Andrea (Heiert) Dee receives a blue ribbon

Andrea graduated from the University of Cincinnati, College of Applied Science, with a BS degree in Horticulture this past spring. Her capstone project, Pawpaw Production, earned her a blue ribbon for her storyboard (page 2). Her research project was on pawpaw propagation and her advisors were Mr. Dick Glaser and Dr. Ron Powell, both OPGA members. Andrea is the new Kenton County (KY) Extension Agent. Congratulations Andrea.

The 2007 North American Fruit Explorers Annual Meeting in Clemson, SC included lecturers by experts at Clemson University, a tour of their research farm, and tours of farms growing peaches, raspberries, strawberries, blueberries, Asian pears, and pawpaws. One fun side event of this meeting is their auction. This year a bottle, 350 ml., of pawpaw wine was auctioned for $145.

President’s Patch

This spring was quit busy for the OPGA. The OPGA members did three propagation workshops (Jackson, OH; Chatfield College, Russellville, OH; and Woodlanders, Middletown, OH) and were involved in several others. OPGA manned a historical display for three days at the Waldschmidt House in Camp Dennison, OH.

This fall will be just as active. See the calendar on page 4 for the events. We still need your help to pass out pawpaw information and pawpaw cookie “bites”. We will not have fruit for sampling this fall but we do have sufficient pulp to make the “bites.” At the end of September, we will be at two locations, Cincinnati Nature Center and Krohn Conservatory, on both Saturday and Sunday. The Cincinnati Nature Center will have an interactive pawpaw display for the month of September. Call Ron or Terry to sign up to help at one or all of the fall pawpaw events.

We are still working on our website! The new name is www.ohiopawpaw.com. Keep checking to see if we are up and running. We hope to see you at one or more of our fall events.

OPGA is an organization of pawpaw enthusiasts and 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 in Ohio.
Pawpaw Production

Presenter: Andrea Heiert

Mentors: Dr. Ronald Powell, University of Cincinnati, Cincinnati, OH 45206
Richard Glaser, University of Cincinnati, Cincinnati, OH 45206
Holly H. Hawkins, University of Cincinnati, Cincinnati, OH 45206

Abstract

The pawpaw (Asimina triloba) tree produces the largest native fruit (over 1 pound each) in the Eastern United States. Pawpaw trees are naturally found in mesic hardwood forests in shaded areas along streams where they grow 5 to 20 feet in height. Pawpaw trees form thickets or patches in the wild by suckering. The flower is thought to be self-incompatible so fruit set requires cross-pollination with flies and beetles the primary pollinators. Pawpaw fruit has great potential as a high-value crop in the eastern United States. The fruit has a tropical-like mango-banana-pineapple taste and a custard texture. The fruit is high in vitamins, minerals and amino-acids. Commercial uses are fruit juice, ice creams, yogurt, and baked good. Natural compounds from pawpaw bark and leaves have insecticidal and anti-cancer properties. Potential profit for pawpaw orchards include both local sales of fresh fruit ($5.00/lb); pulp ($8.00/lb); and ice cream ($10.00/gal). Pawpaw trees do not produce fruit for the first five to seven years. Because Asimina triloba cross pollinate seedlings will not be exactly like their parents so fruit flavor and size consistency are difficult to maintain. To achieve this consistency, cultivars are used and most growers plant with 25 seed each 1” deep.

Experiment

First Trial: The first trial tested etiolation. This method inhibits chlorophyll, shocking the plant into survival mode, forcing roots to form.

Method 1: One branch with multiple stems was encased in a wire tomato cage and wrapped in black cloth.

Method 2: Also involved encasing a three foot branch in a tomato cage but wrapping the cage with aluminum foil, making sure the foil did not touch the stems encased.

Twenty-eight days later the shoot were removed, wrapped in cool/wet towels and placed in a plastic bag approx. ¾” diameter pawpaw tree, smothered with #8 IBA, covered with #8 IBA rooting hormone. (Ground layering).

Seventh Trial: Mound layering. Slice ¾” in the flare of a ¼” diameter pawpaw tree, smothered with #8 IBA, wrapped in moist sphagnum moss & wicking felt for one month.

Eighth Trial: Root cuttings. ⅛” diameter roots were clipped from a native tree. 2” long cutting were planted in light rooting mix and watered as needed.

Only Trial Four (seeds) and Trial Seven (mound layering produced any results. Of 50 seeds, 46 sprouted and grew. The one viable root hair produced from mounding did not survive the summer heat. The only successful method is grafting of scion wood of known cultivars onto seed grown trees. Approximately 70% of the grafts are successful.

Results and Conclusions

Because Asimina triloba holds great potential as a successful organic crop, I developed a workbook for potential small farmers to use in developing their own pawpaw orchards.
2008 National Pawpaw Meeting. The OPGA was represented at a meeting at Kentucky State University, Frankfort, KY by Ron and Terry Powell to initiate a discussion about a national pawpaw meeting in 2008. This was a joint meeting with the Pawpaw Foundation, Kentucky Statue University and OPGA. Some possible agenda items were suggested and a tentative date has been set for September 2008.
Fall 2007 Calendar of activities and events

September 7—Cincinnati Nature Center, ”Preparing for Night”
Pawpaw tasting and education

September 15 & 16—festival, Lake Snowden, Albany, OH

September 18, 19 & 20 - Farm Science Review, London, OH

September 22 — Dawes Arboretum, Newark, Ohio at Noon (pot luck luncheon) —
Joint meeting with the Ohio Nut Growers Assn.

September 29 & 30, noon to 5 PM —Great Outdoor Weekend —
Krohn Conservatory and Cincinnati Nature Center,
pawpaw tasting and education

2008 Calendar of activities and events

September 12, 13 & 14, 2008—National Pawpaw Meeting, KYSU, Frankfort, KY

In order for the OPGA to be successful, we need volunteers to help us with our display and pawpaw samples. Call Ron or Terry Powell at 513-777-8367 for additional information on the activities and events and to volunteer.