



PAWPAW PICKIN'S



State Chapter:
Ohio Pawpaw Growers
Association

Spring 2020
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President's Patch by

- Ron

WOW! I am sure that this past year was as trying and frustrating for you as it was for us. I have not been motivated to do much writing this year due to my wife's cancer treatments. She was diagnosed with blood cancer about 2008 and the doctor said that the best option was to wait and see since it was considered low grade and treatments could make it worse. Then in 2018 the cancer began to grow and she went through several rounds of chemo through 2019. But the chemo therapy was not slowing the cancer down! She had to change doctors and he began a new treatment for her condition called CAR-T—very intense immuno therapy treatment. It took her six months to qualify for the program through many tests. By this time, the cancer had apparently mutated to a much more aggressive form. She had to be at the hospital each day by 8 am for a month for the hospital to pull a blood sample and give her the needed infusions. That meant that we would be at the hospital from at least three hrs. to 8 hrs. , depending upon the type of infusion. When those treatments ended, a PET scan revealed that there was one lymph node which was still cancer positive. The doctor did not think that her T-cells were going after the cancer cells fast enough so she was subjected to an additional 21 days of radiation treatment.

As of today, she is cancer free!

NAPGA & OPGA past newsletters are archived at
Ohio State University, Piketon, Ohio

<http://southcenters.osu.edu/horticulture/publications/newsletters/Ohio-pawpaw-growers-association-newsletters>

So, I have a number of individuals that have graciously written a number of articles for me to get out to you. This newsletter contains a couple of articles written by Gene Pouly, a landscaper in northern Ohio about a rain garden that he installed. The first article was written in 2010 and a follow up article about 10 years later. I think that you will find the two articles interesting from Gene's perspective on the NA pawpaws.

I remember when Gene Pouly discussed with me his installation of the J. M. Smucker Rain Garden in 2010. I asked him last year how it was doing and he graciously provided me with an initial article that he wrote in 2010 and an update in 2020. The first article was published in *The Buckeye*, Ohio Nursery and Landscape Association, May 2010, Vol 21, Issue 4, pages 12 & 13. The photos are through the courtesy of Gene Pouly.

I will attempt to catch up as I have sufficient material to complete this year. I want to thank you for your patience and continued support through your dues. I do want to encourage you to send your pictures and article, questions, comments, etc. to us. Remember this is your organization and can only be successful with your

Mission Statement

NAPGA

is an organization of pawpaw enthusiasts, backyard and commercial pawpaw growers, small and large, dedicated to promoting the superior traits of the pawpaw plant and fruit, developing a pawpaw industry and marketing plan, preserving and studying the wild pawpaw genetics.

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Please check with Ron (Botrytis@fuse.net) regarding your membership status.

Rain Gardens: The Green Wave

Some of you may be genuinely keyed up about the “green wave” of sustainability and others may be just beginning to warm up to the idea. Many of you realize that sustainability practices are in their infancy in the United States, but the concept is growing by leaps and bounds. Leadership in energy and Environmental Design (LEED), and the Sustainability Sites Initiative are becoming common green industry vocabulary words.

Many international green industry associations like the Professional Grounds Management Society, the International Society of Arboriculture and PLANET, are incorporating large blocks of sustainability education in their programming. On a more local and state level, the Ohio Nursery and Landscape Association (ONLA) and the Ohio Pawpaw Growers Association are doing their part to promote sustainability as well. Of course this laundry list of associations is not conclusive but indicates a noticeable development trend towards going green.

Sustainability and storm water management are extensive green segment topics — too extensive to do justice in this article. I will mainly focus on rain gardens, sometimes referred to as bio-swales, bio-filters, and/or wetland cells. In layman’s terms, to install a rain garden is to filter out water pollutants and re-introduce the conditioned water to the water table in a controlled fashion, therefore, reducing storm water runoff and erosion.

How do we go about installing a rain garden? As with most projects the best way is to research and plan first, then install once you have proper information and direction, otherwise known as design build. There are numerous publications that will help guide you in your project.

One of the regional publications I would recommend is the Ohio State University Extension Bulletin Rain Garden Guidelines for Southwest Ohio.

All the who, what, when, where, why, and how questions will be addressed to some level of satisfaction. Keep in mind that being a dyed-in-the-wool Buckeye is not a prerequisite for finding this information appropriate and useful!

It seems our world is full of trendy, fashionable words. The term “rain garden” sounds more har-

monious than a hole in the ground that allows water to collect and percolate into the soil. In reality, we are once again artistically imitating nature. In nature the rain garden could possibly be defined as a bog, quagmire, slough, fen or swamp. All of the before-mentioned natural occurrences have the same function as the rain garden. Some of you are familiar with cisterns, French drains, rain barrels, etc., and know that they are also storm water management tools to be used as part of your rain garden tool kit.



As mentioned earlier, sustainability in this country is in its formative years and I feel that this fact is echoed in the specifications for rain garden plants. Those developing the specifica-



Rain Gardens: The Green Wave cont.

tions designed for plant selection concerning rain gardens could benefit from recommendations for grounds managers, arborists, nursery growers, and landscape contractors. These are the people digging in the dirt that have the skinny about what will and will not work.

For the sake of argument, what is a invasive plant? Is it a weed that threatens an ecosystem? A weed is a plant that is where you do not want it to be, right? A plant may or may not be a weed depending on the location that it is growing in and/or the expert you ask. Climate does affect growth, behavior, and reproduction of a plant. Maidenhair grass (*Miscanthus* sp.) is a prime example of a plant that may be an invasive plant in the South but not recognized as so in the North. We run into the problem of where does the North and South begin? This is an area where USDA climate zones for plant material should be referred to in conjunction with the development of individual state invasive plant lists for the sake of better accuracy.

What is a native plant? My understanding is that a native plant was established prior to European settlers, colonizing the land mass we know as the United States. Why use a native plant in a rain garden if a more desirable European or Asian cousin of the plant could be used? Face it: if the non-native plant looks and grows better than the native and is noninvasive, then why not use it? Please take note that a native ecosystem involves plants and animals coexisting in harmony. Native animals have developed digestive systems to feed on specific plants and non-native plants may upset that balance by causing malnourishment, empty calories, and a host of other survivability issues. Plants have the same dependency on animals and have developed to reproduce using the animals. For example, the native squirrel that forgets where it planted its food source (acorns) inadvertently planted a future mighty oak tree. The Pawpaw (*Asimina triloba*) is the state endorsed native plant of Ohio. This plant and its nutritious fruit were introduced by Native Americans to the Lewis and Clark Expedition. The Pawpaw is pollinated by flies and beetles, not honeybees. Remember that the most common non-native honeybees

were imported from Europe. Do we want only native species of animals in our ecosystem as well? On the other side of the coin, non-native plants that perform well in certain native micro-climates will cross with native plants. This really muddies the waters. Do we have to do a DNA test on each plant to establish if it is native before we are able to use it on a rain garden project? That would certainly be cost prohibitive. Maybe we need a category of plant or animal termed "naturalized"? What we are able to derive from these questions is that an ecosystem is infinitely complex and that a rain garden is simply a micro-ecosystem that is anything but black and white.



In conclusion the rain garden is a great way to manage storm water if located, sized, and maintained correctly. Rain garden installation is in its infancy and there is much more research, field trial and error, and data that needs to be collected. Rain garden specifications will not neatly fit into boilerplate specifications. Let us keep an open mind realizing that there are no absolutes as you are riding the "green wave" of sustainability.

By Gene Pouly, Master OCNT
E.F. Pouly Company
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Proving the Pawpaw Perspective

The Pawpaw tree, *Asimina triloba*, has a long tradition as being a part of the natural as well as cultivated landscape. It has a hardiness for zones 5 to 9 and is a native plant found in Ohio, most of the Eastern United States below the New England states, and into Florida. As early as 1806 it was recorded "the Lewis and Clark expedition was 150 miles from settlements. The expedition had "run entirely out of provisions and trade goods, it had no manufactured goods... There were plenty of ripe plums, which the men called 'pawpaws'. Gathering a few bushels was the work of a few minutes only. The men told the captains they could 'live very well on the pawpaw's'." (*Ohio Pawpaw Growers Association, 2002*).

Over the last 10-12 years I have had the pleasure to observe the success or failure of Pawpaw installations in three different venues; a rain garden, a bio swale, and a traditional landscape understory planting. I am advocate of the use of the Pawpaw as a landscape plant in situations consistent with its growth characteristics and recommend it to grounds managers as an underutilized plant.



Ten years ago, I had the opportunity to install a "rain garden" for a client in which I included Pawpaw trees. Reference an article I authored in April 2010 in the *Arborist News, International Society of Arboriculture*, and a similar article in May 2010, in *The Buckeye, Ohio Nursery and Land-*

scape Association - Rain Gardens, The Green Wave. The preparation for the planting bed was prescribed for rain garden/wet meadow plants. Technically, it was not the best soil conditioning recommended for the Pawpaw installation and I admit to varying from the architect's specs to include the Pawpaw. The Pawpaws on this site were transplanted into the rain garden as a single stem landscape tree. Single stem, trained to one trunk, being the usual form for ornamental or horticultural use.

Pawpaw's requirements of deep, fertile, well-drained soil, on a sloping site with air drainage and shade during establishment did not qualify with the micro climate/soil specifications for this rain garden. As a general observation rain gardens take approximately three years to become established this rain garden soil was comprised of high PH subsoil clay, and most likely contained saline conditions from parking lot run off as well as automobile pollutants (i.e. motor oil, grease, anti-freeze, etc.) since it was adjacent to a large parking lot area.



The planting included various plants with grasses, perennials, forbs, etc. I have been able to observe over the last ten years that this same rain garden flourished, admittedly it did have proper landscape management techniques in its maintenance. The rain garden plants have been cut down periodically to renovate the area. This could simulate a natural burn down by fire to rejuvenate the plant material, which in some locations could be a viable alternative to weed eating. Some of the Pawpaw trees were injured in the process and formed root suckers which is

Proving the Pawpaw Perspective, cont.

their natural form. Pawpaws tend to grow in thickets in the wild and over time, in this planting, some of the plants have reverted to that form.



In a separate area designed as a bio swale a diversity of plant material primarily designed for a wet site were installed. This included shrubs such as viburnum, shrub dogwood, and a variety of sedges. I did not do the original installation but came in later as a maintenance contractor, at which time I added Pawpaws as a trial to replace several trees that did not do well. This area was also subject to deer pressure. Again, the Pawpaws are holding up well but not as vigorously as in the rain garden; perhaps due to less vegetation at the base of the plant to shade and protect the roots.

Used in a landscape application I was able to observe the Pawpaws in a third micro-climate. The Pawpaws were installed as a group planting to be an understory layer beneath a canopy of Maples on a gentle south facing slope. At installation the



tree baskets were removed, to allow root development and Pawpaws were planted with the root flare/collar exposed. Shredded bark mulch was used as a temporary ground cover. This installation is as close as we get to a text-book planting. All the trees had minimal losses, and great fruit production Please note that the fruit are sought after by wildlife and you are lucky if you get to the fruit first. There is no chance for a mess from fallen fruit.

The Pawpaw is an unusual plant reproductively. It is considered monoecious, meaning they have staminate and pistillate flowers on the same plant. The flowers of pawpaws are perfect but the flowers are also protogynous, signifying that the pollen ripens before the receptiveness of the flower, thus the male and female parts of the flower are not in harmony. This being said, on the negative side Pawpaws are a challenge to pollinate. The timing of the pollen release and the receptiveness of the pistil causes them to not be able to pollinate themselves. Furthermore, bees do not assist in pollination because the flowers are pollinated by beetles and flies. The flowers are fetid, denoting that they stink like rotting flesh to attract pollinators. Although from my experience hand pollination works tremendously well. I have even had success in fruit production from hand pollinating plants from trees in the same patch on my property in Wayne County, Ohio.

Proving the Pawpaw Perspective, cont.

The Pawpaw fruit generally ripens mid-September to October. Historically in the month of September, the moon has long been recognized as the "Moon of the Pawpaws" (Blue Jacket- Warrior of the Shawnees by John Sugden, p115).



The native Pawpaw tree is much more versatile than has been thought in the past as far as adaptability to different microclimates. It is a great plant to use in a sustainable landscape situation, group planting in the landscape and as a great addition to the edible landscapes that have become more popular in recent years. It is also a tree that adapts well to the more difficult moist landscape micro-climates. The conclusion is that the Native Pawpaw tree is very adaptable to different microclimates and is a great plant to try as a landscape specimen, group planting, or in the sustainable edible landscape.

By Gene Pouly, Master OCNT
E.F. Pouly Company

Calling all pawpaw growers!

The most frequently asked question we receive is, "Where can I buy fruit/trees?"

As an organization, we are committed to supporting growers while educating consumers and expanding our community.

To help promote our professional members, we are planning to launch a public nursery guide and proprietary grower directory on the NAPGA website.

If you are interested in participating, please return the information below to Botrytis@fuse.net for review along with confirmation of a vendor and/or state nursery license:

Name (First, MI, Last)

NAPGA/OPGA Membership:

- ☐ **Active (Date)**
- ☐ **Renewed (Date)**
- ☐ **Lifetime Member**

Business Name:

Address

Phone

Email

Website

Available pawpaw offerings (Select All That Apply):

- ☐ **Fresh Fruit**
- ☐ **Frozen Pulp**
- ☐ **Seeds**
- ☐ **Scion Wood**
- ☐ **Native Seedlings**
- ☐ **Select Seedlings**
- ☐ **Grafted Cultivars (Please Specify)**
- ☐ **Bare Root Plants**
- ☐ **Potted/Balled & Burlapped (B&B)**
- ☐ **Delivery Options (Shipping, Pick Up Only, etc.)**
- ☐ **Other Products (Please Specify)**

Contact NAPGA or OPGA: <http://www.NAPGA.com> or <http://www.Ohiopawpaw.com>
NAPGA Facebook page: <http://www.facebook.com/NorthAmericanPawpawGrowers>

John Brittain

1949-2020

I do not want to let this year pass by without saying something about two individuals that passed away in 2020. They both played an important role in the nut and pawpaw industry. I personally have a number of pawpaw trees from



Don Cullman
1928 –2020

John Brittain of Nolin River Nut Tree Nursery and Don Cullman of Marysville, OH who was always generous in sharing his knowledge about nut trees. I have attached a picture of Don taken when we

had a joint ONGA and OPGA meeting at this farm in Marysville, OH in 2009.

Joe Heitter says that "Don was an energetic nut tree grower, planting thousands of nut trees on his property as well as being instrumental in establishing a nut tree orchard at the Gwynn for the Farm Science Review. He also began the nut tree cultivar inventory for the Northern Nut Growers Association (NNGA). The ONGA and NNGA had Don serve as president and a board member for many years. We used to drive together to the NNGA meetings and the Indiana Nut Grower meetings. We would discuss nut tree topics the entire trip and I never tired of learning from his vast experience. I do remember getting tired trying to keep up with him when walking across the Purdue campus for one of our meetings. He was in his 80s and I was in my 50s, but he sure could walk fast."

Don was a proponent and lifelong student for the propagation of nut trees, organic gardening, genetics of species to promote yields and conservation of habitat, wetlands and reforestation. He was a member of the Ohio Pawpaw Growers Association.

Marc Stadler remembers John Britain, "owner of Nolin River Nut Tree Nursery, passed away on June 15, 2020. The Hart County, Kentucky nursery, which John and his wife Lisa established in 1985, produced grafted pawpaws, persimmons, and nut trees to buyers throughout the country. Members of our organization likely have at least one tree that was produced by John. His trees were of high quality, and he was very generous in sharing his knowledge. Several years ago John gave an excellent presentation on grafting at the North American Pawpaw Growers Association's International Conference."

"John's trees and his kindness will be missed. Currently the nursery is not taking orders, and no plans for the future of the orchard have been announced."

As I am typing this up, I glanced out the bedroom window and I can see the snow covered branches of the IXL pawpaw tree that I purchased from John many years ago. It is a great looking tree that is in the front yard for everyone to see.



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NAPGA Facebook page: <http://www.facebook.com/NorthAmericanPawpawGrowers>

Easy NA Pawpaw Energy Bars

2 cups pawpaw pulp
(about 4 medium size pawpaws)

If you are a little short of 2 cups pawpaw pulp, you can make up the difference with applesauce or banana

3 cups old-fashioned oats
(**not quick oats**)

1 tsp. vanilla or coconut extract

Preheat oven to 350.

Spray cooking oil in regular muffin pans, or similar sized rectangular molds.

Put pulp in large bowl and mix in extract.

Add oats to the bowl and mix well with a spoon.

Scoop mixture into molds, filling to the top. If you don't have molds, use hands to form into bars and bake on cookie sheet lined with parchment paper or oiled aluminum foil.

You can add these items for extra flavors:
Diced apple, pear, peaches; berries, nuts or unsweetened coconut flakes.

Bake for 20-25 minutes.

Enjoy warm or store in refrigerator for up to 5 days.



The picture below was taken at my farm in Adams Co., OH on Nov. 7, 2020. Note the tree that is still green in the middle of the photograph. The tree is NC-1. Its dark green leaf stands out and is a great identifier of this tree during the growing and fall seasons.



NAPGA/OPGA Dues

Please check with Ron (Botrytis@fuse.net) regarding your dues status or be sure to read the reminder in your E-News correspondence. Your membership dues are now collected on your anniversary date.

Please renew your membership in NAPGA/OPGA to show your support. Your continued support is needed to further the education and the promotion of North American pawpaws.

Go to www.Ohiopawpaw.com, for a membership form.

Membership dues are: **\$20.00 — family membership**
\$5.00 — student membership

Send dues to: **NAPGA / OPGA, % Dr. Ron Powell**
6549 Amelia Dr., Cincinnati, OH 45241

NAPGA/OPGA Editor
visit us at our web sites:

www.NAPGA.com

www.Ohiopawpaw.com

Pawpaw Pickin's is published bi-annually by the NAPGA/OPGA, organizations dedicated to advancing the education and knowledge of North American pawpaw culture, encouraging the planting of pawpaws, the management of native pawpaws, and perpetuating the utilization of all N. A. pawpaw products.

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