

Ohio Pawpaw Growers Association

PAWPAW PICKIN'S

Autumn 2010 Volume 10, Issue 2

"September 3rd Thursday Workshop"

PROGRAM

Pawpaw and Sorghum September 16, 2010

September 10, 2010		
TIME	TOPICS	
10:00 - 10:10	Welcome and Announcements, Dr. Marion Simon, Kentucky State University	
10:10 - 11:10	Introduction to Pawpaw, Dr. Kirk Pomper, Kentucky State University Pawpaw Propagation, Dr. Ron Powell, Ohio Pawpaw Growers Association KSU Rootstock Trial, Ms. Sheri Crabtree, Kentucky State University Discussion	
11:10 - 12:00	Pawpaw Pests and Diseases, Mr. Jeremy Lowe, Kentucky State University Pawpaw as a Pest Control, Dr. John Sedlacek, Kentucky State University KSU New Cultivar Update, Dr. Kirk Pomper, Kentucky State University Discussion	
12:00 - 1:00	Lunch	
1:00 - 3:00	Sorghum Syrup Demonstration. Dr. Mike Bomford and Mr. Tony Silvernail, Kentucky State University Pawpaw Biofuel (E-Fuel) Demonstration. Dr. Mike Bomford and Mr. Tony Silvernail, Kentucky State University Pawpaw Planting Tours, Dr. Kirk Pomper, Ms. Sheri Crabtree, and Mr. Jeremy Lowe, Pawpaw Cultivar Tasting Survey, Dr. Kirk Pomper, Ms. Sheri Crabtree, and Mr. Jeremy Lowe	

Contact Ron at 513-777-8367 to volunteer to help at the Ohio Pawpaw Festival (Chris Chmiel trademark owner), Paul Bunyan Show or the Great Outdoor Weekend.

See Calendar on the OPGA website — Ohiopawpaw.com

Safety, Safety!!!!

Pawpaw Safety

We can not over emphasize safety in eating raw and processed (cooked or baked) pawpaw products. Terry Powell wrote an article regarding the safety of pawpaws on page five and Dr. Ron Powell has included the latest OPGA Educational Publication on picking and harvesting ripe pawpaws on page seven.

Be Careful of What You Spray by Joe Grant, Freeland, MI

"I never spray my pawpaws...don't need to. However, last month while spraying my apple trees, I absent mindedly sprayed a pawpaw before I woke up from a living dream. The tree's leaves turned yellow, then brown, and dropped. Fruit set shriveled. The tree will not die but I cut back the defoliated portions. What I learned is that a new fungicide that I was using (Headline) contains a surfactant. I now know that pawpaws do not like surfactants."

Mission Statement

The Ohio Pawpaw Growers Association is a not-for-profit, 501(c)5 organization of pawpaw enthusiasts and commercial pawpaw growers, large and small, dedicated to educating and promoting the superior traits of the pawpaw, developing a pawpaw industry, marketing plan, and preserving and studying the wild pawpaw genetics.

Contributions of gifts to the OPGA are not deductible as charitable contributions for federal income tax purposes. However dues payments are deductible as an ordinary and necessary business expense.

Please check the mailing label (p8) for your dues/account status.

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President's Patch by OPGA President, Dr. Ron Powell, PhD

I am beginning my message to you from the Northern Nut Growers Meeting in Wooster, OH. NNGA extended an invitation to talk about growing pawpaws. Terry and I met a number of wonderful people and were also able to renew several of our acquaintances with those we hadn't seen for a while or had "met" on the internet.

John Neeb, Dick Glaser and I met this spring with the new site manager, Nick Zachrich, at Gwynne



OPGA Board member Jason Neumann and daughter, Maggie

Conservation Center, Farm Science Review, in London, OH and the pawpaw planting site has been temporarily downsized. The large planting that was planted last spring with bare root pawpaws just did not survive. The smaller planting of 28 potted seedlings is doing much better and 24 plants survived. Three of the four dead plants were planted in tree shelters! The stumps in the larger area are going to be ground out and the area can then be mowed. We will then replant the larger area with potted pawpaws sometime in the near future. We have agreed to a plan of action with Nick. Thanks to both John (for working in the rain) and Dick for assisting with the weed eating, fertilizing, and mulching of the pawpaws at Gwynne. The Farm Science Review is one of the largest, if not the largest, farm equipment shows in the United States. We are very fortunate that the Ohio Nut Growers Association has shared part of their booth with us.

I was also able to travel to the OSU Piketon center and first met with CC Hoy, Executive in Residence, Entrepreneurial Signature Program, regarding the development of or modification of pawpaw processing equipment. The second meeting was with Tom Whorley, Director of OSU Piketon, Brad Bergrfurd, Horticulturist and

Maurus Brown, Extension specialist Bio-Energy and Specialty Crops. We agreed at this time to focus on the 50 pawpaw seedlings that have become established. These seedlings will be ready to graft next spring.

Tony Russell, second vice president, has got the OPGA discussion group up and running as well as the group email. We can now

communicate with the membership much easier than before. Be sure to read Tony's article on page 3.

KYSU received notice that their grant is being funded to purchase a mobile kitchen to demonstrate pawpaw and sorghum molasses processing. Dr. Pomper also stated that there will be an international pawpaw conference in the fall of 2011 at KYSU.

Be sure to let us at OPGA know of your success stories and your not so successful stories so that others may learn from you. The OPGA with the expanded newsletter has made a commitment to bring you the latest and most current pawpaw information and news. Hearing from you is important so that we can keep our membership informed. The OPGA has begun a database on pawpaws and your observations on pawpaws are an important source of information to

be included. If you need some suggestions on what you can observe and collect data, let me know. This is not scientific and I have already been informed as such, but if we can collect information on your observations on pawpaws from a number of sites across the US, then the database can provide an important source of information on the many aspects of selection, growing, cultivation, harvesting and processing. Derek Morris is beginning a new series of articles on the various selections of pawpaws.

Your OPGA Board of Directors has worked hard to make your news letter. "Pawpaw Pickin's," an outstanding publication. If you agree, let the Board Members know that you appreciate their hard work. The BOD are: Dick Glaser: 1st Vice President; Tony Russell: 2nd Vice President; Dave Simpson: Treasurer; Terry Powell: Secretary; Deanna Powell: Web Master; Gene Pouly, Joe Petrie, Jason Neumann, Hope Keller, and Gary Gottenbusch.

Our autumn newsletter contributors are from North Carolina, California, Michigan, and around the state of Ohio. You don't have to be a professional writer to share your experiences with pawpaws. We would appreciate your contributions for the next newsletter.

We still do not have a site chosen for the 2011 Annual Meeting and Workshop. The suggestions that I currently have are: Wilmington College, Chatfield College and Fox Paw Ridge Farm, LLC. If you have any suggestions, let us know.

-Ron

Check website:

Ohiopawpaw.com

for calendar, new announcements & updates

Getting the Most From Your OPGA Membership

by Tony Russell, OPGA 2nd Vice President, Columbus, OH

As you know, our Growers Association consists of a very diverse group of growers and enthusiasts. There are folks who are just starting out with pawpaws and others who have decades of experience. Some grow a few trees in their backyard or woods while others manage a couple hundred trees or more on a farm.

We all look forward to connecting at our annual meetings. But until recently, we lacked a mechanism to communicate with one another throughout the rest of the year.

To better serve our members and take full advantage of our diversity, we have created the Ohio Pawpaw Growers Association discussion group on Yahoo.com. This gives our members with internet access the ability to keep in touch and share ideas, experiences and challenges they may be having.

While several services exist that host discussion groups, we chose to go with Yahoo as it is familiar to most of our members. As our website continues to grow and develop, we may integrate our discussion group capability into the site or look at other alternatives.

You can use your discussion group to:

Post a message

- Share growing challenges you are having
- Describe growing solutions that have worked for you
- Ask a question or just pick a topic and start a conversation
- Share your recipes
- Tell your pawpaw story
- Post your interest in trading or bartering services, scion wood, seeds, trees, tools, knowledge or just about anything related to pawpaws. Include what you have to offer and would like in return.

Post Photos

- Show off your favorite pawpaw trees
- Share insect or other damage to get help identifying the cause
- Share grafting techniques that work for you
- Show ways that help you reduce your growing expenses

Please join me in getting the most from your OPGA Membership and taking full advantage of the rich experience and knowledge of our group. To join the OPGA Yahoo site, type this link into your browser:

http://groups.yahoo.com/group/Ohiopawpaw/

Group Membership Emails

I want to thank everyone for their patience as we worked the bugs out of our OPGA group email. When we sent the June OPGA Member Update, we had several issues with the first email but after many adjustments and tests, I believe we have a solid process built and everyone should have eventually received the "July" OPGA Member Update.

We will use email to communicate between newsletters as needed.



Tony Russell's mother, Ethel Russell, and her pawpaw tree

Keeping Your Email Address Current

Many of our members have elected to have their OPGA newsletters delivered via email. As even more folks choose this option and we use email to communicate with our members, keeping your email address current with us is critical. To prevent interruption in electronic delivery of your newsletters and other member correspondence, please be sure to send email address changes to:

opgamemberservices@yahoo.com

Please include your full name along with your new email address.

Bench Grafting Pawpaws

by Marc Stadler, OPGA Member, Urbana, OH

Pawpaws can be grafted using most standard methods: splice, whip and tongue, cleft, and budding. It is easy to find literature describing how to apply these methods. However, there is one form of grafting commonly used in fruit tree propagation for which I have found no literature as it would be applied to pawpaws: bench grafting. The best definition that I have found for bench grafting comes from R.J. Garner's *The Grafter's* Handbook: "This term may be applied to any grafting process performed whilst both stock and scion are unplanted, regardless of the actual technique involved. It is termed bench grafting or bench working because it is commonly carried out on a bench." Fruit tree propagators have used this method for decades. Young rootstocks are dug while dormant, scions are grafted to them, the grafts are placed in a moist medium for weeks and then planted in the spring. Success rates with apples are very high, as the tissues callus so readily that often the union is simply wrapped with rubber bands — a wrapping of tape is not necessary.

I have been learning to graft, mostly on apple and nut trees. My attempts at bench grafting apples have turned out well. I wondered if pawpaws could be bench grafted. The opportunity for an experiment presented itself to me last Spring when 200 bare root pawpaw seedlings arrived on my doorstep. When I ordered them several months earlier, I had expected them to be large enough upon delivery that I could graft or bud to them shortly after potting them or planting them in the field. My hopes were dashed when I opened the package to find tiny trees, most about eight inches tall. Small pawpaw trees have a strong taper to their trunks. These trees started at the soil line with a diameter of less than a pencil, and quickly tapered to the diameter of a wooden match. Perhaps a skilled grafter could place a bud or a graft on these tiny trees, but in my hands, butchery might be the only outcome. I decided to pot the trees and bud them in a year, but reserve five for an experiment in bench grafting now.

Cleft grafting would be my method — I have had good luck using this on apple bench grafts, as well as more mature pawpaws in the wild. This method also just seems easier for me to perform than other grafts. From my experience, the knife work is less critical, and

it is easy to line up the cambium layers. I selected the smallest of my scionwood that I felt I could effectively carve — the variety was Wells. After spritzing my tools and hands with de-natured alcohol to destroy pathogens, I pruned the tiny bare root trees

close to the soil line to maximize diameter. With a sim-

ple utility knife I made my cleft in the face of the "stump" by cutting down through the middle. To minimize the chance of cutting myself, I pressed my thumbs together and rocked the blade downward with very little pressure. When cleft grafting



trees several inches in diameter, this is the cut that is performed with an axe-like tool, often driven with a hammer. My methods that day were closer to microsurgery. The cleft or split I made was slightly longer than 1/4". Turning to the scion wood, I cut off a piece



with two or three buds, perhaps two inches long. At the base end I made two cuts, creating a wedge shape about 1/4" long. I slid the wedge of scion wood into the cleft of the rootstock. Sometimes I needed to use the tip of the knife to open the cleft enough to slide the

wedge in. At this point, some readers with extensive grafting experience may feel that I could have used a saddle graft, which is similar to a cleft graft, but instead of a simple single cut in the rootstock, a v-notch is

made to more comfortably accept the wedge. In my experience, this saddle graft notch is not easy to make, and carries a high risk of injury to fingers, while the simple cleft graft has a very high success rate. After lining up the cambium layers of rootstock and scion — by



fitting the scion to one side of the "stump"— I then wrapped the joint tightly with Parafilm tape I had prestretched. Pre-stretching makes the film thinner and easier to wrap small diameters. Parafilm works well for



me, and because it biodegrades, I don't have to worry about eventually removing it, which is necessary if using polyethylene strips. After applying a small simple label of masking tape, the graft was finished.

I then wondered how best to bed these bench grafts. I

decided to steer a course somewhere between apples and nut trees. Apple trees are commonly bedded in damp sawdust or sand for a period of four to six weeks, at temperatures of 40 to 50 degrees F. Published research on bench grafting nut trees is difficult to find.



John O. Brittain's "Bench Grafting Pecans, Hicans and Hickories" is a rare, valuable resource [John O. Brittain, "Bench Grafting Pecans, Hicans and Hickories,"

77th Annual Report of the Northern Nut Growers Association Incorporated]. His method calls for bedding the bench grafts in damp sawdust for nine to fourteen days at 80° F. The trees — resting at a 45° angle — were completely covered with sawdust. Steering the middle course, I placed my pawpaw trees in a plastic bag with damp sawdust in a basement at 65° F for three weeks. I wanted to pot my trees after the threat of frost had passed, and this timing worked out. My trees were ready to pot in mid May. When I pulled the trees from the bag, only one showed signs of buds breaking dormancy.

The trees were then potted into tall pots. Unfortunately, during that first night in pots, raccoons attacked, de-

stroying three of the bench grafts and almost 100 sprouted pawpaw seeds I had spent hours potting. The two surviving bench grafts began to leaf out after two weeks. It appears that they will successfully develop into productive trees.

Why bench graft pawpaws? It appears to be a viable method for grafting trees that are too small to graft using other methods. Bench grafts get a head start against their ungrafted counterparts. My other seedlings



The "decapitated graft growing" above showing that even a failure — in this case the rootstock survivor of the raccoon attack — has a chance of growing.

won't be grafted until next spring. While this trial is much too small from which to draw any scientific conclusions, the success rate seems good, and the grafting method employed—cleft grafting—is easily performed even by novice grafters. Readers are encouraged to experiment further, bench grafting their own bare root trees.

Pawpaws and Food Safety

by Terry Powell, OPGA Secretary, Cincinnati, OH

It goes without saying that safe consumption is an important aspect of promoting pawpaws. Misinformation and improper handling has probably contributed to the false notions that pawpaws are poisonous or merely inedible. Here are some guidelines.

Fresh Fruit. It's extremely important to select ripe fruit. Consuming unripe fruit, even when it is cooked, can sicken a person. Remember that not all pawpaw fruit ripens at the same time, and even fruit that has fallen to the ground may not be ripe (OPGA Educational Publication, "Pawpaw Ripening Chart"). Unripe fruit may or may not ripen at room temperature. If using ripe fruit that has fallen to the ground, wash it first. If fruit is punctured/bruised, cut the area around that part and discard. Of course, don't eat the skin. If you are saving ripe fruit for pulping, it should be refrigerated in a single layer to avoid mashing, up to two weeks. Cardboard boxes with 1/4" newspaper "shelves" between layers work nicely. Fallen fruit should always be washed, not merely rinsed, before cutting so you don't introduce bacteria.

Pulp. The pulping operation should be done in a cool, clean place because processed pulp begins to ferment quickly. Process indoors since the operation will attract insects. Check that you have enough refrigerator and freezer space. Wash your equipment and containers before use even if they look clean. Rinse fruit (wash fallen fruit) and scoop the pulp out, doing your best to keep skin particles out. If you are pureeing the fruit, be careful you don't accidentally grind up a seed as that can easily happen. If you have a lot of fruit to deal with, it is quicker to process with two people: one processing, and one putting in freezer containers. Otherwise you will need enough refrigerator space to keep the pulp cold for as many hours as it takes to get it freezer ready. Processed pulp should be refrigerated and used or frozen within 24 hrs.

Freezing pulp. Wash your containers, especially new ones, with hot soapy water. It's a good idea to freeze in 1 or 2 cup containers since that is the amount most recipes require. Remember to allow head space for expansion. Remove air bubbles by tapping the container on hard surface. Applying plastic wrap to the top of the pulp will help prevent oxidization. If you are providing frozen pulp to people, put a sticker statement on the container including the date, and how soon it should be used after defrosting.

Using frozen pulp. Use defrosted pulp within 3 days. Pawpaw can be frozen up to 12 months. Some people feel that the pulp tends to acquire a bitter taste after a year in the freezer, so in that case it's probably best to confine its use to baked goods.

Check to be sure your freezer temperature is correct. If your freezer is overloaded, it may not freeze 100%. If pulp is merely kept at a hard slush stage, bacteria will multiply and it should not be consumed.

'Overleese'

by Derek Morris, OPGA Member, Winston-Salem, NC

During the last ten years or so I have tried many varieties of pawpaw and must say out of all the 15 or so I have tried 'the variety 'Overleese' is still one of my favorites. There are a couple reasons why I feel that this variety is a stand out among many. First and foremost is flavor. The flavor of a



newly ripened 'Overleese' has just the right balance of that tropical flavor mix that we pawpaw lovers crave. Many find a melon finish with this variety. One other thing I love about the flavor of 'Overleese' is that there is never a strong or bitter aftertaste as with some others. Another great feature is that 'Overleese' will keep several days at room temperature and its flavor will deepen and get richer as the skin darkens. So rich in fact that it reminds me of butterscotch meets chocolate cake batter. As one friend claimed upon his first taste of

an 'Overleese' fruit - WOW! this tastes just like a prepared desert, I agree.

The texture of 'Overleese' is also first rate. I always find it quite smooth and it stays in good condition without becoming mushy or slimy far longer than many others. The oval/rounded fruits are consistently large with a good seed to flesh ratio.

The only negative thing I would say about 'Overleese' is that it is not quite as productive as some others but its fruits are of such high quality that I consider it a mainstay. It ripens its fruits in early to mid season. 'Overleese' has such

high quality that it has been used as a breeding parent. The varieties 'IXL', 'NC-1 (Campbell #1)', and 'Kirsten' all have 'Overleese' in their parentage and the variety 'Shenandoah' which is one of Neal Peterson's recent releases is a seedling of 'Overleese'.

'Overleese' was selected from the wild near Rushville, Indiana by W.B. Ward in 1950 and is among the oldest varieties



still in existence. According to the KYSU website on pawpaws 'Overleese' fruits average over 170 grams each and 55 fruit per tree.

Pawpaw Slaw

by Terry Powell



1/4 head cabbage shredded 1 shredded carrot About 1 cup light mayonnaise About 1/3 cup pureed pawpaw About 1 tsp prepared mustard About 2 tablespoons vinegar

- You can adjust the amount of ingredients to your taste.
- Mix the mayo, vinegar, mustard, pawpaw.
- Fold into cabbage.
- Season with salt and pepper if desired.

The pawpaw gives it an interesting sweetness without adding sugar. Serves 4.

Pawpaw Pest Weapon

by Jorge Pelaez, CRFG/L. A. Chapter & OPGA member

I belong to the California Rare Fruit Growers (CRFG) association. They publish several papers covering a variety of fruits, including the pawpaw. They state that the pawpaw is virtually pest free. Unfortunately, the writers at CRFG are wrong. My two trees get attacked by scales every year. Besides using Tangle Foot on the trunk to prevent ants; I also use worm castings. I prefer the brand called Worm Gold. It is also good on aphids, white fly, and any other six legged vegetarian. Its not a poison; but a manure containing a hormone called chitinase. It attacks the chitin in the exoskeleton of these pesky insects by causing its deterioration. In other words, it melts them away. What makes it even nicer is that it is perfectly safe for all eatable applications. By that I mean fruit trees and veggies. It will not harm the good non-vegetarian insects. Another nice thing about worm poop is that it only requires two applications a year. Well, I guess that is it for now from the West coast.

Please check the mailing label for your dues/account status.



OPGA Educational Publication

Pick'n Perfect Pawpaws

Ron Powell, PhD
OPGA web site: Ohiopawpaw.com
OPGA discussion group: http://groups.yahoo.com/group/Ohiopawpaw/

The importance of picking/harvesting ripe pawpaws cannot be understated! There have been several reports recently where individuals have become nauseous or developed stomach cramps by eating fresh fruit or using fresh fruit in baked pawpaw products. In the majority of cases, the cause was unripe fruit but could also be due to overripe fruit or bruised fruit (rust-colored flesh) that had begun to spoil from fungal or bacterial agents.

Pick'n perfect pawpaws best practices:

- 1. Refer to the OPGA Educational Publication, "Pawpaw Ripening Chart."
- 2. Pick only ripe fruit. Ripe fruit will have began to soften and the bluish/ greenish blush will have disappeared.
- 3. Under ripe pawpaws are hard and have a greenish hue with a bluish/ greenish blush. Unripe fruit will never ripen! The unripe fruit will become "rubbery" and should never be eaten or processed for baking.
- 4. If you are lucky to find fallen fruit that the animals have not eaten, the remainder of the fruit on the tree may begin to ripen soon.
- 5. Temperatures above 80° F during the day and 70° F at night ripen the fruit guicker.
- 6. Exposed patches of pawpaws receiving more sun with good soils will usually ripen before the shadier, poor soil patches.
- 7. If the fruit cluster is within your reach, wriggle the fruit. Observe the juncture where the individual fruit connects to the peduncle. If this juncture is rigid, the fruit is not ripe. If the juncture is soft and pliable, the fruit are ripening. Note that all of the fruit within a cluster does not ripen at the same rate or time.
- 8. The fruit ripens first where it joins the stem. If the stem separates from the fruit gently, leaving an aromatic fleshy opening, the fruit is ripe. If the stem breaks or snaps off leaving a tear exposing a non-aromatic fruit, the fruit is unripe and will probably not ripen.
- 9. Gently squeeze the fruit to check for ripeness. Be careful because the fruit will bruise easily.
- 10. If the fruit is beginning to ripen, you may be able to smell the aromatic fruit. Sometimes, you can stick you head into the tree vegetation and smell the aromatic, ripening fruit.
- 11. Refrigerate the fruit as quickly as possible after harvesting. A 34° 44° F temperature is best.
- 12. After picking the ripe fruit, pack into shallow and padded boxes (cardboard, Styrofoam, etc.)
- 13. Use a 'Pawpaw Picker" to harvest the fruit that can't be easily reached. The basket should be padded with foam so that the fruit doesn't bruise.
- 14. Never shake the tree!
- 15. Hand pick if possible by cutting the fruit or fruit cluster stem with hand pruners.





Pawpaw Pickin's

A publication of OPGA

6549 Amelia Dr. Cincinnati, Ohio 45241

Autumn 2010

Pawpaw or Asimina triloba is the largest edible fruit native to North America and is found in 26 states.



OPGA Editor

visit us at our web site:
www.Ohiopawpaw.com
Or OPGA Discussion Group:
http://groups.yahoo.com/group/Ohiopawpaw/

Pawpaw Pickin's is published bi-annually by the OPGA, an organization dedicated to advancing education and knowledge of pawpaw culture, encouraging the planting of pawpaws, the management of native pawpaws, and perpetuating the utilization of all pawpaw products.

OPGA Dues

We are now able to print mailing labels with each member's anniversary date when membership dues are due. Dues will now be collected on your anniversary date. We hope that the change will be helpful.

Please renew your membership in OPGA and show your support. Your continued support is needed for the education and promotion of pawpaws.

Go to the OPGA web site — Ohiopawpaw.com for a membership form.