

Extension News

Summer (Jun-Jul-Aug)

Summer Doldrums

Do you feel directionless, inactive, bored even slightly depressed? Well if so, you might be suffering from the summer doldrums—and it truly has a weather-related meaning. The Intertropical Convergence Zone (ITCZ) is known to sailors as the “doldrums” because of the monotonous and windless weather where the northeast and southeast trade winds come together near the equator and then move slowly into the Tropical Atlantic. Heating from solar radiation causes the air to warm and rise vertically instead of blowing horizontally leaving no breezes to alleviate some of the extreme summer temperatures. This rising damp air can produce tropical storms and hurricanes--something that we on the Treasure Coast are very used to this time of the year. Forecasters predicted a wetter season than normal but so far local rainfall has not been copious, leaving our area a little drier than normal. So, what does this mean for the rest of the summer? Hot and humid for sure, occasional thunderstorms and the need to keep humans, pets and livestock well hydrated!

Christine

UF | IFAS Extension
UNIVERSITY OF FLORIDA



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SOLUTIONS



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Extension Highlights Insect Protein at the IRC Employee Health Fair

by Christine Kelly-Begazo

Have you ever wondered what insect protein was or what it tasted like? On June 21st many IRC employees got their first look, and taste, of insect protein at the extension booth during the annual IRC Health Fair. Insects are consumed all over the world as a source of environmentally sustainable protein and UF IFAS IRC extension had a display that highlighted the benefits of insect protein, including food samples for attendees to try.

Brave and courageous county employees were able to taste larvae and crickets that were flavored with BBQ, cheddar ranch, buffalo wing, hickory bacon and cayenne spices. There were also tortilla chips made with crickets, muffins containing insect protein and smoothies made with juice, yogurt, fruit and chocolate or vanilla flavored protein powder made from insects. A lot of interest was generated from the booth and over 100 people walked away with a sticker that stated “I ate bugs with IRC Extension” after trying any of the assorted goodies provided. Many found the novelty of trying the insect protein-infused snacks overrode their initial aversion to the thought of eating insects.

Many people that stopped by the display were amazed to learn that only one gallon of water is needed to produce one pound of cricket protein, whereas 1000 gallons are needed to produce one pound of beef protein. Extension staff discussed how there were more than 1,900 edible insect species and the most commonly consumed are grasshoppers, crickets, beetles, ants, stinkbugs, bees, wasps, larvae of butterflies and moths, and locust. A static display explained that crickets are 3.5 times higher in protein than chicken or beef and that over 2 billion people worldwide supplement their diet with protein derived from insects.

Handouts with additional information and receipts were given to interested participants.



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Agriculture News

New Biosecurity & Interstate Transportation Requirements for Horses in July

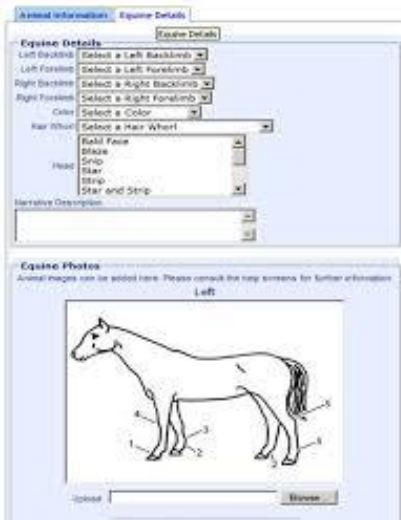
By Dr. Sandra TenBroeck, UF IFAS Associate Professor, Animal Science

Current Horse Transportation Requirements

The Florida Department of Agriculture and Consumer Services (FDACS) regulates entry of horses into Florida and at equestrian gatherings. Rules may vary from state to state, so you should check what documents are necessary when hauling out of state (Interstate Animal Movement Requirements). Traveling with your horse within and outside the state of Florida will require proof of negative Coggins (EIA) test within 12 months. Your veterinarian may use paper forms where identifying marks are drawn and described or they may subscribe to Global Vet Link and submit paperwork electronically with digital photographs. For a more convenient form of verification, you can purchase a laminated Negative EIA Verification Card from FDACS. It is important to note that the EIA verification card is only valid within the state of Florida.



For interstate travel, you also need an Official Certificate of Veterinary Inspection (CVI), more commonly referred to as a "health certificate". The CVI expires 30 days after the date the horse is inspected. Currently, horse owners can pursue one of two options that will extend the expiration of the CVI to 6 months. One option, the Equine Event Extension is a paper document honored in AL, AR, GA, LA, SC, VA, and WV when accompanied by the CVI and proof of negative EIA test. A second option is called the Equine Interstate Passport Card. It is currently accepted in AL, AR, GA, KY, LA, MS, NY, NC, OK, SC, TN, TX, VA and WV as proof of CVI and negative EIA test.



Changes are coming!

After June 30, 2019, Equine Event Extensions and Passports will no longer be issued. Why? State Animal Health Officials are expected to trace movements of animals so that intervention can be swift if there is a disease outbreak. With passport cards, movements are not readily traceable. Beginning January 1 of 2020, most states will not accept passport cards. The new Electronic Equine CVI, or EECVI, will require the vet to do the initial exam and then the owner must go online and request a permit for each movement or event. The change is being made to provide better documentation of movement of horses, so appropriate measures can be taken if there is a disease outbreak. At the present time Global Vet Link is the only provider of the electronic equine CVI, but a second provider may come online before the deadline of January 2020. A likely candidate is Ag View, a health monitoring company with services across the livestock industry.

Another important piece of the biosecurity/traceability puzzle is Premise Registration. Though not mandatory in Florida (unless getting a passport or 840 microchip), premise identification is a program established to plan for, control, and prevent the spread of agricultural diseases. It is also used as an early warning system to notify animal owners of a natural disaster such as a flood or fire that could affect their animals or operations. By completing an application for premise registration, and keeping your information up to date, you will take an important step in protecting your animals and those of other Floridians. After hurricane Katrina the Louisiana horse industry supported legislation mandating Premise Identification. The Premise number is an alpha numeric representation of a physical location. If you sell your property, FDACS should be contacted and the premise registration information updated.

Horse Identification

Finally, traceability is not possible without proper animal identification. Though recording gender, color, and markings is standard, digital photographs will be required for electronic CVI. Microchips are becoming more widely accepted in the horse industry. USDA 840-ID chips are considered universal by USDA. Several show horse associations are requiring microchips. Other indications for microchip use are sale, ownership, theft prevention, rescue, disaster preparedness, health certificate ID, and Coggins official ID and registry.



Florida is Including Indian River County Cattle Country

In partnership with



FLORIDA has a long and colorful history of cattle ranching. The state has supported cattle grazing since the arrival of Spanish explorers almost 500 years ago, and many ranching families are into their 6th and 7th generations. Native American culture in Florida is tightly linked to the cattle industry, with the regional Seminole and Miccosukee tribes managing large ranches.

Until the 1930's many Florida cattle were descended from the early Spanish herds. Known as cracker cattle, they are now preserved as a rare breed. Today, the breeds that dominate Florida beef production have both European and Indian heritage.

5.4+ million acres of Florida land are used for pasture and rangeland. That's **15.6%** of the state's total land area.

In January 2018, Florida had **1.63 million** cattle and calves, including **886,000** beef cows.

***IRC has 20,800 head of beef cattle**

Feeding the World

Florida's cattle produce over **231 million** pounds of beef per year, providing **334 million** meals to consumers.¹

Cattle by-products are used in millions of everyday things such as **cosmetics, crayons, bandages, sheetrock and leather goods.**

They also provide important medicines and supplements such as **insulin, heparin and vitamin B12.**²

***IRC has over 2,820,624 acres of pastureland.**

Driving the Economy

In CY 2017, the Florida cattle industry and allied industries supported **118,191** full-time and part-time jobs.

\$4.64 billion in labor income (wages, salaries, benefits, business-owner income).

\$16.8 billion in output or revenues.

\$712 million in state and local tax revenues.

\$7.65 billion in value added or Gross State Product.

\$1.16 billion in federal tax revenues.

Pastures and rangelands also support recreational activities such as **fishing, hunting and wildlife viewing.**

Source: Hodges, A.W., Court, C.D., Rahmani, M., and Starr, C.A. 2019. Economic Contributions of Beef and Dairy Cattle and Allied Industries in Florida in 2017. University of Florida/IFAS, Food and Resource Economics Department. <https://bit.ly/2C4HbW>
¹Figures contributed by UF/IFAS sources.
²Iowa State University, Date Unspecified. Cattle By-Products. <https://bit.ly/2NBUyJo>

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Florida Cattle Best Management Practices

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Florida ranchers work with the Florida Department of Agriculture and Consumer Services to implement Best Management Practices (BMPs) that reduce nitrogen and phosphorus loads in water leaving their properties.

As of 2017, nearly **11,000** individual BMP projects had been implemented since the program began in 2005.

Over **5 million** acres of Florida agricultural land are enrolled in BMP programs.

***IRC has over 25,362 acres enrolled in the cow/calf BMP program**

Over **80%** (1,926,000 acres) of the agricultural lands within the Lake Okeechobee watershed are currently enrolled in the Notice of Intent BMP program, and **325,000** acres have been enrolled in a BMP cost-share program.²

Best Management Practices include:

- Maintaining adequate vegetative cover by adjusting stocking rates and using prescribed grazing systems. Well-established and managed forage stands effectively reduce soil erosion, absorb nutrients, and provide nutrition for livestock.
- Carefully planning watering and feeding sites.
- Carefully planning temporary holding areas.
- Using structural techniques to abate pollution.
- Minimizing offsite water discharges.
- Minimizing the potential for erosion.¹

The Value of Agricultural Research and Extension

It is estimated that every **\$1 invested** in agricultural research and Extension results in a **return of \$20** from increased productivity.³

Source: Florida Department of Agriculture and Consumer Services. 2017 Annual Report. <https://bit.ly/2EPOA63>
¹Florida Department of Agriculture and Consumer Services. Water Quality Best Management Practices for Florida Cow/Calf Operations, 2008 Edition. <https://bit.ly/2H3KZ3I>
²Soil and Water Engineering Technology, Inc. Estimation of Total Phosphorus & Nitrogen Loads Reductions Associated with FDACS Lake Okeechobee Cost-Share BMP Program, 2016. <https://bit.ly/2ZfzcyCB>
³Altman, J.M., Andersen, M.A., James, J.S., and Parley, P.G. 2010. Persistence Pays: U.S. Agricultural Productivity Growth and the Benefits from Public R&D Spending. New York, Springer.

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Is Your Farm Ready for Hurricane Season? by Megan Mann, Livestock Agent at the UF IFAS Lake County Extension Center and modified by Christine Kelly-Begazo, Agriculture Agent, UF IFAS Indian River County Extension



Be prepared to remove and clean up broken limbs and uprooted trees on cowpens, fences and buildings following a storm. Photo credit Doug Mayo, Agriculture Agent, UF IFAS Jackson County.

Hurricane season is here (June 1-November 30) and hopefully you, and your farm, are prepared for any emergency or disaster. If not, don't panic—better late than never, and now is as good a time as any to make sure that you have considered all possible scenarios that might happen before, during, and after a hurricane strikes.

The best time to start on-farm preparations is before a storm is even in the forecast. These preparations may include clearing debris that could become a projectile in high wind conditions. It is also wise to inventory trees on your property and identify any dead or dying trees that are likely to come down during a storm. Priority should be given to removing or trimming trees that are likely to fall on fences or damage buildings. But remember that your animals will need shade after the storm so careful consideration must be taken before removing any trees.

Just as you gather batteries, flashlights and canned goods for your family's hurricane preparations, well before a storm, this is also a good time to build your farm hurricane kit. This could include tools that are useful after a storm--- a chainsaw, hammer, wire cutters, nails, and other fencing materials such as metal T-posts, wood posts, fence staples, gates, and wire. It would be great to have access to debris removal machinery and extra generators. Extra halters and lead ropes, a basic animal first aid kit, plastic tags for ID, emergency numbers, a copy of all vaccine records, proof of ownership and proof of negative Coggins test (for equine).

As soon as a hurricane is in the forecast, it is time to decide to evacuate or stay. This is always a tough call to make and depends very much on the number of animals you own, the availability of housing away from the storm's path, and the time left before a storm hits. It would be unfair at best, and dangerous at worst, to have animals in a hot trailer for hours on end while stuck in a gridlock on the interstate. If you do choose to evacuate, this decision needs to be made well in advance of the storm so that hauling can be done safely and quickly. Unfortunately, the exact path of a storm can be difficult to predict days in advance. Often it is more reasonable to shelter in place as opposed to evacuating.



As a storm approaches, it is important to attach some form of visual identification to your animals. Breakaway plastic neck collars with your phone number may work well in some situations. Horses may also be identified by writing your name and number on a plastic tag and braiding it into their mane. Whatever ID method you choose, it is important that your animals can be easily traceable back to you in the event that they escape during the storm. It seems counter-intuitive, but livestock are generally far safer outside in a field than inside a barn during a storm. Animals will instinctually turn their backs to the wind and huddle together for protection. It is not uncommon to see horses and cattle bunch up during a storm and rotate periodically so that each animal takes its turn sheltering and being sheltered! Select a pasture that is on high ground and relatively free of debris to turn your animals out into during a storm.

Water is the most important nutrient for all living animals and many will die within 3-7 days without water. Prior to a storm, take the time to top off all the water tanks and buckets on your farm. If your farm relies on a well for water and power is lost, you may be unable to meet your animals' water needs for quite some time. Think about installing a solar-powered pump. Have enough hay, feed and health-care supplies on hand for one to two weeks. Feed stores may not be open for business for a week or more after a storm.

After the storm, as soon as it is safe to do so, animals should be checked on. A basic headcount and brief health inspection will suffice. The next priority should be to check fences. Depending on the amount of destruction that results from a hurricane, recovery can be a long and laborious process.



Horticulture News

Welcome to Nickie's Native Nook! by Nickie Munroe

Native plants, once established, are great low maintenance ways to add diversity to your landscape as well as provide food and shelter for wildlife in your area. They are the best species to choose if you are seeking minimal care requirements because of their adaptations to local conditions. These plants also create a wonderful "sense of place" in your landscape, displaying all the natural beauty of a native Florida environment. Let's look at some of these options that do well during the summer!

Native Shrub of the Quarter:

Firebush- *Hamelia patens*

Native firebush is a fast growing, beautiful plant with colorful leaves. Firebush will provide bright deep red/orange flowers as soon as the weather warms up in late spring until it starts to cool down in the fall. These gorgeous flowers provide nectar for hummingbirds and mature butterflies. Fruit are eaten by birds. Spring is the best time to plant firebush in a sunny to partially shady area of your landscape. Depending on the size of the plant, it will be established before the very warm and dry days of summer. Mature firebush will stay healthy between 6 and 12 feet tall with a 5 to 8 feet spread. Keep the eventual size of this plant in mind when placing in your landscape.



Photo Credit: PLANTanswers:
http://www.plantanswers.com/12_mos_xeriscape_/july.htm

For more information on Firebush: *Hamelia patens* please visit: <https://edis.ifas.ufl.edu/fp237>

Native Perennial of the Quarter:

Milkweed- *Asclepias tuberosa* (pictured left) - recommended for drier, sandy soil conditions.

Asclepias lanceolata (pictured right) - recommended for wetter soil conditions.



Here, we have two beautiful varieties of Florida's native milkweed. You're going to want them healthy and established before summer, so the best time to plant them is in the spring. Start by placing several groups of 6 milkweed in different parts of your landscape. This way, if one patch is wiped out you will still have others available. This will also insure you against the possibility of a group of hungry caterpillars annihilating your entire supply of milkweed.

For more information on Milkweed: *Asclepias tuberosa* (pictured left) please visit: <https://edis.ifas.ufl.edu/fp050>

For more information on Milkweed: *Asclepias lanceolata* (pictured right) please visit:

<http://plants.ifas.ufl.edu/plant-directory/asclepias-lanceolata/>



Monarch caterpillar feeding on milkweed



When Should You Water Your Plants by Nickie Munroe and Josh Kutyna

Maintaining a garden can be an incredibly rewarding project. Nurturing our seeds and watching life take shape day after day can bestow upon us a sense of accomplishment that few other tasks can match. We often get caught up in the excitement of digging into the fresh soil to plant new and interesting varieties of our favorite flowers and vegetables, and often that excitement can make us forget some of the most important needs for our garden to be successful. Number one being the age-old question of “When should I water my plants?”. This isn’t a foolish question, nor should



someone ever just water their plants using their gut instincts for fear of not actually knowing when to water them. It’s a question that is underestimated in the gardening world and it will make the difference between a successful garden and an unsuccessful one. So, let’s break it down and discuss the basic do’s and don’ts of watering your plants!

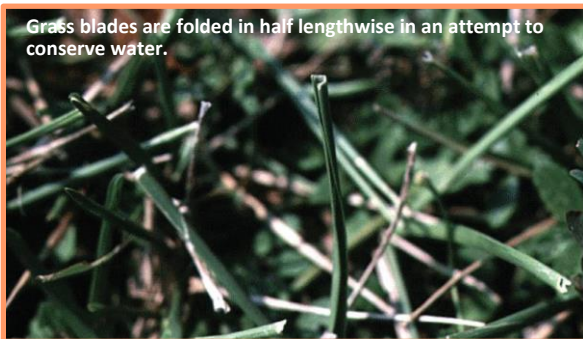
Gardening is an old tradition amongst us, and many of us stick to old methods to determine the basic needs of our gardens. The “dip my finger in the soil to determine moisture” method being one of them. This would seem like a common-sense approach, but this will only give you a VERY general idea of the moisture in the top layer of soil, and only in that small sample area. This is a problem because some plants have long and extensive root systems that access water at a much greater depth, such as grasses. You could take a deeper sample using a soil probe (purchased at any gardening center) which would certainly give you a better idea than your trusty ol’ finger. Not only will a soil probe reveal moisture from a greater depth, but it will also give you a better idea of what your soil looks like down below your visual interpretation. This is especially useful in old garden beds where the lower layers are leached of nutrients over the years. With a simple push and pull of a soil probe you can paint a bigger picture of your gardens soil profile.

Well “That’s all great and good” you may say, but “When do I water my already established plants?”. Simply put, be watchful of common signs of dehydration. Your garden is not going to start speaking to you any time soon (as useful as that would be sometimes) but your plants will communicate their needs in other ways. Wilting is a common sign of dehydration and easy to spot too. Look for leaves starting to curl, gently feel the leaves for dryness, look for browning leaves or other discoloration. Healthy leaves and plant stems should be obvious; green and firm with an apparent vibrancy of life. If you spot any of these symptoms it’s a good indication that your plant needs a drink, just don’t overdo it and drown it in water. Just enough to soak the top layer of soil should do, and NEVER water the leaves or plant directly. You want the water to get to the roots as fast as possible through the soil and pickup nutrients along the way. Think of it just like your own hydration requirements with your roots being your veins and arteries. You wouldn’t simply spray water on a patch of dry skin, you would drink a glass of water so your body can make use of it.



Photo by Beth Bolles, UF IFAS Extension Escambia

So how do you feel when you’ve had too much water to drink? Bloated? Heavy? Unfortunately, those symptoms won’t be apparent in a plants behavior but there are still obvious signs of saturated plants. Darkened, crumbling (but not dry) leaves, almost like wet tissue paper, is a tell-tale sign that a plants’ cells are drowning in water. As the cell walls expand the plant will lose its’ rigidity and structure. You might notice a fruit-bearing plant sagging, or flowers bent downwards. If you observe any of these symptoms simply back off on watering until you see the plant regain some of its’ stature and leaves start looking healthier.



Grass blades are folded in half lengthwise in an attempt to conserve water.

By reading the signs you’ll have a much better understanding of when to water your plants, but when should you not water them? Before, during or after a rainstorm is a no-brainer depending on how much rain actually falls. More importantly though, you should never water your garden during the hottest time of the day. This is because of the water you will lose to evaporation when it is hot out but also because water droplets on leaves and stems are like mini magnifying glasses that can intensify the suns light and damage the plant. Just another reason to always water the soil around the plants base rather than the plant itself. The best time to take out the hose or

watering can is the early evening. This gives your soil lots of time to soak up the water without having to battle with the sun. As the sun sets on your garden, your plants will have all night to devote their energy to growth and quenching their thirst. For information on watering your lawn and garden check out this UF/IFAS Extension article: <https://edis.ifas.ufl.edu/pdf/files/LH/LH02500.pdf>

Pollinator Points – Above and Bee-yond by Violet Krochmalny



Now that you have made changes to your lawn and landscape to incorporate pollinator friendly practices, what is next? Small changes in your immediate neighborhoods and communities can result in huge rewards for wildlife in general and pollinators in particular. Being an involved citizen can help educate others, inform government officials, start community projects and be a positive force for environmental responsibility in your community. Grants are available for demonstration gardens in public places (such as this roadside planting in Martin County) through the Florida Wildflower Foundation. For more information on grants go to: <https://flawildflowers.org/grants/>

Where to start? Look around your immediate community at the common landscape spaces. Does it incorporate Florida-Friendly practices? Many HOA's have landscaping committees that are happy to welcome members with practical ideas on how to reduce expenses while incorporating principles that improve aesthetics and environmental quality. Does your neighborhood have a local park? Find out who maintains that park and offer to join or create a group to help make it a more pollinator-friendly space. The

Xerces Society's publication *Pollinator-Friendly Parks*, clearly outlines how to plan and implement options for a particular park or landscape, as well as how to approach park staff, committees and the public. A free copy can be downloaded at: <https://xerces.org/guidelines-pollinator-friendly-parks/>

Continuing education is crucial---using educational kiosks and informational signage can help raise awareness and gain support from the park users.

Would you rather join an established group to volunteer? There are many worthy organizations focusing on habitat restoration and urban greenspaces. The Treasure Coast Beekeepers Associations webpage has an extensive list of links under their "What's the Buzz" section at <http://www.tcbeekeepers.org/links.html>



<https://365cincinnati.com/farbach-werner-nature-preserve/>



If you would like to contribute in a monetary way, consider donating to the Florida Wildflower Foundation. The purchase of a state wildflower license plate helps wildflower preservation statewide and awards grants for planting public wildflower gardens and pollinator friendly spaces. More information can be found at their website: <https://flawildflowers.org/>



FLORIDA Beekeeping CALENDAR

July

Check-list

| | North | Central | South |
|---|-------|---------|-------|
| Monitor for Varroa. Consider treating when Varroa levels reach 3% (3 mites per 100 bees as determined by an alcohol wash or a sugar shake). Treatment options include Apiguard, Apistan, Apivar, Hogguard, and Mite Away (always follow label instructions). For information on how to monitor for Varroa read Tools For Varroa Management (https://tinyurl.com/y4tqr6p), and watch Sampling Methods (https://youtu.be/jgPT9FQxLc). | ✓ | ✓ | ✓ |
| Remove and process honey; main flow stops. For more information, see Bottling, Labeling, and Selling Honey in Florida (http://edis.ifas.ufl.edu/in918). | ✓ | ✓ | ✓ |

What's Blooming This Month?

| North | | |
|----------------|------------------------|-------------------------|
| Black mangrove | Mexican clover | Sandhill prairie clover |
| Butter mint | Palmetto, cabbage palm | Saw palmetto |
| Cotton | Partridge pea | Spanish needle |
| Elderberry | Primrose willow | Spiderwort/ dayflower |
| Galberry | Red bay | Swamp titi |
| Gopher apple | Red cabbage palm | White mangrove |
| Joint weed | Red mangrove | |
| Loblolly bay | | |

| Central | | |
|----------------|------------------------|-------------------------|
| Black mangrove | Palm | Sandhill prairie clover |
| Butter mint | Palmetto, cabbage palm | Spanish needle |
| Elderberry | Partridge pea | Spiderwort/ dayflower |
| Gopher apple | Primrose willow | White mangrove |
| Joint weed | Red bay | |
| Loblolly bay | Red mangrove | |
| Mexican clover | | |

| South | | |
|------------------------|--------------------------|----------------------------------|
| Black mangrove | Primrose willow | White mangrove |
| Elderberry | Red mangrove | Yellow pencil pea, pencil flower |
| Mexican clover | Shrubby false buttonweed | |
| Palm | Smart weed | |
| Palmetto, cabbage palm | Spanish needle | |

Sources: <http://edis.ifas.ufl.edu/in848>; <http://edis.ifas.ufl.edu/in1223>
 For more information, visit http://edis.ifas.ufl.edu/topic_beekeeping

For scientific names of plants in the list on the right, visit <http://edis.ifas.ufl.edu/in1223>

Beekeeper MANAGEMENT CALENDAR

AUGUST

north - central - south

- ☞ Treat with Tetra Bee Mix or Tylan for American/European foul-brood. Always follow label instructions.
- ☞ Feed colonies if light
- ☞ Monitor for and control small hive beetles
- ☞ Monitor colonies for varroa. The economic threshold is 60+ mites/day on a sticky screen or 3+ mites/100 bees in a powdered sugar shake for a colony of average strength. Treat if you exceed these numbers. Options include Apiguard, Apistan, Apivar, Hogguard, or Mite Away II. Always follow label instructions.

north - central

What's blooming?

- Spotted Mint
- Goldenrod
- Sumac
- Vine Aster

south

- Spanish needle
- Mexican Clover
- Primrose Willow
- Melaleuca
- Palm
- Smartweed



Have Questions About Your Lawn or Garden?

Trained Master Gardener volunteers are here to help!

Do you find gardening in Florida daunting? Want to know when is a good time to prune roses? Curious about what kind of bug you just saw in your bathroom? Well, it is the Indian River County Master Gardener volunteers to the rescue! IRC MGV's provide answers to home garden and landscaping questions. Free services include plant disease diagnosis, insect and plant identification and basic soil testing. Clients can call the IRC Extension office in Vero Beach, or visit any of the four Plant Help Clinic locations. For more information about the Plant Help Clinics and Florida gardening, visit the IRC Extension website (<http://sfyl.ifas.ufl.edu/indian-river>) or the University of Florida Horticulture website (<http://hort.ifas.ufl.edu>). If you like to do the research yourself, you can visit the University of Florida document search website (<http://edis.ifas.ufl.edu>) or email our MG's at ircmg1@gmail.com. We are also on Facebook at **MasterGardenersIRCForida** so come visit and like our page so you can be connected to timely researched-based gardening information for our area.

PLANT CLINIC LOCATIONS:

Vero Beach-IRC Extension Office
 1800 27th St., Bldg. B, 2nd Floor
 Vero Beach, FL 32960
Monday-Friday
 9:00am-12n and 1:00pm-4:00pm
 (772) 226-4324

Sebastian-North IRC Library
 1001 Sebastian Blvd. (CR512)
 Sebastian, FL 32958
Every Wednesday
 10:00am-12n

Environmental Learning Center
 255 Live Oak Drive
 Vero Beach, FL 32963
1st Saturday of each Month
 10:00am-12n



JULY

AUGUST

What to Plant in your Vegetable Garden

| | Central | South | Central | South |
|--|------------------------------------|----------------|--|--|
|  Survives Transplanting | | Sweet Potatoes | Eggplant, Endive/Escarole, Peppers, Tomatoes | Eggplant, Peppers, Tomatoes |
|  Transplant With Care | | | Carrots | |
|  Use Seeds | Okra Peas (southern) Pumpkin | | Beans (bush, pole, lima), Okra, Onions (greens, shallot), Peas (southern), Squash (summer, winter) | Okra, Pumpkin, Squash (summer, winter) |



Still Too hot?!?! Try container gardening...



...or simple hydroponics



Master Gardeners Out and About

MG Volunteers @ Garden Fest 2019



4H Agent Darren Cole @ Garden Fest 2019



Ludmila K. displaying an African Violet from Garden Fest 2019



Garden Fest 2019



Volunteers at the MG Booth during Garden Fest



MG booth at Hibiscus Fest



Master Gardeners are trained volunteers that assist the horticulture agent, Nickie Munroe, educate homeowners and the general public about Florida-Friendly Landscaping and environmentally sustainable lawn maintenance. If you are interested in learning more about the Florida Master Gardener program in general, please visit the Florida Master Gardener website at <http://gardeningsolutions.ifas.ufl.edu/mastergardener/>. If you are interested in training to become one of our illustrious volunteers in Indian River County, contact Nickie Munroe at Inmunroe@ufl.edu or (772) 226-4318.

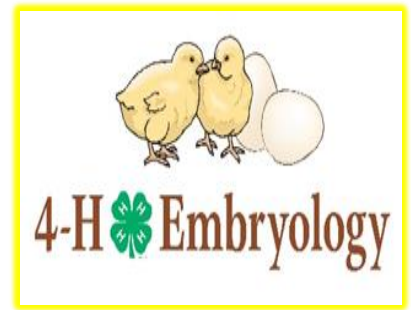
4-H and Youth Development News

Embryology in Indian River County as a School Enrichment Program by Darren Cole

The 4-H Embryology Project is a wonderful opportunity for young people to begin learning the science of life. This project is often considered a school enrichment project to be conducted in school classrooms. However, this project can also be modified to be available to 4-H clubs or even individual 4-H members.

The 4-H embryology program is a School Enrichment program. 4-H school enrichment is a partnership between the University of Florida/IFAS Extension Service and the local school district to provide educational content in various subject areas. Extension values its relationship with the schools and welcomes the opportunity to provide research-based curricula for classroom use.

In the 4-H Embryology Project, children will use an incubator with the goal of successfully incubating and growing embryos inside fertile poultry eggs through the 21-day hatching process. This project teaches basic biology and life science to students, as they eagerly look forward to the hatching chicks.



REQUIREMENTS:

- The Embryology program will be taking reservations, Call Indian River County Extension office (772) 226-4330 x 2 to reserve your spot.
- Everyone who reserves a spot need to understand that the program must be started on a Wednesday, for chicks to hatch 21 days later starting on a Sunday-Monday.
- All participants interested in taking chicks home through the Rent-a-Chick MUST be able to provide a safe and warm environment for the chicks and attend a 30-minute chick class.

For any questions regarding the “Embryology” program, school enrichment, or about your local 4-H youth development program, please contact Darren Cole, Indian River County 4-H agent, by phone: (772) 226-4330 x 2 or by email: dc32@ufl.edu



Workshop or Seminar Ideas?!

We are looking for ideas for workshops in 2019. We would like to hear ideas of what you are interested in and would be willing to attend. Please let us know what time would work best for most people--after school, 1/2 days when school is out, etc. Contact the Extension Office 772-226-4330 x 2 or dc32@ufl.edu and let us know what YOU are fascinated by.

FOR RENT

Rent-a-Chick

Renting anything is a great way to try out an experience, without the burden of a longtime commitment. So why not be able to rent a chick as well? This introduces and educates children on the responsibilities of caring for baby chicks without the need to permanently adopt an animal.

WHEN: Contact Darren at: dc32@ufl.edu for availability. Plan and get on the list now!
(Usually available right after a classroom Embryology program/project)

WHERE: UF/IFAS Indian River County Extension Office:
1800 27th Street, Building B, 2nd Floor
Vero Beach, FL, 32960

COST: \$25.00 *Cash or Check. **Make checks payable to “The University of Florida” with “Baby Chicks” in the memo. (This fee includes TWO baby chicks, a feeder and feed, a box with bedding, waterer and additional care instructions)

REQUIREMENTS:

- The Embryology program will be taking reservations, limited chicks are available so call Indian River County Extension office (772) 226-4315 to reserve your chicks.
- Everyone who reserves chicks MUST attend a 30 minute “Chick School” upon picking them up. (This teaches the basics on how to raise a chick and is mandatory).
- All participants interested in taking chicks home MUST be able to provide a safe and warm environment for the chicks. This always means at the very least having a heat lamp and the ability to keep other pets in the household at a safe distance.

For any questions regarding the “Rent-A-Chick” program, school enrichment, or about your local 4-H youth development program, please contact Darren Cole, Indian river county 4-H agent, by phone: (772) 226-4315 or by email: dc32@ufl.edu



4-H Members in Action!



Did you know that you can help us teach children about agriculture?

Many children do not have a good understanding of where their food comes from or how it is produced. Help us educate the children in Indian River County about its rich agricultural contributions by donating to the IRC 4-H program. For more information, please contact Darren Cole (dc32@ufl.edu) or Christine Kelly-Begazo (ckellybe@ufl.edu).

Another way that you can contribute to educating youth about Florida agriculture is by buying the Florida AgTag for your vehicle. \$20 of your purchase helps educate children by funding school gardens, teacher & volunteer grants, preK-12 agriculture curriculum and Ag Literacy Day. For more information visit www.agtag.org to learn more about this program.

CONGRATULATIONS TO OUR FAIR WINNERS!



Indian River County Youth Livestock & Horticulture Assoc Show and Auction 2019

Congratulations to all the 4-H exhibitors; you all did such a GREAT job!

Thank you to IRCYLHA and the 4-H leaders and volunteers who plan and host the 10 days of shows and sale night during the IRC Fire Fighters' Fair!

Citrus:

Grand Champion: Levi Mace
Reserve Grand Champion: Ayden Bourdette



Swine:

Grand Champion: Sofia Bender
Reserve Grand Champion: Emma Bender
Highest IRC Bred Swine Winner:
Zach Stambaugh



Showmanship winners:

Jr.- Landen Sweigard
Int.- Mackenzie Peavy
Sr.- Justice Wright

Rabbit / Cavy:

Grand Champion Rabbit: Mackenzie Elmore
Reserve Grand Champion Rabbit: Sophie Chisholm
Grand Champion Cavy: Ryan Lockard
Reserve Grand Champion Cavy: Evelyn Brandes

Showmanship winners:

Rabbit, Jr.- Katie Bender
Rabbit, Int.- Drew Baierl
Rabbit, Sr.- Sophie Chisholm
Cavy, Jr.- Evelyn Brandes
Cavy, Int.- Madison Coker
Cavy, Sr.- Samantha Maks

Poultry:

Grand Champion: Maggie Bender
Reserve Grand Champion: Joseph Semprevivo

Showmanship winners:

Jr.- 1st Place- Heather Wooten
Runner-up- Gabriella Goldberg
Int.- 1st Place- Joseph Semprevivo
Runner-up- John Henry Erpenbeck
Sr.- 1st Place- Ryan Rosenberg
Runner-up- Kendyl Leonard





Breedstock:

Grand Champion Female: Samantha Maks
Reserve Grand Champion Female: Eric Epsilantis
Grand Champion Bull: Shelby Wolff
Reserve Champion Bull: Reina Chesser

Showmanship Winners:

Jr.- Dureti Flynt
Int.- Drew Baierl
Sr.- Eric Epsilantis

Goat and Wether:

Grand Champion Doe: Heather Wooten
Reserve Grand Champion Doe: Brooke Arce
Grand Champion Buck: Brooke Arce
Reserve Grand Champion: Victoria Wooten
Grand Champion Market Wether: Drew Baierl
Reserve Grand Champion Market Wether: Abigail Flynt



Showmanship winners:

Jr.- Heather Wooten
Int.- James Elmore
Sr.- Mackenzie Elmore
Int. Wether- Drew Baierl
Sr.- Abigail Flynt

Market Steer:

Grand Champion: Will Tripson
Reserve Grand Champion: Piper Patterson

Showmanship winners:

Int.- Piper Patterson
Sr.- Mackenzie Elmore

Highest Indian River County Bred Steer Winner: Kendyl Leonard



Fruit and Alternative Crops News

Passion Fruit for Home Gardening by Dr. Amir Rezazadeh

Native to South America, passion fruit (*Passiflora edulis*) is a perennial, climbing, woody vine that produces edible, round-to-oval fruit that contain many small seeds. Vines have a productive life of 3 to 4 years and new plantings should be made on a continuous 3-year rotation to maintain production. The fruit can be eaten fresh, juiced, fermented for wine or boiled down to a syrup and used in desserts.

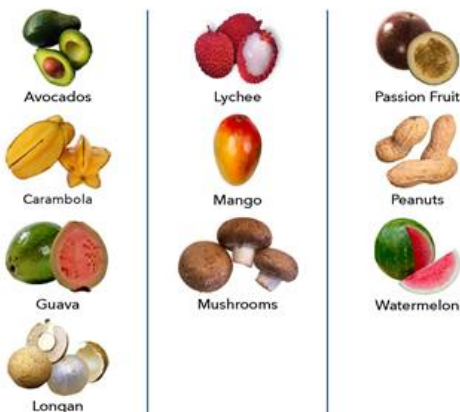
Popular cultivars include purple passion fruit and yellow passion fruit. The purple passion fruit is the more common type and has an egg-shaped or round-shaped fruit which is 4–6 cm in diameter and purple when ripe. Passion fruit vines are usually grown from seeds. If planted soon after removal from the fruit, seeds will germinate in 2 to 3 weeks. Some growers prefer layers or cuttings of matured wood with 3 to 4 nodes. Cuttings should be well rooted and ready for setting out in 90 days. Passion fruit need a well-drained soil rich in organic matter and it can be drought tolerant depending upon soil conditions. Prepare soil by incorporating plenty of compost and well-rotted manure to a planting zone 3-6 ft wide. Water regularly and ensure good soil fertility by incorporating well-balanced, all-purpose organic fertilizer early spring and early autumn. Too much nitrogen encourages only leaf growth at the expense of fruiting. Regular pruning will improve production and keep your vines healthy.

Passion fruit flowers do not self-fertilize, and many varieties are self-incompatible therefore cross-pollination is necessary for seed and fruit set. Wind pollination is not effective because of the weight and stickiness of the pollen. The most satisfactory way to supply ample pollination to a crop is by stocking the area with enough honeybee colonies. The purple variety does have self-compatible flowers, so no pollinating varieties are required. Plant vines next to a fence or with a trellis in full sun. Most passion fruit vines start producing meaningful fruits from their second year especially under relatively colder conditions. The first fruit will appear 6-8 months after planting with the best crops after 18 months. Fruit will drop off the vine when ready and can be purple, yellow or red in color.

Vines generally perform well for 3-5 years after which they need to be replaced. Passion fruit woodiness virus, brown spot, fruit fly, and poor pollination are major issues in passion fruit production. Passion fruit growing is a great option for the home garden or small family-operated farms.



 **What's in Season Now?**
Look for these "Fresh From Florida" items
in your grocery store during
July



Support Florida Farmers and buy local!

 **What's in Season Now?**
Look for these "Fresh From Florida" items
in your grocery store during
August



What is Coming Up Next?

July:

- 29th Soil Moisture Sensor Field Day at Gibbons Farms Organics, Ft. Pierce. Contact ckellybe@ufl.edu
29th-30th 4-H University, Gainesville. Contact dc32@ufl.edu
30th Industrial Hemp Field Day, Gainesville. Register on Eventbrite. <https://www.eventbrite.com>

August:

- 2nd Industrial Hemp Field Day, Homestead. Register on Eventbrite. <https://www.eventbrite.com>
7th Pesticide license test taking opportunity, 1-5pm. Contact ckellybe@ufl.edu
12th Indian River Soil & Water Conservation District monthly meeting, 1:30-3:30pm. Contact lcaggiano@ircgov.com
16th Industrial Hemp Field Day, Apopka. Register on Eventbrite. <https://www.eventbrite.com>
17th 4-H Leader Training, 9am-12pm (Must RSVP dc32@ufl.edu)
21st 4-H Leader Training, 5:30pm-8:30pm (Must RSVP dc32@ufl.edu)
22nd Limited Commercial Landscape Maintenance Certification training & test taking, 8am-5:30pm, contact ckellybe@ufl.edu for more information, register at <https://irc-lclm8-22-19.eventbrite.com>
24th 4-H Leader Training, 9am-12pm (Must RSVP dc32@ufl.edu)
26th-28th Extension Professional Associations of Florida annual conference. All agents out of the office.

September:

- 1st 4-H New Year enrollment starts
4th Pesticide license test taking opportunity, 1-5pm. Contact ckellybe@ufl.edu
Hops Field Day, Ft. Pierce. Contact eask@ufl.edu
8th-13th National Association for County Agriculture Agents Conference
19th General Certification Standards Training & Testing for Chapter 487 Pesticide Applicator Licensing, Martin Co. Contact goodiel@ufl.edu
24th Green Industries Best Management Practices training, Brevard Co. Contact bwells@ufl.edu

Cool Apps, Interesting Websites and New Factsheets

Agriculture:

- ♦ Visit the UF-IFAS Citrus Website: <https://citrusresearch.ifas.ufl.edu/> Sign-up for the newsletter at the top right corner.
- ♦ The Pollination Network gathers the growers with bee-needs and the best available beekeepers all in one accessible place. Connecting beekeepers and growers has never been simpler — one of the top apps for farmers and beekeepers alike. **Download:** <https://www.pollinationnetwork.com/>
- ♦ Farmers and ranchers can receive notifications from their USDA Farm Service Agency. Producers will receive text messages regarding program deadlines, reporting requirements, events and updates. Text "Florida" to FSANOW (372-669) for alerts from the state office, and "FLIndianRiver" to FSANOW for messages from a county office.
- ♦ Florida Automated Weather Network www.fawn.ifas.ufl.edu

Green Industry Professionals:

- ♦ Pesticide Licensing <http://sfyl.ifas.ufl.edu/hillsborough/professional-horticulture/licensing>

Homeowners:

- ♦ **New app for your smart phone** that helps you regulate your automatic sprinklers per current weather conditions, read about it at <https://edis.ifas.ufl.edu/ae499>. Download from app store **Smart Irrigation-Turf**.
- ♦ Florida Gardening Calendar gives gardeners a monthly guide for care and planting of landscapes and gardens, allows for selections between North, Central and South Florida http://solutionsforyourlife.ufl.edu/lawn_and_garden/calendar/
- ♦ Florida-Friendly Landscaping APP Helps You Create Your Own Butterfly Garden <https://ffl.ifas.ufl.edu/butterflies>
- ♦ Is Your Industry Professional Certified? Find out by going to <http://aesearch.freshfromflorida.com/PersonSearch.asp> and putting in their last and first name and you will be able to see what license they carry.



Help Desk & Plant Clinic

Vero Beach Office

M-F 9:00am-n, 1:00-4:00pm
(772) 226-4324

lrcmg1@gmail.com

North County Library

Wednesdays 10:00am-12n



Blooming firebush with zebra longwing butterfly

UF | IFAS Extension in IRC

Indian River County Extension Agents and Staff

"Who Ya Gonna Call?"

The Indian River County Extension agents are here for you! Extension agents are your direct link to science-based research straight from the University of Florida. For more information on Extension, or topics ranging from chickens to chinch bugs, send them an email or give them a call. Walk-ins welcome as well!



Christine Kelly-Begazo
County Extension Director
Agriculture Agent
Phone (772) 226-4330 x 3
ckellybe@ufl.edu



Darren Cole
4-H & Youth Development Agent
Phone (772) 226-4330 x 2
Dc32@ufl.edu



Nickie Munroe
Environmental Horticulture Agent
Master Gardener Coordinator
Phone (772) 226-4330 x 4
Inmunroe@ufl.edu



Amir Rezazadeh
Multi-County Fruit & Field Crops Agent
Phone (772) 462-1660
Amir2558@ufl.edu



Violet Krochmalny
Office Manager
Phone (772) 226-4330 x 5
violetk@ufl.edu



Yvonne Florian
Program Assistant
WELCOME, YVONNE!!

Directions to IRC Extension

From U.S. 1 (coming from the north)

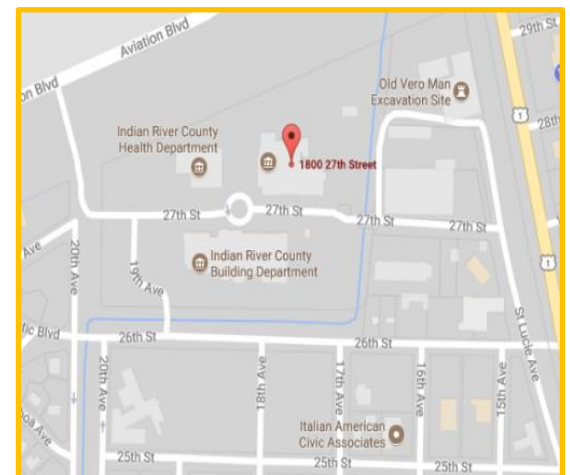
Heading on U.S. 1 south, turn right (west) at the light at 26th Street, follow to 19th Ave. and turn right (north) at entrance of IRC Administration complex. Turn right (East) at stop sign in parking area and continue through the roundabout. Building B is on the left just past the roundabout.

From U.S. 1 (coming from the south)

Heading on U.S. 1 north, turn left (west) at the light at 26th Street. Follow to 19th Ave. and turn right (north) at entrance of IRC Administration complex, continue with first instructions to Bldg. B.

From Interstate 95

Take Exit #147 onto Route 60 eastbound (20th Street) to Vero Beach. In approximately 6 miles turn left (north) at the light at 27th Ave. Turn right (east) at the next stop sign at Atlantic Blvd., follow to 19th Ave. and turn left (north) at the entrance of IRC Administration complex, continue with first instructions to Bldg. B.



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