THE KENTUCKY COLONELS ‘KERNEL’
“Scion” of the Kentucky Nut Growers Association
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A Date to Remember: The Spring meeting of the Kentucky Nut Growers Association will be held Saturday, April 17, 2010, at the Hardin County Agricultural Extension Office in Elizabethtown, Kentucky, at 9:30 am EDT. The Extension Office Building is located just off U.S. 62 about 2 miles west from downtown Elizabethtown—directly behind the Cecilia Auto Sales Lot. In approaching Elizabethtown from western Kentucky on U.S. 62, turn left at Peterson Drive—first street past the Manakee Funeral Home. Eastern and northern Kentucky arrivals driving west on U.S. 62 through Elizabethtown must turn right at Peterson Drive—first street past the Auto Sales Lot. KNGA signs will be posted. The luncheon will be potluck. If you bring something that will need to be heated or warmed, there is a well-equipped kitchen that can be used for that purpose. For additional information please contact Kirk Pomper at 502-597-5942; e-mail: kirk.pomper@kysu.edu. Please plan to bring a friend to the spring meeting and introduce them to KNGA! Additionally, please bring nuts for people to taste and items, such as plants and trees, which can be used as door prizes and for an auction.

Inside This Issue Page
It’s Time to Think About Fertilizing and Pruning Your Nut Trees.........................2
Fall Meeting a Success!............. .... .3
Small Scale Processing of Ripe Pawpaw Fruit..................................................3
Photos of Interest......................... .... ...5
Web Links of Interest.................... .... ..6
IT'S TIME TO THINK ABOUT FERTILIZING AND PRUNING YOUR NUT TREES!

By John Strang\(^1\) and Kirk W. Pomper\(^2\)

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Now that we are past the coldest period of winter in Kentucky and the surrounding region, it is time to fertilize and prune your nut trees. For fertilization of existing trees, follow this procedure for fertilization: (1) Determine the trunk diameter 5 inches above ground. (2) For each inch of trunk diameter, apply 1 lb of 10-10-10 fertilizer per tree, but no more than \(\frac{1}{3}\) lb of actual nitrogen per inch of trunk diameter per season. (3) Place fertilizer under the tree periphery in late February. (4) Take soil tests annually and apply lime as needed to prevent soil pH from falling below 6.0.

Trace elements are very important in nut production. Zinc is the most critical trace element. When zinc is lacking or present in insufficient quantities, nutlets fail to set and yields are very low. Zinc is best applied as a foliar spray just after pollination at a rate of 1 to 2 lb of zinc sulfate/100 gal of water (1 to 2 tbsp/gal) for young trees and 5 to 10 lb/100 gal for mature trees. Apply two more times at two- to three week intervals. For soil application, zinc chelate is recommended over zinc sulfate. Zinc chelate 10\% can be applied with liquid fertilizers as a broadcast or banded treatment. Use at a maximum rate of 1 part zinc chelate 10\% to 50 parts fertilizer in ammonium phosphate solutions, or 1 part zinc chelate 10\% to 10 parts fertilizer in nitrogen solutions.

Prune young trees lightly during the first few years in February or March to select scaffold limbs with wide crotch angles and to maintain a central leader. Branches should be pruned off the trunk to a height of at least 6 feet if you plan to use a metal tree guard to control squirrels. When 10 to 15 good scaffold limbs that are well spaced on the trunk have been developed, cut the central leader back to a lateral limb, and train the tree to a modified central leader shape. Only limited pruning is needed on bearing trees. Remove dead limbs to a side limb or to the trunk to promote rapid healing and avoid trunk decay. When trees are 20 to 30 years old, thin out some of the top scaffold limbs to allow light into the interior of the trees.

American hazelnuts are grown as a bush and pruning consists of thinning out smaller, weaker shoots by removing them at ground level. Also, remove some of the center shoots to open up the center of the bush, admit light, and prevent bearing only on the bush periphery. A plant should have five to seven main shoots. Grafted hazelnuts are grown as a tree and all suckers need to be removed from the base.

In the Spring KNGA Newsletter we will cover planting, training, and fertilization of new nursery stock trees.
FALL MEETING KNGA A SUCCESS!

About 30 people attended the October 17th, 2009, fall meeting of the Kentucky Nut Growers Association at The Daviess County Extension Office. The Daviess County Extension Office is a beautiful facility and we hope to be able to meet there again in the future!

SMALL SCALE PROCESSING OF RIPE PAWPAW FRUIT

By Kirk W. Pomper
Principal Investigator of Horticulture-Kentucky State University

Pawpaw is a native tree fruit that is in the initial stages of commercial production. The pawpaw’s custard-like fruits have two rows of 12-20 seeds. Trees bear fruit in August-October, depending on the cultivar, and produce a unique tropical-like flavored fruit with a blend of mango, pineapple, and banana; some cultivars have a melon flavor. Fruit ripen on the same tree over a 2-week period. Pawpaw fruit are ripe when they begin to soften and can be gently pulled off a tree. Fruit shelf-life is 5-7 days at room temperature and 3 weeks with refrigeration. Pawpaw can be grown organically and has great potential for the processing market.

In 2009, pawpaw fruit sold for $1 each, or about $3 per pound, at Frankfort and Lexington Farmers’ Markets. Pawpaw frozen puree has even greater value and sells for $6-$10 per pound and is attractive to chefs for menu items including pawpaw custards, pies, chutney, and ice cream. An additional by-product of pulp processing is pawpaw seed, which growers can sell for up to $18/pound to nurseries.

There has been great interest in trying to develop a small scale processing system for ripe pawpaw fruit. After discussions with Jerry Lehman of the Indiana Nut Growers Association, we tried using an apparatus that he had adapted for processing ripe American Persimmon fruit. We cut ripe fruit in half, scooped out the pulp and seed into a Roma Sauce Maker (or equivalent), and de-seed pulp by processing with a pumpkin/squash screen (1/8 inch holes), and grape spiral (with 1 inch of the spiral end removed) (see photograph below). Hundreds of pounds of pawpaw puree can be processed each day using this system. This system was very effective at eliminating seed during pulp processing; alkaloids in seeds may cause sickness upon pulp consumption. It is also important that fully ripe (soft) fruit that is hand harvested be used in processing. Unripe pawpaw fruit have alkaloid and acetogenin compounds that when processed, may sicken consumers of the pulp. Bacteria (usually red streaks in the pulp of the fruit) contaminated fruit can occur in pawpaw, mainly because fruit are wounded in orchards during weather events. Fruit contamination is not apparent until fruit is cut open during processing. This fruit should be discarded during processing due to bacterial contamination. Bruised fruit also develop off flavors and cannot be processed.

If you are planning on processing pawpaw fruit pulp to be sold commercially or at farmers markets, there are strict regulations that must be followed. Some of this information can be found in the updated Farmers Market Publication from the Kentucky Department of Agriculture at http://www.kyagr.com/marketing/farmmarket/index.htm. If you have further questions about pawpaw processing please contact Dr. Kirk Pomper at 502-597-5942 or kirk.pomper@kysu.edu or Ms. Sheri Crabtree at 502-597-6375 or sheri.crabtree@kysu.edu.
Roma Sauce Maker used for processing pawpaw pulp with a pumpkin/squash screen (1/8 inch holes), and grape spiral (with 1 inch of the spiral end removed).

**ANNUAL DUES INFORMATION**

**NOTICE:** the year listed immediately after your address label indicates the year through which your membership dues are paid. Please note that dates highlighted in pink indicate that your KNGA membership is past due. Please renew your membership. Thanks!
PHOTOS OF INTEREST


Pecans on a tree at the Arboretum in Lexington, KY on September 30, 2009. Photo by K. Pomper.
'Yates' American Persimmon from beneath a tree at the Arboretum in Lexington, KY on September 30, 2009. Photo by K. Pomper.

Web Links of Interest:

The Kentucky Nut Growers Association Web Site:
http://www.pawpaw.kysu.edu/KNGA.htm

The University of Kentucky Extension Service Fruit and Nut Cultivar Nursery List for 2007 at:
http://www.uky.edu/Ag/Horticulture/frtnursery07sources.pdf

ATTRA - National Sustainable Agriculture Information Service: Sustainable Pecan Production
http://www.attra.org/attra-pub/pecan.html

The American Chestnut Foundation (TACF)-Kentucky Chapter:
http://www.kychestnut.org

Northern Nut Growers Association Marketplace Page:
http://www.northernnutgrowers.org/adlist.htm

Kentucky Nut Corporation (pecans for sale):
http://www.kykernelpecans.com/index.html

The Ohio Pawpaw Growers Association
http://www.ohiopawpaw.com

University of Kentucky- Fruit Facts: http://www.ca.uky.edu/fruitfacts

Nolin River Nut Tree Nursery at: http://www.nolinnursery.com

England’s Orchard & Nursery at: http://www.nuttrees.net

Grimo Nut Nursery: http://www.grimonut.com

Shooting Star Nursery: http://www.shootingstarnursery.com

Rhora’s Nut Farm And Nursery: http://www.nuttrees.com

The Ohio Nut Growers Association: http://www.onga.org

The Indiana Nut Growers Association: http://www.nutgrowers.org

One Green World: http://www.onegreenworld.com
MEMBERSHIP APPLICATION
KENTUCKY NUT GROWERS ASSOCIATION

TO: David Leeper
2209 Middleground Dr.
Owensboro, KY  42301

DATE _____________________

[ ] NEW MEMBER   [ ] RENEWAL   [ ] CHANGE OF ADDRESS

NAME __________________________________________________________________________
ST OR RFD _______________________________________________________________________
CITY _________________________________________ STATE __________ ZIP ______________
OCCUPATION _________________________________ COUNTY __________________________

AMT. ENCLOSED FOR DUES $___________________ FOR YEAR(S) _____________________

Dues are $5.00 for one year. Annual membership begins January 1st. New members joining after July 1st shall be credited as paid in full for the next calendar year.) For additional information about joining KNGA, please contact Mr. David Leeper at (270) 929-2968.