker's Compensation claims in Florida: out of 13,828 AgFF workers that submitted claims, 1/1/2011 through 10/8/2015, only one of these claims was related to a fishery incident.

Outreach Core: Recent activities

- Visits to major commodity associations.
- Creation of website, social media.
- Participation in national **Beat the Heat** campaign.



Bilingual materials

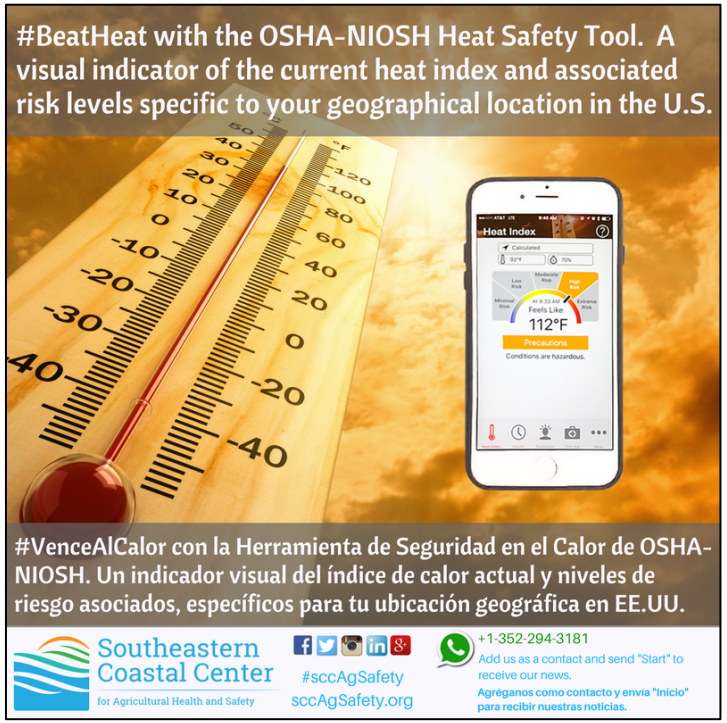
- Translating educational materials for Spanish-speaking audiences.
- Using social media with tested messages in English and Spanish, targeted to ag workers.
- Integrate Spanish-language media (newspaper, radio, TV).

Extension in-service trainings (ISTs)

- Coordinate and expand training workshops, webinars, and multiple train-the-trainer activities on safety topics.
- Conduct and expand farm labor supervisor safety training and work with existing Extension programs, such as worker protection safety.
- Conduct farm family awareness of property and liability risk web-based Extension in-service trainings.

Center outreach/communication activities

- Utilize web, social media, email and industry trade publications to:
  - Actively engage agricultural, forestry, and fisheries leaders.
  - Communicate best safety and health practices derived from studies.



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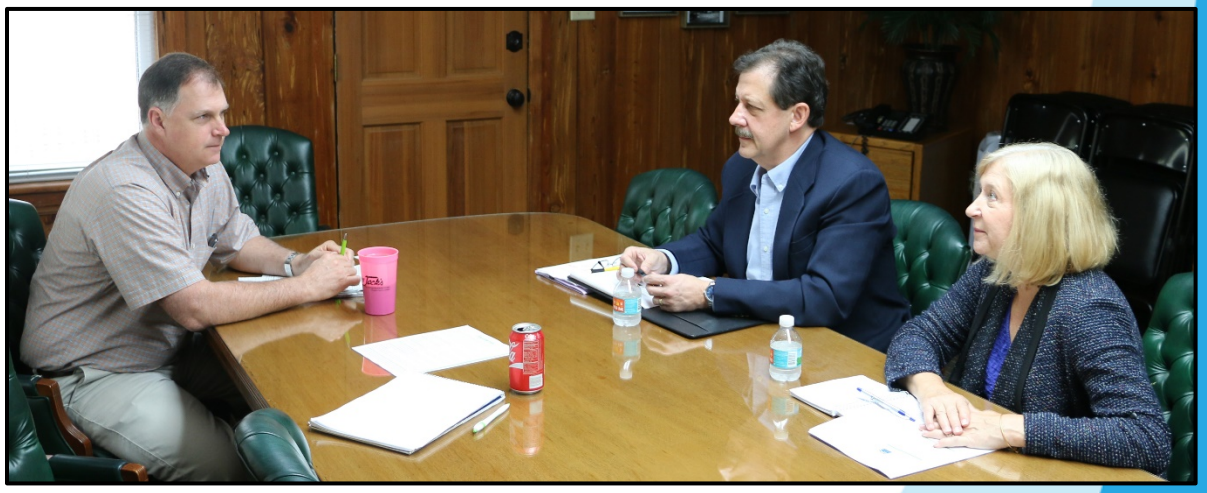
- **If you have a meeting you would like us to attend to provide information about the center, please let us know.**

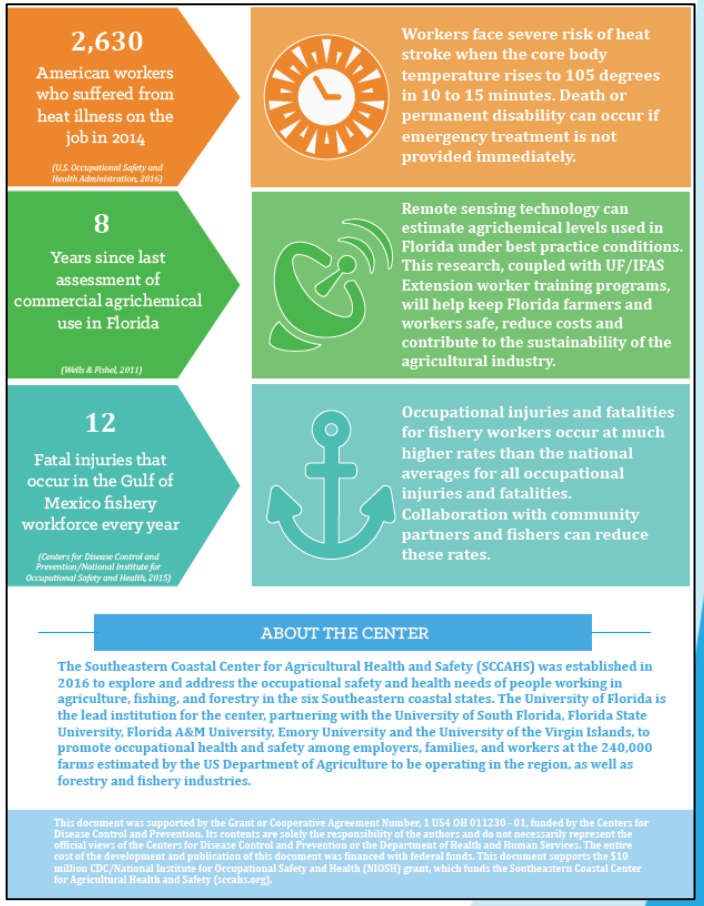


For more information…

- To find out more information about the **Southeastern Coastal Center for Agricultural Health and Safety**, visit **sccahs.org**.
- Join our email list to receive our updates.
  - Send an email with the subject line **SUBSCRIBE SCCAHS-L** to listserv@lists.ufl.edu.
- **Facebook: https://www.facebook.com/sccAgSafety/**

For more information…

- **sccahs.org**
- News release
- Fact sheet
- Graphics for use in your publications and social media



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Questions?

sccahs.org

Research and education on health and safety in agriculture, forestry, and fishing industries.