

Stormwater Management Research and Demonstration at Burden

by Jeff Kuehny

Unless you live under a rock, which, in Louisiana, is not an easy thing to do, stormwater management has become one of the most important issues Baton Rouge must address. It is important that everyone develops a better understanding of what stormwater management is and what a stormwater management program can do to protect our environment and improve our quality of life. Simply, stormwater management is the reduction of runoff that contributes to flooding and improvement of water quality to protect the environment from impairments or pollutants such as bacteria, nutrients, pesticides, sediments and even litter. It is important to note that poor water quality can contribute to flooding through sedimentation and floatables such as organic and solid waste, also known as trash or litter.

The LSU AgCenter Botanic Gardens is becoming an important part of the solution to stormwater management in the East Baton Rouge Parish watersheds. Both the location of the Burden property in these watersheds and how stormwater has been managed by Mother Nature and man over the last 200 years provide great insight into the past, present and future of stormwater management.

We began this work in earnest in 2014 when we were awarded an EPA grant to conduct water quality assessments of Ward Creek. The purpose of this project was to develop a plan for sustainable stormwater monitoring to make better operational decisions on construction and drainage projects to improve water quality and flood protection across the parish. The results of this project set the foundation for Burden to be one of the primary research and demonstration sites for stormwater management.



Bayou Fountain boom.

Today we continue that work with another EPA grant through the Trash Free Waters program that has provided the funding to:

- Reduce and prevent surface trash through engaging and empowering communities and businesses in economically challenged communities.
- Work with businesses and universities to implement water filling stations and replacement of unsustainable products.
- Implement demonstration sites for data collection, awareness and remediation of litter before it makes its way into the watersheds through the use of innovative littertrap systems or plastic pollution prevention and collection technology.



Reflections From the Chair

Kevin Langley

Chair, Friends of LSU AgCenter Botanic Gardens

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Dear Friends,

During the holiday season, we raise a glass of wine and let the toasts flow. We toast in celebration of friendships, connecting with loved ones and enjoying nature in a serene environment we call the Botanic Gardens.

Cheers to Ramona Hill, Leigh Harris, Danielle Mensman and Barbara Anne Eaton along with the rest of the Wine and Roses committee for all their intensive planning and setting up of the gourmet cuisine and beautiful music to create a spirited event. We are thankful for their commitment and all the other volunteers that make a real difference each weekend at Corn Maze.

In 2023, the Friends mission will continue to grow as we align and communicate as a strategic partner for Burden Museum and Gardens to fulfill the goals of its Master Plan.

The Friends mission is to enhance and promote the LSU AgCenter Botanic Gardens and its serene environment for the benefit of the public through educational programs, volunteerism and fundraising.

Yes, the mission is alive and firmly planted in the wonderful programs and educational events such as Reflections, Corn Maze and others that are mentioned in the following pages.

Reflections in the Garden, on the first Mondays, are volunteer led by our dear friend and former board chair, Leigh Harris. She has put together a series of entertaining, informative lectures for 2023 that include topics from some of your LSU AgCenter favorites as well as new and exciting faces.

Thank you volunteers and donors for your generous support, and I hope you enjoy the many opportunities listed in this issue.

I look forward to seeing you in the Botanic Gardens.

Kevin Langley

The newsletter is a quarterly publication of the Friends of LSU AgCenter Botanic Gardens at Burden, which is part of Burden Museum & Gardens.

If you would like to only receive this newsletter electronically, please email: Friends@FOGBurden.com.

LSUAgCenter.com/BotanicGardens

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Baton Rouge, LA 70809



Gov. John Bel Edwards speaks at the stormwater press conference.



Cleanup by Osprey Initiative of Site 3.

Stormwater *continued from page 1*

The first demonstration site for littertrap installation was at Bayou Fountain at BREC's Highland Road Park, and it has been working at about 99% efficiency. After a tactical cleanup, the BREC Paddle Trail on Bayou Fountain is a beautiful, litter-free slice of Louisiana paradise that everyone can enjoy, including the ecosystem that also benefits from litter abatement.

A tactical cleanup is conducted prior to the placement of a littertrap. How can picking up litter be tactical? The cleanup is carefully planned so that litter is picked up and sorted into categories of recyclables or trash. These are weighed and an estimate of the area or volume of trash picked up recorded. This provides quantitative data on the amount of litter that is collected. The recyclables are taken to the nearest recycling center or materials recovery facility and the trash to the local landfill; but the tactical part of this cleanup does not stop there. The boom must be maintained or cleaned each time there is a major storm event to remove the litter which also provides the ability to collect more data. The boom has collected 928 pounds of litter of which 206 pounds were recycled and 722 pounds were disposed.

The EPA has a trash assessment protocol that provides a method of categorizing and catalogs the litter that is collected during tactical cleanup and during maintenance. The litter collected is divided into paper, glass, metal, plastic and other types of material.

Within each of these categories it is broken down further. The age and condition of each item is noted along with any identifying feature like the product brand. This may seem time-consuming, and it is! The reason for recording this much data during a tactical cleanup is so that litter can be traced back to the source to develop management solutions and preventative measures. Trends and patterns in the volume of litter and types and brands found can be used to develop targeted and effective education campaigns.

The second demonstration site is located at what we call the borrow pit and wetlands at Burden. This area is in the northwest corner of the property, just next to the I-10 and I-12 split and was the site of the first press conference by Gov. John Bel Edwards announcing the formation of the statewide litter task force and supplemental funding for the EPA grant. We have been working with TriCoeur Services, a local engineering company, to determine why litter accumulates in this area. They have found it is caused by the way stormwater flows down Ward Creek into this area depositing the litter in the process before the stormwater seeps back out into the creek. This information will be important as we develop a strategy to prevent this accumulation from continuing to happen after the litter is removed. Hunter Guidry, an environmental scientist who has spent countless hours assisting with the development of the trail system

at Burden, mapped the litter in the borrow pit and found it concentrated in five specific areas.

The first tactical removal of litter from the borrow pit and wetland was conducted by Osprey Initiative on June 21. This crew removed 4,258 pounds or 860 cubic feet of litter from Site 4. This litter was sorted into recyclables which included 104 pounds of plastic, 50 pounds of aluminum and 430 pounds of glass. The remaining approximately 3,600 pounds was considered nonrecyclable trash which included tires, all types of sports equipment and about anything else that might float in stormwater.

The governor held a second press conference on Aug. 16 to announce the results of the litter task force in front of litter Site 3. The cleanup of Sites 1, 4 and 5 is planned for the week of Dec. 14. Pilot litter traps will be installed to determine the best placement and types of traps to be used to prevent the flow of litter back into the borrow pit. This milestone is a small glimpse into the 2020 Master Plan, which includes a transformative reclamation of this area, implementing a research and demonstration site. This site will give visitors a first-hand view of typically hidden impacts of urbanization on land formation, water quality and flooding. It will emphasize the need for personal responsibility as well as a more effective water management system.

Notes on Winter Lawn and Garden: *Preparation and Planning for a Successful Spring*

Bert Hammett

Winter has come, and for many of us, this is a time to take a step away from the garden to catch our breath. However, for those of us who still want to stay busy, there are plenty of tasks and planning that can be done to help us be successful when the temperatures rise again.

Lawn and turfgrass:

As December is upon us, most of our warm-season turfgrasses have become dormant. Since the grasses are not actively growing, the use of fertilizer should be avoided for a few reasons. First, if we have a mild winter, the addition of nitrogen fertilizer could prevent the grass from going into dormancy and increase the chance of winter kill if we get a hard freeze. Second, suppose the grass has already become dormant. In that case, the nitrogen will not likely be used which increases the chances of nitrogen runoff or it entering our groundwater. However, when thinking about fertilizer, now is a great time to send in a soil sample to the LSU AgCenter so that you can formulate a plan of action for a spring and summer nutrient program.

As January comes and goes, you can sit back and relax, although this is a great time to tune up your lawn care equipment, change the oil, sharpen blades, etc.

One final but important note is that when February rolls around, we may be eager to jump-start our nutrition plan, but we need to be patient. Just as in December, if we apply nitrogen fertilizers when the turfgrass is still unable to use it, we are really just feeding the weeds.

Vegetables:

December, to me, is an exciting month for a vegetable grower. It is the time to browse through seed catalogs (yes, they still print them) or online stores and place orders for your warm-

season crops. One of my newfound favorites is www.totallytomato.com which sells much more than its name implies. Take time to reflect on how your last warm-season garden fared. Note what plants did well and which did not. And although we want to be successful, don't be afraid to branch out and try new varieties to plant alongside the old faithful ones that we grow year after year.

As January rolls around, the fun can begin. I like to start my tomatoes indoors around Martin Luther King Jr. Day, followed by peppers and eggplant. I am fortunate to have greenhouse space, but you can also start seeds in the house. One of the most important factors to consider is light. Some growers can get away with starting seeds on the windowsill, but this can also lead to leggy seedlings stretching for light. I recommend using an overhead grow light to alleviate this problem.

As already mentioned, the winter months are an excellent time to do soil tests if you haven't done so in a few years. If the pH is not in the optimal range, this is a good time to add lime or soil sulfur. Unlike adding some fertilizers, it takes much longer to see a change in pH after amending the growing area.

Flower beds:

For those who could not finish planting cool-season annuals in November, do not worry; there is still time. Continue to direct seed or transplant throughout December and January and be aware of prolonged freezing temperatures where it would be best to cover tender and juvenile plants. If you are unable to get cool-season annuals in the ground before February but still have the desire to grow them, it is best to go with transplants in a four-inch pot.

Cold weather also means it is time to bring out those tulips and hyacinth



Bert Hammett, East Baton Rouge Parish extension agent.

bulbs chilling in the cooler. I have always been told to plant these bulbs on the coldest day of the year, but mid-January is a good time. For example, I planted tulips the same day I started my tomato seeds last year. Don't forget that both tulips and hyacinths grow great in containers. Plant the bulbs close together but not touching. Leave the container outside in a shady area until the growth is about one inch tall, then move to a sunny location.

February is the time to transplant potted or bare-root roses. Planting now gives the roses ample time to adjust to their new location before blooming. Make sure to amend the soil before planting and ensure that the plant is not placed too low in the ground. With grafted roses, this is easy to determine. Simply keep the graft line two inches above the soil.

Don't forget to trim ornamental grasses before the new growth begins. As always, watch for a cold snap and protect your young citrus, topicals and less hardy plants as needed.

I know this is a very brief overview, but these are some of the questions I commonly receive. If you have further questions on these or any other horticulture related topic, please reach out to me at ahammett@agcenter.lsu.edu or call the office at 225-389-3055.

An Update on the Welcome Center

Bridget Pitre LaBorde

The Friends of LSU AgCenter Botanic Gardens at Burden was founded in early 2010 with a mission “to enhance and promote the LSU AgCenter Botanic Gardens at Burden and its serene environment for the benefit of the public through educational programs, fundraising and volunteerism.” Since a major component of the Friends mission is fundraising, we would like to add an update on the fundraising campaigns for the Botanic Gardens in each of the upcoming Reflections and Visions newsletters.

The capital campaign that is currently in full force is intended to support the construction of the Burden Welcome Center. Although construction costs have increased significantly, we are committed to funding this crucial component to provide a destination for generations to Burden. The 2020 Master Plan by Suzanne Turner and Associates highlights the Welcome Center at the gateway to and unification of the entire 440-acre property. It will introduce the visitor to the various offerings of the site, while first

narrating the way the overall development demonstrates the character of the varied landscapes of southeast Louisiana.”

Friends of the LSU AgCenter Botanic Gardens have been an overwhelmingly valuable asset in making this wonderful project come to fruition. We are so thankful to all the members who have made donations. We are reaching out to our friends and businesses in the Baton Rouge area to close the gaps as Burden is truly an asset to the community.

In future Reflections and Visions publications, we will be highlighting donors and sharing their stories of how the Burden Welcome Center will be a testament to a loved one, a gift in a family’s name, or a tribute from a company focused on education, health and wellness, or community outreach. If you or someone you know would like to donate to the Burden Welcome Center, please call or email Bridget LaBorde, director of development at LSU AgCenter Botanic Gardens at Burden, at 225-405-3612 or blaborde@agcenter.lsu.edu.

The Welcome Center at Burden Museum & Gardens



Your gift can help build

A DESTINATION
for Generations

BURDEN
Museum & Gardens

Contact Bridget Pitre LaBorde
at blaborde@agcenter.lsu.edu
for giving opportunities.

Welcome to the Team

Leslie House

“My professional career has taken many paths: education, real estate and finally, event management — my favorite! I came to Baton Rouge as a Texas Convention Center manager and am now the senior event coordinator here at the Botanic Gardens. In this position, I oversee all our events, including everything from small business meetings to lavish weddings and huge corporate crawfish boils. Family is my heart and soul. My husband David, son Dylan, daughter Lexie and I are extremely close even though we typically span thousands of miles across the globe. My son is an award-winning sales manager in Baton Rouge, and my daughter is an Emmy-winning producer in the entertainment industry. My husband is a crew chief/instructor on Apache helicopters and spends his time in the Middle East. In fact, although we’ve been married 12 years, we’ve only been on the same continent for our anniversary once! My favorite things are family, travel and football. When I can combine them and it’s Saturday night in Death Valley, then I’m truly complete!”



Bridget Pitre LaBorde

“Having a passion for the work that we do to make a living is not always a given. I am passionate about the Burden property and am thrilled to be a member of the Burden family. As an LSU graduate with a Bachelor of Science in civil engineering, I practiced with engineering firms in Lafayette, Louisiana, for years, and then decided that my personality was best suited for business development, not engineering design. I have worked in promoting various technical services and products for almost 20 years. I look forward to assisting in developing donors to bring the Burden Master Plan to life.



My husband, Paul, and I have been happily married for almost 25 years and are the proud parents of Harrison and Cecilia, both University Laboratory School Cubs.

Please give me a call or send an email to discuss the ways that you can help support the LSU AgCenter Botanic Gardens at Burden. Contact 225-405-3612 or blaborde@agcenter.lsu.edu.”

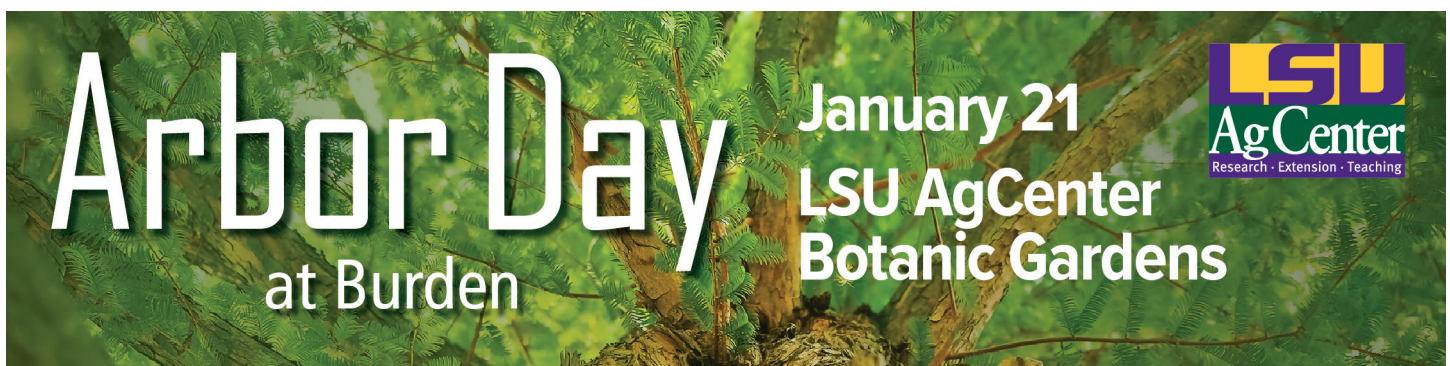
Taylor Constance

“My name is Taylor Constance, and I am the Maintenance Repair Master for the Botanic Gardens. I transferred from LSU’s main campus where I worked for three years in Residential Life Maintenance, one year in the Roofing and Sheet Metal Fabrication Shop and was elected to Staff Senate. I also served six years as a Radar Maintenance Technician in the Air National Guard which allowed me to attain my Bachelor’s degree in Interdisciplinary Studies from LSU and my Associate’s degree in Information Technology Systems from the Community College of the Air Force. Outside of work, I am an avid fisherman, cyclist, gardener and enjoyer of college football.”




Brad Holt

“My name is Brad Holt, and I am the new senior landscape manager. My family and I moved here from Atlanta where I spent the last eight years at the Atlanta Botanical Gardens. My wife, Michelle, and I have two kids that keep us busy. Madison, who is 10 years old, is involved with gymnastics. Harrison, who is 7 years old, is into dinosaurs, sports and general mayhem. In any spare time, I like to garden and learn as much as I can about ... plants. I am a plant nerd. I am very excited to be working here at Burden.”



Arbor Day
at Burden

January 21
LSU AgCenter
Botanic Gardens



Corn Maze at Burden



Top row (left to right): Visitors find their way out of the Corn Maze. Young children enjoy a swing. Families stroll through the maze. Bottom row (left to right): An alpaca is being fed by a young girl. Children play one of the many games at Corn Maze. A country scene makes a great photo backdrop.

Mosaic Boardwalk: Eagle Scout Project



Above (left to right): Lead Scout Luke Soileau poses with the finished product of his Eagle Scout service project. Luke Soileau and his father attach permanent signage to a pedestal. A group of 10 Scouts pose in front of their service project workspace. Right: A Scout works to paint stain onto a pedestal with a brush.

Get some fresh air. Walk the trails!



TREES & TRAILS



LSU AgCenter Botanic Gardens
 128 Knapp Hall
 Baton Rouge, LA 70803

PHYSICAL LOCATION: 4560 Essen Lane, Baton Rouge, La. 70809 | 225-763-3990 | LSUAgCenter.com/BotanicGardens

Please check our website for up-to-date information on these events.

December 2022			
December 3	9 a.m.-Noon	StoryTime in the Garden	Children will have a blast interacting with other kids, making arts and crafts, and listening to stories. Every half hour, we switch between stories and crafts to keep young children interested and engaged. For children ages 3-8. Free.
December 5	Noon-1 p.m.	Reflections in the Garden	Topic: "A Very Herbal Christmas" with Cynthia Nobles, cookbook editor for LSU Press, and Melinda Winans.
December 17	7-9 a.m.	Birding at Burden	Guided walk with Harriett Pooler through one of the six birding loops at Burden Museum and Gardens. Tickets available online at www.eventbrite.com .
January 2023			
January 9	Noon-1 p.m.	Reflections in the Garden	Topic: "Home Citrus Tips and Tricks for Baton Rouge" with Anna Timmerman, Associate LSU AgCenter Horticulture Agent.
January 21	TBA.	Arbor Day at Burden	Plant a tree in the Burden Woods and track its growth using GPS coordinates! The trees help reforest the Burden Woods after previous hurricane seasons. A variety of native trees will be for sale.
January 21	9 a.m.-1 p.m.	StoryTime in the Garden	Children will have a blast interacting with other kids, making arts and crafts, and listening to stories. Every half hour, we switch between stories and crafts to keep young children interested and engaged. StoryTime will be a part of Arbor Day at Burden. For children ages 3-8. Free.
February 2023			
February 4	9 a.m.-Noon	StoryTime in the Garden	Children will have a blast interacting with other kids, making arts and crafts, and listening to stories. Every half hour, we switch between stories and crafts to keep young children interested and engaged. For children ages 3-8. Free.
February 5-11	8 a.m.-5 p.m.	Icon Painting Workshop	The Icon Workshop is a thoughtful and meditative weeklong retreat focusing on traditional painting techniques that date back 2,000 years. No artistic skill or previous painting experience is required, and all materials are provided by Friends of LSU AgCenter Botanic Gardens. Coffee and lunch are provided daily. Email dianawells1548@gmail.com for more information.
February 11	TBA	Camellia Show & Sale	Shop from more than 100 camellia selections for your garden, or take a look through the exhibit of award-winning camellias grown by the Baton Rouge Camellia Society and by gardeners like you! The Camellia Society will also offer planting and management advice, a grafting demonstration and a waxing demonstration.
February 13	Noon-1 p.m.	Reflections in the Garden	Topic: "Mycology for the Curious Naturalist and Foodie" with Jen and Chuck Oliver, Baton Rouge Mycological Society.
February 25	8 a.m.-3 p.m.	Herb Day	Herb Day is an educational outdoor gardening event and plant sale hosted by the Baton Rouge Unit of the Herb Society of America. Join us to shop thousands of healthy herbs and All American Selections vegetable plants.