May

FEATURES

5 USDA NEWSROOM
The latest press release from USDA agencies, AHPIS and FSA.

6 YOUNG AGRI-ENTREPRENEURS

7

9 Food Science STEMulation

9 MONTHLY CROP SCIENCE

10

12 Vet-Tech Chronicles

13 Upcoming Events

On the Cover
Fresh red and yellow bell peppers, harvested from one of the FAMU Extension’s 4-H Youth sites. Photograph by Amelia Davis.
Contributing Writers
Gilbert Queeley, Conchita Newman, Linda Sapp, Trevor Hylton, ZaDarreyal Wiggins, Daniel Solis, Ph.D., Glen Wright, DVM.

Contributing Photographers
Amelia Davis, Linda Sapp, Trevor Hylton, Charles Brasher, Conchita Newman

The Florida A&M University Cooperative Extension Program is an equal opportunity educational opportunity access organization which provides research-based educational information and other services only to eligible individuals and institutions regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status.
Ocala, FL- FAMU Cooperative Extension, along with UF/IFAS, held a workshop on April 6, 2016 which focused on effects of the changing climate, and also sparked a conversation of climate factors, risk and management practices. Thanks to all of the presenters: Dr. Carter (FAMU), Dr. Staub (UF) Dr. Bartels (UF), Dr Ngatia (FAMU) and Dr. Swamy (FAMU), as well as the attendees that came out to support this event.

A special thanks to Mr. and Mrs. Gunn and members of the National Black Farmer’s Association/ Florida Chapter.
USDA Announces Conservation Reserve Program Results

WASHINGTON, May 5, 2016 – Agriculture Secretary Tom Vilsack today announced the enrollment of more than 800,000 acres in the Conservation Reserve Program (CRP) through the program’s 49th sign up period. Through CRP, the U.S. Department of Agriculture (USDA) helps farmers offset the costs of restoring, enhancing and protecting certain grasses, shrubs and trees that improve water quality, prevent soil erosion and strengthen wildlife habitat. Farmers’ and ranchers’ participation in CRP continues to provide numerous benefits to our nation, including helping reduce emissions of harmful greenhouse gases and providing resiliency to future weather changes.

Information courtesy of USDA/FSA at https://content.govdelivery.com/accounts/USFSA/bulletins/14773da
As a whole, the United States has critical issues facing citizens in the upcoming future; especially in the agricultural sector. Food security has continually been a national “hot button” issue in the past few years. How can today’s young adults and youth contribute their talents and expertise towards resolving the food security concerns?

Some students at Florida Agricultural and Mechanical University (FAMU), have stepped up to the plate; one major step is managing livestock and produce operations, while going to school. FAMU graduates Nick Miller and Mariah Henry, are currently in the works to develop an app that connects potential buyers to local farms. Also making strides are brothers Glyen Holmes II and Hakeem Holmes, whom in 2013 along with other young adult family members, founded F5 Fresh Produce.

F5 Fresh Produce have been providing fresh collard and turnip greens, sweet potatoes, sweet corn, okra, green beans and other produce to schools and grocery stores throughout the southeast region. These FAMU students have taken the mantle to lead their generation and help provide food security for their local areas and beyond.

For more information on how you can connect with these young adult farmers, please contact FAMU Cooperative Extension Program at (850) 599-3546.

Hakeem Holmes is a Junior-Agribusiness major in the College of Agriculture and Food Sciences at FAMU and a Student Assistant with FAMU Cooperative Extension Program.
HERB OF THE MONTH
Thyme, Chives, Basil & Sage

Contributors: Linda Sapp and Trevor Hylton, FAMU Extension Agent (Leon and Wakulla Counties)

THYME
Flavor and Use: Lightly pungent, spicy and clove-like. Good with meats or vegetables, this herb lightens the profile of the dish, increasing the balance.
Health Benefits: Anti-microbial. Linked to reducing high blood pressure (hypertension). Acne, yeast infections, colon and breast cancers.

CHIVES
Flavor and Use: Thin, hollow leaves with a mild onion flavor, good in any dish.
Health Benefits: Contains Allicin, which has anti-inflammatory properties. Linked to improving cholesterol, digestion, and fighting infections

SAGE
Flavor and Use: Rich flavor with a slight citrus taste, combines well with rosemary and thyme. Popular varieties: Pineapple and Purple sage.
Health Benefits: High in antioxidants, Anti-inflammatory properties, may help improve memory and treat Alzheimer’s disease.

BASIL
Flavor and Use: Great for increasing the flavor in sauces and dressings.
Health Benefits: Use for treating arthritis and inflammatory bowel diseases, Antioxidant rich, may have anti-aging properties by killing harmful molecules in the body.

Disclaimer: These information are not intended to act as a substitute for a professional healthcare practitioner advice. It is not a substitute for professional medical advice. For specific medical advice, diagnoses, and treatment, always consult your doctor.
Spice Up Your Life

**NOTE:** Substitute one teaspoon of dried herbs for one tablespoon of fresh herbs, which is a one-to-three ratio. Let your taste buds be your guide.

**Fish**
Anise, Marjoram, Basil, Oregano, Parsley, Caraway, Rosemary, Chervil, Saffron, Chives, Sage, Dill, Savory, Fennel, Tarragon, Garlic, Thyme, Ginger

**Veal**
Basil, Onion, Bay, Parsley, Chervil, Rosemary, Chives, Fennel, Marjoram, Sage, Savory, Thyme, Mint

**Stuffing**
Garlic, Rosemary, Marjoram, Sage, Onion, Thyme, Parsley, Rosemary

**Beef**
Basil, Oregano, Bay Leaves, Parsley, Caraway, Rosemary, Cumin, Sage, Garlic, Ginger, Tarragon, Marjoram, Thyme, Onion

**Chicken**
Anise, Marjoram, Basil, Onion, Bay Leaves, Oregano, Mint, Parsley, Chives, Cinnamon, Saffron, Cumin, Sage, Dill, Savory, Garlic, Tarragon, Ginger, Thyme

**Pork**
Anise, Oregano, Caraway, Rosemary, Dill, Saffron, Garlic, Sage, Ginger, Tarragon

**Turkey**
Basil, Saffron, Garlic, Sage, Marjoram, Savory, Onion, Tarragon, Oregano, Thyme, Rosemary

**Potatoes**
Basil, Marjoram, Caraway, Oregano, Chives, Parsley, Rosemary, Sage, Dill, Fennel, Tarragon, Thyme

---

**Growing and cooking fresh herbs is a great, healthy, flavorful and inexpensive alternative!**
On April 9th, Conley School at Southwood, held a STEAM DAY, which featured exciting hands-on activities and engaging presentation from educational programs throughout the city of Tallahassee. Mrs. Conchita Newman, FAMU Extension Agent/Food Science Coordinator, presented a hands-on experiments with the students.
Carrots, beets, parsnips, radishes, turnips, and rutabagas are the most commonly grown root crops. They all have similar cultural requirements and grow best in cool weather. Since they are hardy, they may be planted early in the spring, and left in the garden until fall.

The carrot (*Daucus carota*) is a root vegetable, usually orange or white, or red-white blend in color, with a crisp texture when fresh. It is native to Europe and southwestern Asia. The edible part of a carrot is a taproot. The objective is to plant in the spring, 2 to 3 weeks before last frost, ½ inch deep, ½ inch apart, and in rows 12 to 24 inches apart. Deeply worked soil with fine, weed-free seedbed will greatly improve chances of a successful crop. Carrots are slow to germinate (1 to 3 weeks), and often germinate unevenly over a period of several weeks. To speed germination, water lightly daily if soil is dry. Thinning is critical to reduce competition from neighboring plants. Thin to 1- to 4-inch spacings (depending on size of root desired) before plants are 2 inches tall. Cutting rather than pulling reduces disturbance of the remaining plants.

There are some potential problems that can arise when growing carrots. For examples, carrot root flies, carrot weevil, carrot rust fly and flea beetles are common pests that can cause serious damage to crop production. However, with good cultural practices and good maintenance the chances of having a tasty, beneficial crop increases greatly.

Carrots are usually harvested when the roots are ½ to ¾ inches in diameter at the upper end, but you can harvest them any time they reach a usable size. To harvest, push the root to the side and pull it out of the ground. If you are removing the entire crop at one time, it may be helpful to use a spading fork to loosen the soil next to the plants before pulling them. After harvesting carrots, the number of ideas of using them are limitless. Shredded raw carrots and chopped carrot greens make great additions to salads. Combine shredded carrots, beets and apples, and eat as a salad. Many other recipes are available to enjoy the delicious carrots that has been properly maintained and harvested.

References
Mr. Gilbert Queeley, contributor to FAMU Cooperative Extension’s monthly newsletter column: “The Hot Pepper Monthly” graduated from The Guyana School of Agriculture (GSA) more than two decades ago. At that time, the last thing on his mind was that his legacy as a GSA student would be used to motivate aspiring Agricultural Scientists in Guyana to develop Scotch Bonnet hot pepper businesses decades later. However, as Scotch Bonnet hot peppers continue to transcend international borders, this re-connection became inevitable.

Recently, Mr. Nitzan Weisberg, A UKAID Peace Corps official, hosted a group of GSA students who toured a 300 acre Scotch Bonnet hot pepper farm in Guyana, South America. During the tour, Mr. Weisberg identified Mr. Gilbert Queeley who now works as a Research Associate in the College of Agriculture and Food Sciences (CAFS) as his personal consultant and advisor. He also used Mr. Queeley’s continued devotion to agriculture in the United States as a motivational speech to the students.

To the best of our knowledge, the 300 acre farm in Guyana is the largest Scotch Bonnet hot pepper farm mentioned in any region of the world where the crop is grown. Mr. Weizberg received consultation on Scotch Bonnet production systems from Mr. Queeley during the establishment of the hot pepper project in Guyana. The project was designed to assist limited resource farmers in Guyana in finding a niche crop that could compete on both the local and international levels. Despite challenges, the project has been a success and today, the farmers associated with the project have been exporting fresh and value-added hot pepper products to international markets including the United States.

The national and international recognition of the Scotch Bonnet hot pepper during the past 5 years has been noteworthy. Some noteworthy accomplishments include:

- A Spanish version of a newsletter outlining the Agribusiness opportunities for Scotch Bonnet hot pepper producers
- A mention of the Scotch Bonnet’s comparative price advantage compared to other vegetables in the Atlantic, a New York based magazine
- A request for seeds and fresh fruit from a grower in South Korea
- A request for seeds from growers in Taiwan and mainland China
- Exportation of value-added Scotch Bonnet (pepper mash) to Australia by a local farmer
- Exportation of fresh Scotch Bonnet pepper to Canada by a local farmer
- New market establishments from coast to coast within the United States

The Scotch Bonnet hot pepper has international roots. However, the opportunities for its expansion within the US continue to grow.
Earlier in the spring, the Animal Health/Veterinary Technology Program hosted another animal health workshop for farmers in the community. The workshop was held on March 17, at the FAMU Research and Extension Center. The topic was on the reproduction and reproductive health in ruminants.

**REPRODUCTIVE SYSTEM**

The functions of each part of the reproductive tract of males and females were explained by Norman Scarbrough, CVT and Julie Valliant, CVT. For example, in females, the infundibulum, the funnel adjacent to the ovary that catches eggs produced during ovulation is the true site of fertilization. Male sperm swim up the uterus, and into the fallopian tubes aka oviduct and penetrate the ova/ovum released from the ovary. In males, the vas deferens are responsible for transporting semen from the testicles to the urethra.

**REPRODUCTIVE DISEASES**

Dr. Glen Wright presented on the topic of reproductive diseases that can have a devastating effect on a farmers’ herd. These diseases cause things such as abortion, low fertility rates, low milk production, and even still births if herd comes in contact with the pathogen that causes a disease. Some diseases that affect ruminants are Leptospirosis, Brucellosis, and Q-Fever.

- Leptospirosis is disease that can cause abortions.
- Brucellosis is a reproductive disease that affects cattle, sheep and goats by causing fever, diarrhea, weight loss, lameness, and abortion. Brucellosis has been completely eradicated in cattle in the state of Florida. Florida’s cattle have remained Brucellosis free for more than 20 years.
- Q-Fever is a reproductive disease that affects goats and sheep. Q-Fever causes loss of appetite, depression, placentitis and abortion or delivery of a weak/undeveloped kid, still births, and abortions late in pregnancy. Currently, there is not treatment for Q-Fever in ruminants. Q-Fever is a known zoonotic disease (can affect humans).

**HEAT CYCLE**

Dr. Robert Mike Purvis educated the farmers on the heat cycle and hormones that affect the heat cycle and pregnancy of livestock. The heat cycle last for 21 days and during this time there are many hormones that prepare the female for mating. Estrogen is the hormone responsible for telling the ovary that it’s time to grow an ova and that the female should stand still when being mounted by the bull or buck, thus, the heat cycle is often referred to standing heat. Progesterone is responsible for making sure that the female maintains the pregnancy. Without that hormone, the egg/fetus will be aborted and the female will enter another heat cycle.

**GIVING BIRTH**

Dr. Purvis also talked to the attendees about the proper position of offspring when the ruminants go into labor. The normal position for the birth of young ruminants is that their forelegs should be seen first, following the head, then the torso/body, ending with the hind legs. If the mother is having trouble giving birth, the offspring may be positioned incorrectly, or completely breeched. Being improperly positioned or breeched can result in the death of the offspring or the mother, so if you are experienced in repositioning, do so, if you are not, please call your local veterinarian immediately.

As you can see, this was a night filled with information. The farmers were able to learn about the hormones and diseases that could be affecting the productivity of their herd, and why it is of the utmost importance to quarantine, vaccinate their herds, and learn the symptoms of reproductive diseases so that their herds will be in optimal condition. A herd that is suffering from reproductive diseases will affect a farmers’ animals and livelihood. Aside from reproductive diseases, the farmers were able to learn about the heat cycle of ruminants. By understanding the heat cycle, a producer can know when to synchronize and breed their animals so that they might give birth around the same time. This grouping of animals makes it easier to manage total production. And lastly, the farmers learned how a proper birthing should proceed. With this knowledge, they are able to tell when they should intervene or have their local veterinarian step in and assist the dam with the delivery of its offspring so that both can survive a difficult birth.
2016 Master Goat and Sheep Certification Program

PROGRAM DATES: MAY 6-7; MAY 20-21; JUNE 3-4, 2016

This program is for beginning and advanced goat and sheep producers. To become certified as a Master Goat or Sheep Producer you must attend every class, take the pre-test, take the post-test and pass with a score of 70% or above and pass an on-farm inspection.

Log into the link below to register:


http://www.famu.edu/goats

Contact Person: Angela McKenzie-Jakes (850) 875-8552 or at angela.mckenziejakes@famu.edu

The Florida A&M University Cooperative Extension Program is an equal employment/educational opportunity access organization which provides research-based educational information and other services only to eligible individuals and institutions regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status.
# CORE Pesticide Training

**May 12, 2016**  
**8:15 -12:00 p.m.**  
**FAMU Research and Extension Center**  
**4259 Bainbridge Highway**  
**Quincy, FL 32352**

## Registration

Please detach and mail completed form with check for $10.00 payable to:  
GCEEF (Gadsden County Extension Education Foundation)  
Attention: Paula Alday, Gadsden County Extension  
2140 W. Jefferson Street  
Quincy, FL 32351-1905

Or Fax to (850) 875-7257

**For new pesticide license applicants**: General Standards or CORE is one of two exams necessary to obtain a FDACS Pesticide Applicator License. This half day training that will cover 6 of 9 chapters contained within the Applying Pesticide Correctly manual (CORE). Please contact your county extension office for more information for taking the CORE exam.

**For licensed individuals**: This training will also be available to licensed individuals that would like to earn Core CEU credits. The following CEU credits have been requested from FDACS:

- 4 Core CEU’s

*Registration cost will be accepted at the door, based on available seating.*

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Address</th>
<th>City</th>
<th>County (required)</th>
<th>Zip code</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
</table>

Participants requiring special accommodations, please contact: Paula Alday at (850) 875-7255 by 05/10/2016.
HEALTHY FUN FOR THE WHOLE FAMILY!

COOPERATIVE EXTENSION PROGRAM

FARM FEST

JUNE 11, 2016

FAMU QUINCY FARM
RESEARCH AND EXTENSION CENTER

4259 BAINBRIDGE HWY.
QUINCY, FL

10AM - 3PM

GAMES | NUTRITION INFORMATION | PETTING FARM | COOKING CLASSES | AND MORE!!!

WWW.FAMU.EDU/FARMFEST
**SAVE THE DATE**  
**July 10-15, 2016**  
**AgTech Century 21**  
**Summer Enrichment Program**  
*For Teens - Ages 13-17*

Application Deadline: June 3, 2016  
Apply at: [www.famu.edu/herds](http://www.famu.edu/herds)  
Florida Agricultural and Mechanical University  
College of Agriculture and Food Sciences  
Cooperative Extension Program  

Contact:  
Dr. Glen Wright: (850) 412-5117  
Carmen Lytle-Miquessen: (850) 412-5343  
Cooperative Extension: (850) 599-3546

---

**FSSEP** is an intensive week long program developed to provide a better understanding of science through experiential activities in Food Science that are linked to the Sunshine Standards.  
For ages 12-14.

---

**For more information, please contact:**  
Conchita Newman, Extension Agent  
(850) 599-3440  
conchita.newman@famu.edu
"We believe USDA's Farmers Market is a 'living laboratory' that lets us test new ideas and share the results with farmers market managers across the country. With VegU and a weekly night market that will open in June, USDA is leading the way in helping consumers know their farmers and their food while also creating opportunities for farmers, ranchers and other local food businesses," said Elanor Starmer, Administrator of USDA's Agricultural Marketing Service (AMS), which manages the USDA Farmers Market.

AMS also oversees USDA's Local Food Directories (www.usdalocalfooddirectories.com) where consumers can find a farmers market and other local food businesses in their community. These free, online resources offer the latest information on locations, operating hours and more details about farmers markets, food hubs, community-supported agriculture (CSA) operations and on-farm markets.

USDA is committed to helping farmers, ranchers, and businesses access the growing market for local and regional foods, which was valued at $12 billion in 2014 according to industry estimates. Under this Administration, USDA has invested more than $1 billion in more than 40,000 local and regional food businesses and infrastructure projects. These activities are part of USDA's Know Your Farmer, Know Your Food (KYF2) initiative, which coordinates efforts across USDA to support local and regional food systems.

For updates about the USDA Farmers Market, including the schedule for VegU classes, visit www.usda.gov/farmersmarket.

Press Release No. 0107.16

If you know anything about Extension, you know there’s always something going on! Be one of the first to get email alerts on FAMU Extension and local community events.

To subscribe to the FAMU Cooperative Extension's SDA Newsletter, send an email to: amelia.davis@famu.edu, with “New Subscription” in the subject box.