

Annual Meeting is Huge Success

CGA's annual meeting was a rousing success with 40 people attending. Interesting speakers and unique orchard tours more than met the expectations of those attending.

Friday's Welcome Party at High Rock Farm offered an opportunity for growers to meet with each other and enjoy great food provided by a local caterer. The farm was established in 1807 and the house was open for visitors. A beautiful, Federal style



The welcome party generated lots of chestnut talk.

home, owner Richard Teague described the details from the handmade bricks to the floor joists. After spending 14 years restoring it he knows all the details.

Brad Owen, of Clove County Farm in Lexington, NC, was first on the tours and graciously opened his organic Dunstan orchard on Friday, prior to the welcome party. A small orchard of Dunstan trees, planted in 1992, Brad sells everything to a local market.

Saturday's tour began at Richard Teague's High Rock Farm, in Gibsonville, NC, with homemade chestnut pastries follow. **See Annual Meeting, p. 9**

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2013-2014 CGA Grower Survey Summary

Mike Gold, U of MO

Many thanks to everyone who filled out the chestnut market survey. To get a better picture of the market, we again reached out to past and present CGA members. Two hundred eight people were invited to fill out the online survey. Here are some highlights of the results based on 76 useable surveys collected and analyzed:

- 68% of respondents are current CGA members
- 32% of respondents are past members; don't have active membership this year.

Questions regarding the production operation (63 respondents)

Seven responses came from Missouri, six from California, Illinois, Oregon and Washington, five from Florida and Iowa, four from Ohio and Michigan, three from Virginia, two from Tennessee and one from

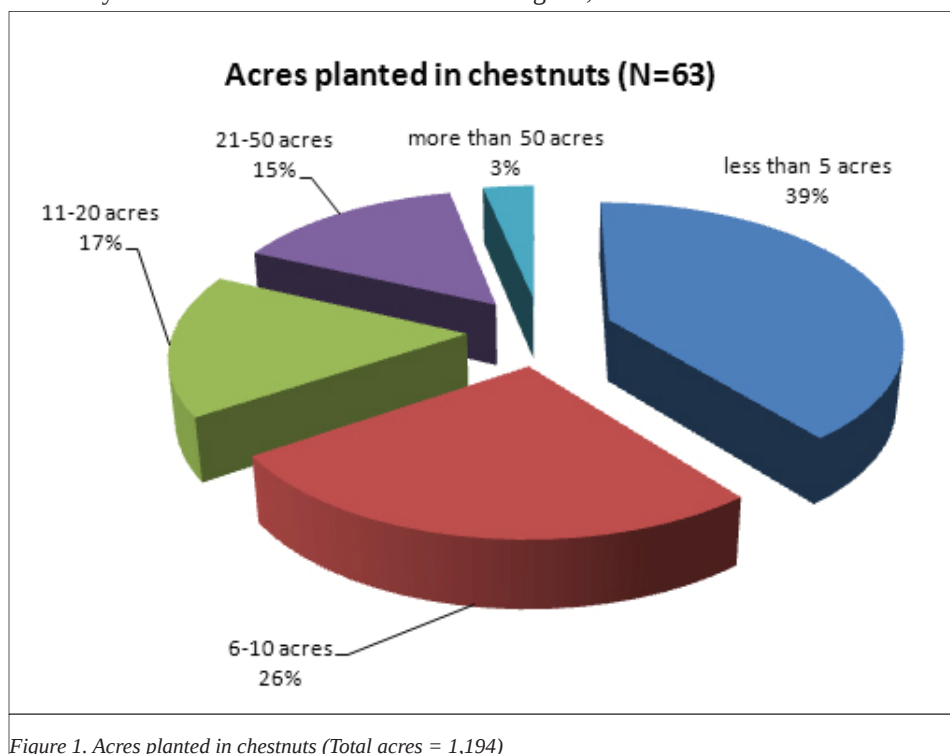


Figure 1. Acres planted in chestnuts (Total acres = 1,194)

The survey this year again provided different variations for different categories of respondents. The shortest variation of the survey was for researchers and other non-chestnut growers who were only asked to describe their area of expertise and asked for suggestions for CGA. The second variation was for respondents who planted trees but are not involved in any aspect of marketing chestnuts; they only answered questions regarding their production operation. The remaining of respondents were presented with the full survey including questions regarding the production operation, harvest and marketing.

Oklahoma, North Carolina, Kentucky, Idaho, Georgia, Kansas and Alabama.

Respondents reported a total of 1,194 acres planted in chestnuts (39% less than 5 acres, 26% between 6 and 10 acres, 17% between 11 and 20 acres, 15% between 21 and 50 acres and 3% more than 50 acres) (Fig. 1). Sixty-two percent of respondents don't plan to expand their orchard next year. Those who plan on expansion (38%), indicated new plantings ranging from less than one acre to 20 acres for a total of 91 acres.

Twenty-five percent of respondents use organic production methods (44% of them are USDA certified and 56% are

See Survey, p. 5



A MESSAGE FROM THE PRESIDENT

Once again in growing a chestnut orchard, each year is a new experience. This year has been a very cool spring and the chestnut trees did not really start to leaf out until the last week of May in my location in Michigan. It has been amazing how quickly the trees are developing and seemingly catching up to the normal pollination time at the beginning of July. I am sure that you all have been pruning, spraying, fertilizing and taking care of your orchards for another great harvest of chestnuts in the fall. Overall it looks like most of the chestnut trees survived the winter in Michigan. I am

still waiting to hear more information from other parts of the country about the conditions of chestnut trees surviving the drought and other extremes of weather.

At the time this newsletter is being published many of you will have attended our Annual Meeting at the High Rock Farm in Gibsonville, North Carolina. I want to thank Richard Teague and Brianne McAlister for organizing and planning a fantastic meeting for all of our CGA members.

The newsletter you are now receiving is due to the outstanding efforts of our CGA Editor, Carolyn Young. I think we should all give her a round of applause for the work she does for the CGA Newsletter. I know she is always looking for articles to put in the newsletter about the chestnut industry. So don't be shy! We want to hear from you on any topic concerning chestnuts. Our industry is growing and the demand for good quality chestnuts in the marketplace far exceeds the supply available. Please contact Carolyn Young or email your article(s) as soon as possible for our next newsletter. We want to hear from you, the growers in all the different locations in USA.

Remember the purpose of CGA is to promote chestnuts, to disseminate information to growers of chestnuts, to improve communications between growers within the industry, to support research and breeding work and generally to further the interests and knowledge of Chestnut Growers. CGA advocates the delivery of only high quality chestnuts to the marketplace.

I hope you all have a wonderful summer and a very plentiful harvest in the fall.

Best regards,

Roger P. Blackwell

EDITOR'S NOTES

This issue brings us the results of the annual survey from the U of MO. It provides us with the information we need to see where the chestnut industry is headed and how it might impact us. Special thanks to Mike Gold.

Bob Wallace, Chestnut Hill Tree Farm, provides us with an outstanding article on how to choose nursery stock and what we should expect. We look forward to another article from him on how to establish an orchard.

Now, how about you? Do you have ideas for articles that would be of interest? Are you willing to write? Have you read something that you feel is worthy of reprint? Got a recipe to share? How about a tip on what's worked in your orchard? Our whole purpose with this publication is to provide information that can make us all more successful. Don't be bashful.

Carolyn

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Editorial Opinion

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Choosing Chestnut Nursery Stock – What to Expect

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The process of planting a chestnut orchard involves a number of decisions. After locating suitable land, with good soil, site, drainage and irrigation, the most important decision will be what type of chestnut trees to plant. There are a number of sources for trees in the U.S., all touting their own trees as being the best kind to plant. And as you would expect, there are differences in opinions in what is the best choice, depending on location. In this article, I will try to describe the differences of opinion and choices to be made.

As most of you know, I consider growing the trees and producing the nuts to be the easy part of the process. To be successful in growing chestnuts (i.e. making money and not just being a hobby farm), you need to learn how to sell your crop. But this is a subject for many other articles.

Disclaimer: Not everyone will agree with my opinions, but they are based upon the lessons learned in over 30 years of making a living growing many species of trees including chestnut trees both in the nursery and the orchard.

Three main choices must be made in the process of deciding what nursery stock to plant: **BARE-ROOT vs CONTAINER GROWN**

Traditional nursery practice involves growing trees in the field. We started our nursery growing in this manner in 1980. Seed are direct seeded into the field, grown for 1-2 years and then undercut and lifted (dug from the ground), and shipped bare-root (without soil) dur-



Fibrous roots with tree-band pot



Two year-old grafted tree

ing the dormant season. Before plastic pots, all nursery trees were grown in this manner. A one-year old field grown tree can be from 8-12" when grown up north (shorter growing season) and 18-24" or more if grown in the south. A 2-year old field grown tree can be 3-5' tall depending on conditions (See below).

However, in field-grown nursery conditions, seedlings normally send down a

single tap-root, and if the trees are never root pruned, when dug they can have poorly branched root systems, especially in sandier soils. When root pruned during the growing season, this can produce a more branched root system, but trees grown in this manner still suffer more shock during transplanting, because the limited fibrous roots cannot take up enough water to supply the newly developing leaf area. Mortality can be high in transplanting bare root trees, especially if proper after care is not given. Larger bare-root trees sometimes have higher transplant shock because of too much leaf area compared to root mass when they are dug. Bare-root trees are usually much cheaper to buy, especially when they are grown in beds by the thousands, but this can be a false economy. Bare-root trees are also less expensive to ship as by UPS. Bare-root trees can only be planted in the spring, and must be

planted as soon as possible after shipping. If the leaves leaf out before planting, there is a strong probability that they will die.

The evolution of nursery production into plastic pots has a number of advantages. Trees grown in containers have a much better developed root system and can be planted throughout much of the year, if the ground is not frozen, and there is sufficient irrigation for transplanting. Trees can be purchased at the nursery and held in the pots until planting, as long as they can be watered in the pots. In addition, container-grown trees can be fall planted, which is a good time to plant. At this time of year, the trees slow down in growth, but the roots keep growing into the soil until the ground freezes. Then when the trees leaf out in the spring, the tree is better established and does not suffer nearly as much shock. A potential disadvantage is an early hard freeze, in which the trees are not sufficiently

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dormant, causing death of tender growth.

If trees are grown in a solid plastic pot for too long, they can become root bound. It is important to check this when picking up plants at the nursery.

Recent developments in pot design dramatically improve fibrous root growth and allow the tree to grow faster and to transplant with higher success. At Chestnut



Root-enhancing pot.

Hill, we have used the root-enhancing containers for 15 years, and they are now standard procedure in production of landscape trees, especially oaks (chestnuts are a member of the oak family) that have strong tap roots. The root-enhancing pots have air holes that create a much better, more densely branched fibrous root system.

In our nursery operation, where we grow hundreds of thousands of trees a year, we use a 2 quart root-enhancing pot (see below) for the first year, which produces a very nice, heavily rooted (compared to bare-root field grown seedlings) 18-36" tall tree in one growing season. The transplant success rate on these trees is close to 100% if good care is given after planting.

We then take these 1 year trees and pot them to 3 gallon pots, and grow them for a second year. These 2 year trees can be 4-6' or taller, with very nicely branched full root systems (Photo 3). These trees also have a very high transplant success rate with proper care. However, because of size and weight they are more expensive to ship, and must be picked up at the farm or placed in a palletized box and shipped by truck.

Our 3 gallon, 2 year old seedling trees will begin to bear in as little as 2-4 years after planting. We also pot these trees to larger sized pots and grow for several more years.

These larger trees are more expen-

sive than cheap field grown seedlings, but produce a very nice tree with good growth and productivity, minimal transplant shock and a fairly short wait until the onset of production. Most nurseries offer discounts based upon quantity purchased, or size of the tree purchased.

One note that is important to understand - virtually no commercial nursery offers any type of guarantee other than they are true-to-name, i.e. the correct variety. There is no way that the nursery can be responsible for the myriad things that can happen to a tree after the customer has purchased the tree and planted it, such as freeze, drought, too much water, poor soil conditions, animal damage, insect damage, weed competition, tractor blight, lack of care, etc. Trees are a live product and must be cared for appropriately by the customer. If good nursery stock is purchased, given good care, and not subjected to unfortunate 'acts of God' (unforeseen weather events such as freezes, etc.), then the customer should have a high degree of success. Trees are like children - you get out of them what you put into them. But the customer needs to understand that nurseries are not Home Depot that unconditionally guarantees plants against all of the acts of God and foolishness to which they are subjected.

GRAFTED TREES versus SEEDLINGS

Virtually all commercial orchard crops are based upon the planting of cloned varieties (cultivars) of fruit or nuts. Trees in the nursery are cloned either by mist-rooting cuttings (blueberries, blackberries, grapes, mulberries, hazelnuts) or by budding or grafting (apples, peaches, pears, plums, persimmons, citrus, mangos, avocados, almonds, walnuts, pecans). A lot of time is spent discussing the success rates of various techniques of grafting but we use exclusively chip budding on all the different species with 90-100% success rates, which for commercial purposes is effective.

The problem with chestnuts is they are very difficult to clone. It is a complex phenomenon with differences between species, varieties, regions and methods.

Chestnuts do not root successfully. It is not possible to regularly attain rooting rates higher than 5-10% in mist, fog, air-layer or tissue culture. When rooted, the adventitious roots are weak and the trees often die in transplanting. Some French hybrids are produced by rooting in Europe, but these varieties are not blight resistant in the U.S. There are no nurseries in the U.S. that are clonally propagating chestnuts by rooting.

Chestnuts are difficult to graft. This is a broad statement with a number of

exceptions. Chestnuts are affected by graft incompatibility that has a number of poorly understood causes. This incompatibility can show up in the first year of growth in the nursery, or after transplanting or sometimes not for a number of

years when the graft suddenly fails and the top of the tree dies. More frequently the incompatibility shows up as a weakened tree that grows and bears poorly with the rootstock shooting up suckers to try to grow around the graft union. In addition, climate affects compatibility: grafted trees fare worse in harsher environments.

The first theory of why chestnuts display incompatibility is because of the iso-peroxidase enzyme that controls callus tissue formation of the cambium layer between rootstock and scion. There are a number of types of this isozyme and if the rootstock has the same type (best obtained by planting a seed from that cultivar for the rootstock) then there is a higher chance at graft success. However, it appears that the isozyme variation is affected by pollen parentage and open-pollinated seedlings from the parent tree can have one of several types of the isozyme, thus be variable in their graft success rates. We learned this after grafting tens of thousands of trees, and analyzing results.

The second theory is 'ring-porous' species (they have variable size in the growth of the vessels as the year progresses) such as chestnuts, oaks, and ash are more difficult to graft. Diffuse porous species such as stone and pome fruit are much easier to graft. One of the thoughts is that ring porous species tend to be able to wall themselves off when wounded, effectively cutting off the graft (wound) from fluid flow from the tree.

Another theory is graft failure in some trees may be related to fungal pathogens such as *Phomopsis*, which has been observed in other species such as grapes.

There is also variability between cultivars in their graft success. Colossal, when grafted on Colossal seedling rootstock shows a higher degree of compatibility, but Colossal is not blight resistant. In Europe, some of the French hybrids graft well on certain cloned rootstock. There is variability in delayed incompatibility between Chinese varieties. Eaton, while having a nice nut, has a high incidence of death by year 7-8.

In China, grafting is practiced on seedling trees that are already established in the orchard, thus avoiding the stress of transplanting. This has been practiced with some success on Chinese varieties in various parts of the U.S., such as at the University of Missouri Center for Agroforestry.

See ***Choosing Nursery Stock, p. 6***

Get the Most out of Your Trees this Year: Don't Look Past the Grass

By Matt Brinckman, TACF Mid-Atlantic Regional Science Coordinator
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Whether you are a full-time grower or just a supporter trying to keep a couple of chestnut trees alive in the back forty, we all have an often overlooked and common enemy – grass. After 1.5 years working for TACF, the most common hindrance to optimal tree growth that I witness in any type of planting (excluding forest cut-overs) is competition from grasses. A first-class fertilization regime is actually less beneficial than simply keeping grass



from competing with a tree's root growth.

Pictured above is a before and after shot of a young chestnut competing with grasses. Clear at least a rake's width around a one-year-old tree, increasing this zone by 12-24 inches for several years. Add mulch to protect top soil and keep moisture in.

What's so bad about a little grass near my tree? Grasses directly compete with fine roots for water and nutrients in the top few inches of the soil. While deep tap



roots are great for anchoring and capturing moisture deep in the soil, it's a myth that most of a tree's roots are deep underground and only extend to the drip line of the canopy. The majority of moisture and nutrient uptake is done by a tree's finer roots, which are located in the uppermost horizons of the soil and spread well beyond the canopy drip line of an established tree for most species. Turf grass can reduce the diameter and height growth, flowering, and fruit set

of trees; by 1/2 to 1/3 in some studies. Other studies have shown turf can take up most of the fertilizer being applied for tree growth.

So I got rid of the grass, do I just leave the bare soil exposed??? No! Mulching is the next best step to take in getting maximum growth and health out of your trees. Mulching reduces erosion of topsoil, increases soil moisture, and adds organic material and nutrients to the soil over time. It's usually best to use a course mulch to allow water penetration and to avoid keeping the soil too moist. Your mulch layer should be 2-4 inches thick and not pile up at the base of trees. If drainage is a concern on your site, use less mulch. Acidifying mulches such as pine bark can be used to help adjust soil pH.

The combined benefits of eliminating grass competition and adding a layer of mulch will be especially beneficial later in the growing season when water is less available. Invest the time this spring to weed and mulch around your trees (go big!) so that you can kick back later in the summer, leave the mower and weed eater in the shed, and watch your trees grow.

For more information, here is an excellent online publication by the University of Minnesota: http://www.sustland.umn.edu/implement/trees_turf.html.

Congratulations to the Keeley's

At the 99th annual meeting of the Nut Growers' Society, (Oregon) earlier this year, Dan and JoAnn Keeley of St. Paul, OR, and CGA members since 2000 were named Growers of the Year. Dan and Joanne grow both hazelnuts and chestnuts as well as other crops.

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not certified). Seventy-five percent of respondents use conventional production methods (83% of them use inorganic fertilizer, 43% use insecticide and 79% use herbicide).

Harvest questions (44 respondents)

Compared to 2012, the yield of chestnuts in 2013 was higher for 52% of respondents, the same for 16% of respondents and lower for 32% (Fig. 2). Higher yield was reported by respondents that have maturing orchards and started to get a larger production as the trees are getting older. Additionally, better weather conditions, better pollination, good rainfall, and extensive pruning also improved yields. Lower yield was due to heavy rain and wind blowing and knocking the buds off, previous winter damage and late spring, gall wasp, decrease because of zinc deficiency, cicadas, severe deer depredation, low

See Survey, p. 7

Yield compared with previous year (N=44)



Figure 2. Overall yield in 2013 compared to 2012

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Planting seedlings has some advantages as well as some disadvantages, depending on



Above are 4 year-old trees in pots.

the parentage of the varieties. Seedlings are inexpensive, but you get what you pay for. There are a number of sources of cheap Chinese chestnut seedlings. However, these nuts are harvested from trees bearing small nuts or have inferior qualities. In Michigan in the 1980s, one nursery heavily promoted planting seedling Chinese from small seeded parent trees, and they were planted in the northern fruit growing regions along Lake Michigan where the growing season was too short – late spring freezes hurt nut production and early fall freezes limited ripening time. The outcome was a bunch of worthless orchards. Most nurseries today that sell Chinese chestnut seedlings do not specify where the parent trees were grown and what the pollen sources are.

Orchards with many varieties planted can produce variable seedlings. While this seems obvious, many growers collect lots of varieties to test, and thus have introduced many different sources of pollen. This can cause seedlings from nuts from these orchards to show a wide range of characteristics, including variability in blight resistance, growth and production. You will not know this variability until 5 or more years after planting the trees. Seedling orchards also do not produce ripe nuts all at once, so require additional time during harvest, moving between bearing trees instead of being able to harvest the entire orchard at one time.

Seedlings are often more vigorous and hardier than grafted trees. This is an advantage, especially when planting in harsher climates.

Most seedlings bear nuts, even if the production can be variable. It's debatable if it's better to have a tree that has died due to delayed incompatibility and not producing at all after 10 years of investment, or if it's better to have a tree producing smaller nuts that may not bring as high a price.

The only way to control the variability of seedlings is to plant seed from known cultivars that are pollinated by other known cultivars, and to test the variability of the seedlings produced by these parents. Ideally, seed should be harvested from a grafted orchard of similar cultivars with desirable characteristics. Groves of these seedlings should be planted out and the results observed to determine what percentage of trees turn out to produce high quality nuts.

This is exactly what has happened over the last 30 years with Dunstan Chestnuts. We began by planting Dunstan seedlings and growing them in the field for 1 season. We produced very vigorous grafted trees by chip budding the rootstock in the fall, and growing them off for a second season. To produce enough seed for rootstock we planted an orchard of grafted Dunstans of the best-nutted varieties Revival, Carolina, Willamette and Carpentar.

However, the incidence of incompatibility was high enough, especially in more northern locations, that we chose to eliminate grafting and began selling seedlings from this grafted orchard of similar varieties of the same parentage.

The results from orchards growing Dunstan seedlings prove that this is a very viable method for obtaining orchards producing high quality nuts. Examples include the Black's orchard in Pike County IL, the Wilson orchard in the Blue Ridge in VA, High Rock Farms in NC, Delmarvelous Chestnuts in MD, Little Pops orchard in northern Connecticut and others. These plantings have been in place now from 12-25 years, with good success and all are marketing their crops successfully. While there is certainly some variation between trees in both nut size and productivity, the overall production has been good with nut sizes averaging 25-40/lb and production up to 50 lbs/tree, depending on location. This is comparable to any return from grafted orchards anywhere in the nation.

Planting seedlings and top-work the poorer trees is a "hybrid" of both systems. Trees are planted from known trees that produce quality nuts (and pollinated by trees that also produce good nuts). If a tree turns out to be inferior (poor growth, nut size or nut production), then it can be top-worked to a variety that from the orchard that has better nuts. This is a traditional solution in Europe and Asia, and if you take the longer view, that this is an investment for many years, a very viable system, and takes advantage of the good parts of both systems.

CHARACTERISTICS OF A GOOD CULTIVAR

There are a number of characteristics that are beneficial for producing marketable chestnuts. The difficult part is finding a variety, or a family of varieties, that have all of these characteristics. Few varieties have all of the characteristics. While not within the scope of this article to discuss all of the cultivars that are on the market today, we will at least examine what to look for in evaluating different varieties.

1. **Blight resistance:** This is imperative if you live in most of the eastern U.S from Maine to FL, but not necessary in CA, OR, WA, or some areas of MI, WI and MN (where it is too cold for blight to easily reproduce and spread, or isolated from areas with blight). Varieties with Chinese chestnut parentage are as a rule, blight resistant. Euro-Japanese varieties (especially the French hybrids) are not resistant enough to be planted in blighted areas. Pure American and European chestnuts are not resistant and should not be grown in blighted areas for orchard purposes.
2. **Large nuts:** Nut size is directly related to price. Larger nuts bring more money per pound, on average. A range of 25-35 nuts per pound is considered large (we need an agreed upon size standard in America, or should use the grading system for imported nuts of A through AAAAA). Certain markets (Asians) prefer smaller sized nuts, but these are purchased at a lower price.
3. **Sweet taste:** Chinese chestnuts have the sweetest taste, and some buyers prefer smaller nuts claiming that they are better tasting than larger nuts. Some Euro-Japanese hybrids have poorer flavor, because of the bland taste of the Japanese chestnut parentage. Other Euro-Japanese hybrids have better flavor, but no Euro-Japanese hybrids are completely blight resistant. Pure European

Continued on next page

Survey, from p. 65

pollination due to too much precipitation.

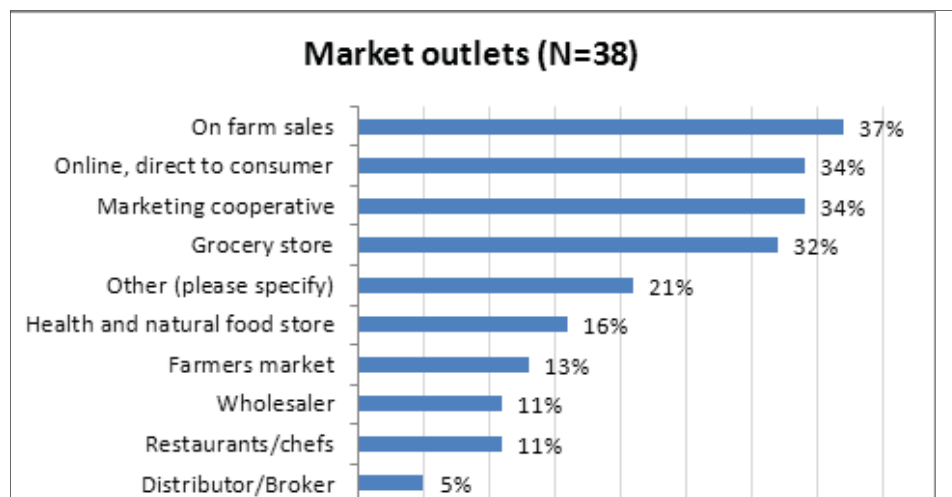
The average size of chestnuts was larger for 41% of respondents, the same for 41% and smaller for 18%. As compared to 2012, larger nut sizes were reported by some respondents due to regular pruning practices, proper timing of irrigation during nut growth, timely rainfall events, and poor pollination resulting in most burs filled with only one nut. Smaller nuts were reported due to drier weather, zinc deficiency, and lack of fertilizer.

More than half of respondents (61%) reported the same quality (appearance) of nuts in 2013 as occurred in the 2012 growing season, 23% reported higher quality and 16%, lower quality. Higher quality was represented by beautiful, shiny mostly large chestnuts, fewer culls and splits, with better fill. Lower quality was due blossom end rot, zinc deficiency, and staining and scratching due to poor picking conditions. Survey data revealed that a total of 406,007 pounds of chestnuts were harvested in 2013.

Marketing questions

Forty-seven percent of respondents market the chestnuts themselves, 18% market their crop exclusively through a co-op, and 11% market a portion of the chestnuts through a co-op and a portion by themselves (45 respondents).

In 2013, 45% of respondents earned less than \$5,000 from chestnut sales



including shipping and delivery), 22% earned between \$5,000 and \$25,000, 10% between \$25,000 and \$50,000, 13% between \$50,000 and \$100,000, and 10% earned more than \$100,000. The average price received in retail outlets was \$4.56 per pound. Wholesale, the average price per pound was \$2.42 (40 respondents).

Thirty-seven percent of respondents sold their chestnuts on farm, 34% online, 34% through a marketing cooperative, 32% in grocery stores, 16% through health food stores, 13% in farmers markets, 11% through wholesalers, 11% through restaurants, and 5% through distributors/brokers (Fig. 3 – 38 respondents).

Sixty-three percent of respondents reported increased demand for their fresh chestnuts in 2013/2014 and 12% unchanged demand (43 respondents).

Fifty-two percent of respondents felt that demand for fresh chestnuts is in excess of supply, 5% equal to supply and 14% below supply (42 respondents).

This provides a snapshot of the results. A more detailed report will be made available upon request.

New Members

Please add the following to your membership directory:

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varieties can have good flavor, but are not blight resistant. Sweetness is often a result of proper curing techniques after harvest, and can enhance the flavor of a good cultivar.

4. **Peelability.** Most Chinese varieties have an easily removed pellicle, especially after the nuts are cured after harvest. The carbohydrates of the nuts turn to sugar, thus increasing the flavor. Some of the European and Euro-Jap hybrids are difficult to peel. This can be because of the crenulations of the kernel, where the pellicle can be ingrown into the kernel and hard to remove, or due to the kernel being multi-embryo.

5. **The Italian definition of a large size nut,** with good flavor that is easy to peel is 'Marrone'. Perhaps we should adopt this term as a similar definition in the U.S.

6. **Productivity.** The variety should be productive, i.e. yield good regular crops of nuts. This can be relat-

ed to having effective pollination in the orchard. Some varieties, such as 'Peach' produce large nuts but have low yields.

7. **Vigor of growth.** The variety should produce trees that are strong and not weakly growing.

8. **Stature.** For a commercial orchard, nuts are borne on the surface area of the tree receiving sunlight. A relatively small rounded crown and a tree that responds to pruning, produces the most consistent production and higher yields.

This article perhaps raises more questions than it does answers. There is not one perfect clonable cultivar out there that fits all of the above characteristics. However, there are successful orchards from a number of different cultivars, depending on the region in which you live. If you understand the choices, and follow the recommendations given, you can create a profitable chestnut orchard operation.

Chestnut Growers of America, Inc.
Annual Meeting
June 21, 2014

Call to order: The meeting was called to order at 11:50 a.m. by President Roger Blackwell at the Rockingham County Cooperative Extension office, Reidsville, NC.

Treasurer's Report: Ray Young presented the report and said that the organization had \$38,000 in its treasury.

Nominations: The nominating committee presented the following individuals:
President: Roger Blackwell
Vice President: David English
Secretary/Treasurer: Ray Young
Director: Linda Black
Director: Bob Wallace
Director: Lee Williams
Since no other nominations had been received by March 1 as required by the bylaws, the slate is considered elected unanimously.

Old Business: There was no old business.

New Business: An announcement was made that the Sunday tour would be at Vicki Wilson's farm in Stuart, VA and a final lunch count was taken.

Adjournment: The meeting was adjourned at 12:02 p.m.

Respectfully submitted,
Ray Young

HELP WANTED

**CGA is looking for a new
webmaster. If you're
interested contact Roger
Blackwell**

at

rblackwel@comcast.net

or

810-225-9343



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Annual Meeting, cont'd from p. 1

followed by an orchard tour and tour of processing equipment in the barn. With 500 Dunstan chestnuts spaced on 40' centers, he produces about 20,000 lbs. a year.



The Boles chat with Brad Owen.

Richard has designed and built or had built all his processing equipment. Unlike most sorters he uses square holes instead of round. His drier is unique and consists of a series of drawers with expanded metal bottoms allowing warm air to flow up through. He dries his nuts for two weeks until they have less than 10% moisture remaining.



The group gathers outside Teague's commercial kitchen.

The final orchard tour was at the farm of Vicki Wilson and her father, Bert Wilson. It's an organic orchard located in Stuart, VA and contains 2400 Dunstan trees. The orchard is hand harvested and processed using custom designed equipment. The orchard is fertilized by spraying organic fertilizer four times a year.

Saturday's events, including the annual meeting and speakers, were held at the Rockingham County Cooperative Extension Office in Reidsville, NC where we were welcomed by Kathryn Holmes, Extension Agent who talked about agriculture in that county and North Carolina in general.

Dr. Michael Parker of North Carolina State University talked about the production of fruit and nut trees in the state and later spoke again about marketing and how it has changed as a result of technology.

Of particular interest to growers was



Members discuss trees at the Wilson orchard.

the presentation by Leanne Shelton, a USDA employee serving as a liaison to FDA in the implementation of the

Food Safety Modernization Act. She talked about the GAP program (good agricultural practices) and the importance of adhering to them. While the FSMA has been signed into law it won't apply to very small growers, those with gross

See Annual Meeting, p. 10



CHESTNUT TEA COOKIES

1 5/8 C	flour
3/4 C	chestnut flour
1 1/2 cubes	butter (6 oz.)
1	egg
1/2 C	sugar
1/2 tsp	vanilla

Use a food processor to combine the ingredients.

Mix egg, vanilla, and sugar. Slowly add the two flours. If the dough is particularly stiff add about 2 tsp water.

Roll the dough out on a lightly floured cutting board to about 1/4" thick. Use a 2 1/2" glass or cookie cutter to cut out the cookies. Place them on a lightly greased cookie sheet. Bake at 350o for about 20 minutes until barely lightly browned.

Makes about 24 cookies.



Chef image courtesy of Grant Cochrane, FreeDigitalPhotos.net".

Annual Meeting, continued from p. 9
under \$250,000, until 2019. Anyone who has questions about FSMA that can't be answered on the USDA website might consider emailing her at Leanne.Skelton@ams.usda.gov.

Sandy Anagnostakis spoke about gall wasp and its presence on the east coast.

Greg Miller talked about the co-op with which he works in Ohio.

David English talked about his initial disappointment with his new Facma harvester which turned to support. For more about his harvester there will be an article about it in the next issue.

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Leanne Skelton, USDA, discusses the Food Safety Modernization Act with Mike Gold and Sandy Bole.

CGA's Annual Meeting will be in Stockton, CA, June 12 - June 14, 2015. Save the date!



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