Pawpaw Orchard Establishment in Ohio

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2018 Ohio Pawpaw Festival
Albany, Ohio
Pawpaw Specialty Crop Project

- Marketing and Orchard Resource Efficiency for Ohio Pawpaw Production (MORE Ohio Pawpaw)
- Project Leaders: Dr. Matt Davies and Brad Bergefurd
All about Partnerships
Thanks to Ron Powell for providing his support and assistance with this and past pawpaw projects.

- OPGA
- % Ron & Terry Powell
- 6549 Amelia Dr.
- Cincinnati, Ohio 45241

- (513) 777-8367

- Botrytis@fuse.net

- www.Ohiopawpaw.com
145 acres

12 – ¼ acre ponds

2 – 1 acre ponds

1 – ½ acre pond

Reservoir
4 ½ - 5 acres
Hops Research and Education
Strawberry Plasticulture Production
Small Fruits Program
High Tunnel Production
Grower Assistance & Training
Pawpaw education and demonstration at Piketon South Centers began in 2011

- 16 plants grafted by Ron Powell May 19 2011
- Wells
- Mango
- SAB Overleese
- PAG #1
- Sunflower
- NC-1
OSU Campus and Piketon Research Orchard Locations

Columbus

Piketon
Pawpaw Specialty Crop

• Purpose of our project is to improve the competitiveness of pawpaw crops by providing growers and producers with the knowledge they need to: successfully establish and manage pawpaw orchards, produce high-quality pawpaw fruit in reliable and commercially-viable quantities, and effectively market.

• MORE Ohio Pawpaw will provide the necessary research based information for Ohio nursery growers interested in diversifying their current nursery production to include propagation of pawpaw trees to meet the demand for high quality disease free pawpaw plant material.
Pawpaw Specialty Crop

- Explore opportunities for increasing the availability and distribution of pawpaw and pawpaw-based specialty products
- Reduce risk for producers by providing evidence for best-performing varieties and crop establishment methods
- Provide small farmers and land-owners with an opportunity for crop diversification and sustainable utilization of land marginal for traditional crops
- Support new producers, including urban farmers and disadvantaged urban and rural communities, with the technical information on best practices for establishing pawpaw production and marketing their product
- Raise awareness of the nutrition and health benefits of pawpaw and its diverse uses in a range of culinary products
Woodland Production of Pawpaw

- Will utilize an established network of woodland pawpaw monitoring sites across Ohio.
- An adaptive management process will be used to track the success of targeted, site-specific interventions designed to improve production efficiency.
- Interventions will include thinning to reduce competition between pawpaw trees and to increase light availability in the sub-canopy, hand pollination to improve fruit set and grafting-in of cultivars to increase patch genetic diversity.
- Sarah will describe this part of the project on Sunday.
Orchard Establishment for Pawpaw

Thomas Harker, September 15, 2018
Cultivars for OSU plantings

- KSU Atwood
- Kentucky Champion
- Potomac
- Wabash
- Summer Delight
- Allegheny

- Mango
- Rappanhancock
- Shenandoah
- Sunflower
- Susquehanna
- KSU Benson
Piketon Orchard

The one acre block was deep plowed and disked prior to soil amendment's being applied. Using soil test results the following was applied prior to beds being constructed.

- 62 lbs. of 18-46-0
- 106 lbs. of 0-0-60
- Lime was not applied to the field
<table>
<thead>
<tr>
<th>Sample Number</th>
<th>Lab Number</th>
<th>pH</th>
<th>Buffer pH</th>
<th>Organic Matter</th>
<th>Phosphorus</th>
<th>Potassium</th>
<th>Magnesium</th>
<th>Calcium</th>
<th>CEC</th>
<th>Base Saturation</th>
<th>Mehlich-3 PPM and Rating</th>
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<tr>
<td>PAWPAW</td>
<td>D49741</td>
<td>5.6</td>
<td>6.9</td>
<td>1.0</td>
<td>30 M</td>
<td>79 M</td>
<td>212 G</td>
<td>712 G</td>
<td>5.6</td>
<td>3.0</td>
<td>27.8 47.7</td>
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* P, K, Mg and Ca are extracted by Mehlich-3 (ICP) and are reported in ppm

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<th>Sample Number</th>
<th>Lab Number</th>
<th>Year</th>
<th>Crop</th>
<th>Yield Goal</th>
<th>Acres</th>
<th>CaCO3**</th>
<th>N</th>
<th>P2O5</th>
<th>K2O</th>
<th>Mg</th>
<th>S</th>
<th>B</th>
<th>Cu</th>
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<td>2317</td>
<td>40</td>
<td>103</td>
<td>228</td>
<td>0</td>
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Typical PVC underground header to 18mm drip tubing on ground for Paw Paws. Both sides of tree, stagger emitters.

- Series 600 Pro-loc 18mm, .700" od x 1/2" mpt valve
- 18mm splice/repair coupling as needed
- Figure 8 end fitting

Blue line PC Dripline 18mm x 1000', 0.53GPH, 30" spacing; #BP62053-30
- Both sides of tree, stagger emitters
- 1/2" pvc female x slip adapter
- 1/2" IPS flexible pvc glueable (USE 795 GLUE)
- Single Pinch Stainless Steel Clamp, 25/32" to 57/64"
- Xpando Take-Off Adapter, XP-13x15 13mm grommet inlet x 15 mm takeoff
- Xpando Rubber Grommet, CAP-13, 13mm rubber grommet
- 2" schedule sdr-21 pvc
Shade Cloth Cage

- Cut 5’ pieces of woven wire fence.
- Formed cage
- Attached shade cloth to cage using hog rings.
- Attached cage to steel fence post.
- Shade installed on South west side of tree.
Columbus Campus Orchard
CFAES
Columbus Campus
Columbus Campus

CFAES
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Horticulture Specialist

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