Chestnut Growers of America

The Chestnut Grower

Vol. 8, No. 1 Published by Chestnut Growers of America (CGA) Winter 2006

Talking Organic Chestnuts with Chestnut Charlie: Challenges, Rewards and Lessons Learned

Charlie NovoGradac (alias Chestnut Charlie), CGA member from Lawrence, Kan., and his wife, Debbie Milks, have been applying organic practices to their 20-acre operation since 1995. They received their first organic chestnut certification in 1998. In addition to chestnuts, Charlie and Debbie planted a small number of pecans which are yet to bear, and a few thousand cut-your-own Christmas trees.

In this interview, they share their valuable insights and lessons learned about growing chestnuts organically. Watch future issues of The Chestnut Grower for additional reports from organic growers about successes and challenges in their regions. For more information about the NovoGradacs, visit www.chestnutcharlie.com.

How long have you been organic, and why did you decide to grow your chestnuts this way?

We started planting at our orchard site in 1995 using organic practices. After the requisite three years of no chemical use, we were first inspected and "certified" organic in 1998 by a private certifying organization. We have been re-certified annually. In October 21,2002, the USDA National Organic Program (NOP) came into effect, imposing uniform standards for organic farmers and certifiers; our produce is now "USDA organic."

How did you get started learning about becoming certified organic, and what resources are out there that you consulted?

Now that organic certification is nationally regulated, I suggest that you go to the source. Visit the web site of the USDA National Organic Program (NOP), **www.ams.usda.gov/nop/NOP/NOPhome.html**. Slog through the regulations or look through their "Frequently Answered Questions" section. Then contact one of the many private certifying agencies listed on the NOP site as approved by the USDA to learn about costs and obtain application forms. Some states run their own organic certification programs (mine did not). Certifying agencies have an obligation to inform their clients of the NOP standards and record keeping requirements, and some have educational programs. Good, practical information can be found through Appropriate Technology Transfer for Rural Areas (ATTRA), **www.attra.ncat.org**, 800-346-9140. ATTRA has written an NOP Compliance Checklist for Producers and an Organic and Sustainable Practices Workbook and Resource Guide — I highly recommend this.

Once you decided to become certified, how long did the process take, and what did it involve?

As most already know, to be certified organic the land must be free of prohibited substances or synthetic chemicals for at least three years. Planting stock must be organic, except that in case of perennials non-organic stock may be used **(cont. pg. 5)**

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Asian Chestnut Gall Wasp Threatens European Chestnut Industry

By: Hill Craddock, CGA President

Chestnut gall wasp (Dryocosmos kuriphilus) laying its egg in the bud of a chestnut tree.

The following article focuses on my most recent visit with Italian nursery grower Guido Bassi. Guido's nursery is one of the largest chestnut nurseries in Europe, but his production is being severely impacted by the recent accidental introduction of Asian Chestnut Gall Wasp.

The Asiatic chestnut gall wasp was first seen in Europe in the summer of 2002 in Cuneo Province, in the northwestern corner of Italy. The rose-colored galls appeared without warning as the shoots of the chestnut trees began to leaf out, and by the fall of the season, it was evident to the growers that a serious problem was at hand; although few at the time imagined **(cont. pg. 3)**

A Message from the Editors

Advertising costs money. Good public relations and news coverage are free.

Harvest season is long gone, but chestnuts have been popping up in the press quite a lot lately — including media outlets that are national in scope. Growers who know that chestnuts have a story to tell that reporters want to hear are achieving solid marketing results, at no charge. Media success is not a matter of previous experience, and usually, it's not about who you know — but in being strategic and persistent. (Innate characteristics of all chestnut growers.)

Embedded in the uniqueness of the chestnut, which we growers and consumers have grown to love, lies both its challenge and its opportunity. As stated by Associated Press writer Alan Zagier in a December newswire release: "There's no catchy marketing slogan like the one that moved orange juice beyond the breakfast nook a generation ago. Their starchy taste is decidedly acquired, and difficult to describe. To make matters worse, their shell is difficult to crack."

Fortunately, the media, unlike the chestnut, has a shell that can be easy to crack. Definitely, our work is cut out for us when it comes to generating a new consumer awareness and desire for chestnuts. Yet the nation-wide Food Network featured the Petitt's (Delmarvelous) chestnut production, as well as several other media outlets including a November 2005 issue of *Midstate Living* magazine. Greg Miller's chestnut story hit the press of the *Akron Beacon Journal* in October. In Missouri, the Center for Agroforestry's chestnut research bore a bumper crop this fall in terms of free media coverage. Feature stories with full-color photos appeared in *Rural Missouri* magazine (circ. 500,000) and the *St. Louis Post Dispatch* food section. In mid-December, the Associated Press produced a feature story on the Center's work to establish a revival of the chestnut crop, comparing it to foods including orange juice and the avocado in terms of market potential. Requests for chestnut information are pouring in.

The chestnut may be on the verge of becoming a popular household word, well beyond the traditional holiday song. It's up to us to keep it center stage. What does it take? Prepare a packet with photos of your operation, start to finish. Show consumers enjoying your chestnuts. Include any previous media coverage you have received. Throw in some creative recipes and bits of information about the chestnut's interesting history and global appreciation. Bring it to your local media outlets with a taste sample of unique chestnut dishes. It may only take one story to "crack the shell" for additional, larger-scale media outlets to take notice. Keep after the reporters – people really do want to know about chestnuts. And you really can achieve tremendous media coverage, free of charge.

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Single membership is $25 per year per person-- household membership is $35. Members receive The Chestnut Grower quarterly. For foreign delivery contact the Editor for pricing. Back issues may be obtained by members. Membership applications may be obtained from the Secretary-Treasurer.

POSTMASTER
Send address changes to CGA, c/o PO Box 841, Ridgefield, WA 98642.

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PUBLICATION DEADLINES

Fall issue deadline 9/15 mailed 10/15
Winter issue deadline 12/15 mailed 1/15
Spring issue deadline 3/15 mailed 4/15
Summer issue deadline 6/15 mailed 7/15

Chestnut Gall Wasp Threatens European Industry (cont. from page 1)

the enormity of what they were observing. During the following three growing seasons, the infestation grew into a massive epidemic which caused significant damage in the famously productive chestnut groves around Boves, attacking European chestnut cultivars as well as the chestnut blight- and phytophthora-resistant Euro-Japanese hybrids.

As the insect has spread throughout the southern Piemonte region, the scale and the scope of the problem has now developed into what may be the largest crisis facing the European chestnut since the introduction of chestnut blight in the 1930s. Severely infested trees have been weakened to the point of near death. Even mildly infested trees have shown yield reductions of up to 75%. Combined with a catastrophic drought during the years 2002 and 2003, which further stressed the sometimes centuries-old trees and caused a resurgence in the virulent form of chestnut blight, the appearance of the parasitic gall wasp has provoked considerable upset among the Cuneo chestnut farmers. The alarm has now been sounded and chestnut growers across Europe are on the alert.

Dryocosmus kuriphilus Yasumatsu (Insecta: Hymenoptera, Cynipidae) is a tiny animal; the adults of this all female species are barely 3 mm long. Eggs are laid, 3-5 per cluster in buds in June and July. The eggs hatch within a month or so, but the larvae grow very slowly. They overwinter inside the dormant buds, completing several stages (instars) of their development. Late instar larvae provoke the formation of 5-20 mm diameter galls at bud break the following spring and feed inside the galls for up to a month before pupating. Adults emerge from the galls from mid–May through the end of July. The flight of an individual adult may last only one week, but she is capable of laying more than 100 eggs. Although they can fly, they cannot fly very far. Their dispersal is greatly facilitated by the movement of infested nursery stock and scionwood.

Most probably, *D. kuriphilus* was introduced accidentally on scionwood imported from China during the late 1990s. Of course international germplasm exchange is essential to chestnut breeding, and movement of graft-propagated chestnut nursery stock is crucial for the continued development of the chestnut orchard industry. But now that the exotic pest has been found on commercial nursery stock in Cuneo, the risk is very real that the epidemic will spread quickly throughout the chestnut growing regions of Europe. The Phytosanitary service of the Piemonte Region, working with the Università di Torino and the growers and nurserymen in Cuneo, has moved very quickly to take action against the threat. Scientists are actively pursuing several experimental methods of control and have instituted a very rigorous nursery inspection program to prevent the movement of infested material out of Piemonte.

The control effort is based primarily on the importation and release of parasitoid wasps from Asia. The parasitoids are the natural enemies of the gall wasps and are the only effective control of the gall wasps in their native range in China. Mass-releasing of the artificially reared parasitoid *Torymus sinensis* Kamijo in Japan and Korea has resulted in very effective biological control there, and it is believed that the apparent control of gall wasp in the southeastern USA is due to the timely introduction into Georgia of parasitoids in the late 1970s and early 1980s. The Italians are currently investigating several other native and introduced parasitoid wasp species, some of very recent discovery, for their potential in biocontrol of gall wasp.

The nursery quarantine program is now in its third year. The first two years showed that even monthly on-site inspections were not enough. The galls themselves are very easy to see, but the egg-infested buds can only be identified by microscopic examination. And despite the removal and destruction of all galls in and around the nurseries, wasp infections were still occurring. In 2004 and 2005, the chestnut nursery stock in the Cuneo province was grown under the protection of insect-proof netting. At the

Figure 1: Netting is held above chestnut nursery stock with bamboo poles.

nursery I visited in July 2005 the nets were held above the plants on bamboo poles, two meters tall, and were anchored with soil along both sides of the row and at both ends **(Figure 1).** The nurseryman grafts onto one-year-old stock in March-April and grows the grafted shoot for one full season under protection **(Figure 2).** The added costs to production, of course, are enormous. But, the alternative is to abandon chestnut as a nursery crop in Piemonte. *CGA*

Figure 2: To protect against the wasp, the nurseryman grafts onto one-year-old stock in March-April and grows the grafted shoot for one full season under protection.

"Dos" and "Don'ts": Advice for Commercial and Hobby Growers

By Tom Wahl, Red Fern Farms, Wapello, Iowa. Presented at the Northern Nutgrowers Association annual meeting, summer 2005.

Differences between hobby nut growing, vs. commercial enterprise:

Purpose: Hobby exists to provide satisfaction to the hobbiest; Commercial enterprise exists both to provide satisfaction to the customer, and to provide profit to the businessman.

Scale: The commercial scale is usually larger—the important implication is that everything, and not just production, is on a larger scale.

With 10 X the production comes 10 times the labor for maintenance, harvesting, handling, and marketing—it's vital to maintain a proper balance between all these factors.

Example: if you are just managing the workload of a certain level of production, you won't be able to manage it with a 10 X, or even a 2 X, increase in production.

Example: Ramping up to commercial production may require installation of an irrigation system instead of a garden hose.

Example: You may be able to sell all excess nuts from a hobby crop at a farmer's market, but commercial production will require a much larger market, and much larger marketing effort.

Example: A push mower and hand harvest may be adequate for the hobby-scale, but commercial scale may require commercial mowing and harvesting equipment, a walk-in cooler, etc.

Example: Capitalization—ramping up to commercial scale may require considerable capital investment, which in turn requires sufficient cash flow to support it. Undercapitalization is one of the most common causes of business failure.

"Do's" and "Don'ts"— What needs to be different in a commercial enterprise (from a hobby enterprise):

"Do's"

- Do set a goal—3 part, including "Quality of Life," "Production," and "Landscape Description."
- Do make a business plan (especially if you will be borrowing money to get started). Business plan should include:
  1) Mission statement—your reason for being in business
  2) What you will produce, and how it will be produced
  3) How much you will produce, and what it costs to produce it
  4) How much you will need to sell it for
  5) To whom you will sell it

Note: an excellent book on writing a business plan (aimed at small, value-added agriculture-related businesses), including a business plan template, is available for $14 from SAN (Sustainable Agriculture Network) through the USDA SARE program. Visit **www.sare.org**. for more information.

The business plan must be based on knowledge—experience or research—and not on wild guesses or "rosy scenarios."
Do: View your business as a business, and not as a hobby—subject every dollar spent, and every hour of labor to rigorous gross margin analysis. Examine what it will contribute to the bottom line.

"Don'ts":

Don't base assumptions or business decisions on rosy scenarios or guesses. Always be mindful of Murphy's Law. (i.e., everything that can go wrong will go wrong)

Don't start commercial production before you have a market, and don't scale up production ahead of marketing efforts. Maintain a balance.

Don't expand production ahead of management capabilities, or you may find yourself working "28 hours a day, 10 days a week" and still falling behind, or you may turn a successful small business into a colossal failure.

Don't go broke "keeping up appearances" or "looking respectable," especially if that is something that does not contribute to your bottom line. On the other hand, if the customer is coming to your place of business, such as Pick-Your-Own or other direct sales, appearances are necessary (in this case they do contribute to the bottom line).

Don't spend money on labor-saving devices unless you are already fully employed—i. e., don't spend money on things which only give you more leisure time.

Don't fall into the "maximum production" trap. The Law of Diminishing Returns means "optimum" production (financially optimum for your business) will always be less—often far less—than the maximum production possible. When $1 spent on inputs (assuming good management) brings you only $1 worth of additional production, you have reached the point of diminishing returns, and any more money or time spent on additional inputs is wasted. *CGA*

Tom Wahl, co-founder of the Southeast Iowa Nut Growers Cooperative (SING), and Winfield Treegrown Foods LLP, produces frozen, peeled chesnut meats. The product has been in demand at upscale, urban restaurants.

Organic Chestnuts with Chestnut Charlie (cont. from page 1)

provided that the plants are grown under organic management for at least one year before the organic crop is certified. Then you must apply for certification and inspection annually.

Charlie Novogradac (right) and Debbie Milks sell fresh organic chestnuts at the annual Missouri Chestnut Roast, New Franklin, Mo.

The application for organic certification was more daunting than I at first expected. My first application took several days to assemble. I had to draw field and farm location maps, complete field histories for the preceding three years, document every planting, every input, anything brought onto the farm, every seed source--even scion-wood sources--and all my cultural and pest-control practices. I assembled labels of products I had used for three years and called up manufacturers for each product's MSDS (material safety and data sheet)--every ingredient, including inerts, had to be documented. Seeds, even for cover or plow-down crops, had to be organic unless I had documented that organic seeds of that variety were unavailable commercially. And there could be no treated seeds nor genetically modified organisms--ever. Even my source of clover-seed inoculants had to be identified (some inoculants are now GMO).

My application grew fat with copies of product labels. I mailed it off with the fee payment. A couple months later, after an initial review by the certifier, the inspector called. I breezed through the inspection with little trouble—took a chatty little walk through the orchard and sat down to answer some apparently random questions and show some records. By and by the inspector's report came in and the certifying agency sent out a couple of requirements for records which I immediately satisfied by mail. The gears of the organization turned and I received my organic certification.

The first application took ten months from start to finish. In subsequent years my applications have been more quickly prepared because I have better record-keeping experience. And I have since changed over to a different certifying agency; the review and inspection process now takes about three or four months.

What are some of the challenges with becoming and staying organic that you didn't anticipate?

Where to begin? Three chores were more challenging than I had anticipated when done organically: weed control, drip irrigation, and vole control. And some organic cultural practices, including growing legumes and mulching, have made weed and rodent control and harvest unusually difficult.

Conventional orchardists typically spray herbicides along the tree rows and mow the alleys between the rows. This reduces competion for the trees and habitat for the rodent pests. And along the tree row, on the bare ground, they can lay plastic irrigation tubing, with drip emitters or sprinklers.

In an organic operation chemical herbicides are not used. Weeds are typically controlled by tilling or mowing, not only down the alleys but crosswise, between the trees in the rows. Alternatively weeds can be hand-cut in the tree row by scythe or weed-wacker. That's already double the effort, double the fuel, double the soil compaction, and double the possibility of tractor blight (tree injury by inadvertent mower hits). Even if you cross-mow, there will remain tufts of weeds crowding and competing with the trees that must be hand-worked. (Plastic weed mats might discourage weeds, but are in fact vole magnets--weeds are bad, but voles are fatal.)

But cross mowing is ruled out if you want surface drip irrigation tubes along the tree rows. The organic irrigator can either bury the tubing and drip emitters or use a roll-up-roll-out system. In the case of buried lines, the tubing may be safe from the mower but will be difficult or impossible to maintain. Rodents, in my case prairie voles, pocket gophers, deer mice, common and pack-rats, and rabbits will nibble holes in irrigation tubing, especially in droughty times, even underground. (You have to use larger than 1-1/2" diameter plastic pipes or bury them deeper than 18" to avoid rodent chewing.)

Even worse has been emitter clogging from dissolved minerals in my well water. An organic farmer cannot, like many conventional farmers, inject chemicals into the drip irrigation system to keep the water flowing. Neither can an organic farmer periodically clean the lines with a strong acid flush. (Contrary to common knowledge, vinegar is neither effective nor economical here.) To keep irrigation lines dripping, I have found myself going down the line removing and scrubbing each and every drip emitter with a tooth-brush. You cannot afford to pay people to do this kind of stoop-labor.

Poisons are not an option for organic control of voles or gophers — the vitamin D chemicals allowed for organic rodent control are not effective in a field situation. And trapping voles, at 1,000 animals per acre or more, is out of the question. The non-chemical solution for voles is removal of habitat, very close mowing or clear cultivation. But it is well known how excessive tillage reduces and burns out the organic matter and micro-nutrients in otherwise good soil, not to mention increasing erosion. An organic farmer builds up the soil by the much praised organic practice of healthy cover crops, including **(cont. pg. 9)**

Organic nut production: Resources and recommendations

Resources from the National Organic Program (NOP)

The U.S. Department of Agriculture (USDA) has put in place a set of national standards that food labeled "organic" must meet, whether it is grown in the United States or imported from other countries. After October 21, 2002, when you buy food labeled "organic," you can be sure that it was produced using the highest organic production and handling standards in the world.

NOP regulations prohibit the use of genetic engineering, ionizing radiation and sewage sludge in organic production and handling. As a general rule, all natural (non-synthetic) substances are allowed in organic production and all synthetic substances are prohibited. The National List of Allowed Synthetic and Prohibited Non-Synthetic Substances, a section in the regulations, contains the specific exceptions to the rule.

Before a product can be labeled "organic," a Government-approved certifier inspects the farm where the food is grown to make sure the farmer is following all the rules necessary to meet USDA organic standards. Companies that handle or process organic food before it gets to your local supermarket or restaurant must be certified, too.

Certification standards establish the requirements that organic production and handling operations must meet to become accredited by USDA-accredited certifying agents. The information that an applicant must submit to the certifying agent includes the applicant's organic system plan. This plan describes (among other things) practices and substances used in production, record keeping procedures, and practices to prevent commingling of organic and non-organic products. The certification standards also address on-site inspections.

Farms and handling operations that sell less than $5,000 a year in organic agricultural products are exempt from certification. They may label their products organic if they abide by the standards, but they cannot display the USDA Organic Seal. Retail operations, such as grocery stores and restaurants, do not have to be certified.

Along with the national organic standards, USDA developed strict labeling rules to help consumers know the exact organic content of the food they buy. The USDA Organic seal also tells you that a product is at least 95 percent organic.

Additional information and fact sheets for producers regarding NOP standards, certification and labeling packaged products is available at www.ams.usda.gov/nop/indexIE.htm.

Certification for organic nut crops

Sue Baird is manager of OneCert Missouri (a division of OneCert Inc., based in Lincoln, Neb.) and has assisted producers with NOP standards for the past 4 years.

Baird has assisted several nut growers with certification procedures and regulations, including the Missouri Northern Pecan Growers Cooperative, organically certified since 2002, and offers suggestions for chestnut growers.

"Certification for chestnut growers would be close to certifying groups like the pecan growers," says Baird. "However, growing nut trees organically does present some interesting twists to normal annual crops, in that they would fall under NOP 205.204 which explains organic perennial production.

"Basically, this section states that perennials may be purchased as conventional crops, planted and managed organically one year before harvesting, and then sold as organic one year from the date of organic production.

"Nevertheless, the nut trees must also adhere to 205.205 Crop Rotation standards. No one is suggesting by this section that you must pull the trees out and rotate into another field. Most producers, including the pecan growers, rotate cover crops under the trees as crop nutrients. They also use tree thinning to maintain and enhance the nut groves' environment.

"Otherwise nut trees fall into the same land, crops nutrients, and pest management requirements sections as all other crops. The NOP standards state the land must have been free from prohibited substances for three years; be managed to enhance or maintain soil and crop nutrients; be managed to protect the environment; and the organic products must be protected from contamination and commingling of organic and non-organic products."

For additional information, contact Sue Baird at OneCert Inc., at 660-427-5555 (o); 573-619-9139(c); email sue@onecert.net; or visit **www.onecert.net/.**

The New Farm Guide to Organic Certifiers

More than a year ago The New Farm, an on-line magazine, began working with the Organic Farming Research Foundation to survey organic certifiers in the U.S. Answers to these questions became "The New Farm Guide to US Organic Certifiers" (**www.newfarm.org/ocdbt/**). Approximately two-thirds of US certifiers are now listed in the Guide, which is the only qualitative guide to certifiers in the country. You can browse all certifiers, compare two certifiers side by side, or search for certifiers by particular criteria. Certifiers vary widely in their service area, the collective expertise of their staff members and inspectors, and in the kinds of services they provide. Some focus their work in a single state, while others work globally.

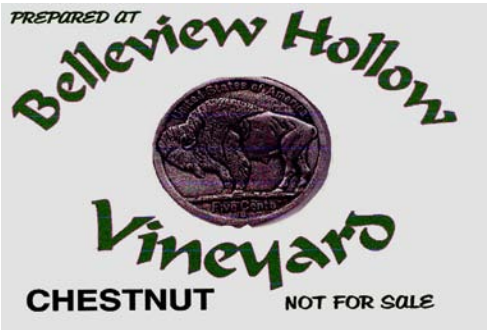
Information supplied by the certifiers provided the working foundation for this guide. Some certifiers have provided new data in recent weeks, and updates to the guide continue. You can check the freshness of the information by the "last updated" date at the end of each profile and profile summary. *CGA*

Grower Spotlight — Dale and Linda Black: Experimenting with "Unusual" Niche Products

By: Rachel McCoy, University of Missouri Center for Agroforestry

Like most chestnut growers, Dale and Linda Black, Rockport, Ill., have an innovative and determined nature.

"Dale has a passion for things that are unusual, hard to find, or nearly extinct," says Linda. "He loves nature, trees and as a carpenter and general contractor, has a deep love for beautiful wood."



Chestnut wine is one of the innovative products the Blacks are experimenting with. Though not for sale at this time, the growers hope to market the product in the future.

Owners of a 150-acre farm just 7 miles from the Mississippi River, the Blacks have 40 acres planted in chestnut trees and are drawing from a variety of life lessons – including Dale's high school employment experience at the well-known Stark Brother's Nursery in Louisiana, Mo. – as they experiment with value-added aspects of the chestnut industry.

The Blacks planted an initial crop of 100 chestnut trees in 2001 (3-year old seedlings), and have since grown to 2,900 additional chestnut plantings, a combination of direct seeded or seedlings they cultivated in their greenhouse. The original 100 trees bore their first nut crop in 2004, producing just over 100 pounds. Nut production for 2005 was stunted by the season's extremely dry weather and lack of rainfall.

The farm's success with chestnut trees may be attributed to its history. The land was managed by another family for nearly 100 years prior to being purchased by the Blacks and, according to Linda, once produced excellent apples.

Though much of the farm is wooded hillsides and hollows, and therefore unsuitable for many types of agricultural production, Linda and Dale have a personal connection to the acreage beyond their farming efforts. "My husband's father picked apples from the orchard on this farm many years ago," she says.

Today, the tillable land is planted with Dunstan Chestnut Seedlings, spaced 20 feet apart within rows 20 feet apart. "Chestnut trees seem to do a little better at the base of the ridge than they do at the top of the ridge," says Linda. "We suspect that water runs down the hill and they are able to absorb more water and nutrients."

The Blacks' first chestnut crop wasn't sold last year for consumer consumption, but instead, planted for replenishing seedlings and for experimentation with chestnut meal, chestnut flour and other cooking-related possibilities.

"We've experimented with the chestnut flour and meal quite a bit," said Linda. "We have a small hand grinder designed to grind wheat into flour, etc. I tried making bread with it, but was not very successful. I am not especiallcy good with yeast. My results are about 50/50, but I think it has possibilities."

Linda and Dale have used the chestnut meal as a topping for fish, including baked sea bass with chestnut meal seared on top. They have also used it with a whole wheat flour and rolled talipia deep fried in peanut oil, and have tried catfish fillets prepared with chestnut meal as well.

Another interesting innovation resulting from the Blacks' chestnut harvest is chestnut wine. The couple met Dr. James and Sharla Nickell through a mutual friend, farmers and winemakers located near the Blacks. Linda and Dale visited the Nickells' farm and attended several wine tastings, and together, the couples have been producing chestnut wine. Part of the 2004 chestnut harvest was used by Dr. Nickell for wine production.

The chestnut nutmeat is the basis for flavoring the wine, Linda explains, but like most fruit wines, water is added to the crushed chestnuts, plus sugar and yeast for fermentation. The Blacks have tried making the wine with the shells on and off. Once prepared, it is aged in glass carboys.

"We have made wine from many unusual things, such as persimmon, pear, elderberry, cherries, almonds, chestnuts, squash, watermelon, autumn olive berries and goldenseal berry," says Linda. "We urged Dr. Nickell to try to make some chestnut wine. He remembers having chestnut trees on his childhood farm in Indiana, and his father was a brewmaster who made some sort of spirits from chestnuts. He's trying to recreate that product."

Neither the Nickells or the Blacks are licensed to sell chestnut wine, though the Blacks are hoping to reach that level in the future. They are also working toward selling potted chestnut trees, in addition to their current cultivation of butternut, English oak, walnut, white oak and Mimosa trees.

Dale and Linda forsee excellent future opportunities in the chestnut industry, as well as the need for enhancements to their operation.

"We were amazed by our 2004 chestnut production, though we realize we need to make a substantial investment in harvesting, hulling and sorting equipment," says Linda. "We also need to develop a market, an outlet for our product." *CGA*

The Blacks' chestnut seedlings are caged with a wire mat, like a tomato cage, and each cage is secured with bale wrap to keep deer and other animals from eating the tender new growth.

Fall Chestnut Events Draw Increasing Interest

- ***Allen Creek Farm: Carolyn and Ray Young, Ridgefield, WA. —***

"We had our usual Chestnut Festival (open house) and several hundred people showed up. We had samples of chestnut bisque for them and roasted chestnuts. We did the usual tour — from orchard, to refrigerator, to processing, to the table. There was a lot of interest in our new mill and the flour we produce."

- ***Michigan State University — Dennis Fulbright***

The 5th Annual Cadillac Chestnut Harvest Festival was held in Cadillac, Michigan on Saturday, October 15th. Sponsored by the Cadillac Area Visitors Bureau and the Midwest Nut Producers Council, samples of roasted chestnuts and chestnut soup were given out to approximately 1,500 visitors. The American Chestnut Council of Wexford County, Michigan sold seedling American chestnut trees. Other participants included CGI selling Michigan-grown fresh chestnuts, The Sweet Shop of Cadillac selling chestnut and other candies and Tirconnells with chestnut chili and other food items. Unique, one-of-a-kind, hand made chestnut crafts were also sold. A wine and beer tasting tent was also available for an added cost. The busiest booth besides the chestnut tasting and selling booths was the chestnut information booth. Here, the festival goers can not only find out about the schedule of events for the festival, but they can also meet and talk with chestnut growers from around the state and get their questions answered. For the first time in 5 years, the weather was perfect the leaf color train pulled in with a full load of people ready to spend a couple hours in Cadillac.

- ***University of Missouri Center for Agroforestry (UMCA): Annual Chestnut Roast draws record attendance***

UMCA is working to establish a viable chestnut industry, focusing its efforts on three key areas: national market research, production techniques/orchard management and increasing consumer demand and awareness. The University of Missouri Horticulture and Agroforestry Research Center (HARC), New Franklin, Mo., is the site of the annual Missouri Chestnut Roast — the Center's premier outreach event. The Chestnut Roast is an outstanding opportunity to introduce families and landowners to the broad range of possibilities and benefits agroforestry practices can provide. Hundreds of visitors each year enjoy their first sample of sweet, Missouri-grown roasted chestnuts, along with a variety of products featuring locally-grown black walnuts and pecans, as well as recipes and nutritional information to peak their interest in purchasing nut products.

The 2005 Missouri Chestnut Roast on Oct. 29, drew a record crowd of more than 4,000 guests from across the state to the HARC farm. Sales of fresh chestnuts and food samples of chestnut products from Missouri vendors were among the most popular of the day's events. More than 400 pounds of fresh chestnuts from the farm's research orchards were sold, with 350 pounds roasted for free samples. Food enthusiasts lined up to view the chestnut cooking demonstration by local chef Craig Cyr of The Wine Cellar and Bistro, Columbia, Mo., many enjoying samples of his delicious dishes. Tree grafting, wreath making and wood lathe demonstrations were new events this year. With live bluegrass music and spectacular views of the fall leaves across the Missouri River Hills, the day proved an enormous success. ***CGA***

Ken Hunt, UMCA post-doctoral fellow specializing in chestnut research, (right), answers visitors' questions about growing and preparing chestnuts as he roasts portions of the research farm's abundant 2005 crop.

Chestnuts in the Press:

Akron Beacon Journal, Oct. 19, 2005. *A little nutty on chestnuts: Carroll County man strives to save trees. Farm branching out as U.S. chefs utilize fresh-grown chestnuts.* (Featuring Greg Miller's chestnut production) www.ohio.com/mld/ohio/

Sunset Magazine: Life in the West, Oct. 2005. *Fresh chestnuts: October is peak season in the West.* www.sunset.com/sunset/

Rural Missouri magazine, Oct. 2005. *The Un-Nut: University ag researchers eye a nationwide chestnut market just waiting to be cracked.* (Featuring Univeristy of Missouri Center for Agroforestry chestnut research) www.ruralmissouri.org/05pages/05OctChestnuts.html

Midstate Living magazine, Nov. 16, 2005. *Old-World product, new marketing twists: Delmarvelous Chestnuts emphasizes nostalgic, emotional appeal.* www.midstateliving.com

St. Louis Post Dispatch, Oct. 26, 2005. *Let's Eat: A roast west of Columbia showcases Missouri-grown Chestnuts.* (Featuring University of Missouri chestnut research)

Associated Press Newswire, Dec. 17, 2005: Chestnut growers look to Missouri for crop's revival. *(Featuring UMCA efforts to build a nationwide awareness and market for chestnuts)* www.kansascity.com/mld/kansascity/news/local/13431486.htm

Organic Chestnuts with Chestnut Charlie (cont. from page 5)

nitrogen-fixing legumes. (Some soil fertility and organic matter building program is required by the NOP.) After some research, however, I have learned that vole populations typically increase many-fold in legumes, to a density of many thousands of animals per acre during population eruptions.

Mulching is also a much vaunted organic method. We get free wood chips from a tree trimming service. The quality of the soil under a few inches of wood chips is so much better than the sun-baked earth under mowed grass that I am still sold on wood chip mulching. A caveat from hard experience: grass and hay mulch increases the vole problem; coarse wood-chips not so bad. However, a wood-chip mulch gets in the way of close mowing and pretty much rules out mechanical harvesting of chestnuts.

In summary, I had not anticipated the level of rodent pressure under organic practices nor the multiplied cost of weed control. The limitations of weed control made irrigation difficult, and, conversely, irrigation limited successful weed control. These difficulties and challenges are not apparent in the conventional orchards we have visited. I suspect that the organic methods are initially more expensive, more time consuming, and less effective than conventional chemical control. And imperfect cultural methods result in the greatest cost multiplier, in my opinion, which is delayed or reduced production.

How frequently is recertification required?
Recertification and inspection is annual.

What are some of the rewards to growing chestnuts organically? Have you seen any improvements to your soil, land, etc.? More wildlife? Increasing consumer demand?

As an organic operator, I have no fear that chemical contamination will, one day, poison me or give me cancer. Neither do I fear for my workers or guests, or, more importantly, their children. I do not contribute to the agricultural chemicals that always appear in our city's water tests. My trees present better color and vigor year after year, indicating that our soil is overcoming years of chemical farming and is coming back to life. Certainly the ground is everywhere teeming with bugs and worms, which it was not when we started. As for wildlife, the birds are thick in the trees and grasses, there are frogs and toads and salamanders.. I've been hearing 'bob white' calls for the first time since childhood.

As for quality of my produce, when my Japanese and European customers tell me my chestnuts are the best they ever tasted, well, they may be flattering me but I cannot help but be encouraged. And I'm betting that there is a market for fresh and organic chestnuts, at least among the wholesale houses that specialize in organic produce, which is unlikely to be captured by the cheap Chinese imports.

How do you label your products? Along the same lines, how has going organic changed your marketing strategy?

Labeling as "organic" is strictly regulated under the NOP. Our chestnuts go out labeled USDA organic, and identify our certifier. Not all my buyers care about organic labeling. In my region (Lawrence, Kansas and Kansas City, Missouri) I'm not at all certain that people will pay any premium for "organic" chestnuts--they are just surprised and pleased to see fresh good quality chestnuts at all. And I have learned from market surveys that "local" and "family farm grown" are more important criteria to consumers. My experience substantiates this.

Nonetheless, I persist in organic certification because some of my customers, particularly the natural food stores and their wholesale suppliers, require organic produce. They know I do more than talk the talk, that I do indeed walk the walk. And as chestnuts begin to flood from China into the wider market, and chestnuts become a "commodity" in supermarkets subject to downward pricing pressure, I may still have a niche market in the health and gourmet stores.

Some consumers may prefer a product packaged in styrofoam off an assembly line because they feel someone must be monitoring the production very closely. Do you ever experience this consumer perception?

I have no experience that this attitude exists although it may very well exist somewhere. To the contrary, I have seen a great resurgence of farmers markets, to the point that larger chain stores are sponsoring local farmers and selling local produce on tables to try to take advantage of that marketing trend.

I do suspect that the "organic" label has lost some of the connotations of wholesome, home-grown natural food as corporations have appropriated the term to market more expensive mass-produced refined food products. After the October 21, 2002 USDA standardization of the term, I have seen many organic producers give up their organic certification and adopt other "green labels" such as: all natural, pesticide free, grass fed, free range. Some have become certified instead with organizations that have different standards entirely, such as "Food Alliance." There are also some market gardeners who claim to be organic without being certified (the under-$5,000 annual sales exemption under the NOP). Some market gardens even claim to be "beyond organic," suggesting that the USDA's standards are too lax, or that they are above the law. The effort to standardize the market meaning of "organic" has reaped an unintended harvest of reaction, confusion, and misinformation in the marketplace.

As the last part of your question, conventional produce is subject to less monitoring than is certified organic produce. For instance, organic farmers must adhere to strict standards for handling manure and mulch which are designed to prevent transmission of disease, and these practices are subject to inspection. Conventional gardeners may, and frequently do, use animal manure without any standards and without third-party inspection or review. Food handling, pest control in handling **(cont pg. 11)**

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Organic chestnuts with Chestnut Charlie (cont. from page 9)

facilities, even packaging materials are regulated under the NOP and subject to review and inspection. In fact, certified organic produce is all the more closely monitored than conventional production.

What are some growing challenges specific to organic chestnuts, and what have you learned from them?

As for chestnut weevils, rather than spraying we practice total clean-orchard harvest. This means paying people to pick up all nuts, including unmarketable and small chestnuts, which must later be sorted out in handling.

Sun scald is a bad problem that has damaged a lot of our trees. In the past we were specifically allowed to paint diluted white latex paint on the tree trunks. I did a little of this—enough to believe that it does, in fact, work. However, the NOP rules, effective 2002, do not specifically allow this practice. In the absence of a specific rule, we apply the NOP general rule, that "synthetic" substances are not permitted. We did manage to find a natural milk paint which we tried but found that it simply washed off the trees in the rain. We are still looking for a solution to this problem and, in the meantime, bearing the tree damage.

Surface mold on the harvested chestnuts can make chestnuts look bad. The conventional chestnut grower, as I understand it, would simply dip or wash the chestnuts in a light chlorine bleach solution to remove the mold. In organic practice, chlorine cannot be used for food-contact, only for disinfecting and sanitizing facilities and equipment. Instead, in my operation, we wash in an ozone enriched bath, make sure the chestnuts are surface dry before bagging, and, most importantly, we are upgrading our walk-in cooler for better temperature control. But our largest expense here is the extra time at the inspection table re-sorting chesnuts immediately before shipping.

One other point—our orchard borders a highway and conventional farms on all sides where chemical sprays are routinely used. In such case the NOP regulations require the dedication of a buffer zone to protect the organic crop from chemical contamination. Whatever is harvested from the buffer zone cannot be called organic. If you raise crops in the buffer, you have to keep additional records to ensure that these conventional crops are not co-mingled with the organic crops. In our orchard property of 20 acres we have dedicated a perimeter buffer, from 25 to 50 feet wide, including about 15 % of our total acreage. For our further protection, we have planted the area out into shelterbelt plants, both fast-growing deciduous trees local timber type trees, thick bushes, and hardy evergreens. We have absorbed both the loss of acreage and the cost of the shelterbelt as an additional expense of being organic.

What is exciting about the organic industry to you? (Why do you continue when other producers may choose not to participate in this industry at all?)

It is good to feel that one is part of the solution. We support and join with organic farmers because they take the long view of agriculture, toward a better future for our children and for mankind. Organic farmers are resisting the pressure toward chemical addiction in farming, resisting the strip-mining of the nutrients in our soils, resisting the contamination of our ground water, and resisting the degradation of our food supply. These rebellious subjects of our agro industrial regime are moved by the same ideals that move people to plant trees. And we are proud to stand with the organic producers.

What advice would you give to a grower considering going organic?

Be realistic. It has been hard establishing our new chestnut orchard. Part of it may be our location and climate but a substantial level of difficulty has been added by being organic. "Round-up," rodent poison bait-stations, and drip irrigation chemicals--they look so easy by comparison. For instance, when you find poison ivy growing up a tree, well, it becomes very compelling to spray rather than dig out the vines by hand--what disagreeable consequences! Therefore, I do not advise anyone to suffer through orchard establishment by organic means. If you must plant an organic chestnut orchard, keep it manageable in size, under 100 trees or less, and have children to help with the increased manual work.

As for an existing orchard going organic, this perhaps is easier. The first four or five years after planting the chestnut trees are not very productive anyway, and you would not likely recover your annual certification costs ($600-$1000) over a small harvest. For an orchard with well established trees requiring no drip irrigation and all the noxious weeds well under control, you might consider organic certification in the sixth or seventh year, say. In which case you would throw away your sprayer after year three or four and begin keeping strict records of all inputs. This would have you becoming certified organic about the time production really kicks in.

Remember that if your organic land is in the vicinity of other conventional farm or chemical activities you will need a substantial buffer or overspray zone (required under the NOP) and you might as well plan for this from the beginning. *CGA*

Nominating Slate: Candidates Announced Soon

The slate of officers developed by the CGA nominating committee will be mailed to the membership soon. At that time, members may suggest any competing nominations. The April newsletter will publish the full slate of candidates in advance of the summer annual meeting.

Members interested in running on petition should see complete instructions in Article VIII of the Bylaws (p. 13 of the '05 membership directory). Signed petitions should be sent to Ray Young, Secretary, PO Box 841, Ridgefield, WA 98642 by March 1, 2006. Petitions cannot be emailed.

Chestnut Growers of America

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