

## Secondary Nut Production: A Curious Phenomenon

Chestnuts, like the producers who grow them, sometimes take multi-tasking to a whole new level.

In August, producers Dale and Linda Black, Rockport, Ill., reported secondary flowering on several of their trees – and even tertiary flowering. This extra energy the tree expends to produce additional sets of burs, beyond the first set, depletes resources from the primary developing nut crop and may result in smaller nut size. In addition, secondary and additional burs will not have time to adequately mature,



Dale and Linda Black, Rockport, Ill., experienced a second, third and even fourth flowering of several trees in August and September. Burs are subsequently smaller with each additional flowering. Dunstan was the cultivar most affected.

and subsequent nut yield for the following year may be affected. In contrast, most other trees, like apples, peaches, oaks or walnuts, normally flower only once per season.

The Blacks operate a 150-acre farm, located 7 miles from the Mississippi River in Illinois. Chestnut trees make up 40 of these acres, with 2,900 chestnut seedlings planted as a combination of direct seeded or seedlings cultivated in their greenhouse. Initial nut production began in 2004. The Blacks estimate secondary flowering has appeared on 50 percent of the trees, with Dunstan cultivars showing the condition most frequently. Trees most affected are eight years old, with secondary flowers appearing throughout the tree. Approximate number of burs is 20 to 27 per limb.

Dr. Michele Warmund, Plant Sciences faculty and Center for Agroforestry research scientist, (cont. pg 3)

## Evolution of U.S. Chestnut Imports

In this article, the statistics of chestnut imports from the U.S., Europe and Asia are presented. **Author:** Ina Mihaela Cernusca, Market Research Specialist, University of Missouri Center for Agroforestry

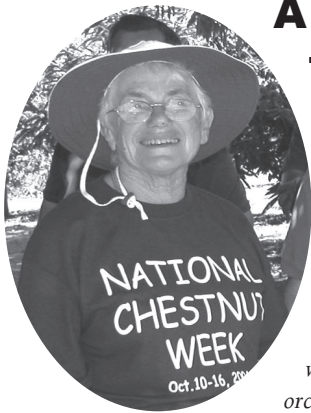
While efforts are in progress to increase production and consumption of chestnuts, the United States continues to import an average of 4,900 tons (~10 mill. pounds) of chestnuts annually, mostly from Italy and China. The quantity of U.S imports of chestnuts varied from 4,891 metric tons (10.8 million pounds) in 2001, to 4,544 metric tons (10 million pounds) in 2003; peaked at 5,396 metric tons (11.9 million pounds) in 2004 and decreased to 4,479 metric tons (9.87 million pounds) in 2005 (see fig. 1, pg 5).

In terms of value, chestnut imports varied from 11.9 million dollars in 2001 to 10.2 million in 2003, increased to 11.3 million in 2004, and 11.3 million in 2005 (see fig. 2, pg 5). The unit

(cont. pg 5)

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## A Message from the President

LUCIENNE GRUNDER,  
OWL CREEK RANCH  
LA GRANGE, CALIF.

*Here in the Central Valley of California, the harvest started 4 weeks ago with Bouche de Betizac. The orchard promises a big harvest, around 50*

*tons. I hope we (Polo) can convince the new owners to harvest it all properly. The prices paid to the growers range from \$2 to \$4, depending mostly on quantities. **The demand for good, fresh chestnuts has definitely increased nicely.***

*So I conclude that our efforts put into producing competitive, American-grown chestnuts are being noted ... and rewarded.*

*I was asked to talk about "the joy of growing chestnuts" at the California Rare Fruit Growers conference at Cal Poly, San Luis Obispo, a few weeks ago. The level of interest was surprising. Why are chestnuts a "rare fruit," especially here, where they literally grow like weeds? California's peach industry is mostly dead, apple growers are struggling, and we don't even have chestnuts gaining support at our universities -- unlike you lucky growers in many other states.*

*The marketing is still the main problem. The ever persistent, informed growers are getting very good at producing good chestnuts, adapted to their particular climate and other conditions. But where are the buyers?*

*All Americans know the song about roasting chestnuts on an open fire, yet most of them have never even seen or eaten one. I have taken chestnuts to farmers markets, grocery stores, and had cooking demonstrations and tastings, as most of you probably have. We are also slowly educating the produce buyers and sellers about the correct handling of chestnuts. I was gratified to see chestnuts offered here by a local grocery chain. (Remember, I live in beef and potatoes country.) At the same time, I was horrified to see the chestnuts next to the walnuts and almonds, or next to potatoes. So, "bad" chestnuts are discouraging the potential buyers out there.*

*Is the name chestnut one of the industry's biggest enemies? A population who has learned to pronounce cappuccino, baguette or marron glacé might be taught to see chestnuts as MARRONE, CASTAGNA, or another name explaining that here is a special produce needing special handling.*

*I feel fortunate to now be able to see and eat chestnuts without being involved with the responsibilities of growing and marketing them. My love affair with the chestnut trees dates from way back when my family gathered native chestnuts in the Italian part of Switzerland. There it was said that only the devil might be able to kill a chestnut tree....*

Best Wishes,

Lucienne

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SECRETARY-TREASURER Ray Young (360) 887-3669;  
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DIRECTOR Mark Beam (541) 354-3531;  
email chestnuts@earthlink.net

DIRECTOR Hill Craddock (423) 425-4643;  
email Hill-Craddock@utc.edu

DIRECTOR Sandy Bole (503) 625-1248;  
email BenBole@aol.com

DIRECTOR Bill Nash (517) 651-5278  
email nashfarm@shianet.org

Newsletter Editor: Mike Gold

(573) 884-1448 email: goldm@missouri.edu

Newsletter Coordinator: Rachel McCoy

(573) 882-9866 email: mccoyr@missouri.edu

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## Secondary Nut Production (cont. from page 1)

University of Missouri, has conducted research on secondary flowering and offers a commentary below to accompany a 2004 research article: “Removal of Secondary Burs Increases Average Nut Weight from Primary Burs of ‘Armstrong’, ‘Orrin’ and ‘Willamette’ Chinese Chestnuts.” (III International Chestnut Congress, Chaves, Portugal, Oct. 20-23, 2004, *Acta Horticulturae* 693: 149-151.



The Center for Agroforestry at the University of Missouri is conducting research to determine which chestnut cultivars produce secondary flowers, determine the effect of secondary bur removal on primary nut weight, and determine the

effect of secondary bur removal on subsequent vegetative and reproductive growth the following growing season. Results suggest removal of secondary burs increases nut weight in primary burs.

### *Secondary nut production – What to do?*

by Michele Warmund, Ph.D., University of Missouri Plant Sciences Division

Chinese chestnut trees produce an initial set of staminate and pistillate flowers on catkins which later result in development of nuts that are harvested in early September through mid-October in Missouri. Some chestnut cultivars not only produce the initial or primary (1°) set of flowers that develop into burs, but also produce secondary (2°) flowers that set later in the growing season (**Fig. 1**). These 2° flowers produce burs that mature later than the 1° ones and usually do not have adequate time to mature in Missouri. In other fruit trees, such as peach and apple, early fruit removal or thinning results in greater assimilate for vegetative growth and fewer but larger fruit at harvest. Additionally, early thinning of fruit results in more vegetative growth and regulates cropping in the following year which prevents biennial bearing cycles and decreases limb breakage. At the University of Missouri studies are being conducted: 1) identify cultivars that produce 2° flowers; 2) determine the effect of 2° bur removal on 1° nut weight; and 3) to ascertain the effect of 2° bur removal on subsequent vegetative and reproductive growth the following growing season.

In 2003, studies were initiated on selected cultivars that produced abundant 2° burs. Our latest ratings in 2006 show that the following cultivars in the repository produced

2° burs on 51-75% of the main scaffold branches: Crane, Orrin, Armstrong, Douglas #1, Maraval, and Belle Epine. Moreover, this heavy production of 2° burs was apparent on these cultivars much earlier (Aug. 3) than many other cultivars that produced 2° burs later (by Sept. 3). Some trees, such as Auburn Homestead, Miller 72-76, Simpson, Carr, and Miller 72-105 did not produce any 2° burs this season. Since 2004, there has been only one growing season (2004) in which none of the chestnut trees produced 2° burs. The lack of secondary flowering may have been due to unusually cool temperatures and above-average rainfall during June, July, and August. Weather records indicated that 2004 was the coolest summer on record since 1950 in Missouri.



**Fig. 1**

In our first study conducted on Sept. 3, 2003, 2° burs were either left intact on shoots of Armstrong and Orrin and Willamette trees or removed by hand. By Sept. 3, Armstrong, Orrin, and Willamette trees had as many as 16, 28, and 14, 2° burs on a shoot. Additionally, the mean diameter of 2° burs of Armstrong, Orrin and Willamette at the time of removal was 30.5, 24.2, 16.3 mm, respectively. Results from this experiment showed that Willamette had the greatest total nut weight from 1° burs at harvest 2003. When 2° burs were removed from shoots, nuts from 1° burs of all three cultivars averaged 1.3 g more than those harvested from shoots where 2° burs were not removed (**Table 1, pg 6**). Also, shoots that had 2° burs removed in 2003 tended to have more 1° burs set in June 2004. Secondary burs were not produced in summer 2004 and 1° nut weights were similar among treatments at harvest.

Because 2° burs were not removed until they were relatively large in 2003, it may be possible to increase mean 1° nut weight to a greater extent during the year of harvest and to produce more 1° flowers and a greater crop the following year if 2° burs are removed earlier than September or if 2° catkins are eliminated completely. Thus, experiments were conducted in 2006 with hand thinning during the first week of August when 2° burs were small. Additionally, chemical thinning of 2° burs was also (**cont. pg 6**)

# Addressing challenges today, and for the future, a recurring theme at annual Chestnut Growers of America meeting

By Rachel McCoy, University of Missouri Center for Agroforestry

More than 30 chestnut growers from across the country met July 22, 2006, in Macomb, Ill., to share challenges, successes and questions – as well as new recipes and marketing tactics in an atmosphere much like a family reunion.

Coordinated by Ben and Sandy Bole, the day's meeting included research updates from Dennis Fulbright, Michigan State University, and Michael Gold, University of Missouri.



A member brainstorming session offered an open forum for new and experienced growers to share knowledge. Topics addressed included species collections; quality standards; communication about cultivars; pricing strategies; brand recognition; and storage, handling and marketing issues. Charlie NovoGradac and Debbie Milks, Lawrence Kan., presented a fascinating slideshow on their recent trip to Tuscany, Italy, brimming with chestnut culture. Dennis Fulbright, Michigan State University, gave a presentation on ways growers can work toward common goals. Mike Gold, University of Missouri Center for Agroforestry, discussed ways to market chestnut crops.



The first orchard tour was to Tom Wahl's Red Fern Farm, Wapello, Iowa, to explore his organic orchard and processing equipment.

Wahl and CGA member John Wittrig, along with additional business partners, developed the Southeast Iowa Nut Growers Cooperative (SING) in 2000, a cooperative network of tree nut growers from Iowa, Illinois and Missouri who produce their crops with little or no chemical fertilizers or pesticides. Wahl and Wittrig are peeling and marketing chestnuts from area growers using a modified peanut sheller housed in a local community center building, part of Winfield Tree-grown Foods LLP (a spin-off of SING). Their peeled, frozen

nutmeats have been marketed to gourmet restaurants and specialty grocers throughout Iowa. A group tour of their processing facility showed attendees first-hand how ingenuity and creativity can lead to



equipment that takes chestnuts into the value-added category, without high expense.



A tour of Wittrig's orchard was another meeting highlight before dinner at "Big Muddy's" brought growers together for informal conversation, excellent river views and Iowa-grown pork, catfish and steaks. Several CGA members also attended the Northern Nut Growers Association annual meeting, held immediately following the chestnut growers' meeting, July 24-26. This was the first time the two meetings were held in conjunction.



"I am quite familiar with chestnuts, having grown up in Romania, and was happy to meet all these enthusiastic growers. Through research we have performed and people we have met, I believe the industry has great potential here. I am looking forward to the time people will enjoy chestnuts for every meal and occasion, and not just sing about them at Christmas time," said Ina Mihaela Cernusca, marketing research specialist, University of Missouri Center for Agroforestry. **CGA**

**Left:** Growers examine Tom Wahl's organic orchard and grafting techniques. Equipment shown helps harvest the crop.

**Right:** The day began with presentations and an informative brainstorming session. Growers observed Tom's homemade nut sizer in action. A demonstration of a modified peanut sheller for peeling chestnuts was a highlight of the afternoon.

## Chestnut Import Statistics (cont. from page 1)

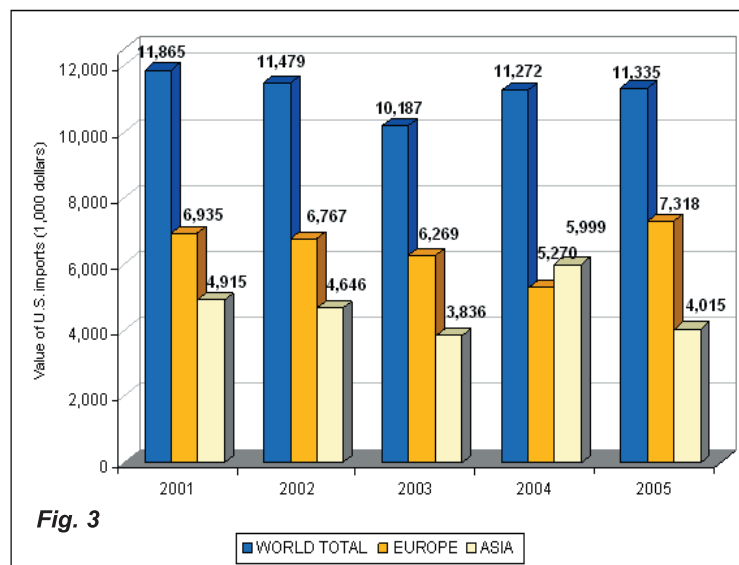
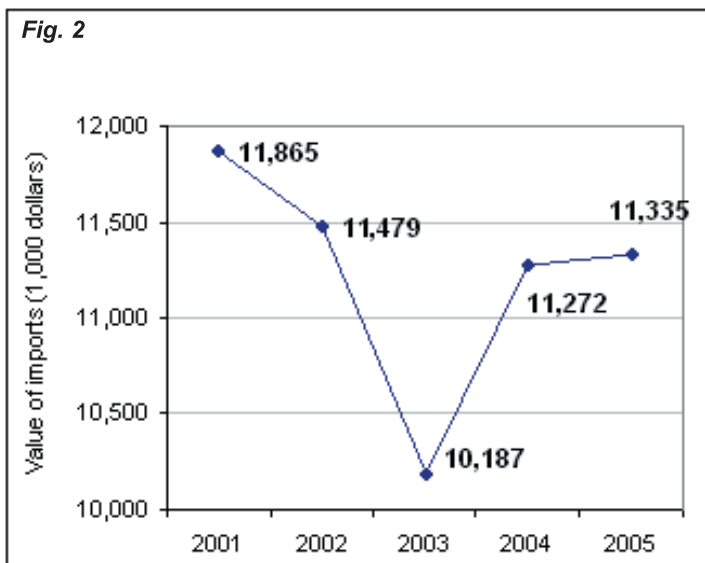
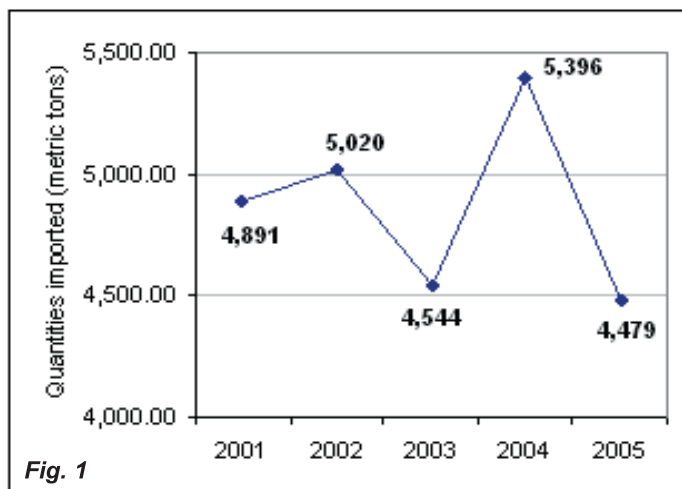
price varied slightly around \$1 per pound.

Import suppliers are mainly from Europe and Asia, as presented in **figure 3**. The U.S. market received more European chestnuts in 2001- 2003 and 2005 and more Asian chestnuts in 2004.

The main European import supplier of chestnuts to the U.S. market is Italy. The value of Italian import of chestnuts accounted between 70% and 92% of the total value of imports from Europe between 2001 and 2005 (see **fig. 4, pg 6**).

Data from Asia shows the main import suppliers are Korea and China. As presented in **figure 5**, (pg 6) imports from Korea exceeded imports from China in 2001, 2002 and 2005, while China was the main import supplier from Asia in 2003 and 2004. China is the world's largest producer of chestnuts (805,000 metric tons in 2004, accounting for 72% of the total world production), according to the Food and agriculture organization of the United Nations database (<http://faostat.fao.org/site/346/default.aspx>, August 2006). The world's second largest producer of chestnuts is Korea, with 55,000 metric tons produced in 2004; and in third place is Italy with 50,000 metric tons in 2004. (<http://faostat.fao.org/site/346/default.aspx>, August 2006)

The high quantity of imports provides an opportunity for domestic production. Imported chestnuts are not exceptionally fresh when they reach the market, and quality is questionable. Locally produced chestnuts should be of better quality, better freshness and superior taste. Local producers can educate sellers and the public about proper storage and consumption, steps that will improve consumers' experience with chestnuts and lead to an increase in consumption — which is very low at the moment (0.04 grams of chestnuts per capita per day in 2004, compared to 2.15 grams in Korea or 1.52 grams in China). (Source: <http://faostat.fao.org/site/346/DesktopDefault.aspx?PageID=346>, August 2006) (See **additional tables, pg 6**)



**Fig.1** Quantity of chestnuts imported by U.S. in 2001-2005 (world total)

**Fig. 2** Value of chestnut imported by US in 2001-2005 (world total)

**Fig. 3** Contribution of chestnut imports from Europe and Asia to the total value of imports.

**Source:** U.S. Department of Agriculture, Economic Research Service, FATUS Import Aggregations [www.fas.usda.gov/ustrade/USTImFatus.asp?QI=](http://www.fas.usda.gov/ustrade/USTImFatus.asp?QI=) (Aug.23,2006)

## Secondary Flowering (cont. from pg 3)

investigated in 2006 using NAA, Accel, and Sevin alone or in various combinations. Preliminary results show that there was a high rate of drop of all 2° burs in many of the treatments by Aug. 30, perhaps due high temperatures early in the month. However, two of the hormone treatments increased the rate of drop by two weeks after application. Data will be collected and treatments will be repeated next season. As these studies progress, the search continues for the “ideal” cultivar that produces an optimal yield of large, primary nuts each year with little or no secondary flowering.

**Table 1.** Mean weight of 1° nuts harvested in 2003 and number of 1° burs recorded in 2004 from treatments on ‘Armstrong’, ‘Orrin’ and ‘Willamette’ trees.

Treatments	Mean 1° nut wt in 2003 (g)	No. of 1° burs in 2004
2° burs removed	14.6	8.5
2° burs not removed	13.3	6.4

### Article Citation:

Warmund, M.R., K.L. Hunt and M.A. Gold. 2004. Removal of Secondary Burs Increases Average Nut Weight from Primary Burs of ‘Armstrong’, ‘Orrin’ and ‘Willamette’ Chinese Chestnuts. III International Chestnut Congress, Chaves, Portugal, Oct. 20-23, 2004. *Acta Horticulturae* 693: 149-151. (See top of pg. 3) CGA

### Q and A:

**Question:** Can you tell me what the effects of drought were on my chestnut crop?

**Determining the consequences of drought is not a simple matter. There are entire textbooks on the subject. The timing of the drought, the duration, the intensity, and conditions leading up to the drought, the effects on current nut crop, and the effects on next year’s crop can all be considered. Management of the orchard floor, soil type, spacing of the trees, maturity of the trees and many other things all play into the effect of the severity of a drought, including actual temperatures, humidity, solar intensity and sub soil moisture.**

## Import Statistics (cont. from pg 5)

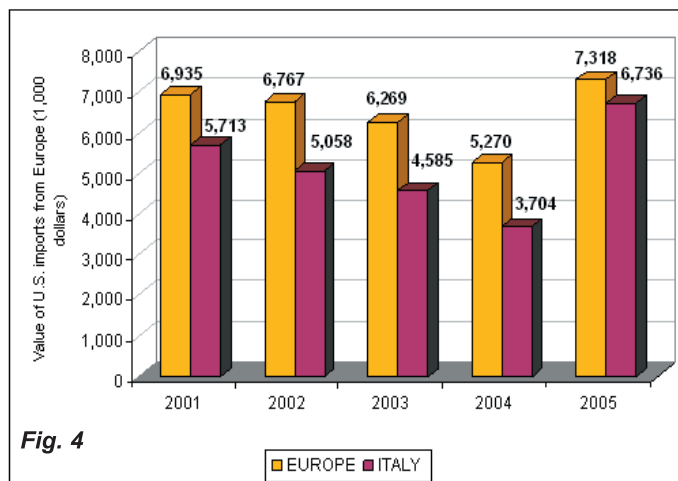


Fig. 4

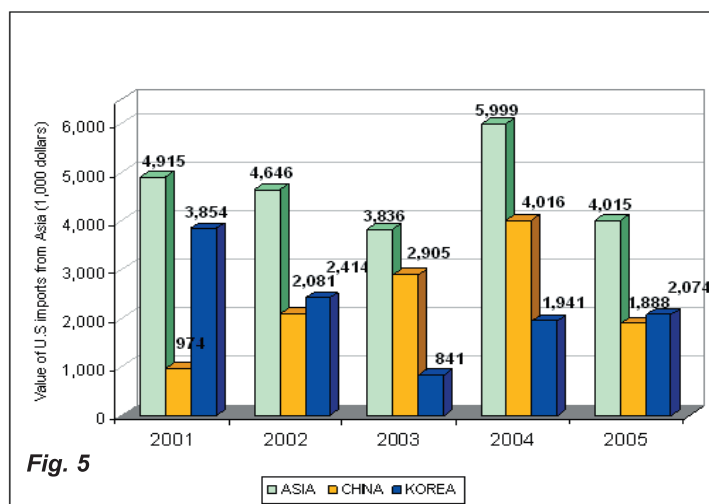


Fig. 5

Fig.4 Evolution of imports of chestnuts from Europe

Fig 5 Evolution of imports of chestnuts from Asia

Source: U.S. Department of Agriculture, Economic Research Service, FATUS Import Aggregations [www.fas.usda.gov/ustrade/USTImFatus.asp?QI=](http://www.fas.usda.gov/ustrade/USTImFatus.asp?QI=) (Aug.23,2006)

# Describing the U.S. Chestnut Market: An Analysis from the University of Missouri Center for Agroforestry

**T**he University of Missouri Center for Agroforestry (UMCA) conducted research to identify and describe the chestnut (*Castanea spp.*) product market value chain. Through detailed market research and by organizing events that increase consumer awareness towards chestnuts, UMCA's goal is to broaden market opportunities for all individuals and businesses in the chestnut marketplace.

From November 2004 to March 2005, UMCA conducted a nationwide survey of individuals and businesses active in the U.S. chestnut market (nurseries, producers and sellers). The focus of this report is to describe the market from the producers' perspective. Out of 250 surveys mailed nationwide, 90 surveys were returned and analyzed (36% response rate). Responses came from 15 states.

The following is an excerpt from the survey results. The entire report is published as the Chestnut Market Analysis and Producers' Directory, and is available for viewing or downloading from [www.centerforagroforestry.org](http://www.centerforagroforestry.org).

## General information about the respondents and the industry:

- Results indicate that the U.S. chestnut industry is in its infancy. The majority of chestnut producers have been in business less than 10 years and are just beginning to produce commercially.
- Volume of production is low (a majority of producers obtain less than \$5,000 annually from the chestnut business and 35% have yet to realize their first sale).
- U.S. chestnut producers are mainly part timers or hobbyists (only 20% of respondents are full time farmers and only two are 100% involved in the chestnut business).
- The size of production operations are small (50% plant 3 to 10 acres of chestnuts), followed by less than 3 acres (26%), harvested manually.
- Trees are young (46% have trees younger than 10 years), barely entering commercial production. The most common density of trees is 51-100 trees/acre (52% of respondents).
- An overwhelming majority of producers who responded to the survey (96%) earn less than \$25,000 annually from chestnut sales.

## Information about the market:

### Market outlets

- The majority of respondents sell their chestnuts locally, 38% sell regionally and 21% sell nationally. No major buyers were mentioned and no contractual arrangements seem to exist between producers and their buyers.
  - 38% sell chestnuts on-farm.
  - 34% of respondents sell to farmers markets.
  - 23% sell fresh chestnuts to restaurants.
  - Less than 20% sell to retail locations; e.g., ethnic stores (19%), upscale grocery stores (18%), health and natural food stores (17%), national chain grocery stores (11%), or wholesalers (12%).
- Most respondents produce and sell fresh chestnuts in bulk (77%) or packaged (41%).

## Growing Chestnuts:

Some producers act as small nurseries and produce seedlings (21%), grafted cultivars (10%) or chestnuts for seed (20%). Nineteen percent of respondents sell value added products like chestnut flour, dried chestnut kernels, frozen chestnuts, chestnut honey, soup mix and jam, jellies or preserves while 13% sell chestnut related products (e.g., roaster, mug, cap, knife).

Respondents indicated that they grow chestnuts from both seedlings and grafted cultivars. Seedlings derived from Colossal (a European / Japanese hybrid – *Castanea sativa X Castanea crenata*), Nevada and unspecified Chinese cultivars are the most common type grown by respondents.

Out of all cultivars that can be purchased in U.S., Colossal is by far the favorite due to its large sized nuts (+20 grams each) and high yields per acre.

A premium price is obtained for organic production. A large number of respondents (49%) believe that demand is in excess of supply. Demand for fresh chestnuts is expected to continue to increase by 10% - 25% in the next 5 years.

Today, chestnuts are experiencing a surge in consumer popularity in many European countries, Australia, New Zealand and the U.S., and an increase in production in Asia. World chestnut exports in 2004 were 107,130 metric tons.\* The U.S. imported 5,396 metric tons in 2004 and 4,479 metric tons in 2005.\*\* (cont. pg 9)

## Chestnut Hill Tree Farm represents family legacy, history of bold marketing

by Rachel McCoy, University of Missouri Center for Agroforestry

From the new product development departments of Fortune 500 companies, to the local specialty grocer, R.D. Wallace, of Chestnut Hill Tree Farm, has boldly worked to open doors for the United States chestnut industry and continue a family legacy.

“My grandfather grew up in North Carolina with chestnuts, and saw them die from the blight. He knew the US



imported millions of dollars of nuts each year, because there was no American production, except a few small groves in California” explains Wallace. It became a sort of family legacy for me to get into chestnuts, and I knew

to be able to sell the trees, I had to try to build a market for the nuts.”

Wallace, owner of Chestnut Hill Tree Farm, in Alachua, Florida, operates a 5-acre chestnut orchard, a small portion of his 150 acre nursery tree business. The farm has grown chestnut trees since 1961, a time when Wallace explains there were very few chestnut orchardists in the U.S., let alone in Florida. His father and grandfather were plant breeders, and active members of the Northern Nut Growers Association. Through these connections, they learned of the discovery of an American Chestnut tree in Salem, Ohio, in the 1950s, that showed no evidence of blight infection. Wallace’s grandfather hybridized that tree with three selections of Chinese chestnut from the USDA, then backcrossed them back to the American tree – leading to the eventual official U.S. plant patent for the Dunstan hybrid, which was secured by Wallace.

Today, Dunstan hybrids are the only chestnut trees available from Chesnut Hill Tree Farm, due to the cultivar’s blight resistance and growth habit. Along with many other kinds of trees, the farm sells about 10,000 Dunstan chestnut trees each year.

However, at the start of his chestnut business, Wallace, his wife Deborah and his partner Rick Queen established a multiple-level strategy, entailing orchard production through their own seedlings until the orchard grew large enough to produce extra chestnuts.

“There wasn’t really anybody else doing this at the time,” said Wallace. “We sold to the Publix supermarkets in FL, and they took all we had in one weekend. We began getting calls from brokers wanting thousands of pounds.

Raising venture capital to expand the business, and managing our own nursery, became our focus.”

Wallace and his wife traveled to Europe to meet with producers making marrone glace candy, then used this knowledge to import steam-peeled chestnuts from Europe. These nuts were sold to organic health food chains, such as Mrs.Gooch’s in the Los Angeles area. In-store taste testings, gourmet food trade shows, and wine and chestnut dinners for Disney chefs were successful direct marketing tools Wallace and Queen used to grow the rapidly expanding chestnut food business.

“With peeled nutmeats, we had a product chefs could instantly use. We talked to Pepperidge Farm about using dried chestnut pieces in their stuffing mixes, and did a test production with them for a chestnut stuffing. It was on the verge of taking off, while we were also in the early stages of product development with Kellogg’s company,” said Wallace.

However, the untimely death of Queen to cancer changed the direction of Wallace’s chestnut efforts and brought a new focus on the wholesale nursery tree business.

“This kind of aggressive marketing is exciting, and we had excellent reception for the products,” said Wallace. “But it can be very costly. We could have used \$1 million a year in venture capital for promoting the chestnut food business.”

Wallace credits Dr. Dennis Fulbright of Michigan State University as “somebody who understands that the way to build the industry is through this kind of marketing.” Fulbright is producing a peeled chestnut product, working closely with a local chestnut-growers’ cooperative.

“What I have learned is that the orchard crop itself is marginally profitable – it requires high labor for peeling, shucking, collection, and harvesting. There are cultural issues to address, and growers today are having the same kind of problems they were when we were active in the chestnut food industry,” said Wallace, “but still, there is a great amount of opportunity.”

His perception for the future of the chestnut industry is, in his own words, a “double-edged sword.”

“Demand is very strong. There’s not enough production in all the U.S. to satisfy even one user in the mass market, be it a national grocery chain or food manufacturer. More production is needed, but there’s not enough growers or income currently to fund a nationwide marketing campaign. It’s kind of a Catch 22 until some big growers step in and plant 1000 acres,” Wallace said. “The problem is that potential large-scale growers want a **(next pg)**



## Describing the U.S. Chestnut Market (cont. from pg 7)

For our respondents, competitive advantage most often mentioned was quality (68%), followed by customer service (37%) and market knowledge (20%).

\*(<http://faostat.fao.org>) \*\*([www.fas.usda.gov](http://www.fas.usda.gov))

### **Competitors:**

The U.S. chestnut industry is too small to thoroughly evaluate domestic competition.

Most respondents (69%) stated that there are between 1 and 10 other chestnut producers in their area and 19% are the only chestnut producers in their area. For new or existing producers, competition arises not only from local producers, but also from imports. Only 8% of respondents felt that the import of fresh chestnuts would become a threat in the next five years.

### **Marketing and Publicity:**

Respondents believe that a brand name would help the chestnut producer build trust and relationships with customers (29%), encourage repeated purchase (23%), increase awareness (22%), and stimulate word of mouth advertising (18%).

Publicity is used more often than advertising to increase awareness towards their chestnuts and chestnut products. Methods respondents used to generate publicity include:

- free sample offerings (36%)
- news releases (20%)
- participation in festivals and fairs (20%)
- sponsoring community events (12%)
- collaboration with charities (11%).

Demonstrations and tours offered to customers, talks offered to clubs, colleges, and schools, expositions, and publication of chestnut recipes and referrals are other ways respondents educate consumers.

### **Recommendations:**

- Chestnut is still a minor crop in the US, and therefore, little assistance is provided to growers by Federal or State agencies, universities, or other organizations.
- As volume of production and sales increase, chestnut grower associations must join their efforts to fund and support industry research and development.
- Both production and consumption of chestnuts should be stimulated.
- The focus should be on generating demand by increasing consumers' awareness about chestnuts and providing information and support to actual and future producers in order to generate enough domestic production to meet the created demand. Imports can be out-competed by providing high quality, fresh and timely chestnut based products. *CGA*

*View additional survey results and recommendations in the Chestnut Market Analysis and 2006 Market Directory at [www.centerforagroforestry.org](http://www.centerforagroforestry.org), Publications page. An article based on the findings was published in 2006 in the journal *HortTechnology* 16(2):360-369. A pdf version can be obtained by contacting Michael Gold, email [goldm@missouri.edu](mailto:goldm@missouri.edu)*

## Chestnut Hill Tree Farm Marketing Tactics (cont. from pg 8)

guarantee the nuts will sell – which requires marketing, especially to large scale national users.

Wallace believes cooperatives may be one answer to the challenges facing producers, and cites the successful production and marketing efforts of the blueberry cooperative in Michigan, with grower members ranging from 5 to 500 acres of production.

“A cooperative, for example, is a great thing, and allows growers to access markets that normally would not be available to them as individuals. To learn how to sell chestnuts, we looked at all the other existing orchard industries, like citrus in FL, or almonds in California. With citrus, some large growers sell to juice factories, while some with small orchards sell fresh fruit and have a different niche. But there’s plenty of room for everybody in the chestnut business, and the market is huge, if the

quantity were available,” said Wallace.

“We have always believed in the opportunity to sell the product, and the way to reach more production is to target people who already have orcharding knowledge, such as the pecan, citrus and blueberry farmers we market our trees to.”

Marketing is another tool he suggests growers take an aggressive approach to.

“The Internet today allows small orchards to sell products in ways that have never existed before,” he said. “Achieving media coverage is also key. An large farmer out there with significant resources might read a story and believe he could enter into chestnut production.” *CGA*

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**Chestnut Growers of America, Inc.**  
**Minutes of the Annual Meeting,**  
**July 22, 2006**

**Call to order:** The meeting was called to order at 8:30 a.m., by President Hill Craddock at Western Illinois University, Macomb, Illinois.

**Welcome:** Tom Green, a member of the university's forestry department faculty welcomed members.

**Introductions:** The president asked that each person attending introduce themselves and tell a little about their roll in chestnuts.

**Minutes of '05 meeting:** Sandy Bole moved and Charlie NovoGradac seconded a motion to dispense with the reading of the minutes. Motion passed.

**Treasurer's report:** Ray Young reported the balance in the treasury. He indicated that detailed reports were available for anyone interested.

**Old Business:** National Chestnut Week: There was discussion about the effectiveness of National Chestnut Week and how different growers were utilizing it in their marketing. There was consensus that the week was effective and that the organization should continue encouraging its use. Rachel McCoy's article in the most recent newsletter was cited as having many good ideas that could be used.

**New Business:** International Chestnut Conference: Ray Young reported that he met with the Chairman of Chestnut Growers of Australia and one of their directors in May, and there was discussion about the possibility of holding a joint conference of Australian, New Zealand and American growers. The best month for such a meeting would be late February/early March. The Australians were to take the idea back to their board of directors and Ray said he would do the same with ours. Several people said they felt such a meeting would be worthwhile. 2007 would probably be too soon to hold such a meeting and one person indicated that there is an International Chestnut Symposium in China in 2008. The item will go to the board for further discussion.

**Election of Officers:** Sandy Bole, Nominating Committee Chair, presented the following slate of officers for 2006-2007:

**President:** Lucienne Grunder

**Vice President:** Mike Gold

**Secretary/Treasurer:** Ray Young

**Directors:** Hill Craddock, Mark Beam, Bill Nash, Sandy Bole  
 Ray Young moved and Ben Bole seconded a motion to accept the slate. Motion passed.

**Adjournment:** The meeting was adjourned at 9:20 a.m.

**Chestnuts in the Press**

The newest PA and OH newsletters are now available online:

**PA:** [http://chestnut.cas.psu.edu/newsletters/PA-TACF\\_News.htm](http://chestnut.cas.psu.edu/newsletters/PA-TACF_News.htm) (Volume 11, issue 2; September 2006)

**OH:** [www.oh-acf.org/](http://www.oh-acf.org/) (Click on 2006 newsletter) It's their first one!

**Ray and Carolyn Young, Allen Creek Farm, Ridgefield, Wash.** Channel 8 (NBC) from Portland visited the orchard and filmed for National Chestnut Week. Oct. 10, 2006. A very energetic reporter rides along with the Youngs for harvesting, sorting, sizing and cooking with chestnuts in the kitchen. Video clip available at [www.kgw.com/](http://www.kgw.com/) (Click on the "Chestnut" article.)

**Corresponding article:** "Under-Appreciated Nuts Get Their Due," Oct. 10, 2006, [www.kgw.com/drewcarney/stories/kgw\\_101006\\_\\_life\\_chestnut\\_farm.25b8a942.html](http://www.kgw.com/drewcarney/stories/kgw_101006__life_chestnut_farm.25b8a942.html)

**Charlie NovoGradac and Debbie Milks, Lawrence, Kan.** "Lawrence Tree Farmers Make a Living Growing Chestnuts," in the *Topeka Capital-Journal*, Oct. 1, 2006. [www.cjonline.com/stories/100106/bus\\_chestnuts.shtml](http://www.cjonline.com/stories/100106/bus_chestnuts.shtml)

*Lawrence Journal-World*, "Shell Game: Local Growers Cultivate Variety of Savory Nuts," Sept. 28, 2006. [www2.ljworld.com/news/2006/sep/28/shell\\_game/](http://www2.ljworld.com/news/2006/sep/28/shell_game/)

**University of Missouri-Columbia, Center for Agroforestry** "Farm and Fiddle" program, KOPN 89.5 public radio broadcast, Oct. 4, 2006.

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