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# SWPWO NEWSLETTER

Southwestern Pennsylvania Woodland Owners Association

April 14<sup>th</sup> 2004

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## 2004 Calendar

### **April 14 Meeting - Wildlife Art, from the forest to the canvas.**

The next meeting of the association will be held on Wednesday, April 14<sup>th</sup> at 7 P. M. in the first floor meeting room of the Courthouse Square Building in Washington. It is located at 100 W. Beau Street directly behind the Washington County Courthouse.

Steve Leonardi, noted Washington County wildlife artist, will speak on, "Wildlife Art- from the Forest to the Canvas."

The meeting is open to the public, free-of-charge. Remember that free parking is available in the garage through the Beau Street "B-level" entrance at the base of the Court house Square Building.

### **May 12 Meeting - Special Forest Products**

Russ Richardson

**May 29 Field Trip -** Walnut Meadows tour - unconventional forest products. Bill Slagle

**June 12 Field Trip -** Dave Brady tree farm tour

**July 10 Field Trip -** George Marinchak tree farm tour

**August 14 Field Trip -** Tour Pawlosky Lumber and Milling. Tony Pawlowsky

**September 8 Meeting - Visualizing Your Forest - simulate your decisions and their impact.** Dr. Jim Finley, Prof. at Penn State's School of Forest Resources

**September 11 Field Trip -** Tour Perkey Tree Farm

**October 9 -** Pig Roast

**November 10 Meeting -** Hunting, Posting and the Landowner. Coren Jagnow

## Why Grow Chestnuts?

A few acres of land can yield nuts for your own enjoyment, or for sale at the side of the road or to your local market.

This is a guide for choosing the right chestnut species, choosing the right planting site, and anticipating the care that is needed. For a few trees for your own use, you would do well to get two or three cultivars and plant them near each other (within 100 feet) for optimal cross-pollination. If you are starting an orchard for commercial production, you would be better off with a lot of trees of a few cultivars and a couple of seedling trees to provide pollen. The advantage of a uniform orchard is that the nuts all ripen at the same time, and will be fairly uniform in size and appearance (something consumers seem to think is important). The other point to remember for selling the nuts is that "bigger is worth more" even though smaller nuts frequently taste better!

All species of chestnuts can pollinate each other, but hybrids often produce no pollen (are "male sterile") and this must be determined when planning your orchard. Chestnut blight disease must be considered in the eastern U.S. Ink Disease (caused by *Phytophthora*) may be a problem in the south or in areas with poor drainage. Chestnut Gall Wasp is slowly moving north from Georgia, Alabama, North and South Carolina, and Tennessee, and drought tolerance will make a big difference in the west.

The initial investment will include purchase of trees, tree shelters to protect them, and installation of an irrigation system.

"Named cultivars" are clones of trees whose characteristics are known. Since they are identical, and chestnuts will not self-pollinate, two or more cultivars (or some seedlings, which are all different) must be planted to provide pollen for each other. Cultivars are grafted onto compatible rootstocks, and they usually cost about \$15 each (see 1999 "sources" list appended). The choice of cultivar must be made for your own environmental conditions and taste, and some guidelines can be found in our list of cultivars (e-mail for a copy). Information on nut size has not been systematically collected in all of the U.S. growing regions for cultivars, so the following is only to provide a general range of the sizes available:

CULTIVAR	Number of Nuts per pound
‘Colossal’	14-18
‘Bouche de Betizac’	15
‘Willamette’	18-22
‘Revival’	24-32
‘Skookum’	32-34
‘Sleeping Giant’	34-38
‘Nanking’	35
‘Eaton’	35
‘AU Homestead’	39
‘Kuling’	40

Tree shelters can be made of wire or plastic, or can be as simple as piled brush to protect the trees from deer. The plastic tubes cost about \$3.00 each and are easy to install, but must be lifted each fall to allow the trees to harden off properly. They frequently harbor wasps, and provide a nice environment for rodents who then eat the tree bark. A better shelter may be a stiff plastic net now being tested by some companies.

An irrigation system is essential for a commercial orchard, even if you live in a region where rainfall is fairly dependable.

Plant your trees in well-drained sandy loam, better drained than apples require. Sites with clay may be tolerated if there is good surface drainage (slope). Chestnuts need a soil pH of 5.5 to 6.5 and absolutely won't tolerate limestone soils. If your soil pH is much higher than this, consider another crop.

Space the trees at 40 feet apart, or start at 25 feet apart and remove trees, as they mature, to 35 feet apart.

Fertilize (SPRING ONLY) with one pound of 5-10-5 or 10-10-10 per year of tree age, or one pound per inch of tree trunk diameter.

Pruning should be done only when it is hot and dry, in early summer. This reduces the chance of infection.

The area around the trees should be kept mowed, and a circle about three feet wider than the diameter of the trees should be kept weed-free. Mulch can be applied to help with water retention, but should not be deeper than two inches, and should not be up against the trunks (allowing easy access by rodents in the winter).

The value of the nuts is directly related to the size, but is usually at least \$1.50 per pound wholesale and up to \$5.00 per pound retail. Yield will start to be significant after the trees are 10 years old, and yields have been reported of from 14 pounds per tree to 138 pounds per tree.

The traditional method of harvest is to allow the nuts to fall to the ground, and employ people to pick them up. For a few nuts for your own table this is not a bad system, but commercial orchards need more efficient methods. Nets can be suspended under the bottom branches of the trees to collect the nuts (they should be removed from the nets every day), or some of the marketed ground-collection systems can be used (see advertisements in the Northern Nut Growers Newsletter).

The most serious problem for all U.S. chestnut growers is the presence of chestnut weevils which lay their eggs in the ripening nuts. When the nuts fall to the ground the eggs hatch, and the larvae eat their way out of the nuts and burrow into the ground. They stay there until the following year (Large Chestnut Weevil) or the second year (Small Chestnut Weevil) when they emerge to mate and lay more eggs. Only the adult weevils are controllable with insecticides (Sevin is registered for this use), and care must be taken to spray the burs weekly for the last month before nuts are released. An "organic" control that has proved reasonably effective is the deployment of chickens or Guinea fowl under the trees to eat the larvae and pupae of the weevils. After several years of this control, few weevils will remain. As soon as nuts are collected they can be treated in hot water (120F = 49C) for 20 minutes to kill weevil eggs and larvae but not the nuts. Then the nuts should be refrigerated. Keep them moist, in plastic bags, in the refrigerator (over the winter) if you are planning to plant them, or a little dryer for eating. Nuts can also be par-boiled as soon as they are harvested and stored (frozen) in plastic bags until needed. This kills the eggs (or very small larvae) before they can damage the nuts but also kills the nuts.

Marketing chestnuts is easy if you already have a farm stand for selling produce, but if you have to sell them to local food stores, you will have to work a little harder. Nuts should never be allowed to dry out, and markets MUST be convinced to display and store them in plastic bags in refrigerated cases.

The future of the chestnut industry in this country will depend on the development of better weevil control methods, better harvesting techniques, and development of "ready for use products." Peeled, dried nuts, or chips that can be added directly to foods being prepared will allow cooks to experiment, and may interest large, prepared-food manufacturers to include chestnuts in their products.

#### Growing Chestnut Trees

By Sandra L. Anagnostakis, The Connecticut Agricultural Experiment Station, and Greg Miller, Empire Chestnut Company

<http://www.icserv.com/nnga/faqchest.htm>

Last updated: 3/13/00

## **Managing Oak Timber**

I need to make some comments about an article by the same name, which appeared in our March 10<sup>th</sup> issue. The article was taken from the Internet and, as such, I'm not sure what part of the country it was aimed at. Although it did raise some pertinent points, I must disagree with many of its assertions.

In this area oak trees are a healthy, valuable, and important component of our "oak-hickory" forest. Although the oak wilt disease is present, it really is not a major problem here. And windstorms, which would damage oaks, are rare. In my travels through the woodlands of Greene and Washington counties over the years, I've come across many oak trees growing strong, 30 inches in diameter and larger.

Oak harvest via clear cuts and shelterwood cuts (even-age management systems), if done properly, are not necessarily wasteful, messy, and visually distasteful. What does produce these things are the "diameter-limit, high grade, or select", tree harvest that are presently taking place, all too often, throughout our region. Red oak can be a good long-term investment and can produce a sustainable future timber crop. As a matter of fact, the Bureau of Forestry encourages landowners to plant this tree.

There is, at present, a problem in regenerating oaks, but that is a topic for another discussion.

In conclusion, the oak species are a vital part of our SW Pennsylvania forest and, as such, should be an important consideration in our management plans.

Bill Wentzel  
Service Forester  
PA Bureau of Forestry

## **Twolined Chestnut Borer**

The twolined chestnut borer, *Agrilus bilineatus* (Weber), gets its common name from the two pale lines which run the length of the wing covers. The remainder of the beetle is bluish black; 6-10 mm. long, and 2 mm. wide. Beetles are active for about two weeks in early summer. Females lay eggs in bark crevices of favored trees. These eggs hatch in 10 to 14 days, and the larvae burrow through the bark and begin feeding between the bark and wood. Larvae overwinter under the bark and transform to the pupal stage in the spring. The larvae are white, slender, noticeably segmented, flattened, and about 2.5 cm. long when full grown.

American chestnut was the primary host before chestnut blight killed most chestnut trees earlier this century. Since then oaks are the preferred hosts. Feeding larvae excavate zigzag or meandering mines in the inner bark of branches and the main trunk. This feeding in the phloem tissue interrupts the translocation of nutrients causing the tree to die.

Trees stressed by drought, insect defoliation, and damage to the roots are more likely to be successfully attacked by this beetle. Therefore, damage by this beetle is best limited by reducing stress to the oak trees.

### **Membership**

Membership to the Southwestern Pennsylvania Woodland Owners Association is \$10 per year for an individual and \$15 per year for a household. To join, please send name, address and phone number to

SWPWO

195 E. High St.

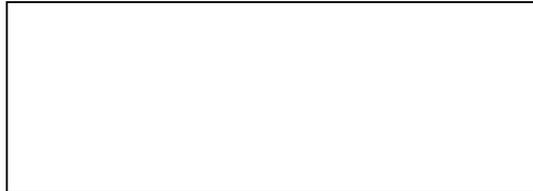
Waynesburg, PA 15370

This newsletter is published about four times each year within two weeks of a scheduled meeting. The Editor is George Marinchak who is always looking for ideas and articles to publish. The Editor can be contacted at 724-785-4891 or e-mail at [gjmarin@verizon.net](mailto:gjmarin@verizon.net)

**SWPWO**  
**195 High Street**  
**Waynesburg, Pa 15370**



**TO**



### ***Our Purpose***

***Southwestern Pennsylvania Woodland Owners (SWPWO), a not for profit association, is an organization of individuals interested in sound woodland management practices which encourage the diverse use of forests for timber production, wildlife habitat, watershed protection and recreation and to promote this multiple-use philosophy through education and technical assistance for the benefit of the membership and general public.***

### **Executive Committee for the year 2004**

#### **Officers**

Harold Thistle - President  
Dave Brady - Vice President  
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#### **Board of Directors**

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