THE SENTINEL
NEWSLETTER OF THE FLORIDA STATE AGRICULTURAL RESPONSE TEAM

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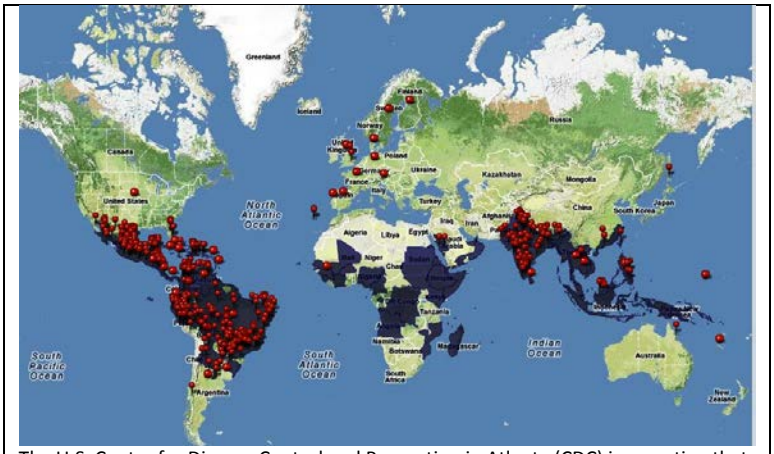
Chikungunya

Hard to spell. Hard to pronounce. But possibly arriving in Florida in 2014.



The U.S. Center for Disease Control and Prevention in Atlanta (CDC) is reporting that the mosquito borne illness, Chikungunya Fever, has the potential to be imported to the southern United States, areas with temperate climates and large mosquito vectors. There is no known cure for the disease.

Last month, the Centers for Disease Control and Prevention issued a travel advisory http://www.cdc.gov/chikungunya/ to people planning travel to the Caribbean island of St. Martin. The CDC urged travelers to take extra precautions to protect from mosquito bites because there have been 10 confirmed cases on the French side of the island of chikungunya. Chikungunya, pronounced chik-un-GUHN-ya, means "that which bends up," because patients often are stooped in pain for the first few days or week of the illness. The disease is a mosquito-borne virus that's sometimes fatal and causes fever, gastrointestinal problems and severe joint pain that lasts for weeks, even months. And it can be fatal.

This is the first time chikungunya has been detected in the Western Hemisphere, though outbreaks have occurred in Europe, Asia, Africa, and islands in the Pacific Ocean. For the present, researchers do not expect that the disease will spread – at least not rapidly – throughout the Caribbean because it's transmitted from person to person via mosquitoes. That means, an infected person travels to St. Martin, is bitten by mosquitoes which then became carriers; the mosquitoes then bit and infected other people in the vicinity.

Nevertheless, the CDC has noted that spread throughout the Caribbean islands, and to the surrounding mainland areas "is possible in the coming months and years."

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The mosquitoes that spread chikungunya (*Aedes aegypti*) are found in many areas of the U.S.

The CDC urges visitors to use insect repellent, wear long sleeves and pants, and use air
conditioning and screens on windows and doors to keep mosquitoes out. Anyone returning from the Caribbean who experiences fever and joint pain as well as other symptoms of chikungunya – headache, muscle pains or rash – should see a doctor right away. There is no specific treatment beyond managing symptoms.

A SART Year to Remember

Every year is filled with the hum of ordinary activity, but now and then a note rises above the din of the day and allows us to reflect on the issues, on our special challenges and our accomplishments. The editors hope that a glance back at the year that has just ended will reinforce our planning and practice, and help focus our energy level on the future. After all, we don't know exactly when SART's capability as a MAC will be called to action, but we know that it will be called.

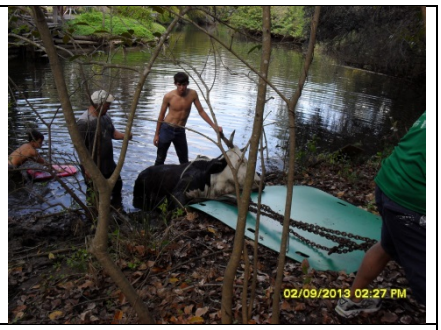
January – Planning Meeting

The 2013 SART Planning Meeting held January 28 – January 30 at The Shores, Daytona Beach. Nearly 150 response professionals attended. "Why do we have these meetings?" asked the University of Florida's Dr. Joan Dusky, Associate Dean for Extension, IFAS. The Florida SART Co-Chair asked the question rhetorically and then provided an answer. "Because during an emergency is not the time to be introducing yourself, exchanging business cards and asking for favors. No single agency can respond to every emergency on its own. We must share our resources."

Based on questions and discussions, interaction and feedback from participants, the 2013 meeting was a success. It followed three former state-wide planning meetings: 2007 in St. Petersburg Beach, 2009 in Cocoa Beach and 2011 in Altamonte Springs. (The 2015 Florida SART Planning Meeting is scheduled for January 12-14 at the Embassy Suites Hotel, Lake Buena Vista S., Kissimmee. The meeting will begin at 1:00 p.m. on Monday and end at Noon on Wednesday.)

February – Training Pays Off

Deputy 1st Class Matt Faulk of the Lee County Sheriff's Office Agricultural Crimes Unit sent the following story through John Haven, Director of the University of Florida College Veterinary Medicine. Deputy Faulk and his Lee County associates have benefited from technical training in handling large animals funded and directed by Florida SART. It is one of many instances of training that is successfully used in operational circumstances.



"On Saturday February 9, Lee County Sheriff's Office Agricultural Crimes Unit Deputies Gary Clark and Matt Faulk responded to a call for assistance from a local rancher. The rancher said one of his cows was stuck in the mud in the Orange River. He had tried to rescue it himself but was unsuccessful. Deputies Clark and Faulk deployed the new livestock rescue trailer and utilized mechanical advantage rope systems as well as the rescue glide to pull the cow from the river."

March – FDACS DAI Deploys

On February 20, FDACS Division of Animal Industry (DAI) was notified that a horse in Ocala's "Horse Shows in the Sun" (HITS) had been referred to the University of Florida's College of Veterinary Medicine and had tested positive for Equine Herpes Virus (EHV-1), wild-type strain.

DAI veterinarians responded immediately and five additional horses tested positive for EHV-1. The show ground was quarantined for 21 days and movement of horses was prohibited. In all, 15 premises and more than 1,000 horses were quarantined.

April – SARC Provides Training

The Florida State Animal Response Coalition (http://www.flsarc.org) was organized to provide a single, dynamic point of volunteer reference for small animal rescue and training volunteers for disaster situations. SARC has offered dozens of certified awareness courses in which hundreds of students have received the basics of shelter set-up. Classes are typically free to participants.

"Take the next step beyond sympathy and encouragement," says SARC's Melissa Forberg, "and become a Disaster Animal Responder." Kudos to SARC, its volunteer core and to the SART visionaries behind its formation.

May – Founding Co-Chair Retires

Following a 33-year career promoting the agricultural industry, Tim Manning has retired. Many in SART will recall Tim's continuous and energetic efforts on behalf of effective agricultural planning and response, including his promotion of the MAC concept in Florida's SART program. Raised on a cattle and timber ranch in Putnam County, Tim rose through the FSA ranks to become State Executive Director.

June – Andrea's Rains bring Mosquitoes

Becoming a tropical storm on June 5, Andrea marked the fourth consecutive season with a named storm in the month of June, following Hurricane Alex in 2010, Tropical Storm Arlene in 2011 and Hurricane Chris and Tropical Storm Debby in 2012. This was over a month earlier than the 1966–2009 average date of the first named storm, July 9. Not only did Andrea cause extensive flooding in north Florida, but the mosquito population surged, causing Dale Dubberly, FDACS AES, and others to work many hours of overtime.

July – FAD Course

Yes, held at the University of Florida's College of Veterinary Medicine in Gainesville, this clinic actually took place in mid-June … but we reported it in July. Organized by Dr. Kendra Stauffer, DVM, USDA/APHIS/VS and others, it attracted scores of veterinarians and responders from all levels of government.

"Florida has over 4,200 accredited veterinarians (second behind California) but does more export/import certificates than any other state and is home to one of only three animal import centers," Dr. Stauffer said.

August – SARC Teaches in West Virginia

Florida SARC presented its DHS certified course "Emergency Animal Sheltering – Awareness Level" in West Virginia. It was the first time that SARC members, all of whom are volunteers, traveled to another state to present a training course. "We've had many queries since the training was accepted by FEMA, but this is the first where they actually got the grant money to host it," said Laura Bevan, SARC volunteer, SART member and Southern Region Director of HSUS.

September – SART-Funded DHS-Certified Training Continues

Training in agroterrorism recognition and prevention, and other homeland security topics has continued in Florida despite personnel movement and irregular funding cycles. Former FDACS exec Art Johnstone is often in charge of formal instruction. SART, through FDACS, collaborates on program funding and scheduling with DHS; the Western Institute for Food Safety & Security, UC-Davis; the Rural Domestic Preparedness Consortium; the Regional Domestic Security Task Force; and UF-IFAS.

October – FWC Halts Illegal Exotics Sales

The Florida Fish & Wildlife Conservation Commission, a Florida SART partner, joined an international undercover effort to halt the capture, smuggling and international sale of protected and endangered wildlife. The effort, dubbed "Operation Wild Web," focused on Internet activities. More than 150 people – 33 of them in Florida – face federal and

state charges after FWC and cooperating agencies disrupted online wildlife trafficking operations involving the pelts of leopards, tigers and jaguars; elephant ivory, live birds and endangered fish and snakes.

November – Training Continues

UF's College of Veterinary Medicine VETS Team continues training in animal technical rescue, swift water, confined space, structural collapse and rope rescue techniques. Core team members are trained and equipped for human technical rescue, and they work to adapt those skills, techniques and their equipment to improve animal technical rescue. Few primary animal technical rescue teams in the country are trained to such a level, says UF Veterinary Medicine's John Haven who has directed this effort since its inception.

December – No Hurricanes

In spite of their destructive power, hurricanes play an important role in the Atlantic climatological system, distributing fresh water as rain over vast areas and stirring the ecological foundations of the Caribbean, Central America and SE United States. Yet no major hurricanes formed in the Atlantic basin in 2013. Although Mexico was hammered by eight storms – three from the Atlantic and five from the Pacific - the 2013 Atlantic hurricane season, which ended on Saturday, November 30, had the fewest number of hurricanes since 1982. NOAA will issue its 2014 Atlantic Hurricane Outlook in late May, prior to the start of the official season on June 1.

National Public Radio Focuses on Citrus Greening

A December 27th story on National Public Radio (NPR) by Miami reporter Greg Allen highlighted the urgency of Florida's fight against citrus greening, bringing it national exposure. Allen quotes Harold Browning, director of the Citrus Research and Development Foundation www.citrusrdf.org saying that virtually 100 percent of Florida's groves are infected with the greening bacterium and the tiny flying psyllid that carries it from tree to tree.

Allen notes efforts by individual growers, the state of Florida and the federal government to learn about greening and come up with a strategy to stop it. He mentions UF researcher Fred Gmitter who searches infected groves for "survivor trees," those individual trees which may have some inherent resistance to the disease. Unfortunately, Gmitter notes that his work may take another 5-6 years – and greening is reducing citrus output by about 10 percent each year. Also at UF, plant pathologist Dean Gabriel has decoded the genome of the bacterium that causes greening.

"But for Florida oranges and grapefruit, the clock is ticking," Allen says. "Citrus acreage is now nearly half of what it was in the industry's heyday. If production continues to drop, many growers worry that soon there won't be enough critical mass left to support the industry infrastructure — the packing houses and juice processors that take Florida citrus from the groves to the breakfast table."

Read Allen's entire story at http://www.npr.org/blogs/thesalt/2013/12/27/257632396/time-is-running-out-to-save-floridas-oranges.

UF Schedules Bee College for March

Bee College, the most extensive educational honey bee event in the state of Florida, is scheduled for Friday and Saturday March 7-8 at the Whitney Laboratory for Marine Bioscience, 9505 Ocean Shore Blvd., St. Augustine, FL 32080.

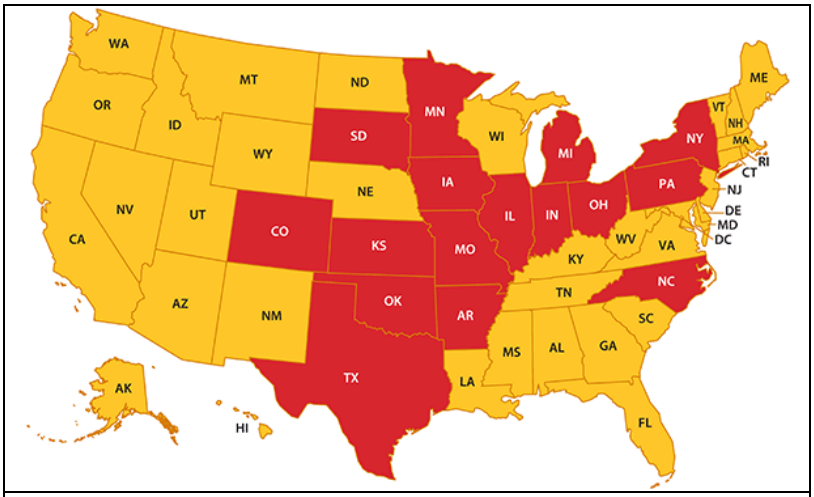
The 7th annual UF Bee College is open to the public as well as to public agencies: beekeepers, naturalists, farmers, gardeners, county agents – "anyone interested in honey bees" says the online announcement at http://www.ufhoneybee.com. http://entnemdept.ufl.edu/honeybee/extension/bee_college.shtml.

"This two-day event offers lectures in the morning and hands-on workshops in the afternoon. There are live honey bee colonies on site for open-hive demonstrations and protective gear available for everyone. This event won't leave you hungry either, we serve morning and afternoon snacks and lunch both days. A full banquet dinner on Friday evening and an ice cream social follow the Awards Ceremony. At the Awards Ceremony we announce students who have entered or advanced in the Master Beekeeper Program, Welsh Honey Judges, and the place winners and Best of Show in the UF Bee College Honey Show, as well as give out door prizes."

Under the Radar

PED – Emerging Threat to U.S. Swine Production

According to a recent bulleting from USDA, porcine epidemic diarrhea (PED) is a viral disease associated with outbreaks of diarrhea and vomiting in swine. PED is not a zoonotic disease, does not affect people, and is not a food safety concern. The disease is most severe in young pigs, but can affect pigs of any age. The disease can cause death and loss of production. Most older pigs recover from the disease within 7-10 days, but there is no treatment for PED.



Porcine epidemic diarrhea had been found in 16 states, shown in red, by July 2013.

The first case of PED in the U.S. was confirmed on May 16. However, PED exists in many parts of the world and is not a listed disease of the World Organization for Animal Health (OIE); is not considered a foreign animal disease in the U.S.; and there are currently no interstate trade restrictions pertaining to PED in U.S. swine.

According to FDACS' publication *Florida Agriculture By the Numbers – 2013*, swine production – numbers and sales – continue to decline in the Sunshine State. In 2003, Florida slaughtered 108,200 head (19,081,000 pounds). In a decade that number has slipped to 66,900 head (9,176,000 pounds). Curiously, the average weight of slaughtered hogs also declined in that period from 176 pounds to 138 pounds.

Cats, birds and small animals don't mix.

A 2013 report authored by Scott Loss, Tom Will and Peter Marra estimates that one pet cat kills between 1-34 wild birds a year while a feral cat kills between 23-46 birds a year. This may be an unsustainable loss of wild birds in North America and the small mammal toll is even higher, ranging from 6.9-20.7 billion annually.

> Anthropogenic threats, such as collisions with man-made structures, vehicles, poisoning and predation by domestic pets, combine to kill billions of wildlife annually. Free-ranging domestic cats have been introduced globally and have contributed to multiple wildlife extinctions on islands. The magnitude of mortality they cause in mainland areas remains speculative, with large-scale estimates based on non-systematic analyses and little consideration of scientific data. Here we conduct a systematic review and quantitatively estimate mortality caused by cats in the US. We estimate that free-ranging domestic cats kill 1.4–3.7 billion birds and 6.9–20.7 billion mammals annually. Un-owned cats, as opposed to owned pets, cause the majority of this mortality. Our findings suggest that free-ranging cats cause substantially greater wildlife mortality than previously thought and are likely the single greatest source of anthropogenic mortality for US birds and mammals. Scientifically sound conservation and policy intervention is needed to reduce this impact.

"These are things that are reversible once we understand them," Marra said. "That's the important thing here."

Loss and Marra are researchers at the Smithsonian Conservation Biology Institute while Will is a research scientist with the U.S. Fish & Wildlife Service, Division of Migratory Birds, Midwest Regional Office. Their report is available online at http://www.abcbirds.org/abcprograms/policy/cats/pdf/Loss_et_al_2013.pdf.

SART's Silent Partner
USDA Office of the Inspector General

Established in 1962 and affirmed by congress in 1978, the Office of Inspector General (OIG) is the law enforcement arm of USDA. OIG investigates such things as fraud, theft, bribery, smuggling and extortion involving USDA programs, operations and personnel – crop insurance fraud, food safety issues or product tampering, for example. Agents can make arrests, execute warrants and carry firearms. Agents also cooperate with other law enforcement units during emergencies or suspected incidents of terrorism that affect USDA regulated industries such as the deliberate introduction of a disease into a herd of cattle or pigs.

Phyllis K. Fong is the current inspector general and the OIG representative to SART is Tom Ackerman, Assistant Special Agent-in-Charge, Investigative Training & Policy Development Manager, USDA-OIG-Investigations. Tom is stationed in Gainesville.

On May 9, 2013, Inspector General Fong testified: "In fiscal year (FY) 2012, OIG's activities resulted in potential monetary results totaling over $1.5 billion. We issued 76 audit reports intended to strengthen USDA programs and operations, which produced about $1.4 billion in potential results. OIG investigations led to 538 convictions with potential results totaling over $106 million." She further noted, "For every dollar invested, we realized potential cost savings and recoveries of about $13.66."

A few 2013 investigation results:
1. December – Rhode Island: Cristina Ramirez, owner of Cristina's Market, was sentenced to a year in federal prison and ordered to pay $399,000 in restitution for defrauding the Food Stamp Program and money laundering.
2. November – California: Inhumane handling of cattle, circumventing inspections of disabled ("downer") cattle and lying when supplying beef to the National School Lunch Program. Westland Meat paid $240,000 and entered into a "consent judgment" for $155.68 million. Related individuals and companies paid about $3 million. SART partner HSUS initiated the lawsuit under the False Claims Act and received about $600,000 under federal whistleblower provisions.
3. February – California: Marco Barbosa, owner of Monterey County Commercial Strawberry Farm, was sentenced to one year in prison for submitting fraudulent claims (excessive heat) to USDA Community Credit Corporation which resulted in his receiving over $223,000 in federal crop disaster assistance. Barbosa and his spouse were ordered to repay the amount of the fraud and was barred from further USDA or FSA contracts.

What is an Ag BMP?

Agricultural Best Management Practices (BMP) are practical, cost-effective actions that producers can take to reduce the amount of pesticides, fertilizers, animal waste, and other pollutants entering Florida's waters, and to conserve water. BMPs are designed to benefit water quality and water conservation while maintaining or even enhancing agricultural production.

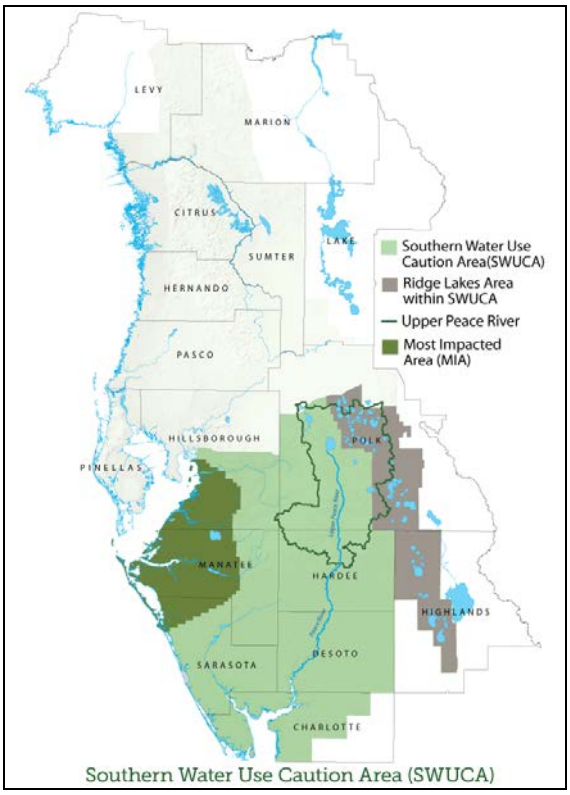
FDACS is responsible for developing BMPs for each type of agricultural operation. BMPs are now available for citrus, vegetables and field crops, nurseries, cow/calf operations, horse farms and sod farms and others and are posted online through the FDACS web site http://www.freshfromflorida.com/Divisions-Offices/Agricultural-Water-Policy/Enroll-in-BMPs/BMPs-At-a-Glance#BMPs.

Types of Evidence

As a responder to an emergency situation, you may be alerted to watch for evidence. Following an overt act of terrorism, this is easy to understand. When a tornado touches down, there may be incidents of looting, or in the aftermath of a hurricane, one may be cautioned about gunfire or random acts of violence.

Here's what the "Criminal Investigation Handbook for Agroterrorism," developed jointly by FDA, USDA and the FBI, says about the types of evidence you may encounter:

1. Eyewitness: I saw this happen. I smelled this.
2. Hearsay: No, I didn't see it, but my [neighbor, mother, etc.] said such-and-such took place.
3. Trace: Minute particles or chemicals which can be examined microscopically.
4. Direct: Documents such as rental agreements, video recordings or computer files.
5. Circumstantial: Material such as a fingerprint that relies on an inference to connect it to a conclusion of fact.



Southern Water Use Caution Area (SWUCA)

SW Florida Water Management District Reports

The just published "5-Year Assessment" of the Southern Water Use Caution Area http://www.swfwmd.state.fl.us/projects/swuca/assets/SWUCA_Recovery_Strategy_Assessment_2013.pdf notes stable groundwater levels despite lower than average rainfall, continuing saltwater intrusion, the success of water conservation efforts.

The Southern Water Use Caution Area (SWUCA) was designated in 1992 to address declines in aquifer levels due primarily to groundwater withdrawals. Drawdowns in aquifer levels in some areas exceeded 50 feet. The area encompasses 5,100 square miles, including all of DeSoto, Hardee, Manatee and Sarasota counties, and parts of Charlotte, Highlands, Hillsborough and Polk counties.

About the SART Sentinel

The SART Sentinel is an e-mail newsletter prepared monthly by the members of the Florida State Agricultural Response Team. Past issues of the **Sentinel** are archived on the Florida SART Web Site *www.flsart.org*.

If you have a story or photo that you would like to have considered for publication in **the SART Sentinel**, please contact the editors.

Editor: Rick Sapp, PhD, Technical Writer, under contract with the Florida Department of Agriculture & Consumer Services, Division of Animal Industry *rsa5@cox.net*

Associate Editor: Joe Kight, State ESF-17 Coordinator, Florida Department of Agriculture & Consumer Services, Division of Animal Industry *Joe.Kight@freshfromflorida.com*