UNIVERSITY OF GEORGIA
EXTENSION

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Joanna Wright, the new Agriculture and Natural Resources Program Assistant

Amanda's Slice

I am excited to announce this month that we have a new program assistant for Athens-Clarke County Extension! Her name is Joanna Wright and she just graduated from the University of Georgia with a bachelor's degree in Animal Science. She is excited to learn and get hands on experience in our community. Feel free to stop by the office during the week to meet her!

There are a variety of activities going on in our area this month including an open house at the UGA trial gardens. If you are wanting something relaxing to do on a summer evening stop by the sunflower concert series at the State Botanical Gardens. To learn more about the events occurring in our area, check out the "local events" section of this newsletter. I hope you enjoy this month's edition of "Shades of Green" and savor this summer season!

Hot Enough for You?

By Greg Sheppard

When I was a kid the only restaurant close to our farm was a barbeque joint just down the road. I was always fascinated by the bright red bottles of Louisiana hot sauce sitting on each table next to the salt, pepper, and napkin dispenser. For years my mother refused to let me try hot sauce until finally I wore her down. She shook her head as she watched me gingerly placed the first few drops on my barbeque sandwich. Much to her surprise I didn't complain that I had ruined my sandwich. Instead, I eagerly added more. I loved it! Ever since that memorable day I have been a devotee of spicy food. Many of you are too.

Pictured above are red and green bell pepper plants known for their mild flavor.

Recently, I have had a number of callers with concerns about the hot peppers growing in their gardens. Several folks have expressed concern that their hot peppers might be ruined by cross-pollinating with milder peppers. Well, cross-pollination is possible. In one research study 42% of peppers planted close together cross- pollinated. Cross-pollination, however, will not affect the taste of this year's crop of peppers. It only be comes a problem if you save the seed they produce. The taste of future generations of peppers grown from the cross-pollinated seed might be altered. Other folks have called to complain that their hot peppers were not very hot. This is a little more complex issue. The "heat" of peppers is due to a chemical they contain called capcacin. In 1912 a chemist named Wilber Scoville developed a test to measure the "heat" of peppers. Basically it involves diluting ground peppers until you reach a point where a panel of taste testers no longer senses the burning flavor. These tests are measured in units named after the chemist called "Scoville" units. . Mild peppers like Sweet Bell or Sweet Banana peppers are rated at 0 Scoville units. Jalapeño peppers range from 2,500-8,000 Scoville units. Red Savina Habanero peppers come in at a blistering 350,000-575,000 Scoville units. In case you are wondering, police grade pepper spray containing capsaicin is about 5,300,000 Scoville units. No wonder it gets a bad guy's attention! Some pepper varieties produce peppers that look like they should be hot but they may not taste that way.

Pictured above is a jalapeño pepper plant with a 2,500-8,000 Scoville unit range.

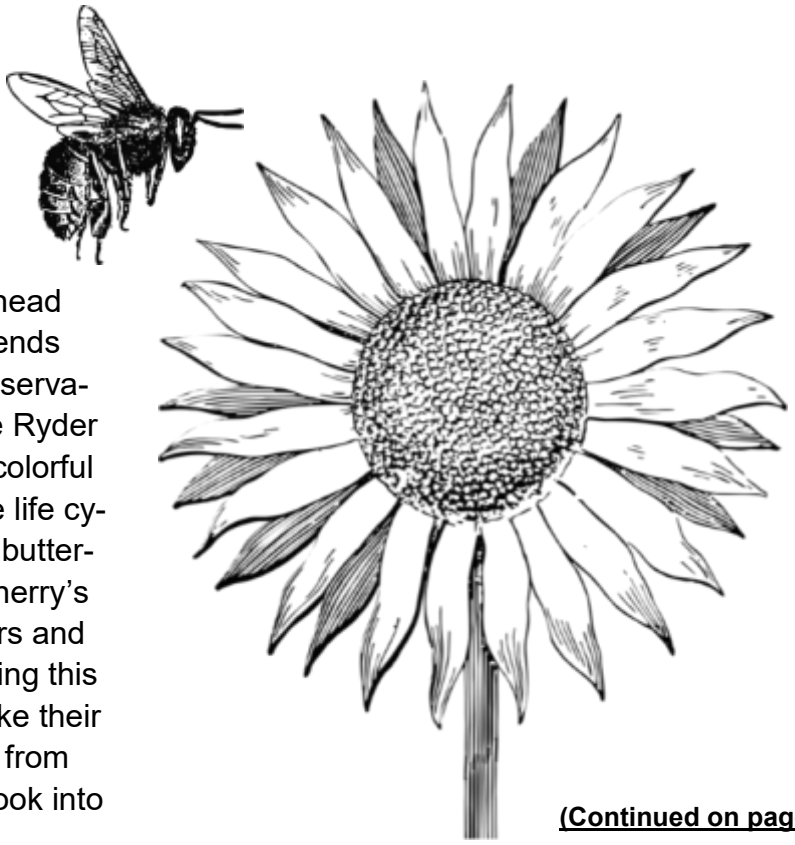
(Continued on page 6)

Georgians Have Three Months to Read up Before the Great Georgia Pollinator Census

By Merritt Melancon

In three months, an army of citizen scientists across the state will undertake a first-of-its-kind pollinator count across Georgia. To prepare for the Great Georgia Pollinator Census this August, University of Georgia Cooperative Extension is offering a few summer reading suggestions for citizen scientists of all ages. “This is a great opportunity to learn more about our Georgia insects,” said Becky Griffin, UGA Extension school garden specialist and pollinator census coordinator. “By doing some reading before the event, participants will really enjoy participating in the census and will understand more about the insects that they see.” The census, which was modeled after Cornell University’s Great Backyard Bird Count, will run from August 23-24. Citizen scientists can sign up individually or in groups at ggapc.org. The results will give entomologists a better sense of the health and diversity of Georgia’s pollinator population.

UGA Extension has a number of training resources online to help train those who wish to count, but for those who want to expand their pollinator knowledge, Griffin suggests reading some of the following books. For younger readers who want to learn more about pollinators before they head back to school in August, Griffin recommends three picture books about nature and conservation: “Where Butterflies Grow,” by Joanne Ryder and Lynne Cherry, is filled with detailed, colorful illustrations and introduces children to the life cycle of a butterfly and how to help support butterflies in home gardens. Griffin says that Cherry’s books “are always a hit with young readers and her drawings are spectacular.” After reading this book, Griffin recommends that parents take their children outdoors to see which butterflies from the book are in their garden. “Turn this Book into a Beehive!” by Lynn Brunelle includes information about the ecology and behavior of bees, as well as hands-on activities and experiments to help children understand the importance of bees and how to support them. “The activities are great to do as a family,” Griffin said. “Jack's Garden,” by Henry Cole, is an adaptation of “A House that Jack Built,” in which children learn about everything that goes into building a lush, life-filled garden — including creating spaces for pollinators. According to Griffin, this book is a great introduction to the importance of ecosystems. For adults and older readers, these guide books will help them build their appreciation of the biodiversity in their backyards: “The Bees in Your Backyard: A Guide to North America's Bees,” by Joseph Wilson and Olivia Messinger, has large, vivid photos and tips for identifying bees. “This is my go-to guide for bee identification," Griffin said. “I keep two copies; one at home and one in my office."



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UGA Vegetable Scientist Recommends Organic Mulches for Weed Control

By Clint Thompson

If they start now, Georgia organic farmers can use mulch and cultivation to manage young weeds, according to Juan Carlos Diaz-Perez, vegetable scientist on the University of Georgia Tifton campus. If weeds are not controlled successfully and are allowed to grow throughout May and June, they can compete with crops for nutrients, water and sunlight. “In organic management, you don’t have access to many weapons for weed control. You have to make use of prevention,” Diaz-Perez said. “With weed management, the younger the weed is, the easier it is to control it. The younger your crop is and the more it is allowed to have weeds as competitors, the more damage weeds will inflict on the crop. Usually our crops are most susceptible to weeds when they are young.” In traditional farming practices, growers normally apply herbicides throughout the year to kill weeds without damaging the crop. Because organic farmers do not use chemical means to control weeds, they can use alternative methods throughout the growing season, according to Diaz-Perez. Practices such as cultivation with a tractor or hoe, hand-pulling weeds and using organic mulches or plastic film mulches serve as effective weed control measures. Diaz-Perez recommends organic mulches, like wheat or pine straw, because they can reduce weed growth significantly, allow the rain to penetrate the soil, and they are sustainable. Organic mulches decompose, providing organic matter to soil and nutrients to microbes, and don’t add pollution to the soil like plastic. Diaz-Perez devotes 30% of his research to organic crop production at UGA-Tifton. “When weeds are allowed to grow too much, their degree of development makes their control impractical. Weeds have to be controlled when they are small and tender. Removing those weeds that were not controlled during their younger stage of development makes for an expensive and time-consuming effort on the part of organic farmers,” Diaz-Perez said. “Weed control is the most important factor when producing a crop organically. Weeds have to be controlled if the crop is going to do well.”

(*Reach Clint Thompson, a news editor with the University of Georgia College of Agricultural and Environmental Sciences based in Tifton, by emailing cbthomps@uga.edu*)

A Water Wise Landscape

By Willie O. Chance, III

As temperatures fly higher and clouds scurry by without a drop, our landscapes get drier and drier. We take for granted that plants are mostly water. Lawns and gardens can lose up to one third of inch of water a day. It is hard to replace this just by watering. You need a water wise landscape. Irrigation systems (sprinkler systems) do not necessarily solve this problem. In fact your sprinklers may be soaking more than your lawn. Do an irrigation audit to make your system more efficient and to save up to 25% on your lawn watering bill. Start by flagging your sprinklers. Set up ten to twelve rain gauges or heavy cups in a line from sprinkler to sprinkler. Run the system for an hour or so and compare how much water each area gets. Be sure to check areas that grow poorly. Check at night, if possible, for best results. Expect some variation. Adjust sprinklers for better coverage. Some people have to add sprinkler heads to improve coverage. You can do this with portable sprinklers also. Remember that lawns require one inch of water whenever they get dry - usually every week or so. When you water matters, too. Water between 9:00 p.m. and 9:00 a.m. This has two advantages. You lose less water to evaporation at night and plants dry quickly after sunrise and stay dry all day - reducing disease. Turf is a water log. If necessary, reduce the amount of lawn you have. Shrubs, trees, ground covers, and mulched areas require less water.

Select a drought tolerant turf. The turf types listed from most drought tolerant to most drought susceptible are Bermuda, St. Augustine, Centipede, and Zoysia. Water wise landscapes start before planting. Group plants in the landscape based on water needs and then water accordingly. Call your county Extension office for a list of drought tolerant plants. Deep till areas to be planted, including turf areas. Soil sample and lime and fertilize, as needed. Do not plant too deeply and dig very large planting holes for trees and shrubs. Water in and mulch well to slow water loss. Fall is the best planting time for trees and shrubs. It gives them time to recover before the hot, dry summer. Fall planting is an important secret of successful gardeners. Improve shrub, perennials, and annual flower beds with two to four inches of compost tilled in. You can find cheap or free sources of compost through your county Extension office. Reduce fertilization and pruning. Most trees and shrubs need little fertilizer unless you want to grow larger. Lightly fertilize in May and August. Reduce pruning and allow plants to retain their natural shape. The only exception to this is fruit trees like apple, pear, peach, and plum which should be pruned each February. A water wise landscape is a healthy landscape. It requires less money and maintenance to look good.

(*Willie O. Chance, III was an agent for Houston County Extension. To contact Houston County Extension, click here*)

Read up Before the Great Georgia Pollinator Census (continued…)

"Our Native Bees: North America's Endangered Pollinators and the Fight to Save Them," by Paige Embry, is a narrative natural history book in which Embry interviews gardeners, farmers and entomologists to learn about the native pollinators that provide the bulk of pollination services on American farms. "This book is fun to read as it is a collection of stories. It is the story of bees told through the people who depend on them," Griffin said. "Attracting Native Pollinators," by The Xerces Society and Marla Spivak, is the ultimate guide for turning any backyard or landscape into a haven for native pollinators, Griffin said. In addition to tips for planting and nesting structures, the book offers advice on landscaping practices to avoid and ways to advocate for pollinators.

For more information about Georgia pollinators and how to identify and count them, visit ggapc.org.

(*To reach Merritt Melancon, a news editor with the University of Georgia College of Agricultural and Environmental Sciences, email jmerritt@uga.edu)*

Hot Enough for You? (continued…)

Once in a while varieties can be accidentally mixed in a nursery. Either of these situations can cause the hot pepper lover to discover disappointingly mild peppers in the garden. I asked retired UGA Extension Horticultural Specialist Dr. Wayne McLaurin what could cause hot pepper plants to produce unusually mild peppers. Wayne is not only a recognized horticultural expert; he is also quite the expert on good Cajun cooking. I discovered that several years ago when we attended a conference together in New Orleans. McLaurin said, "Peppers are hotter when it is hotter—some of them just like hotter weather and seem to produce more of the oils that cause heat as the summer progresses. They also concentrate oils as it gets drier. Too much water may cause dilution of the hot flavor." Fertilizer can also affect peppers. According to some growers a lack of potash will cause low heat and poor flavor. These days a lot of gardeners use 13-13-13 in their gardens in the place of 5-10-15. Dr. McLaurin says, "The 1-2-3 ratio fertilizers are what we always recommend on tomatoes and peppers." If you are a dedicated hot pepper lover, remember that variety, fertilizer, moisture and environmental conditions all play important roles in the development of hot peppers. That reminds me, I need to pick up another bottle of hot sauce on the way home from work!

(*Greg Sheppard was an agent for Lumpkin County Extension. To contact Lumpkin County Extension, click here)*

From the Field to the Table REEU Experiences

Jaimie Seymour, Ryan Ward and Sydney Dilworth were three of 11 students who participated in the REEU summer program. Their essay summarizing their experience was selected to debut in this newsletter.

We participated in the Plant Center, University of Georgia Research and Extension Experiences for Undergraduates (REEU) Crop Genetics and Genomics summer program. For nine weeks, we conducted laboratory and field research with the UGA Plant Center faculty mentors. We also participated in a service-learning project at the Athens Farmer's Market in Athens, GA. As participants in the REEU summer program, we observed the farm to table process and everything in between.

Above and to the bottom right:
Pictures taken by the students of their experience at the Athens Farmers Market

The farmers we interacted with were some of the hardest-working individuals we have ever had the pleasure of meeting. The dedication they show each day is the crucial ingredient that makes for a superior agricultural product. There is substantially more that goes into organic farming than we initially thought.

We learned that organic farmers use the organic pesticide Bt on their crops to control devastating caterpillar infestations. For fertilizers, they use natural products such as Harmony which is a pelletized version of chicken manure. It requires more work and patience to be an organic farmer, but like all agricultural producers, their livelihood hinges on uncontrollable factors like drought and pests. This means that farmers must diversify their crops, to hedge against the potential devastation.

Working at the farmers market, we experienced farmers interacting with their customers and marketing their crops. Jacqui Coburn used her gorgeous sunflowers to attract customers to her table. The table was very neatly organized and the crops were perfect, since they were so fresh.

Harvesting crops in a timely manner, and getting them into the hands of consumers maximizes the joy for everybody at the market. The experience created a great hands-on environment for the REEU students. In addition to being hardworking, the farmers exhibited exceptional attention to detail in growing crops, marketing, and even in transactions and customer satisfaction. The meaningful and personal relationships the farmers have cultivated with clientele and the passion they have for what they do was obvious. We are sure that each of these elements contribute greatly to a successful farming career and the pride the farmers have in the high quality products they produce.

Athens-Clarke County Extension

2019 Free Gardening Class Series

Water Wise Gardening

Please join us for an informative presentation on topics including:

- The importance in water conservation
- Methods for stewarding water efficiently in your garden
- Managing evaporative water loss

Gardeners of all experience levels are welcome!

WHEN:

Wednesday, June 12 · 6:00-7:30 pm

WHERE:

Athens-Clarke County Library
Appleton Auditorium
2025 Baxter Street
Athens, GA 30606

TO REGISTER:

Registration is required. Please register by June 11 by visiting www.accgov.com/gardening

For questions:

Contact Amanda Tedrow, Extension Agent at 706-613-3640 or atedrow@uga.edu

The University of Georgia is committed to principles of equal opportunity and affirmative action.

UNIVERSITY OF GEORGIA EXTENSION

Local "Green" Events

to name a few...

Beech Hollow Spring Native Plant Sales at Beach Hollow Wildflower Farm
When: Thursday-Saturday June 1-June 22
From 10:00am—4:00pm
Click here to view this event.

Nature Ramblers at the State Botanical Gardens of Georgia
Learn more about the natural areas, flora and fauna of the Garden while making new friends and enjoying the cool, fresh air.
When: Thursday, June 6 at 9:00am-10:30am
Click here for more info on this event.

Grow It Know It Summer Restaurant at Clarke Middle School
When: June 6, 13, 27 at 12:00-1:00pm
Click here to view more details about this event!

June Friends First Friday: Music in the Garden at the State Botanical Gardens of Georgia
Join William Tonks, Director of Visitor Services at the SBG and resident musician, as he presents an over-view of the upcoming Sunflower Music Series.
When: Friday, June 7 at 9:00am-10:30am
Click here for more details.

Public Open House at the Trial Gardens at UGA
When: Saturday, June 8 at 8:00am—12:00pm
For more details and information, click here.

Mobile Dairy Classroom at Oconee Farmers Market
When: Saturday, June 8 at 9:00am—12:00pm
Click here to view this event.

The Internet Culture of Orchid Growers by the Northeast Georgia Orchid Society
When: Sunday, June 9 at 2:00pm-4:00pm
Where: The State Botanical Gardens of Georgia
Click here for more info on this event.

UGArden Ramble
Noelle Fuller, graduate of UGA & Botanologos and UGArden director will be guiding us through their herb gardens. When: June 9 at 11:30am-1:30pm
Click here to view this event.

Sunflower Concert Series: Randall Bramblett at the State Botanical Garden of Georgia
When: Tuesday, June 11 at 7:00pm— 9:00pm
For more information, click here.

North GA Daylily Society Daylily Show & Sale at the State Botanical Garden of Georgia
When: Saturday, June 15 at 10:00am
https://www.northgeorgiadaylilysociety.com/

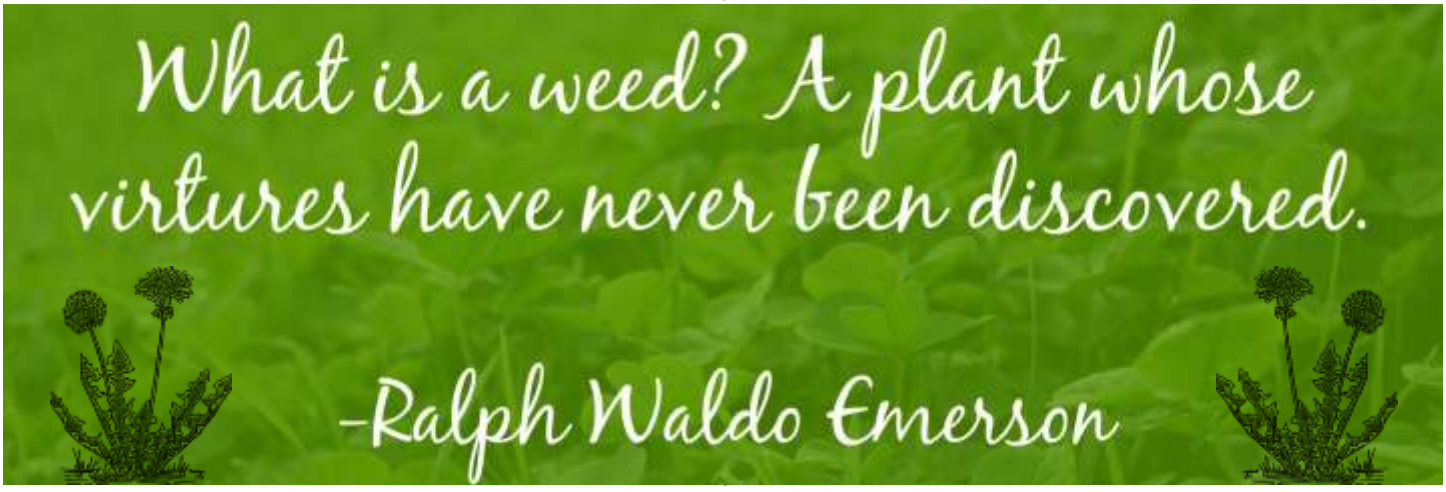
Northeast Georgia Food Swap hosted by Bella Vista Farms and Jensen Reserve
When: Sunday, June 23 at 3:00pm-5:00pm
Where: Jensen Reserve in Loganville, GA
Click here to view this event.

Farmers Markets

Athens Farmers Market Saturdays at Bishop Park
Every Saturday from 8:00AM– 12:00PM
(until December 21) Click here for more information!

Athens Farmers Market Downtown— Wednesdays
Reoccurring weekly on Wednesday from 4:00PM–7:00PM at Creature Comforts Brewing Co. Click here to visit the website.

West Broad Farmers Market
Saturdays, June 8, 15, 22, 29
9AM—1PM
For more information click here.



Public Utilities
water. wastewater. conservation.

Outdoor Water Use Schedule*

Effective March 2017

Allowed daily

Between 4:00 pm and 10:00 am

- Automated irrigation systems
- Hand watering (without a shut-off nozzle)
- Lawn sprinklers

Prohibited at all times

- Failure to repair or bypass a leaking sprinkler head or emitter, valve, faucet, pipe or toilet
- Allowing potable water to flow into public rights of way such as alleys, streets, gutters or onto other person's property
- Operating an irrigation system during rain events exceeding 1/4 inch
- Washing vehicles. Driveways, parking lots or sidewalks without a shutoff valve or nozzle

Allowed anytime

By anyone

- Commercial pressure washing
- Drip irrigation or soaker hose
- Food gardens
- Hand watering (with a shut-off nozzle)
- Hydroseeding
- Installation and maintenance of an irrigation system
- Irrigation of newly installed turf (for the first 30 days)
- Irrigation of public recreational turf area
- Irrigation of plants for sale
- Irrigation of sports fields
- Water from a private well
- Water from an alternative source
    - Grey water, rain water, condensate

*This Outdoor Water Use Schedule is consistent with the Outdoor Water Use Rules set forth in the Georgia Water Stewardship Act that went into effect statewide on June 2, 2010 and the Drought Management Rules, Chapter 391-3-30 Level 1 and Non-Drought Response. Water wasting prohibitions per Athens-Clarke County Code of Ordinances ARTICLE 7. Sec. 5-3-123

Athens-Clarke County Water Conservation Office

706-613-3729 / savewater@athensclarkecounty.com

Helpful resources online:

Find My Local Extension Office

Pest Management Handbook

SE Ornamental Horticulture Production & IPM Blog

Bugwood— Pest Images

Georgia Turf

Pesticide Applicator Info

UGA Center for Urban Agriculture

Landscape Alerts Online

Ask an Expert

Free Online Webinars

Georgia Certified Plant Professional

Extension Publications

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Mission Statement

The UGA Athens-Clarke County Extension's mission is to respond to the people's needs and interest in Agriculture, the Environment, Families, and 4-H/youth in Athens-Clarke County with unbiased, research-based education and information.

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