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The Chestnut Grower

Promoting Chestnuts and Connecting Chestnut Growers

A Quarterly Newsletter published by Chestnut Growers of America, Inc. · *chestnutgrowers.org*

Conference site at Nash Nurseries, 4975 W Grand River Rd, Owosso, Michigan 48867.

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CGA / NNGA 2025 Joint Conference Overview, Schedule & Registration

August 3-6, 2025
Lansing, Michigan

NNGA
Northern Nut Growers Association
Est. 1910

2025 Annual Conference/Meeting Highlights

OVERVIEW

The 2025 Joint Conference of the Northern Nut Growers Association (NNGA) and the Chestnut Growers of America (CGA) in cooperation with Michigan State University (MSU) and the Michigan Nut and Fruit Growers Association (MNFGA) will take place August 3-6, 2025 at the Nash Nurseries and Orchard (4975 W Grand River Rd, 48867) in Owosso and the DoubleTree by Hilton (111 N Grand Ave, 48933) in Lansing, Michigan. Complete details and registration forms can be found in the Spring 2025 *The Nutshell* or on the NNGA website (nutgrowing.org). Register on-line with credit card at **bit.ly/nnga25**. **NOTE THERE IS NOW AN OPTION TO ATTEND VIRTUALLY.**

Full and student registration includes program packet, favor, admission to all sessions including Sunday show and tell, key note presentations, Monday and Tuesday technical sessions and forums, daily continental breakfast and lunch, Wednesday all-day bus tour to three field sites, the Sunday welcome dinner at the Nash Nurseries, Monday auction, and Tuesday social/banquet. A registration is available for the CAPs program that includes Sunday tours, welcome dinner, Show and Tell; daily continental breakfast, group venture to local venues, Monday auction, and Tuesday social and banquet. A separate registration is available for CAPs participants for the Wednesday field tour. Registrations do not include lodging and transportation, except for Wednesday field tour. Plan to use your own vehicle or make arrangements to carpool from the hotel to the Nash Nurseries and Orchard in Owosso (30-minute drive) on Sunday for the nursery and orchard tour, welcome dinner, and Show and Tell session. CAPs participants will arrange for carpooling when they meet on Monday and Tuesday.

An on-site block of rooms with discounted rates ($129 single or double plus $13% tax) is available through **July 3** at the Double Tree by Hilton, 111 N Grand Ave in Lansing, MI 48867. Smoke-free rooms have free WIFI and mini-fridge. To make reservations book on-line or call the DoubleTree by Hilton at 822-904-2206 to book at the group rate. The DoubleTree has self-parking at $15/day on all ramps and valet parking at $35/day (there is no free parking in downtown Lansing). There is complimentary airport shuttle service available by calling 833-904-2206 when you arrive at the Lansing Capital Regional airport but not the local Amtrak station. Pets are not allowed.

There is an opportunity to participate as a donor and/or bidder in the auction on Monday night. As a donor, sheets will be available at the conference registration desk to indicate which organization you want to receive proceeds from your donated items. If you plan to bring homemade items, put them in the auction (we do not have permission to include them in the refreshment breaks). Proceeds go to fund tree-related research and other special projects by both organizations.

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The Chestnut Grower

Summer 2025

About Chestnut Growers of America, Inc.

The purpose of Chestnut Growers of America 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.

CGA began as the Western Chestnut Growers in 1996 in Oregon where about 30 or so chestnut growers understood the need to join forces to promote chestnuts in the U.S. Eventually they realized that they needed to be a national organization and solicited memberships from every grower in the country, which took the membership to over 100. The name of the organization was changed to Chestnut Growers of America, Inc., and it was granted 501(c)(5) status. Annual meetings take place around the country in an effort to make it possible for a maximum number of people to attend. A newsletter, *The Chestnut Grower*, is published quarterly and distributed by mail and/or email. CGA maintains an extensive resource site available only to members containing information helpful in growing and marketing. Visit chestnutgrowers.org for more information.

Annual Membership Dues

Single membership, $45; Household membership, $55; Associate membership, $60. Members receive *The Chestnut Grower* quarterly. Emailed newsletters are included. Mailed newsletters are an additional $5 per year. A $10 late fee is applied to membership renewals submitted after May 1.

Advertising Rates

Full page	$20.00
Half page	$15.00
Quarter page	$10.00
Business card (4 issues)	$15.00
Classifieds	**FREE**

Email ads to chestnutgrowersofamerica@gmail.com. Send payment for ads to Jack Kirk, 2300 Bryan Park Av., Richmond, VA 23228. Make checks payable to Chestnut Growers of America, Inc. OR visit www.chestnutgrowers.org/paydues.html to submit payment online via PayPal.

Editorial Opinion

The views, articles and advertising appearing in *The Chestnut Grower* do not necessarily reflect the attitude nor policy of Chestnut Growers of America, Inc., its members, officers, Board of Directors, or Editor. Chestnut Growers of America, Inc., and this publication are not responsible for errors and/or misrepresentations in advertising. The Editor reserves the right to reject or edit all material submitted for publication.

Message from CGA President Roger Blackwell, Chestnut Grower

Hello Chestnut Growers of America,

I hope you are all safe and well. Once again, I want to remind you, our organization will be having the Annual Membership Meeting in August this year in Lansing, Michigan. This year's meeting will be a joint meeting with the Northern Nut Growers Association (NNGA) and the Chestnut Growers of America (CGA). Each group has agreed to have this joint meeting which will save money and time with both meetings held together at the same place. We will be learning about the Michigan Chestnut Industry and Michigan State University support provided over the years.

Bill and Jon Nash of Nash's Nurseries are our host for the meeting at Nash's Nurseries in Owosso, Michigan Sunday August 3, 2025. The Lansing Marriott Doubletree Hotel will be our main meeting place on Monday August 4th and Tuesday August 5th, 2025. We have collaborated with members of the NNGA and CGA to coordinate an exciting meeting for all of us during Sunday August 3, 2025, through Wednesday August 6, 2025. Between the two groups you will find a diverse group of speakers to educate and inform about chestnuts, and other nut trees across the country and what is happening in Michigan with chestnuts.

This newsletter you are receiving has all the information about the annual meeting and how to register for the meeting. Also, please read the article by Mike Gold about the recent Marketing Survey concerning selling chestnuts across the country. Please help our CGA Editor in future months with new articles for CGA. We welcome any information that can be for the benefit of our members.

Please see the list of CGA Directors in this publication and thank them for continuing for the next year on the CGA Board.

I am sure you all are looking forward to meeting everyone this summer and seeing how everyone is doing.

Best Regards,

Roger V. Blackwell

Editor's Note:

Dear Readers, please accept our apologies for the lack of new *Chestnut Growers* this past year. This is an extra-long issue intended to cover all of the last year. The CGA Board will be working to develop a better system for generating *Chestnut Grower* content to share with you.

Register Today!

For the 2025 Annual Meeting, a joint meeting with the Northern Nut Growers Association.

August 3-6, 2025

Lansing, Michigan

Register Here:
nutgrowing.org/annual-meeting-2025

Book Your Hotel Room at the Group Rate:
Call 822-904-2206

Have you renewed your CGA membership?

Please renew your CGA membership for 2025 if you have not already! For members who have not yet renewed, you have two options:

Renew Online

Download a fillable form from the CGA website at http://www.chestnutgrowers.org/CGA_Membership_Application_fillable.pdf. Complete the form and email it to Jack Kirk, CGA secretary/treasurer, at jackschestnuts@gmail.com. You can then pay your dues through the CGA website by visiting www.chestnutgrowers.org/paydues.html. **Please make sure you submit both your application and payment at the same time!**

~OR~

Renew by Mail

Please fill out, detach, and return the membership renewal form included in this issue. Send the form with a check made payable to Chestnut Growers of America, Inc. to Jack Kirk, 2300 Bryan Park Ave., Richmond, VA 23228.

Note: If you are a new member who joined after August 1, 2024, your dues are already paid for 2025.

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If you are interested in presenting a poster or display or being an exhibitor, contact Jerry Henkin (sproutnut@aol.com) to see if space is still available. If you have company or organizational fliers you would like included in the registration packet, contact nngacga2025@gmail.com for shipping or delivery information.

Both organizations have board meetings scheduled on Sunday and the NNGA will have a short opening business meeting on Monday morning before the start of the technical session and another after the banquet.

If you have questions about the conference, please contact nngacga2025@gmail.com.

CONFERENCE HIGHLIGHTS

The annual conferences of the Northern Nut Growers Association (NNGA) and Chestnut Growers of America (CGA) will be held jointly August 3-6, 2025 at the Nash Nurseries (4975 W Grand River Rd, 48867) in Owosso and the DoubleTree by Hilton (111 N. Grand Ave, 48933) in Lansing, Michigan. The conference will include a show and tell session, two all-day technical sessions, and field tours to multiple sites along with the Sunday evening welcome dinner, Monday auction, and Tuesday social/banquet. Register on-line with credit card at bit.ly/nnga25.

The Nash Nurseries (www.nashnurseries.com) will be the site for the Sunday activities and DoubleTree (DoubleTree by Hilton Lansing) will be the site for all indoor events and staging area for the Wednesday field tours. Plan to take advantage of the group rate for lodging at the DoubleTree by Hilton. The DoubleTree is a smoke-free hotel offering free WIFI, a restaurant, indoor pool and fitness center. It does not allow pets. The DoubleTree offers free shuttle service to the Lansing Capital Region Airport (LAN) five miles away but not the AMTRAK station.

Arrive on Saturday, August 2, and catch a Lansing Lugnuts vs. Cedar Rapids baseball game (milb.com/lansing/schedule/2025-08) that evening next door to the DoubleTree.

Nash Nurseries is an approximately 30-minute drive from the DoubleTree. We will help arrange on-site for carpooling on Sunday for those coming without vehicles.

The conference is open to everyone with an interest in trees and shrubs managed for their nuts or native woody fruits. Attendees will include a diverse mix of commercial growers, researchers, and hobbyists. Expect to hear a lot about growing and processing chestnuts; however, the planning committee has energetically sought speakers for the other nut tree species.

Contact nngacga2025@gmail.com if you have questions about the conference.

CONFERENCE SCHEDULE

Sunday, August 3

Conference attendees can pick up their name tags and registration packets after 3:30 pm on Sunday at the Nash Nurseries or after 7:30 am on Monday at the DoubleTree. The NNGA will hold their Board of Directors' meeting from 9:00 am to 2:00 pm in the Doubletree Michigan II meeting room. The Chestnut Growers of America will hold their Board of Directors' meeting from 2:00 to 3:00 pm at the Nash Nurseries.

The conference venue in the Capitol Ballroom will be open at noon for contributions to the auction and for exhibitors to drop off their materials.

A welcome dinner with cash bar is planned from 6:00 to 7:00 pm at the Nash Nurseries following the afternoon tours. Ninety-minute wagon tours of the nursery and orchards are planned for 1:00 – 2:30 pm and again for 3:00 – 4:30 pm. Those going on the early tour will have more time to walk the beautiful grounds, participate in a nut tasting, observe demonstrations including patch bud grafting, poster session, and mingle with the exhibitors. The member-sharing Show and Tell session will start around 7:00 pm and end by 8:30 pm so we do not have to drive to the hotel in the dark.

The Show and Tell session will include short presentations up to 10 minutes from individuals who want to introduce themselves, who have built or tried new equipment, new techniques, promote new promising selections or cultivars, had some recent successes or failures, and maybe a little of the unexpected.

MONDAY, AUGUST 4, AND TUESDAY, AUGUST 5

A continental breakfast starts each day at 7am with all-day coffee, tea, and water available thereafter.

Registration will open on Monday around 7:30 am at the DoubleTree. Easels will be available to set up posters and skirted tables for auction items and exhibits in the pre-conference area outside the Ballroom.

The Monday session will begin with business meetings from 8:00 to 9:00 am for the NNGA and the CGA (check the program for location). After the annual business meeting, we will begin the first day of presentations with our first keynote presentation followed by a series of 15, 30, and 45-minute (including the Q&A) presentations before and after lunch until about 5pm.

Plan to return early from dinner on your own to participate from 6:00 to 7:00 pm in a poster and exhibitor session and viewing of the auction items. The auction will start around 7:00 pm. **All are welcome to attend – bring your checkbook, cash or credit card and your contributions!** Proceeds go to support the NNGA and CGA research grants programs.

A companion (CAPS) program is being planned on Monday and Tuesday from mid-morning to mid-afternoon to local venues. (See description on next page). Tuesday venues could include those not included on Monday or others suggested by the group.

Tuesday session will open at 8:00 am with our second keynote presentation and conclude at 5:00 pm. As with Monday a light breakfast, lunch and all-day coffee are included.

On Tuesday evening, we will have the traditional social and banquet. Anticipate being called together for the annual group photo around 6:00 pm (the cash bar will not open until the group photo has been taken).

The banquet should start around 7:00 pm with the evening's program to begin around 8:00 pm (times subject to change, check the program booklet). Some highlights of the program include selection of a new NNGA Big Nut, election of NNGA Officers and Board members, recognition of our sponsors, presentation of a few awards, and ending with the roll call of states.

WEDNESDAY, AUGUST 6, 2025

Wednesday will be a full day of touring with bus transportation provided so attendees can network without the hassle of driving (also venues do not have space

for vehicle parking). We anticipate an early start with a simple breakfast on the bus and return to the DoubleTree around dinner time. If not staying Wednesday night, attendees will need to check out in the morning and check their luggage or place it in their vehicles.

Planned tour stops include:

The **Chestnut Growers, Inc. (CGI) Processing and Shipping** Facility in Clarksville, MI. The processing facility of Michigan's chestnut co-op handles over 250,000 pounds of chestnuts annually, including cleaning, sorting, processing, storage, packaging, and shipping.

Beyer's Chestnut Orchard in Paw Paw, MI. The orchard is one of the largest in Michigan with 65 acres of grafted chestnut trees contributing to the CGI co-op. The Beyer's began planting in 2012. As this orchard has been coming online with over 1,800 trees, the Beyer's are harvesting 30,000 pounds of chestnuts. This will be our boxed lunch stop.

Roger's Reserve in Jackson, MI. The MSU research facility is dedicated to the advancing nut and unusual fruit production. The site features the region's only mechanized fresh chestnut peeling/processing line, capable of peeling 2,000 pounds of chestnuts per hour, as well as a kitchen for processing of chestnut flour, chestnut chips, hazelnuts, and pawpaw.

POSTERS, EXHIBITS & FLIERS

Posters and exhibits will be set up at Nash Nurseries on Sunday and/or the main lobby of the DoubleTree on Monday morning. If possible, plan to mount your poster on your own board and bring it to the conference. We have rented a limited number of easels without poster boards. Poster presenters are expected to be with their posters during the scheduled poster session on Monday from 6:00 to 7:00 pm and a second session still to be determined. Exhibitors should plan to staff their exhibits during these times as well.

If you have fliers or other items you would like included in the registration packet or materials for exhibits, please contact nngacga2025@gmail.com for information on where to ship or drop them.

Exhibitors and poster presenters are expected to register for the full conference if they wish to participate in the sessions and meals.

AUCTION

The traditional live auction is scheduled on Monday evening. Please consider donating items to the auction regardless of which organization you support. Simply **specify on the donation sheet which organization should receive the proceeds**. Both the NNGA and CGA use the proceeds to support their research grants program for tree-related research. In the past, auction items have included books, artwork, handmade crafts, plant material, homemade nut-based or baked goodies (**these cannot be made available during refreshment breaks this year**), and/or gift certificates. If you donate baked goods, please label your treats as to whether they are nut, dairy, and/or gluten-free. If you are an exhibitor, consider adding items, especially the items you are marketing, to the auction to increase your exposure at the conference.

CAPS PROGRAM

The CAPS program is an alternative to the technical sessions on Monday and Tuesday. The program has tentatively scheduled excursions to the MSU Horticulture Gardens (canr.msu.edu/hrt/our_gardens), Impression 5 Science Center (impression5.org), R.E. Olds Transportation Museum (reoldsmuseum.org), and possibly the Lansing Brewing Company (and restaurant) (lansingbrewingcompany.com). Those registered for the companion program meet in a common location, i.e., lounge area of the DoubleTree, for directions, arrange for transportation, lunch reservations, additional excursions, and possibly a break out session in a lounge when they return to visit with new and old acquaintances.

The companion registration includes the Sunday welcome dinner, Monday and Tuesday breakfast and all-day coffee, tea, and ice water, Monday auction, and Tuesday social/banquet. It does not include transportation to or entrance fees at the venues, lunches, or Wednesday tour.

For companions who wish to attend the field tours, please purchase a one-day Wednesday registration.

MEALS

Welcome dinner on Sunday, social/banquet on Tuesday evening, continental breakfast and lunch on Monday through Wednesday, and breaks are included in the full conference, student, and exhibitor registrations. We will be on our own for dinner on Monday and Wednesday night. The DoubleTree has an onsite restaurant and the downtown area offers a number of other restaurants.

LODGING & PARKING

A group rate of $129 plus 13% taxes/night is available from Saturday through Wednesday night at the DoubleTree by Hilton. Anticipate full occupancy at the DoubleTree, so make reservations early. The group rate rooms will be released on July the 3rd so make your reservations early. They can be cancelled 3 days in advance of arrival without penalty.

To make reservations, call **1-833-904-2206** using code 91R or register online using **DoubleTree by Hilton Lansing** (be sure to use this link). Reservations made through the front desk and online booking groups will not count toward the sleep nights we have contracted for. The group rate covers double occupancy with either two queen or one king bed. Smoke-free rooms have free WIFI and mini-fridge. In-house dining, indoor pool, fitness facility, and complimentary airport shuttle available. Pets are not allowed. Check-in is at 4:00 pm and check-out is at 11 am.

There is no free parking in downtown Lansing. The DoubleTree has self-parking for $15/day and valet parking for $35/day. There is nearby public parking that is also $15/day.

The DoubleTree is located in downtown Lansing, steps from local shops and dining and minutes away from Jackson Field, Michigan State University, and two of the companion program venues.

The Courtyard (517-367-6677; no group rate) by Marriott (marriott.com/en-us/hotels/lancl-courtyard-lansing-downtown/overview), 600 E. Michigan Ave with on-site parking is within walking distance. It offers similar amenities to the DoubleTree; however, it does not provide complimentary shuttle to the Capital Regional airport. Hotels that are pet friendly or offer free parking are approximately 2 to 3 miles away.

An internet search indicates there are multiple RV/camp grounds near Lansing.

TRAVEL TRANSPORTATION

If you're driving, the DoubleTree is conveniently located at 111 N Grand Ave,

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Lansing, 48933 off Interstate 496. If you are flying, there are direct flights through Chicago, Detroit, or Washington to the Capital Regional Airport (www.flylansing.com/flights) located about 5 miles from the DoubleTree. The DoubleTree offers free shuttle service to and from the Capital Regional Airport. Travelers may prefer to fly to Detroit Metropolitan Wayne County Airport (DTW) and rent a car to drive the 90 miles to Lansing. If flying in on Sunday, attendees may want to drive directly to the Nash Nurseries in Owosso about 90 miles northwest of Detroit. Lansing is also served by Amtrak from Chicago via the Blue Waters train (depart 4:00 pm arrive 8:00 pm). There are multiple trains and long layovers traveling Amtrak from Detroit.

REGISTRATION

Registration is open. If convenient, we would like each attendee to complete their own registration either online or using the form in this issue. Online registration with credit card will be available through the NNGA and CGA websites (nutgrowing.org; chestnutgrowers.org) or at bit.ly/NNGA25. Alternatively, complete the registration form on pages 19-20 and mail to Northern Nut Growers Association, c/o Debbie Milks, PO Box 1166, Lawrence, KS 66044 along with a check made payable to the Northern Nut Growers Association. Additional copies of the registration form can be downloaded from the NNGA website (nutgrowing.org). Children should register with an adult companion who is not attending the Monday and Tuesday technical sessions.

Full conference and student registrations include the registration packet; printed program with abstracts; favor; Sunday's welcome reception and Show and Tell session; Monday and Tuesday technical sessions, breakfasts, lunches, breaks, and auction; Monday auction; Tuesday social and banquet; and Wednesday's field tour with transportation, light breakfast, box lunch, and breaks. None of the registrations include transportation on Sunday.

The companion registration includes Sunday's welcome reception and Show and Tell session; Monday and Tuesday breakfasts and all-day coffee, tea, and iced water; Monday and Tuesday daytime excursions, Monday auction; and Tuesday social and banquet. It does not include Monday and Tuesday transportation or lunches or Wednesday's field tour.

Registrations are also available for Sunday only (Nash Nurseries tour, events, and welcome dinner), Monday-Tuesday session (DoubleTree events including technical sessions; two breakfasts, two lunches, all-day breaks, auction, and social/banquet); and Wednesday only (field tour with transportation, light breakfast, lunch, and breaks). Extra banquet tickets can also be purchased.

Student and member discounts are available. If you are not already a NNGA member consider joining with a family membership for $40 and have you and another family member take advantage of the $20 member discount. The student discounts range from $125 on a full to $10 on the one-day registrations. A few scholarships will be available to help with registration and lodging.

Full refunds will be available through July 5, full refund less a $50 processing fee through July 16, and no refunds after July 16 with few exceptions.

SCHOLARSHIPS

Travel, lodging, meals, and conference registration can add up quickly. The student registration has a substantial discount from the full and single day registration supported by past sponsors. However, if you are a student or new grower and do not have a sponsoring organization covering your expenses, please indicate on your registration you want to be considered from one of the scholarships offered by the NNGA's Scholarship Committee. The scholarships will cover all of the registration fee and some assistance on lodging in exchange for helping with conference logistics. Scholarships will be awarded first come, first serve. For more information on scholarship availability contact nngacga2025@gmail.com.

If you are able to assist with funding scholarships, please make a donation to the NNGA scholarship fund on your registration and note the donation as NNGA scholarship. Let us know if you wish to remain anonymous.

SPONSORSHIPS

We have the opportunity to support nut research and training or the scholarship fund by becoming a conference sponsor. Sponsors will be acknowledged in the conference materials and post-conference NNGA and CGA publications by the following levels of gifting:

- Tree level: >$500
- Sapling level: $200-$499
- Seedling level: $100-$199

Use the "Donations" button in the online registration to show your contribution.

POST-CONFERENCE TOURS

On your way home on Wednesday or Thursday, you may want to take a break and participate in a post-conference tour. The planning committee is still looking for suggestions of places that could be added to one's conference experience as we return home on Thursday. If you have suggestions, please send your suggestion(s) to nngacga2025@gmail.com. We will contact the owners to determine their interest, availability and timing for any post-conference tour.

Pence Walnut Agroforestry Planting and Seed Orchard, West Lafayette, Indiana, has invited attendees to visit their plantings on Thursday (times to be determined based on interest). The Pence plantings are located approximately 250 miles (4 hours) southwest of Lansing near West Lafayette (I-69 south to Fort Wayne, US-24 west to US-52). Plans are to tour the original 120-acre walnut planting established as part of an alley-cropping practice in 1989 and a recently established 4-acre seed orchard established from 200 grafts made from the 40 best of the best timber trees out of 44,000 trees originally planted in 1989. The Pence's will discuss what it takes to have a successful black walnut planting and establishing a seed orchard. Many of the phenotypically superior trees are the seed source for Pence Select seedlings offered by the Hensler Nursery (www.henslernurseryindiana.com/wholesale-trees/pence-select-walnut-trees). The Pence family anticipate selling improved black walnut seed from the seed orchard in about 5 years to a private nursery who can offer growers seedlings with more genetic improvement than is currently available. Please email Jerry Van Sambeek at editor@nutgrowing.org if you think you would be interested in the tour on Thursday afternoon.

Conference Schedule of Events

This schedule is a work in progress. Please refer to your conference program or the conference website for the most recent updates.

SUNDAY, 3 AUGUST 2025

Sunday activities include the annual NNGA Board meeting in the morning at the Doubletree by Hilton Lansing. All other activities will happen at the Nash Nurseries and Orchard in Owosso where Nash Nurseries will have a large tent set up in their Events Area (4975 W Grand Rd,48867). Activities start with the first of two-field tour opportunities of the nursery and **orchard**. Bill Nash will welcome us at 3:00 after which each decide whether to go on the field tour (if you have not already), attend the CGA Board meeting, or visit the grounds, various exhibits, displays, and posters in the events area for the rest of the afternoon. Registration and setting up of posters, displays, and exhibits will begin at 3:15. Sunday early evening, join us for the social with cash bar, the first poster/exhibitor session, welcome reception/dinner, and the traditional Show and Tell program with lightening talks.

10:00 – 12:00 **Northern Nut Growers Association Board of Directors Meeting**, Michigan II, Doubletree by Hilton

12:00 – 1:00 **Lunch on your own**.

1:00 -- 2:00 **Arrange Carpooling to Nash Nurseries.** Attendees without vehicles should check the list In Michigan II to see who has volunteered to provide rides and make a cell phone contact to arrange when and where to meet to travel to and from Nash Nurseries.

1:15 – 2:45 **Nash Nurseries and Orchard wagon tour #1,** meet at the Event Area at Nash Nurseries.

3:00 – 3:15 **Welcome** -- Bill Nash, *Nash Nurseries: Past, Present, and Future*

3:15 – 4:45 **Nash Nurseries and Orchard wagon tour #2,** load wagons at Events Area

3:15 – 4:00 **Chestnut Growers of America Board of Directors Meeting**, Nash Nurseries Event Area

3:15 – 6:00 **Registration**, pick up your name tag and program packet in the events area of Nash Nurseries and Orchard

3:15 – 5:00 **Set up posters, exhibits, and displays** in the events area at Nash Nurseries. Auction items should be turned in on Monday morning at DoubleTree.

3:15 – 6:00 **Open Session** in Events Area, free time to visit the grounds, posters, equipment displays, exhibits, and demonstrations.

5:00 – 6:00 **First Poster/Exhibitor Session** concurrent with social in large tent in the events area at Nash Nurseries

5:00 – 6:00 **Welcome Social with Cash Bar** under large tent in events area at Nash Nurseries.

6:00 – 7:00 **Welcome Buffet Dinner inside the large tent in events area at Nash Nurseries**

7:00 – 8:30 Show and Tell with Lightning Talks
Jerry Henkin, Session Moderator, Nash Nurseries Event Area

7:05 Jim McKenna, NNGA/CGA Welcome

7:15 Jerry Henkin, *1926 NNGA Annual Report on the Beginning of the Northern Nut Growers Association*

7:25 Dan Lefever, *The AdvancingEcoAgriculture.com paradigm*

7:35 Jeff Jensen, Hazelnuts in Iowa

7:45 Space for three additional presenters

8:25 **Announcements**, updates on schedule of events and housekeeping remarks

MONDAY, 4 AUGUST 2025

Monday will feature the annual business meeting for the NNGA, a CAPS program, our first keynote presentation, the technical side of the conference, and the auction. Coffee, tea, and water available all day in the Capital Ballroom for registered attendees. The day will start with a short NNGA business meeting. The technical session will open with a keynote presentation followed by presentations throughout the day ending with two concurrent forums (panels or group discussions). The CAPS program will begin right after the keynote presentation. A light buffet lunch is included with the full, student, and day registration. In the evening after dinner on your own, plan to participate in a second poster/exhibitor session and social with cash bar until the live auction begins. Proceeds from the auction go to support the NNGA or CGA research grants program.

7:30 AM – 9:00 PM **Coffee, tea, and water available all day,** Capital Ballroom

Continental breakfast available in the Pre-Function Area with full, student, day, or companion registration.

7:30 – 9:00 **Registration**, Pre-function Space, Doubletree. Turn in **Auction** items at the registration table.

7:30 – 9:00 **Set up Posters, Exhibits, and Displays** in the Double Tree Pre-Function Space.

8:30 – 8:50 **NNGA Business Meeting** including annual reports, Board nominations, and Nominating Committee election, DoubleTree Ballroom

8:50 – 9:00 **Welcome**, Roger Blackwell, CGA President, Capital Ballroom

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9:00 – 9:45 **Keynote Presentation** – Dan Guyer, *Chestnut Programming at Michigan State University; A Land Grant Model at its Best!*

9:45 – 3:00 **CAPS Program** – Meet in the Pre-Function Space outside the Capital Ballroom to arrange today's venues, transportation, and lunch options. Anticipate returning to the DoubleTree lounge after the last stop to share stories of past activities and events

9:45 – 12:30 **Monday Morning Technical Session,** Roger Blackwell and Samantha Bosco, Moderators, Capital Ballroom

9:45 - 10:15 Guo-qing Song, *Revitalizing the Chestnut Industry: Leveraging Elite Genotypes, Micropropagation, and Precision Breeding*

10:15 - 11:35 Tanner Rankin, *Chestnut Curious: Understanding the Establishment and Management Practices of Chestnut Growers in the East and Midwest*

11:35 - 11:00 **Break, c**offee, tea, and water available in back of Capital Ballroom

11:00 - 11:25 Elspeth Hay, *Feed Us with Trees: Humans, Nuts, and the Future of Food*

11:25 - 11:50 Andrew Faust, *Creating Permaculture Legacy Landscapes*

11:50 - 12:10 Marc Friedman and Greg Bonito, *Persistence of Truffle Producing Fungi on Tree Nut Hosts*

12:10 - 12:30 Carolyn Pettit, *Eldering and Regenerative Agriculture*

12:30 - 1:30 **Buffet Lunch** included in full, student, and day registration, Michigan II

1:30 – 3:15 **Monday Early Afternoon Technical Session**, Melanie Jones, Moderator, Capital Ballroom

1:30 - 2:00 Kenneth Chance, *Appalachian Foothills Fruits and Nuts*

2:00 - 2:30 Kathleen Rhoades, *What DNA Sequencing Can Tell Us About American Persimmon Cultivars*

2:30 - 2:50 Ian McSweeney, *The Farmers Land Trust*

2:50 - 3:15 **Break,** coffee, tea, and water available in back of Capital Ballroom

NOTE THE REMAINING AFTERNOON SESSIONS ARE CONCURRENT

3:15 – 4:15 **Monday Late Afternoon Concurrent Session A**, Greg Miller, Moderator, Capital Ballroom

3:15 - 3:45 Dylan Warner, *Chestnuts: Blight Resistance among Back Crossed Cultivars Grown in Tissue Culture, and Comparison of Mycelial and Spore Inoculations*

3:45 - 4:15 Nate Lawrence, *Temporal Effects of Chinese Chestnut Cultivation on Soil Health Parameters: A Chronosequence Analysis*

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3:15 – 4:15 **Monday Late Afternoon Concurrent Session B**, Alex Tanke, Moderator, Michigan II and III (session will be recorded, but not included in virtual registration)

3:15 – 3:45 Warren Chatwin, *Validating Hickory Species and Hybrid Classification with Low-coverage and Amplicon DNA Sequencing*

3:45 – 4:15 Adam D'Angelo, *The Project Pawpaw*

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

4:15 – 5:20 **Introduction of Concurrent Forms,** chose one of the following two panes or group discussions

4:20 – 5:20 **Beginner Nut Grower Forum**, John Kelsey, Facilitator, Location TBD (Forum will begin by addresses the questions in the Kelsey abstract for *Starting Out with Trees)*

Panelists and Abstract Titles:

Andrew Faust

Jerry Henkin

Melanie Jones

Issues for Commercial Nut Growers. Roger Blackwell, Facilitator; location TBD

Panelists and Abstract Titles

Ron Tanner, *Build Your Export Sales with USDA Funding*

Roger Smith, *Prairie Grove Chestnut Growers*

Charles NovoGradac and Debbie Milks, *Growing Organic Chestnuts*

Dan Lefever

Sam Bonney, *Growing Organic Chestnuts*

5:20 – 6:00 **Dinner on your own**

6:00 – 7:00 **Second Poster/Exhibitor Session**

6:30 – 7:00 **Auction Registration with Cash Bar,** Time to view auction items, obtain your number for auction, and socialize, Capital Ballroom

7:00 – 9:00 **Auction,** Capital Ballroom

9:00 –10:00 **Settle up** with cashiers and remove purchased items

TUESDAY, 5 AUGUST 2025

Tuesday features the second keynote presentation, morning and afternoon technical session followed by concurrent panel or group

discussions, and he second day of the CAPS program. Coffee, tea, and water available all day. A light buffet lunch is included in the full, student, and day registration. In the evening, we will have the traditional social and banquet.

7:30 AM - 5:00 PM **Coffee, tea, and water available all day** ln the back of the Capital Ballroom

Continental breakfast available in the Pre-Function Area with full, student, day, or companion registration.

9:00 - 9:45 **Keynote Presentation** – Ron Revord, *Tree Nut Research Updates from the University of Missouri Center for Agroforestry*

9:45 – 2:55 **CAPS Program** – Meet in the Pre-Function Space outside the Capital Ballroom to arrange today's venues, transportation, and lunch options. Anticipate returning to the DoubleTree lounge after the last stop to share stories of past activities and events

9:45 – 12:25 **Tuesday Morning Technical Session,** Elodie Eid and Ray Rusmisel, Moderators, Capital Ballroom

9:45 - 10:10 MJ Oviatt, *Hazel -- More Than a Nut: Creating Hedgerows with Hazel and Other Native Woody Species*

10:10 - 10:35 Lee Reich, *Success with Hazelnuts*

10:35 - 10:50 **Break,** coffee, tea, and water available in Capital Ballroom

10:50 - 11:20 Younsuk Dong, *Improving Irrigation Management Using Sensor Technology*

11:20 - 11:55 Winston Beck, *Project Superhybrid: Propagation and Evaluation of Novel* Juglans *Genotypes*

11:55 - 12:25 Aziz Ebrahimi, *Conserving Threatened Butternut (*Juglans cinerea*) Trees Using Genomic and Phenomic Approaches*

12:25 - 1:25 **Buffet Lunch** include in full, student, and day registration, Michigan II

1:25 – 4:20 **Tuesday Early Afternoon Technical Session**, Amy Miller, Moderator, Capital Ballroom

1:25 - 1:55 James R. McKenna, *Screening of Transgenic American OxO Chestnut in Indiana*

1:55 - 2:25 Maya Niesz Kutsch, *Update on Maximum Pollination Distance of Transgenic Chestnuts*

2:25 - 2:55 Carmen Medina-Mora, *Impacts of Pollination Biology on Chestnut Fruit Quality*

2:55 - 3:20 **Break,** coffee, tea, and water available in Capital Ballroom

NOTE THE REMAINING AFTERNOON SESSIONS ARE CONCURRENT SESSIONS

3:20 – 4:20 **Tuesday Late Afternoon Technical Session A**, Zack Elfers, Moderator, Capital Ballroom

3:20 – 3:50 Giorgia Bastianelli, *In vitro and Field Evaluation of Chemical and Biological Products for Chestnut Brown Rot Control (caused by* Gnomoniopsis smithogilvyi*) in Michigan* (presented by Erin Lizotte)

3:50 – 4:20 Magni Hussein, *Automated Chestnut Sorter for Damage, Pests, and Disease*

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3:20 – 4:20 **Tuesday Late Afternoon Concurrent Session B**, Jim McKenna, Moderator, Michigan II

3:20 - 3:50 Levi Geyer and Alex Tanke, *Hickory Processing Developments*

3:50 - 4:20 Sara Tyler, *Black Walnut Oil Pressing with a Hydraulic Press* (session will be recorded, but not included in virtual registration)

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

4:20 – 4:25 **Introduction of Concurrent Forums,** chose one of the following two panels or discussion groups

4:25 – 5:30 **Growing Better Chestnuts**, Greg Miller, Moderator: Location TBD

Panelists and Abstract Titles:

Amy Twohig, *Understanding the Role of Insect Vectors in the Oak Wilt Disease Cycle & Impacts to Chestnut Restoration*

Francesca Rotondo, *Chestnut Rots*

Geoffrey M. Wiilams, *Red Oak Health in Michigan Public Lands: Epidemiology, Genetics, and Management*

Fruits and Value--Added Products, Kathy Dice, Moderator; Location TBD

Panelist and Abstract Titles

Sarah E. Francino and Joseph C. Scheerens, *The Efficacy of Under-tree Netting as a Cultural Practice for Harvesting and Marketing High-quality Pawpaw Fruit*

Adam D'Angelo, *The Project Pawpaw*

Kenneth Chance, *Appalachian Foothills Fruits and Nuts*

Kathleen Rhoades*, What DNA Sequencing Can Tell Us About American Persimmon Cultivars*

We will have the Deadly String Band (DSB) playing Sunday evening at the Nash Nursery opening day and at the social for the banquet Tuesday night. The DBS is a Grateful Dead and Dead-adjacent cover band in the style of an old-time string band from East Lansing, Michigan, and a very talented act. Six members make up the band one of whom is Greg Bonito, an

Continued on next page...

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MSU professor, who works on chestnuts. They may have a special string arrangement of Torchinsky's "Nut Cracker" and other interesting tunes.

6:00 – 6:10 **Group Photo** – The cash bar will not open until after the group photo – Listen to announcements during the week as to where to meet for the group photo.

6:10 – 7:00 **Social with Cash Bar** after group photo, Pre-Function Space, Entertainment provided by The Deadly String Band

7:00 – 8:00 **Banquet,** Jim McKenna, MC, Capital Ballroom

8:00 – 9:00 **Banquet Program,** Roger Blackwell and Jim McKenna

Crowning of 2025 NNGA Big Nut

Recognition of Major Sponsors and Donors

Recognition of Guests

2025 Research Grant Recipients

Election of NNGA Officers and Directors

Presentation of NNGA Merit and Service Awards

WEDNESDAY, 6 AUGUST 2025

Today's activity will be an all-day bus tour to three sites surrounding Lansing. Participants are asked not to follow the buses in their own vehicles because **parking is not available at the sites**. A boxed lunch is included in the full, student, and Wednesday registration. The conference will adjourn when the buses return to the DoubleTree late on Wednesday afternoon.

7:30 – 8:00 Depart from the Conference Center – Charter Bus & Breakfast

9:00 – 11:00 Chestnut Growers Inc. (CGI) Processing & Shipping Facility – Clarksville, MI. Tour of their processing facility of Michigan's chestnut co-op, handling over 250,000 lbs of chestnuts annually.

12:30 – 2:30 Beyer's Orchard – Paw Paw, MI – LUNCH in the ORCHARD. One of Michigan's largest chestnut orchards, planted in 2012, with 65 acres of grafted chestnut trees harvesting 15 tons annually now.

3:30 – 5:30 MSU Roger's Reserve – Jackson, MI. A research facility dedicated to advancing nut and unusual fruit production. The region's only mechanized fresh chestnut peeling/processing line, capable of peeling 2,000 lbs of chestnuts per hour, as well as a processing kitchen for chestnut flour, chestnut chips, hazelnuts, and paw paws.

7:00 Travel back to the DoubleTree. Conference ends when we arrive. If you are staying at the DoubleTree Wednesday evening, watch for announcements where folks will congregate for supper and visiting in the lobby that evening.

WEDNESDAY FIELD SITES

MSU AG BIO RESEARCH CENTER AND CHESTNUT GROWERS INC. (CGI) PROCESSING AND SHIPPING FACILITY, Clarksville, MI

We will tour the processing facility of Michigan's chestnut co-op that handles of a quarter million pounds of chestnuts annually. This includes cleaning, storage, sorting, processing, product storage, packaging, and shipping.

BEYER'S ORCHARD, Paw Paw, MI

One of Michigan's largest chestnut orchards. Orchard has over 65 acres of grafted chestnut trees. The Beyer's began planting in 2012. As the orchard came online it has expanded to over 1,800 trees. The Beyer's are harvesting and supplying over 30,000 pounds of nuts to the CGI co-op.

MSU ROGER'S RESERVE, Jackson, MI

This is a research facility dedicated to the advancing nut and unusual fruit production. The site features the region's only mechanized fresh chestnut peeling/processing line, capable of peeling 2,000 pounds of chestnuts per hour, as well as a processing kitchen for chestnut flour, chestnut chips, hazelnuts, and pawpaws.

CAPS VENUES

MSU Horticulture Gardens (canr.msu.edu/hrt/our.gardens).

Impression 5 Science Center (impression5.org)

R. E. Olds Transportation Museum (reoldsmuseum.org)

Lansing Brewing Company (lansingbrewingcompany.com)

POSTER PRESENTERS AND EXHIBITORS

Posters, displays, and exhibits will be set up at the Nash Nurseries on Sunday afternoon and then moved to the DoubleTree Pre-Function Space on Monday morning. Exhibitors and poster presenters will be asked to be near their exhibit or poster during the first session Sunday from 5:00 to 6:00 pm and during the second session Monday evening preceding the auction from 6:00 to 7:00 pm. The complete list of poster presenters, titles, and abstracts will be published in the fall issue of NNGA's *The Nutshell.*

2025 Joint NNGA/CGA Conference Registration Form

The 2025 Joint Conference of the Northern Nut Growers Association (NNGA) and the Chestnut Growers of America (CGA) will be held August 3–6, 2025 at the Nash Nurseries, Owosso and the DoubleTree by Hilton, Lansing, Michigan. Register online at bit.ly/NNGA25 or send this form with payment to the Northern Nut Growers Association, c/o Debbie Milks, PO Box 1166, Lawrence, KS 66044. Register by June 20 to avoid the $50 late fee. For additional copies of this form, go to the NNGA website (nutgrowing.org) to download and print.

Who is this registration for? Please fill out a separate registration for each adult attending.

First Name:_____ Last Name:_____

Name and organization (if wanted) for your name tag:_____

Organization (optional):_____

If you are a student enrolled at_____Field of Study_____

Email Address:_____Mobile Phone Number:_____

City:_____State/Province:_____Zip Code:_____Country:_____

Registration Options

_____**Conference Sun thru Wed:** $375/person OR $250/student (after June 20 add $50 late fee below).
Full registration includes program packet; Sunday afternoon tours, welcome dinner, and show-and-tell at Nash Nurseries; Monday and Tuesday technical sessions, breakfast, lunch, and breaks; Monday auction; Tuesday social/banquet; and Wednesday's field tour including bus transportation, breakfast, and box lunch.

_____**Conference Sun thru Tues:** $320/person OR $220/student (after June 20 add $50 late fee below).
Full registration includes program packet, printed program with session abstracts; favor; Sunday afternoon tours, welcome dinner, and show-and-tell at Nash Nurseries; Monday and Tuesday technical sessions, breakfast, lunch, and breaks; Monday auction; Tuesday social/banquet. It does **NOT** include Wednesday's activities.

_____**Conference Monday & Tuesday:** $295/person OR $195/student (after June 20 add $50 late fee below).
Includes program packet, Monday and Tuesday technical sessions, breakfast, lunch, and breaks; Monday auction; Tuesday social/banquet.

_____**Conference Wednesday field tour:** $65/person or student (after June 20 add $10 late fee below).
Includes bus transportation, breakfast, and box lunch.

_____**Companion Program:** $225/adult or child before June 20 (after June 20 add $50 late fee below).
Companion registration includes Sunday afternoon tours, welcome dinner, and show-and-tell at Nash Nurseries, Monday breakfast and auction; Tuesday breakfast and social/ banquet. It does not include Monday and Tuesday entrance fees, transportation, lunches, or Wednesday field tour.
List name(s) of accompanying children:_____

_____**Exhibitor Table:** $50/table, one 6' table/exhibitor. Meals and sessions not included.
Please contact nngacga2025@gmail.com if you want to send brochures or handouts in advance for registration packets or setting up display table in your absence.

_____**Extra Banquet Tickets:** Add $55/person. Ticket(s) for:_____

_____**For Registration after June 20 add $50 to full conference, companion, student, or exhibitor registration.**
Or add $10 for each one-day registration. Organizers need to start making non-refundable commitments to vendors after June 20 on numbers of participants, services, and culinary needs.

_____**Event Sponsorship/Donation**
As part of your registration, are you willing to help support activities at this conference or support scholarships to future conferences? Sponsors will be recognized at the conference and in *The Nutshell*. Sponsorship levels: Tree ($500+); Sapling ($200-$499); Seedling ($100-$199). $_____donation toward general conference fixed expenses, auction, and/or scholarship fund (circle intention).

_____**Member Discount on full conference, student, or exhibitor registration.**
Subtract $20 if you are a NNGA, CGA, or MFNGA member and circle which one(s).

$_____Total for Registration and Other Options.

Please turn over and complete the second page. →

2025 Conference Registration Form, continued:

Volunteering: Are you willing to volunteer during the conference? We need help with activities like check-in, hospitality, monitoring display/exhibit area, session moderators, bringing homemade snacks, etc._____

_____

Restrictions: Please list any dietary restrictions (vegetarian, vegan, gluten-free, etc.) you have. We want to accommodate your needs:

_____

Accessibility: Activities may require attendees to stand for 20 minutes or more, walk short or moderate distances, and sit in classroom chairs for periods of up to 60 minutes or more. We recognize not all attendees are comfortable or able to complete these tasks without assistance. If you will need assistance with any of these activities, let us know:_____

_____

Transportation: For the Sunday activities at Nash Nurseries, you will be asked to drive your own vehicle or arrange to carpool with someone from the DoubleTree. If flying into Capital Regional Airport and staying at the Doubletree, call front desk to arrange shuttle to hotel. Amtrak serves Lansing from Chicago; however, the Doubletree does not offer shuttle service from the Amtrak station.

Nash Nurseries Tour Preference: Please indicate (circle preference) if you plan to take the 1:00 or 3:00 90-minute tour of the Nash Nurseries and Orchard. Those taking the 1:00 tour will have time to explore the nursery grounds, vendor exhibits, posters, and grafting and nutmeat evaluation demonstration before the welcome dinner.

Wednesday Field Tour: The Wednesday field tour includes a modern, large chestnut processing facility, a 65-acre chestnut orchard and Michigan State's chestnut research facility. Transportation is provided and individual cars are discouraged.

Housing: All indoor activities will be held at the DoubleTree by Hilton. The conference group rate is $129 plus 13% taxes/night. To book, please reach out directly to the **DoubleTree by Hilton Lansing**, **1-833-904-2206**. Be sure to give the code **91R** when registering to take advantage of their discount. Don't wait, our block of reserved rooms expires on July 3rd. You may cancel without penalty up to 72 hours before the arrival date, so don't hesitate! The Courtyard by Marriott is down the street from the DoubleTree.

Please share some information about you and your interests with us!

Is this your first NNGA/CGA conference you have attended? ☐ Yes ☐ No

What is your principal background and interest in nut trees"?

☐ Grower – Commercial Production ☐ Grower – Hobbyist

☐ Research – Academia, Natural Resources ☐ Consumer – Marketing, nutrition, uses

Which tree crops are you most interested in (select up to three)?

☐ Chestnut ☐ Hazelnut ☐ Pecan ☐ Other hickories

☐ Black walnut ☐ Butternut ☐ Heartnut ☐ Persian walnut

☐ Pawpaw ☐ Persimmon ☐ Low tannin oaks ☐ Other_____

Which nut culture topics most interest you (select up to three)? Will help the Publications Editor choose content.

☐ Orchard Establishment – site selection, site preparation, planting designs, planting stock, weed control

☐ Vegetative Propagation – tissue culturing, budding, grafting, rooting cuttings

☐ Cultivar Selection – genetics, breeding, nut evaluation

☐ Damaging Agents – insects, diseases, herbicide injury, climate change

☐ Orchard Management – pruning, thinning, fertilization, cover crops

☐ Harvesting and Processing – nut harvesting equipment, nut crackers, oil extraction

☐ Marketing – Online sales, farmer markets

Send completed form with payment to: Debbie Milks, PO Box 1166, Lawrence, KS 66044

Make checks payable to the Northern Nut Growers Association

If you have questions or want to check on cost or status of your registration, please call 785-766-8849

or email to Debbie Milks at nngacga2025@gmail.com.

Chestnut Growers of America End-of year Financial Report, 2021-2024

Financial and membership summaries prepared by Jack Kirk, CGA Treasurer / Secretary

		2021	2022	2023	2024
Income	Annual Meeting Registrations	--	2,262.67	3,023.50	--
	Annual Meeting Silent Auction	--	439.45	63.50	1,449.00
	Membership Dues	5,940.44	6,589.69	6,981.18	6,032.12
	Online Grower Directory	300.00	220.00	225.00	215.00
	Interest Income	34.24	1,017.64	362.18	951.92
	Newsletter Advertising	275.00	430.00	325.00	360.00
Total Income		6.549.68	10,959.45	10,980.36	9,008.04
Expenses	Annual Meeting	--	(630.27)	(550.00)	--
	Insurance	(1,122.00)	(1,122.00)	(1,122.00)	(1,209.00)
	Newsletter	(856.23)	(540.33)	(794.56)	(828.48)
	Communications Director	(2,468.75)	(1,887.50)	(993.75)	(1,205.00)
	Organizational Expenses	(50.00)	(50.00)	(50.00)	(50.00)
	Website	(227.95)	(291.92)	(177.91)	(305.82)
	Research Grant	--	--	--	(10,000)
Total Expenses		(4,724.93)	(4,522.02)	(3,688.22)	(13,598.30)
Net Income		1,824.75	6,437.32	7,292.14	(4,590.26)
Cash, beginning of year		24,052.39	25,877.14	32,314.57	39,606.71
Cash, end of year		25,877.14	32,314.57	39,606.71	35,016.45

Membership Report, 2021-2024

Members	2021	2022	2023	2024
Household	63	64	68	59
Individual	52	75	82	55
Associate	1	0	1	5
Honorary	0	0	0	0
Complimentary	1	1	1	2
Total	**117**	**140**	**152**	**121**

CGA Board of Directors Treasurer/ Sectretary Position Open

If you are interested in serving as the next CGA Treasurer/ Secretary, or to nominate someone, contact CGA President Roger Blackwell at rblackwel@comcast.net or 810-923-2954.

2025 - 2026 CGA Slate of Officers:

President: Roger Blackwell

Vice President: Sarah Fitzsimmons

Secretary/Treasurer: Jack Kirk

Directors: Steve Jones, Greg Miller, Tom Wahl, Rick Hartlieb

According to the bylaws, the slate shall be considered to have been elected unanimously if no written petitions are received.

Give your marketing a boost with a paid CGA Grower Directory listing

The online Grower Directory (www.chestnutgrowers.org/growers.html) provides a way for potential customers to look up chestnut growers in their area. An option to post a paid listing helps your orchard stand out with a photo and more detailed information. From the listing, customers can link directly to your website or contact you via email. Your renewal form includes the option for you to select a paid listing (still $25.00/year) or a free listing. CGA regularly directs outside inquiries about local chestnuts to the online directory, so this is a marketing opportunity you can't afford to miss!

2024 Annual Chestnut Market Survey Report

Zhen Cai, Michael Gold, and Kelsi Stubblefield | University of Missouri Center for Agroforestry

The Annual Chestnut Market Survey was initiated by Chestnut Growers of America and Center for Agroforestry at University of Missouri in 2010. The aim of this annual survey is to keep track of the growth of the chestnut industry over time and provide chestnut growers with information on the current and future chestnut market. The 2024 Annual Chestnut Market Survey questionnaire was sent out to 144 current and past CGA members. In total, 59 usable surveys were collected with a response rate of 41%.

PRODUCTION OPERATION

Survey respondents included: chestnut growers, sellers or value-added producers (93%); chestnut researchers/educators (5%); and others (2%). Eight respondents were chestnut cooperatives members, including: Chestnut Growers, Inc. (4 respondents), Route 9 Cooperative (2 respondents), Prairie Grove Chestnut Growers (1 respondent), and Northeast (1 respondent). Chestnut orchards owned by our survey respondents are located in 24 states in the U.S. (Table 1).

Approximately 44% of the chestnut orchards owned by our respondents were at least 10 years old. Respondents reported a total of 2,607 acres of land planted in chestnuts (this accounts for 26% of the total acres of the U.S. chestnut orchards) (Table 2). 132 acres are owned by co-op members.

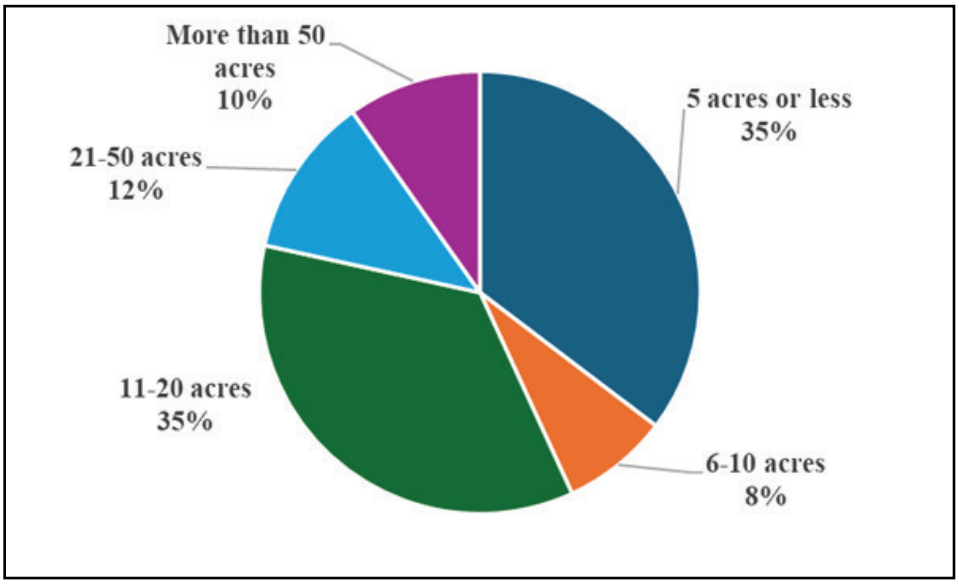

Figure 1. *Sizes of chestnut orchards owned by the 2024 survey respondents (N=51).*

Table 2. *Total acres planted in chestnuts.*

	2023-2024	2021-2022	2020-2021	2018-2019	2017-2018
Total acres planted in chestnuts	**2,607 ac**	832 ac	703 ac	824 ac	663 ac

In terms of chestnut orchard size, 43% of our respondents indicated that they have less than 10 acres of land planted chestnuts (Figure 1). Approximately 32% of our respondents had plans to expand their orchards in the future (Table 3). Approximately 5% of chestnut orchards were planted with grafted chestnut trees, while 95% were cultivated from seedlings.

Table 1. *Locations of chestnut orchards owned by the 2024 survey respondents.*

State	# of orchards	State	# of orchards
Michigan	8	Florida	1
Missouri	7	Illinois	1
Iowa	5	Kansas	1
Illinois	4	Kentucky	1
Ohio	4	Mississippi	1
California	3	New York	1
Oregon	3	North Carolina	1
Florida	2	Oklahoma	1
Georgia	2	Pennsylvania	1
Texas	2	South Carolina	1
Washington	2	Tennessee	1
Arkansas	1	Virginia	1
		Total	**55**

Most respondents (66%) grew chestnuts using conventional methods, while 30% employed some form of organic production, though often not officially certified as USDA Organic. Additionally, 4% used a combination of both conventional and organic methods. Among those using conventional practices, 21% applied inorganic fertilizers and herbicides; 58% used inorganic fertilizers, insecticides, and herbicides; 15% utilized inorganic fertilizers only; 3% used insecticides only; and 3% used herbicides only.

HARVEST & YIELD

A total of 201,038 pounds of chestnuts were reported by our respondents in the 2023 harvest. The earliest reported start date for harvesting chestnuts in 2023 was in August, while the earliest shipping date reported was at the end of September. Most respondents indicated that they completed shipping their chestnuts by the end of October.

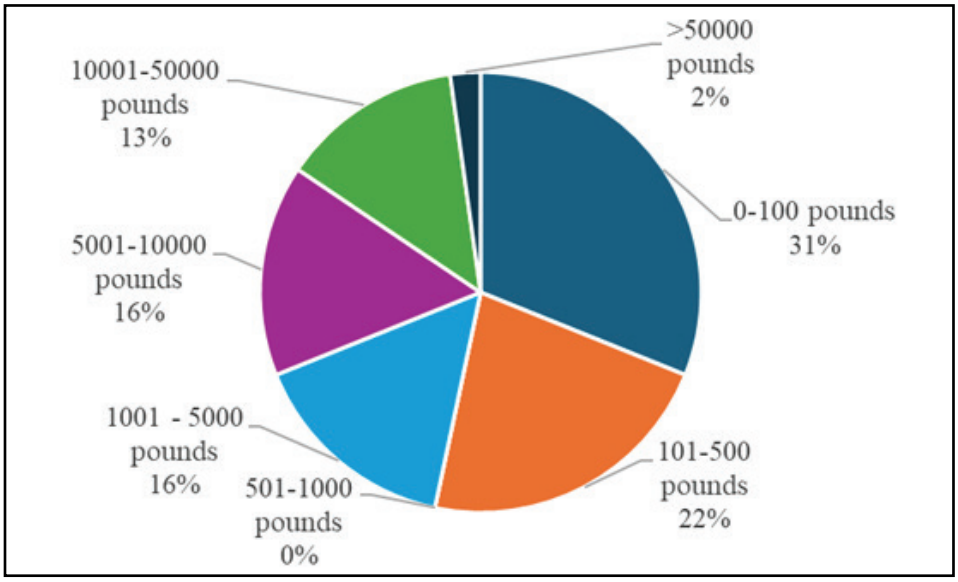

Figure 2. Number of pounds of chestnuts harvested by respondents in 2023 (N=45).

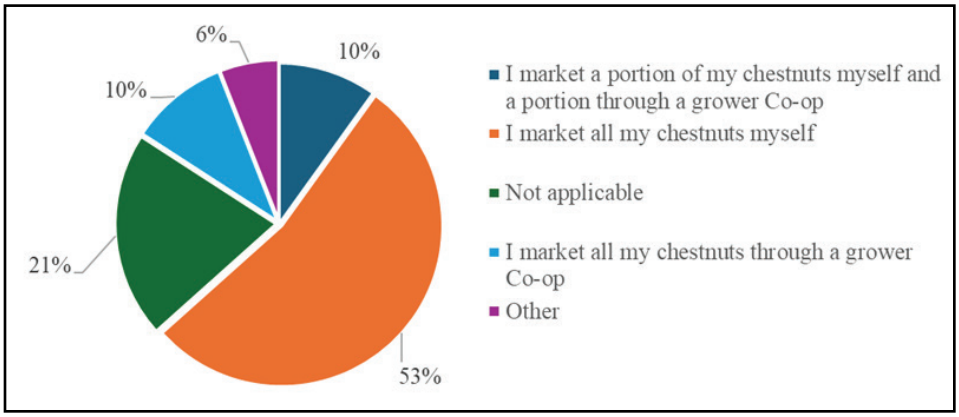

Figure 3. How respondents marketed their chestnuts in 2023 (N=52).

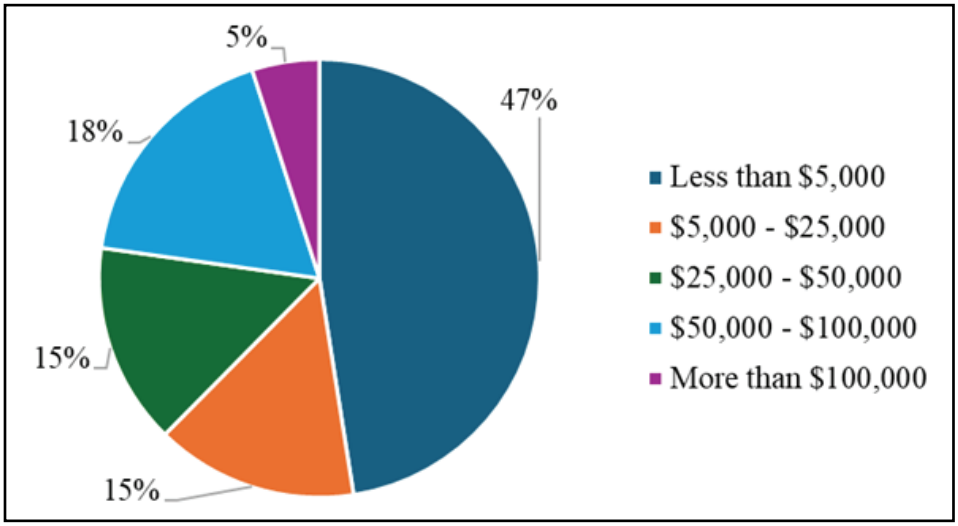

Figure 4. Approximate annual gross sales income from chestnuts in 2023 - excluding shipping and delivery (N=40).

Table 3. Respondents' plans on orchard expansion.

	2023-2024	2021-2022	2020-2021	2018-2019
Yes	**32%**	45%	43%	40%
No	**68%**	55%	57%	60%
New Acr es	**71**	59	220	236
New Trees	**5937**	3753	4,728	10,740

Approximately 15% of respondents harvested at least 10,000 pounds of chestnuts in 2023 (see Figure 2). Among all respondents, 40% harvested their chestnuts by hand, while 27% used a combination of nut wizards and hand picking. Additionally, 14% relied solely on nut wizards; 9% used commercial chestnut harvesters or other mechanical methods; and 2% combined hand picking, nut wizards, and commercial harvesters (e.g., FACMA) or other mechanical equipment. Another 2% used hand picking along with nut wizards and U-pick, 2% used nut wizards with commercial harvesters, and 2% utilized nut wizards and vacuum systems. Lastly, 2% reported using U-pick only.

Of all respondents, 38% reported that their yields were lower compared to the previous reporting year, 21% reported no change in yield, 41% reported higher yields. Increased yields were reported due to maturation of orchards and/or good weather. Lower yields were attributed to bad weather conditions, progression of Chestnut Gall Wasp infestation, and pollination issues.

MARKETING

Value-added chestnut products producers only accounted for 8% of the respondents. Most respondents (54%) produced and marketed all their chestnuts by themselves, and 10% marketed all their chestnuts through a grower Co-op (Figure 3).

Income from Chestnuts

In 2023, annual gross sales income from chestnuts greater than $50,000 and less than $100,000 were reported by 18% of respondents, and annual gross sales exceeding $100,000 were reported by 5% of respondents (excluding shipping and delivery) (Figure 4). Nearly half of the respondents (48%) reported annual gross sales less than $5,000. Only 10% of the respondents reported earning income from the sale of value- added products.

Market Outlets and Prices

Growers sell fresh chestnuts and value-added products through a variety of different outlets (Figure 5) including: marketing cooperatives, farmers market, restaurants/chefs, distributor/broker, grocery store, wholesaler, online/direct to consumer, and on farm sales. Table 4 provides a year-to-year comparison

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of reported chestnut prices at different market outlets from 2018 to 2023. Overall, prices are holding steady or increasing from 2018-2023.

DEMAND FOR FRESH CHESTNUTS AND VALUE-ADDED PRODUCTS

In 2023, 68% of respondents reported an increased demand for fresh chestnuts, consistent with responses from 2021. Regarding the current market dynamics, 57% indicated that demand exceeded supply, while 16% reported that demand fell below supply.

When asked about the demand for value-added chestnut products, 73% of respondents (N=48) indicated they were unaware of the demand. Meanwhile, 12.5% reported that demand exceeds supply, and 10% stated that demand is equal to supply.

INFORMATION ON CHESTNUT COOPERATIVES

This year's chestnut cooperative survey gathered information from three cooperatives: Chestnut Growers, Inc., Prairie Grove, and Route 9 Cooperative. On average, each cooperative has 40 members. In 2023, cooperatives reported an average sale of 97,667 pounds of chestnuts, reflecting a 5% increase from 92,487 pounds in 2021. Most of these chestnuts were sold in Georgia, Illinois, Iowa, Michigan, New York, New Jersey, Ohio, and Pennsylvania.

None of the chestnuts sold by these cooperatives were organic. Retail prices for chestnuts ranged from $4.40 to $8.00 per pound, while wholesale prices ranged from $3.50 to $5.00 per pound. Outlets for cooperative sales included distributors/brokers ($3.50 to $4.75 per pound), grocery stores ($4.40 to $6.00 per pound), and online consumers ($4.50 to $8.00 per pound).

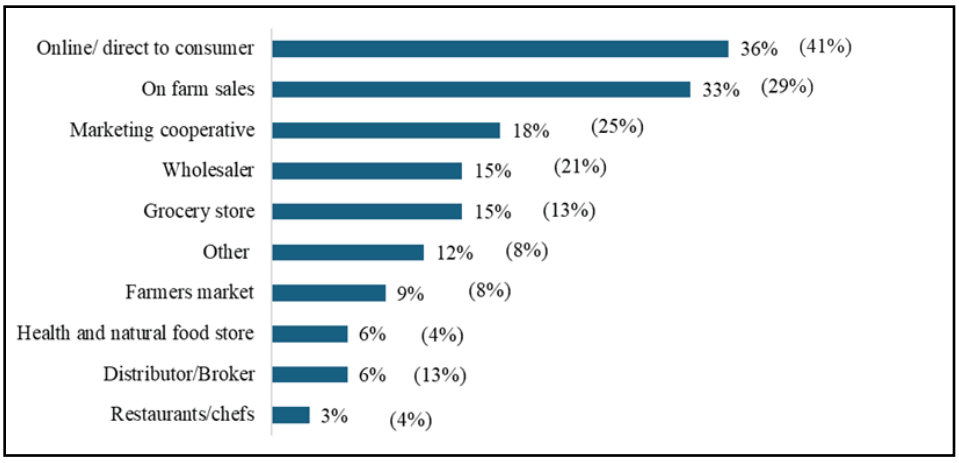

Figure 5. *Market outlets for fresh chestnuts and value-added products (numbers in parenthesis are data from the previous survey) (N=33).*

One cooperative reported a decrease in the supply of chestnuts in 2023 compared to 2022, while the other two cooperatives indicated that their supply remained unchanged. Regarding demand, one cooperative noted that demand did not change from 2022 to 2023, while the other two reported an increase. All cooperatives indicated that demand exceeded supply in 2023.

CONCLUSION

The survey indicates that 2023 may not have been a strong year for chestnut harvests, with over half of the respondents reporting either lower yields or no change compared to 2022. The average pounds of chestnuts harvested per respondent in 2023 also declined almost by half compared to 2021. Despite this decline, many growers remain optimistic about the future, as reflected in their plans to expand orchards. Moreover, chestnut prices have remained stable, with direct-to-consumer sales seeing a more significant increase compared to other outlets. Notably, nearly three fifths of chestnut orchards are still at a pre-commercial age, suggesting considerable potential for growth as these orchards mature. Most growers continue to market their products independently, demonstrating their dedication to building direct relationships with consumers. Overall, the outlook for expansion and stable pricing reflects a resilient and evolving chestnut industry.

Table 4. *Chestnut prices at different market outlets.*

Outlet	Price Range			
	2023-2024	2021-2022	2020-2021	2018-2019
Marketing cooperative	**$2.00-$4.00**	$2.25-$4.15	$2.50-$3.50	$1.60-$2.80
Farmers market	**$4.00 - $8.00**	$6.00	$6.00-$7.00	$2.00-$6.75
Restaurants/ chefs	**No Info**	$4.00	No Info	$3.50-$5.50
Distributor/ Broker	**$3.50**	$3.50-$4.60	No Info	$2.85-$5.50
Health and natural food store	**$4.00-$7.00**	No Info	$4.60	$4.00-$4.60
Grocery store	**$3.00-$4.40**	$3.50	$3.00-$6.00	$3.10-$6.00
Wholesaler	**$4.00-$7.00**	$3.10-$5.00	$2.50-$5.25	$2.00-$7.00
Online, direct to consumer	**$6.00-$12.00**	$5.00 - $8.18	$4.25 - $10.00	$5.00-$6.75
On farm sales	**$2.00-$10.00**	$4.00-$8.00	No Info	$1.00-$6.50

Women Leading the Chestnut Industry: A Conversation with Kathy Dice of Red Fern Farm

An excerpt from the Branching Out: Growing Together *Podcast*

Life transitions often inspire us to reflect on our priorities—what we value, what we leave behind, and what we cultivate. For Kathy Dice of Red Fern Farms, these transitions led to a deep-rooted commitment to sustainability, community, and innovation through chestnut farming. In a recent episode of *Branching Out Growing Together*, Kathy shared her inspiring story, offering valuable lessons for anyone considering a shift toward a more sustainable and fulfilling lifestyle.

As part of *Branching Out: Growing Together*'s series highlighting **women leaders in the chestnut industry**, host **Melanie Jones** sat down with **Kathy Dice**, co-founder of **Red Fern Farm**, to discuss the opportunities and challenges in **chestnut farming**, **agroforestry**, and **sustainable food production**.

A longtime educator and advocate for **sustainable farming practices**, Kathy and her husband **Tom Wahl** have been instrumental in developing practical resources for new and experienced growers. In this conversation, she shares valuable insights on growing chestnuts successfully, integrating livestock into orchards, and how the chestnut market is expanding in the U.S.

A TREE THAT GIVES BACK: WHY CHESTNUTS MATTER

Chestnuts aren't just another crop—they symbolize resilience and longevity. These low-maintenance trees can live for over a thousand years, offering a sustainable solution to modern agricultural challenges. Chestnuts require minimal inputs like fertilizers or pesticides, and their ability to prevent soil erosion makes them an eco-friendly alternative to conventional row crops. These benefits were too compelling to ignore for Kathy and her husband, Tom.

But the beauty of chestnuts goes beyond their environmental advantages. For farmers with as little as 10 acres, chestnuts offer the potential for a steady income while creating opportunities to strengthen

connections with local communities. "It's a win-win crop," Kathy explains, emphasizing how chestnut farming benefits people and the planet.

THE PROMISE AND CHALLENGES OF CHESTNUT FARMING

With decades of experience, Kathy and Tom have helped shape the chestnut industry by promoting **U-Pick farming**, educating new growers, and sharing best practices for **agroforestry**—the integration of trees and livestock in sustainable food production.

Kathy highlights several **key advantages of chestnut farming**:

- **Sustainability** – Chestnuts require minimal fertilizers and pesticides, making them an **eco-friendly** and **low-input** crop.
- **Long-term viability** – Unlike annual crops, **chestnut trees can live for over 1,000 years**, ensuring a lasting legacy.
- **Community impact** – U-Pick farming not only provides **local employment** opportunities but also connects people with agriculture.
- **Market potential** – Chestnuts can be **profitable** even on small acreage, with some family farms thriving on just **10 acres**.

However, Kathy is also candid about the **challenges**:

- **Initial investment and patience** – Chestnut trees can take **2-5 years** to begin producing significant yields, requiring patience and planning.
- **Canopy management** – As chestnut orchards mature, thinning becomes necessary to ensure productivity.
- **Pest control** – Kathy discusses how they are monitoring for **chestnut weevils** and applying **integrated pest management** strategies.

Despite these challenges, she encourages anyone with **suitable land and a passion for sustainable agriculture** to consider chestnuts as a crop.

SUSTAINABLE FARMING AS A WAY OF LIFE

Kathy's approach to farming isn't just about growing crops—it's about creating balance. On Red Fern Farms, agroforestry principles guide every decision. Integrating sheep into their chestnut groves, for example, allows the animals to provide natural fertilization, weed control, and even pruning services by nibbling on unwanted shoots. This symbiotic relationship minimizes the need for chemical inputs and reinforces the idea that farming can work hand-in-hand with nature.

Still, Kathy is candid about the challenges. Chestnut farming isn't an overnight success story; it requires patience, careful planning, and a willingness to adapt. Trees can take years to produce their first nuts, and scaling up involves ongoing learning about pruning, site selection, and pest management. Yet, Kathy reassures aspiring farmers: "If you can grow chestnuts, you should really look into it."

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BUILDING A COMMUNITY AROUND FARMING

One of the most rewarding aspects of Kathy's journey has been the community built around Redfern Farm. Through their "you-pick" model, the farm invites customers to harvest chestnuts themselves, fostering a sense of connection to the land and the food it produces. For many, the experience is deeply personal—especially for those who come from cultures where chestnuts are a cherished tradition.

"I'll never forget one man from Vietnam," Kathy recalls. "When he saw the chestnuts on the ground, his eyes lit up. It was like a piece of home had been brought back to him."

This sense of shared joy and discovery is what makes chestnut farming more than just an agricultural endeavor. It's a way to unite people, celebrate cultural traditions, and offer a moment of respite in an often hurried world.

A GROWING MARKET FOR CHESTNUT PRODUCTS

One of the most exciting developments in the chestnut industry is the **increasing culinary demand for chestnuts**. Beyond fresh sales, products like **chestnut flour**, **chestnut milk**, and other processed chestnut-based foods are gaining traction.

Kathy shares how she has experimented with **chestnut flour recipes**, creating everything from **chestnut bread** to **chestnut chocolate crumb pie**. As awareness grows, she sees **huge potential for chestnuts in the gluten-free and plant-based markets**.

Host Melanie Jones adds that she and other growers have been working to **introduce chestnuts to local chefs**. "Imagine if all of us went to local restaurants that had creative chefs and encouraged them to experiment with chestnuts," she says. "We could dramatically expand demand and awareness."

The discussion also touches on **alternative markets**, such as using **chestnuts in livestock feed**, particularly for **pigs and sheep**, which naturally enjoy the nuts.

INTEGRATING AGROFORESTRY & LIVESTOCK IN CHESTNUT ORCHARDS

One unique aspect of **Red Fern Farm's** approach is their integration of **livestock with chestnut trees**. They raise **Katahdin hair sheep**, which provide natural fertilization, weed control, and even **prune** young trees by grazing on the lower shoots.

However, Kathy notes that proper **timing and management** are crucial:

- **Livestock must be removed from the orchards** about **four weeks before harvest** to meet food safety guidelines.
- Farmers should **check local regulations** if integrating animals into food production.
- Grazing animals like **sheep** or **pigs** can provide a **natural, regenerative** farming system with **minimal environmental impact**.

For growers interested in **agroforestry**, Kathy emphasizes the importance of **site**

selection and choosing tree species that **match the land's conditions**.

THE FUTURE OF CHESTNUT FARMING

As chestnut farming gains popularity in the U.S., Kathy and Tom continue their **mission of educating and mentoring new growers**. They encourage prospective farmers to:

- **Do their research** – Red Fern Farm provides **free educational resources** on their website.
- **Start small** – Even a **10-acre** farm can be profitable with the right approach.
- **Find a niche** – Whether it's **U-Pick**, **fresh sales**, or **value-added products**, there are many ways to **build a chestnut business**.

LESSONS FOR ASPIRING FARMERS

For those considering a transition into farming, Kathy offers this advice: Start with clear goals and involve your partners. Whether it's a spouse, family member, or friend, having a shared vision is critical. Farming is rarely a solo journey, and the support of others can make all the difference.

She also stresses the importance of embracing frugality and resilience. "We didn't take vacations for years," Kathy admits. Instead, she and Tom poured their energy into building a farm that others now visit for their own retreats. It's a lifestyle that requires commitment, but the rewards—a connection to nature, a sense of purpose, and a thriving community—are worth it.

As interest grows, Kathy remains optimistic about the **future of the chestnut industry**, noting that it has been "one of the most rewarding journeys" of her life.

TURNING DREAMS INTO ACTION

Kathy's story reminds us that every journey starts with a single step. For her, that step was planting a tree. For you, it might be exploring whether chestnut farming fits your goals. Whether you're looking to create a sustainable business, reconnect with the land, or simply try something new, there are resources to guide you.

Tom Wahl and Kathy Dice are enjoying Life at Red Fern Farms. Agroforestry in action!

Change doesn't happen overnight, but with the right tools and support, it's possible to cultivate a life and livelihood you love. Just ask Kathy Dice.

LISTEN TO THE FULL INTERVIEW

For more insights from Kathy Dice, listen to the full episode of Branching Out: Growing Together here on YouTube: **youtu.be/hKboXNHf5f4**

The Branching Out: Growing Together is also available on Spotify, Audible, Apple Podcasts and iHeart Radio

To learn more about **Red Fern Farm**, visit: **www.redfernfarm.com**.

Join the Chestnut Improvement Network

A program of the University of Missouri Center for Agroforestry | Become a breeding member!

The **Chestnut Improvement Network** (CIN), established in 2021 by the University of Missouri Center for Agroforestry, is a **participatory breeding network**, meaning that breeding activities occur on-farm with support from growers to meet the ultimate goal of the project: **developing resilient, productive cultivars for scaling commercial chestnut production in the United States**. On-farm selection helps our breeders expand the number of offspring under observation and diversify evaluation environments for key selection characteristics, such as leafing and bloom time, nut quality, yield stability, and more. Our researchers work with each breeding member to equip them with knowledge and tools to take part in the tree improvement process. We also provide support in orchard planning, site preparation, and management.

To become a CIN breeding member, growers can establish an orchard of 250 open-pollinated seedlings or more with a recommended spacing of 54 trees per acre. If you are unsure about which cultivars to include in your order, check out the 'breeding bundles' curated by CIN breeders that include cultivar families selected for complementarity. Order your chestnut seedlings at https://missouri.qualtrics.com/jfe/form/SV_3rasQIwVsyZ0GuG. Prices of seedlings start at $14 each with volume discounts.

To learn more about the Chestnut Improvement Network, contact chestnut@missouri.edu or visit centerforagroforestry.org/chestnut-improvement-network-continues-expanding-footprint-of-chestnut-breeding-in-midwest-and-eastern-u-s.

BREEDING BUNDLES

Orders of 250 trees comprised of seedling families from five cultivars.

CHESTNUT IMPROVEMENT NETWORK
a program of University of Missouri Center for Agroforestry

BUNDLE #1:

- *AMY: cold-hardy with consistent yields*
- *YIXIN LARGE NUT: large nuts and exceptional flavor*
- *GIDEON: consistently bears large nuts*
- *QING: late budbreak for frost avoidance, exceptional yield*
- *AU HOMESTEAD: excellent flavor & complex texture*

BUNDLE #2:

- *AU SUPER: high yielding, large nut, easy peel*
- *SLEEPING GIANT: short growing season*
- *MOSSBARGER: nuts fall free from burr, great flavor*
- *PAYNE: cold hardy, highly productive*
- *GIDEON: consistently bears large nuts*

BUNDLE #3:

- *AMY: cold-hardy with consistent yields*
- *JERSEY GEM: large nuts and great flavor*
- *PAYNE: cold hardy, highly productive*
- *AU SUPER: high yielding, large nut, easy peel*
- *QING: late budbreak for frost avoidance, exceptional yield*

BUNDLE #4:

- *YIXIN LARGE NUT: large nuts and exceptional flavor*
- *SLEEPING GIANT: short growing season*
- *MOSSBARGER: nuts fall free from burr, great flavor*
- *QING: late budbreak for frost avoidance, exceptional yield*
- *AU HOMESTEAD: excellent flavor & complex texture*

BUNDLE #5:

- *AU SUPER: high yielding, large nut, easy peel*
- *SLEEPING GIANT: short growing season*
- *QING: late budbreak for frost avoidance, exceptional yield*
- *JERSEY GEM: large nuts and great flavor*
- *PEACH: large, unique nuts with peach-like fuzz*

QUESTIONS? CONTACT CHESTNUT@MISSOURI.EDU

Assessment of Chestnut Cultivars for Chesnut Flour Production

Ellena Baum, Greg Miller, Amy Miller, Jesse Marksohn, & Eric Cornell

The following report is a summary of the results from an NNGA Research Grant awarded to Route 9 Cooperative and Yellowbud Farm. Our research was inspired by the absence of intentional breeding or seed selection done specifically for nuts for chestnut flour in the eastern United States. To our knowledge, chestnuts in the eastern U.S. have instead been selected exclusively for fresh eating and long storage capacity. From Greg Miller's observations, nuts that store well tend to dry slowly and unevenly, which is the opposite of the desired outcome for flour nuts. Our study was the first step in exploring nut and flour characteristics and preferences, in order to move toward a viable chestnut flour industry.

We began observation and investigation of eleven chestnut mother trees (some are cultivars) that do well in the northeastern U.S. We noted drying characteristics and any differences in flour quality, flavor, or texture. We had four different flour preparations:

1. dried at 20°C and unroasted
2. dried at 35°C and unroasted
3. dried at 20°C and then roasted at 70°C
4. dried at 35°C and then roasted at 70°C

DRYING STUDY METHODS

The chestnut samples were collected, dried, peeled, weighed, and coarsely milled at Route 9 Cooperative. Nuts from the following trees or cultivars were included in the study: 65-11, Amy, B-25, Colossal, Colossal descendant, Hansen, Luvall's Monster, Marigoule, NH4-Pair, Qing, and Sandra.

Drying was done at 20°C and 35°C at Route 9 Cooperative. The 20°C treatment chestnuts were dried on wire shelves in a 20°C room with a box fan to circulate air. The 35°C treatment chestnuts were dried using a scientific convection oven.

OBSERVATIONS & CONCLUSIONS

At 20°C, drying took on average 28 days (table 1). The shortest drying time was for Marigoule at 19 days, and the longest drying times were for Amy, Sandra, and Luvall's Monster at 35 days. At 35°C, drying took on average 16 days, with the shortest drying time being B25 at 9 days, and the longest being Colossal at 27 days.

Table 1. *Drying days required at either 35°C and 20°C to get to approximately 55% of initial chestnut weight for eleven chestnut orchard or cultivars trees for milling into flour.*

Mother Tree	Drying days at 35°C	Drying days at 20°C
B25	9	No sample
NH4	12	23
65-11	13	26
Qing	13	29
Hansen	14	24
Marigoule	17	19
Colossal descendant	17	25
Amy	17	35
Luvall's Monster	19	35
Sandra	21	35
Colossal	27	29

Interestingly, the drying curves for Colossal and Marigoule were similar whether dried at 20°C or 35°C. At either temperature, the nuts dried relatively uniformly despite variation in nut size. This was a surprise considering the nut sizes varied greatly between cultivars. A hypothesis is that the drying curve depends more on the sugar content of the nuts, which we did not measure here.

Currently, at Route 9, the most challenging aspect of flour production is the uneven drying of nuts. Thus, more research is needed to discover best methods for efficient drying.

MORE QUESTIONS ABOUT DRYING

The samples with the shortest drying curve at 9 days were from B-25 - it is a cultivar with 50% American chestnut genetics which is fattier with a smaller nut size. We would like to do further work with this cultivar and other cultivars with American genetics.

Later on, in the milling and baking, B-25 was noted to smell and taste rancid. What was the cause of this? Was it due to drying at a higher temperature or the presumed higher fat content of American chestnuts? Due to the small harvest of B-25 during Fall 2022 there were no samples dried at 20°C; they were dried only at 35°C. Perhaps drying at 20°C may have helped alleviate the rancidity problem.

MILLING & BAKING STUDY METHODS

The chestnut samples were coarsely milled at Route 9 cooperative, and then sent to Yellowbud Farm where they were further ground down with a Mockmill stone mill. During the second milling the rancidity of B-25 was noted.

We baked 40+ individual treatment chestnut flatbreads using the same recipe below. We gathered a group of 15 local chestnut enthusiasts in western Massachusetts to taste the flatbread samples and observe any variations.

Recipe: 1 cup chestnut flour, 1 egg, ¼ tsp salt, 3 T hickory oil, ½ cup water. Bake in oven at 190°C (375°F) for 15 to 20 minutes.

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OBSERVATIONS & CONCLUSIONS

There was significant variation in color and texture of the various flatbreads (fig. 1). There were differences between the edges where the flatbread became crispier and the interior which was almost porridge-like. It would be beneficial to use a recipe for a cracker or flatbread that has no egg or hickory oil, since those ingredients can influence texture and flavor and may obscure any subtle differences in chestnut flours.

OBSERVATIONS FROM FIRST TASTE TEST

People tended to prefer the crispy edge pieces to the porridge-like interiors of the flatbreads.

There was a huge range of diversity with respect to subjective preferences, although it was fairly consistent that people preferred the treatment of dried at 20°C then roasted over being dried at 35°C and not subsequently roasted.

OBSERVATIONS FROM THE SECOND TASTE TEST

For the NNGA conference 2024, we conducted a simple taste test comparing chestnut flour flatbreads made from Qing, 65-11, and Hansen, dried at 20°C and unroasted.

Attendees had a range of comments: a majority thought that Qing was the sweetest- sometimes too sweet for some preferences, 65-11 was the most neutral and mildly sweet, so preferred by some, and Hansen had more 'cornbread' flavors, was the crumbliest, and less preferred.

CONCLUDING QUESTIONS

- What selection criteria are relevant?
- Are these drying curves consistent annually?
- Can we continue to test the same individual mother trees year after year to see if results change? And compare them to other individuals, especially their offspring?
- What causes rancidity or off flavors in the chestnut flour?
- How does the sugar content vary across individuals?
- How can we measure the qualities of the flour - either for starchiness or sweetness?
- How does fat in the cooking process interact with the chestnut flour?

Figure 1. *Six of the source-separated flatbreads prepared for taste tests. From top to bottom, left to right: Luvall's Monster dried at 20°C and roasted, 65-11 dried at 20°C and roasted, Hansen dried at 20°C and roasted, Amy dried at 20°C and roasted, Colossal Descendant dried at 20°C and roasted, and Colossal dried at 20°C and roasted.*

- How does fermentation interact with the chestnut flour profile?
- How does baking influence the taste/profile of the chestnut flour?
- Can we do individual tree or cultivar taste tests with recipes that include boiling/cooking?

SUMMARY

This is only the beginning of observation and recommendations for improvements to nuts for chestnut flour. Significant differences were noted between cultivars and drying, roasting protocols, but none of them were conclusive. Different cultivars and roasting protocols produced different amounts of sweetness in the flour. This shows the possibility for intentional breeding for sweeter pastry flour and savory flour, to be used in different applications.

We emphasize the importance of continuing to test other popular cultivars, to see how common Chinese cultivars compare with each other, and other smaller to medium nuts from hybrids with American chestnut.

In future experiments we recommend soluble solids measurement for testing sugar content. This would involve putting small samples of flour in dried and weighed filter paper cones, drying them in a 40°C oven, weighing them, then extracting them with 80% ethanol, then drying and weighing again.

For taste tests we recommend developing a score sheet and evaluation matrix that would include relevant traits like sweetness, bitterness, acidity (sourness), texture, breaking strength, color, etc. for standardizing the evaluation process.

CONCLUSIONS

With increased plantings of predominantly Chinese chestnut hybrids, and availability of equipment in new chestnut processing hubs throughout the eastern US, there will be less risk for farmers to engage in chestnut flour production and the chestnut flour market. If chestnut flour can be produced at scale and at a viable price point, the chestnut industry as a whole could expand much more beyond just the fresh chestnut market.

For thousands of years pre-chestnut blight, both fresh and dried chestnuts were an essential component of the diet in the Eastern U.S. This long lineage of chestnut consumption is a reminder for thinking about how tree crops are an essential component of resilient food systems in the U.S.

ABOUT THE AUTHORS

Ellena Baum *(ellenabaum@gmail.com)* is a naturalist, educator, and farmer. In addition, she works as the assistant manager of Big River Chestnuts in Sunderland MA, focusing primarily on chestnuts as well as other tree crop species.

Greg Miller, Ph.D *(empirechestnut@gmail.com)* is a full-time chestnut grower in Carrollton, OH, having converted his father's hobby farm into the Empire Chestnut Company, a commercial orchard and nursery. He is part of the Route 9 Cooperative formed with other growers to pack and market their chestnut crops.

Amy Miller, Ph.D *(amy.ciderwood@gmail.com)* is the manager of Route 9 Cooperative in Ohio. She is committed to specialty crop research and continuing the family orchard legacy while focusing on long- term environmental and economic sustainability.

Jesse Marksohn and Eric Cornell *(jmarksohn@gmail.com)* are the owners and operators of Yellowbud Farm, breeding and growing resilient staple tree-crops.

This article originally appeared in the Spring 2025 issue of The Nutshell*, the quarterly publication of the Northern Nut Growers Association.*

Roasting vs. Boiling Chestnuts

Sandy Anagnostakis

Recently, I fielded an inquiry from a NNGA member who had been demonstrating the use of the Gardner nut cracker to crack black walnuts and also demonstrating slicing open Chinese chestnuts with a box cutter before roasting. Someone in the crowd asked if the Gardner nut cracker could be used to score (split open) chestnuts for roasting. They tried it and found it was faster and did work; however, the pieces were smaller and the husk had an irregular opening.

Upon further inquiry, I found they did not know that you don't have slice open chestnuts if you boil them for longer than you would slow roast them. And more importantly, they come out much better. Chinese chestnuts are boiled and never roasted in China. For those on Facebook, J. M. Nave has discussed boiling of chestnuts repeatedly.

The University of Missouri Center for Agroforestry has published a more comprehensive list of suggested methods for preparing chestnuts in their *Chestnut Nutrition & Recipes* fact sheet as follows:

Microwaved chestnuts: Place scored chestnuts in a microwave-safe bowl with a splash of water. Cover with a wet paper towel to preserve moisture. Microwave on high 2-5 minutes (depending on quantity) until chestnuts pop out of their shells. Peel while still warm.

Fire-roasted chestnuts: A chestnut roasting pan is the best method for grilling chestnuts over an open fire or grill. It has large perforations which allow for significant flame contact, enhancing the roasted, smoky flavor. Stir frequently while cooking for 15-25 minutes. After roasting, peel shell away from the meat and enjoy! (To speed roasting time, cook chestnuts in the microwave first as detailed above, and finish on the grill for five minutes.)

Steamed chestnuts: Place scored chestnuts in a collapsible steaming basket in a pan with about a 1/2 inch of water. Bring water to a boil and steam chestnuts until the meats separate from the shell and chestnuts are desired consistency.

Oven-roasted chestnuts: Preheat oven to 250°F. Place scored nuts in a single layer on a roasting or baking pan. Add a little water to the bottom of the roasting pan. Roast 20-30 minutes.

Pressure cooked chestnuts: Place desired quantity of chestnuts in a steamer basket in your pressure cooker. Add approximately 1 cup of water. Cook at high pressure for approximately 2-3 minutes, slightly longer for softer nuts. Do a quick release after cooking. This is a great method for cooking large quantities quickly, especially if you have many hands in the kitchen to help peel before the chestnuts cool completely!

For savory chestnuts, prepare with a drizzle of good olive oil and a sprinkle of salt. For sweeter chestnuts, drizzle with honey or maple syrup and salt.

This article originally appeared in the Winter 2024 issue of The Nutshell*, the quarterly publication of the Northern Nut Growers Association. Learn more about NNGA at nutgrowing.org.*

Chestnut Growers of America Flyers Available Upon Request

CGA has developed a flyer for our organization that nursery owners can hand out to customers or include with orders. All members are welcome and encouraged to use the flyer as well.

The flyer can be downloaded and printed from the members-only page of the CGA website. CGA will also print flyers and ship them to you at no cost.

To request flyers, email the editor at chestnutgrowersofamerica@gmail.com and include the number of flyers you are requesting and confirm your mailing address.

Can I Grow Chinese Chestnut, and How Successful Am I Likely to Be?

Canopy Compass (Kevin Wolz & Monika Shea)

The Savanna Institute has been working on the title question and has a lot to offer in the way of an answer. Monika Shea and Kevin Wolz (2024) recently published online a paper in Nature-based Solutions on suitability mapping for alternative crops that can be viewed on the Savanna Institute's website (savannainstitute.org/suitability-mapping-for-alternative-crops-a-consistent-high-resolution-approach-for-the-united-states). Watch Monika Shea introduce this topic at youtu.be/Vpl0grLYWss. The good news for those interested in growing Chinese chestnut or apples is how this approach can be applied to these species. The Savanna Institute website includes links to Canopy Compass (canopycompass.com) that allows growers to generate crop suitability maps for their own land.

The Savanna Institute's newsletter describes how the crop suitability maps are based on the Savanna Institute's peer-reviewed crop suitability algorithm (Shea & Wolz 2024). This methodology gathers data on a crop's soil and climate preferences from scientific literature, extension publications, and expert insights. Then, these preferences are used, in conjunction with soil and climate data, to predict how suitable a field is for a given crop. The field is divided into zones of common soil and climate traits. For each soil/climate variable, each zone is classified as ideal, suitable, or unsuitable. If any single variable is unsuitable in a zone, that zone is deemed unsuitable as a whole, regardless of the suitability of other variables. If no variables are unsuitable, the relative proportion of ideal vs. suitable variables in a zone generates a 'suitability index', which is displayed on the main map. The suitability index provides growers with some indications of how successful they are likely to be.

The following four paragraphs are copied from the published abstract of the paper by Shea and Wolz (2024).

"Alternative crops are a key aspect of many nature-based solutions in agriculture, and there is a need for more consistent geographic information on biophysical suitability to aid in both farm-level planning and larger-scale analyses. Here we describe an approach for generating consistent, replicable, high-resolution suitability maps for any alternative crop species across the USA.

The method employs a criteria-based approach to map potential species performance using a simple suitability index. Criteria for suitable and ideal ranges of values for influential biophysical variables are created using data collected from published sources and are reviewed by experts. Publicly available soil and climate map data are used with the criteria to map suitability for each variable which are integrated into an overall suitability index map. Maps of unsuitable locations are combined to produce a limiting variable map showing which category of environmental variables is most limiting.

We demonstrate the application of this approach for two alternative perennial crops, apple (*Malus* spp.) and Chinese chestnut (*Castanea mollissima*) and validate its accuracy using known farm locations. Maps of apple and chestnut in four distant study regions show varying patterns of suitability and potential performance depending on the climate and geophysical characteristics of the region. The maps can be used to identify areas of high suitability and compare across regions or between species and be combined with socio-economic and environmental datasets for further analysis.

Compared to other approaches, ours can be applied to multiple species with a range of pre-existing knowledge in a consistent way, allowing for reliable mapping and subsequent research and planning for alternative crops and nature-based solutions in agriculture."

For other nut tree growers, the good news is that the Savanna Institute is working on parameterizing the model for other nut tree species. Your NNGA editor has already provided feedback on the criteria for growing black walnut.

REFERENCES

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ABOUT THE AUTHORS

Monika Shea (monika@savannainstitute.org) is a landscape ecologist with the Savanna Institute working to identify where and how agroforestry is most likely to succeed across the Midwest. Kevin Wolz (kevin@savannainstitute.org) was the lead scientist with the Savanna Institute and is now CEO for Canopy, a business launched by the Savanna Institute to expand agroforestry services in the Midwest. Canopy provides tree planting, integrated agroforestry systems, and management services for farmers in Illinois and Wisconsin.

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Protecting Nut Trees from Squirrels and Raccoons

Joe Hietter

Metal panel barriers have saved my hazelnut and heartnut harvests. This is the third year in using the barriers on heartnut trees and the second for hazelnut trees. It has allowed the nuts to stay on the trees until harvest time. It feels great having heartnuts and hazelnuts again. After my electric fence was destroyed, the squirrels and raccoons removed all the nuts in the middle of each summer. A big problem with growing hazelnut and heartnut trees in an area bordered by woods is squirrels and raccoons. They like to eat the nuts in midsummer before they're even ripe. I've tried many ways to keep the squirrels away, thinking that they were the ones taking all the nuts. But it turns out that the raccoons are doing more damage (fig. 1).

As the nuts start to fill out in June, the raccoons and squirrels will come by. The best and most unpleasant way to know if a raccoon has been in one of your trees is to find the ground covered with half eaten nuts. It looks like a carpet. You might not even realize there were that many nuts in the tree. That is the work of a raccoon. That's what they do. They just go up there and knock just about every single nut out of the tree, then come down to munch on them. The squirrels will usually just take the nuts. They don't have a huge feast right there under the tree.

In 2013, I built an electric fence (more on this fence in the upcoming winter issue) around all the hazelnut trees and some of my heartnut trees. That worked and kept the animals out until a flood destroyed it. Also, unfortunately, you must inspect the fence almost every other day. Something always happens like you get too much water, a tree branch falls on part of the fence, or they start to dig a hole under the fence. Once they get in, it's hard to keep them out. They'll just keep trying to dig under. As long as I was maintaining the fence, it worked well. But if I neglected it for a week or two, they got in, and they can do a lot of damage quickly. They usually empty a tree in one to two days.

Figure 1. *Finding the orchard floor covered with half eaten nuts in mid-summer is a good indicator that raccoons have found your orchard [Credit: Joe Hietter].*

My new method is to put a metal panel around each of the trees. Now if you have a lot of trees, this really might not help. The metal panels are the type used on the sides of metal buildings. It's also referred to as metal siding or metal sheets. It takes two 5-foot panels screwed together with sheet metal screws to wrap around the tree. Screwing together two panels of sheet metal will give you a panel five feet long and six feet wide. This can be placed around the trunk forming a cylinder with a 6-foot circumference.

The squirrels can't climb the panel, and most squirrels can't jump up above five feet. So, if the tree's branches aren't hanging down low, they're not going to be able to jump into the tree. Also, a raccoon can't climb it either and they can't jump at all. This will keep the squirrels and raccoons away from the tree.

One thing you must watch out for though is, if they have another vector to the tree, then it won't work. So, you must make sure that you keep trees that are nearby trimmed so that they can't walk across or jump across. Squirrels can jump long distances. But the raccoons, the ones that do the most damage, are not going to be able to go from tree to tree unless the branches are touching or close to each other.

Once the tree starts dropping its nuts, you must keep them picked up almost daily. Otherwise, they will take them from the ground. For harvest, I wait until the nuts start to fall and then I'll shake the individual tree branches. In the case of heartnuts, I just reach up and grab all the heartnut clusters as best I can before shaking. If some nuts remain, I return another day and repeat the process.

You will have some of the nuts fall inside the metal barrier. That is a small issue though, as not that many fall that close to the trunk. You can always lift the barrier and reach under. You need to be careful though, as those edges are sharp.

The only way that I can find panels that are five-foot in length is by ordering them, cut to size. Places like Menard's only stock ten-foot panels at the store. When I'm in a hurry I'll buy the ten-foot panels and snip them in half with tin snips. I don't enjoy doing that, but it's better than waiting forever for the five-foot panels to show up.

After I get the two pieces, I line them up on a flat surface (the ground or a hay

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Figure 2. *Two overlapping panels of metal siding are screwed together with sheet metal screws [Credit: Joe Hietter].*

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wagon) and attach the two panels together with three half inch self-drilling sheet metal screws (fig. 2). You could put more in but that's not necessary.

Next, take the two panels that are joined together over to a tree and wrap it around the tree. You're not going to be able to easily hold it together while you try to insert the screws. So, what I do is attach a 6" clamp at the top and one at the bottom where you are joining the panels (fig. 3). That way it stays in place while trying to get the screws into the metal. Keeping them together while trying to drill can be difficult sometimes because there's a lot of tension there. But it will work. Then when joining the two together, use two screws. When it's time to take them down and put them back up, just having two screws to deal with is very helpful.

If you decide to take the panels down after harvest, be sure to store them with something heavy placed on top of the panels. High winds can pick loose panels up creating hazardous conditions. When I do take panels down, I usually leave them near the tree or stacked on a hay wagon. In the winter, some of the panels are re-purposed and attached to my sugar shack frame. Once you take them down you don't need them back up until around the middle of June to late June.

On trees with smaller trunk diameter, I usually will leave the barriers on throughout the winter or at least until late winter. That keeps the deer from rubbing on the trees. What I had been doing is putting a tree tube around the trees after removing the panels.

Figure 3. *Two 3-foot-wide x 5-foot-tall sheets of metal siding are screwed together and pulled into a circle around the trunk and then clamped to hold in place [Credit: Joe Hietter].*

I recommend using white or unpainted panels. The unpainted ones are cheaper and are the only ones I now use. I thought about building a panel fence around the entire tree orchard but that's a lot of panels. That would be just over 1000 panels to surround 15 acres and that would be quite expensive. Right now, I'm just doing it around select trees and not all.

Another problem I had with the electric fence was flooding. We get a flood occasionally that covers the orchard with 3 to 4 feet of water for a day. It does no harm to the trees, but it tore up the electric fence and washed part of the fence away (fig. 4). That would probably also be the case with a panel fence. As debris builds up against the fence, the water pressure gets to the point where it collapses a section. After the flood it seemed like too much effort to put the fence back up. How many more times would it need to be reconstructed?

So, I tried this new method, and the round metal barriers held up well against the last flood. I highly recommend this method for anyone with a small number of trees. I am now growing some trees in a non-flood area and will likely build the electric fence again for that area. You can find my article about building the electric fence in the Fall 2014 ONGA newsletter.

Figure 4. *Electric fence during flood of July 2017 [Credit: Joe Hietter].*

ABOUT THE AUTHOR

Joe (joehietter@gmail.com) and Amy Hietter operate "Nuts N Horse Farm" in central Ohio, with her side of the street being for horses and his side for nut trees. The best current description of Joe is a small-scale commercial nut tree farmer with a hobbyist's enthusiasm. His day job during the first 15 years of growing nut trees was an IT engineer. His last five years have been dedicated to thinning out trees and encouraging growth of seedlings and cultivars of black walnut, heartnut, hican, hazelnut, and chestnut. Amy and Joe have demonstrated that horses and nut trees can coexist when well managed. The farm keeps them both quite busy, but also healthy and happy. When the farm doesn't keep Joe busy, the NNGA website and membership coordinator responsibilities will.

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Squirrel Deterring Electric Fence

Amy Hietter

When I was young, we lived in an area with many trees: oaks, hickories, and beech. We also had a generous population of squirrels. As adults, Joe and I moved to our current place in Ohio - "in the country". There were no visible squirrels; however, there were other animals: many birds, raccoon, possum, hawks, our dogs (you get the idea).

A few years after Joe planted his nut trees, I began to notice squirrels. I thought they were cute and enjoyed seeing them. I also noticed they were big and fat.

Joe, however, did not have the same opinion. He saw them as little thieving, furry monsters. He began a war with them. Poor little furry warriors, enlisted in a war they did not know existed. They were just trying to survive. I would set off his traps. Yes, I admit it. I think he knew, and I don't think he really enjoyed killing them.

He began to explore options for deterrence. He came up with the idea of a squirrel deterring electric fence. As time consuming as it was to set up and maintain, this approach at least gave the squirrels a chance for survival. So, when he was working on his squirrel fences, instead of my horse fences, it was okay. I still see an occasional fat and happy squirrel, but they are not getting into the nut trees Joe has fenced off.

The fence consists of 4-foot-high poultry netting with the bottom 2 inches folded out flat on the ground because the poultry netting acts as the ground for the electric fence (fig. 1). The flat part on the ground helps deter digging. At the top, the poultry netting is attached to a wire or cable. The cable under tension is tightly wrapped around each steel post about 46 inches above the ground.

There is an electric wire about 5 inches off the ground and one at the top of the fence (fig. 2). Each wire is about 2 to 3 inches from the fence attached to plastic insulators. These two wires conduct the electricity and are hooked up to a solar fence charger.

Animals seem to only test the fence once, including his dog, Jackson. On Joe's hazelnut fence, he has two wires at the top, although he is not sure if two wires are needed. The heartnut fence has only one wire at the top and seems to work just as well. Fencing the heartnuts was more difficult due to other trees being close to the fence. One squirrel did get over until these nearby trees were removed.

Figure 1. *Stretching poultry netting between steel fence posts before securing to the wire under tension and firmly setting on the ground.*

Figure 2. *Completed electric fence surrounding heartnut orchard.*

Last year he did not lose a single hazelnut to the squirrels, but the previous years before the electric fence, he lost them all in June before they were even ripe.

ABOUT THE AUTHOR

Amy Hietter with her husband, Joe Hietter (joehietter@gmail.com) operate the "Nut and Horse Farms" in central Ohio. Amy manages the horses on one side of the street and Joe manages the nut trees on the other side. Amy and Joe have demonstrated that horses and nut trees can coexist when well managed. The farm keeps them both quite busy, but also healthy and happy. When Amy doesn't keep Joe busy, the NNGA website and membership coordinator responsibilities along with his responsibilities with the Ohio Nut Growers Association do.

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For Sale / Seeking

Seedlings Available from Valley Chestnuts

Valley Chestnuts has seedlings available for 2025 planting as well as for future seasons. Able to deliver to the CGA conference this summer in Lansing. Contact us to reserve seedlings for your 2026 plantings (valleychestnuts@gmail.com, 319-759-4202). Discounts available for CGA members. www.valleychestnuts.com/seedlings.

Curing Chestnuts, and More

Lee Reich

There's many a slip 'twixt the cup and the lip." Likewise for chestnuts, in this case twixt the ripening of the nuts (in September and October) and the lip. That is, if you want the highest quality nuts.

We can start right when the nuts begin to drop. They'll do so still enclosed in their spiny burs, or the burs will open to release the nuts (fig. 1). Don't be disappointed with burs pretty much empty, perhaps containing a couple or more small slivers of nuts; these are the result of inadequate pollination.

Figure 1. *Mature Chinese chestnuts inside their splitting spiny burs.*

Those disappointing burs are among the first to drop. The real show yields burs bursting with two, even three fat, mahogany brown chestnuts. For the best quality nuts, I gather them daily, at the most every other day, before deer, squirrels, turkeys, and other creatures get at them. For burs on the ground that haven't yet opened, I just roll my boot over them and pick out the nuts.

Speaking of boots, wear them. And leather gloves (fig. 2). And a hat. Those burs are viciously thorny!

Gathering chestnuts is definitely stoop labor. I've read that a Nut Wizard, one of which I own, can be used for harvesting while standing. I've found that with the ground strewn with full burs, empty burs, and free nuts, it's easier to just bend down and pick up only nuts. Then again, I have only three trees.

Figure 2. *Leather gloves are a necessity when harvesting chestnut.*

I've heard of some chestnut growers picking the burs from the branches just as they open barely enough to let the nuts peck out. Any plump nuts that are not chestnut brown in color should eventually color up.

WHERE'S THE WEEVIL?

Another reason for diligent and frequent harvesting is to lesson damage from the chestnut weevil. This insect lays eggs in the burs and nuts towards the end of summer. Larvae grow within, and once nuts are on the ground, bore and exit a hole in the nut (fig. 3), then mosey on to burrow in the ground.

For many years, I used a heat treatment — 20 minutes in 120°F. water, maintained with a *sous vide* heater — to kill weevils resident in nuts. This year I said to myself, "Maybe there aren't that many weevils lurking" and dispensed with the treatment.

Only a couple of nuts have had telltale weevil exit holes. More telling, a bowl of chestnuts remained a bowl of chestnuts after a couple of weeks. If infested with weevils, those nuts would be sitting on a bed of squirming, white weevil larvae. Any year or just this year?

Figure 3. *Weevil infested chestnuts showing exit holes and larvae.*

Figure 4. *Raw chestnuts can be boiled for 30 minutes to cook and make peelings without slitting easier.*

THE CURE

Chestnuts need to be cured for best eating quality. In contrast to most other nuts, they are high in starch and moisture. Holding off eating the nuts and letting them sit for a couple of weeks lets some of those starches change to sugars. Refrigerator temperatures are good if maintained for at least two weeks.

Curing is faster at room temperature. The problem is that all the moisture within that shell provides fertile ground for attack by fungi and bacteria. So you've got to reduce moisture enough to discourage these invaders but not so much that the nutmeats dry out without curing.

Actually, drying is another way to preserve them, and doing so preserves them much, much longer than the two or three months possible for fresh nuts. Once dry, nutmeats are rock hard, but can be ground into a flour for baking — chestnut bread, for example, à la cornbread. Or rehydrated to add to all sorts of dishes.

Another way to keep the nuts for long term storage is to freeze them, shelled and either cooked or uncooked. What we do is roast more chestnuts than we want to eat at a sitting, then freeze the excess, shelled ones.

GOOD EATING

Although I'll sometimes nibble on a raw chestnut, which, to me, is reminiscent in texture and flavor of coconut, we generally cook them. One way is to simmer them for about 30 minutes (fig. 4). The result is creamy nutmeats that are easier to peel. Well, not that easy because you have to do it while they're still hot. The web is crawling with suggestions, such as holding the hot nut with pliers or using the pliers to squeeze out the nutmeat. Still not quick or easy, in my experience.

My favorite way to cook and eat chestnuts is also the most obvious: roasting. More than once having an unslit chestnut sneak its way into the roasting pan and loudly explode in the oven firmly hit home the need to slit before roasting. This lets out enough steam to prevent explosion but keeps in enough to cook the nuts.

Do it with a knife, as I used to see chestnut peddlers do it on the streets of New York.

Figure 5. *Chestnut peeler designed to cut an X through the skin of a chestnut before roasting.*

Quicker and better, in my opinion, is a "chestnut peeler" (fig. 5) I bought online. It cuts an X into the nut, deep enough to penetrate the skin but not so deep as to quarter the nut.

After harvesting, curing, and scoring, my chestnuts go into a 450° oven for about 20 minutes for roasting. Of course, they also could go into a pan for the traditional "roasting on an open fire." They're ready for eating when shells have spread to reveal the lightly browned (fig. 6) nutmeats within —- unless you fail to slit them.

Figure 6. *Freshly roasted chestnuts ready to peel and pop in your mouth.*

ABOUT THE AUTHOR

Lee Reich, PhD worked in agricultural research for Cornell University and the U. S. Department of Agriculture before moving on to writing and consulting. He grows a wide variety of fruits and vegetables on his farmden (more than a garden, less than a farm), including many uncommon fruits such as pawpaw, hardy kiwifruit, shipova, and medlar.

This article was reprinted with permission of the author from his posted blog published on October 24, 2024. You can find Lee Reich's Life on the Farmden blog at www.leereich.com/blog.

UMCA Aims to Standardize and Grow Chestnut Industry in the Midwest

Shannon Beck

Chinese Chestnuts in the United States have a special legacy that has led them to be commercialized in very different ways than other nuts in the U.S., and that legacy — which consists mostly of hobbyists who breed on-farm seedlings — is full of blessings and curses for those who wish to pursue growing the nut tree for profit.

Researchers at the University of Missouri's Center for Agroforestry (UMCA) which has studied Chinese Chestnuts for decades, are working to harness the good qualities of that rich legacy while providing the standardization and reliability sought in any crop for large-scale commercial production in hopes of sparking a regional industry.

"When you think of almonds, you think of California," said Ron Revord, assistant research professor in the School of Natural Resources. "Almost all of the hazelnuts in the U.S. are grown in the Pacific Northwest. Chestnuts could be that size industry here, and we'd like to have that realized. That could be done with best management practices."

According the Revord, chestnuts are particularly well-suited to Missouri because of its soil and its climate can help protect from frost damage. "The river hills of Missouri are a truly special place for tree nut culture with deep loess deposits that are fertile and well-drained," he said.

Revord explained that the chestnut industry in the U.S. has consisted of more than a century of on-farm plant material sharing and selection creating new seedlings. Professionals and hobbyists have then sold seedling offspring from parent trees that are particularly productive.

This practice means that it is difficult for producers to know what traits the individual seedlings will display —because chestnuts are outcrossing. However, it also means that chestnut orchards in the U.S. have an incredibly vast array of genetic diversity, which is a great thing. "That creates a really good opportunity for breeding programs to go in and select the seedlings that have inherited the best traits from their parents," Revord said.

Selection is a big part of what Revord's work entails. His research involves selecting seedlings with desirable traits, evaluating their genetic makeup and then establishing replicated trials by grafting. The trials will generate data-supported recommendations and new cultivars releases, with the goal to transition industry to cultivating orchards of clonal cultivars rather than seedlings.

He relies on a counterpart, Jeanne Romero-Severson, Professor of Biological Sciences at University of Notre Dame, for the genetic evaluations which analyze the tree's parentage, ancestry and genetic diversity.

Based on Romero-Severson's initial evaluation of approximately 700 seedlings, Revord has already incorporated 40 on-farm selections into replicated trials at MU's Horticulture and Agroforestry Research Farm in New Franklin, Mo, which will come into bearing next year.

Through high engagement of chestnut growers in Missouri, Tennessee and Kentucky, the breeding program, known as the Chestnut Improvement Network (see ad next page), now has more than 20,000 new offspring growing in on-farm environments. Revord will be collecting data from these progenies on early-year yields, bud-break time and kernel size and quality.

Revord's goal is to identify new, promising selections that may consistently avoid frost damage, offering producers needed production stability across environments, and which offers early production and return on investment. Then, the work of reaching out to producers will begin.

"Looking ahead, there is going to be quite a bit of outreach involved," he said. "It's a big shift from seedings to clonal, and we are going to have to do a lot of outreach about making that shift while maintaining seedling orchards for genetic diversity."

ABOUT THE AUTHOR:

Shannon Beck (smbeck@missouri.edu, 573-884-0096) is a Research News Strategist for the College of Agriculture, Food, and Natural Resources at the University of Missouri.

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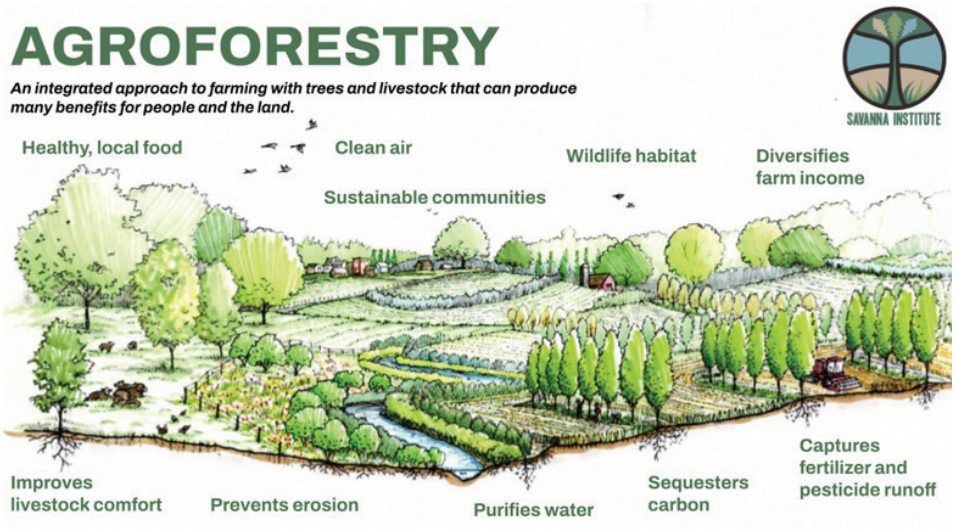

Should We Plant Grafted or Seedling Trees for Chestnut Production Orchards?

Gregory Miller

Graft failure in chestnuts has been a longstanding problem, and has hindered development of the chestnut industry. Especially frustrating is delayed graft failure wherein grafts initially grow, but subsequently die weeks, months, or years later. And, even in the absence of scion death, grafted trees often exhibit reduced growth, production, and nut size compared to the ortet from which the scion came. This might be called "graft stress". The causes of graft failure or graft stress are not well understood. The most often assumed cause is incompatibility, *i.e.*, genetic differences between stock and scion.

While incompatibility remains a likely contributing factor, no one has yet identified reliably compatible scion/rootstock pairings. Even when scions are grafted onto their offspring, graft failure occurs at an unacceptably high rate. It has been consistently observed that graft failure is exacerbated by stress conditions, including water stress, freeze injury, and transplant shock. Graft failure and graft stress, however, still occur in trees exposed to minimal environmental stress. On the other hand, many grafted chestnut trees grow and produce just fine for many years, exhibiting nearly invisible graft unions. It is noteworthy that graft failure is more of a problem in Chinese chestnuts than in other chestnut species.

As a workaround for graft failure, many growers have opted to grow trees from seedlings of named cultivars instead of grafted trees for commercial production. In the U.S., planting seedlings from superior parents, at least within the Chinese species, has resulted in more commercial success than planting grafted trees. Nevertheless, the debate over whether to plant seedlings or grafted trees remains. It is noteworthy that there exists very little experimental data comparing seedlings and grafted trees from a production or nut quality standpoint. Thus, in this article we present such data.

PLANTING ESTABLISHMENT

In 2014, we planted alternating rows of seedling Chinese chestnuts and grafted Chinese chestnut cultivars on a good chestnut site in east central Ohio (near Carrollton). The seedlings were bare-root trees, 1 year old and about 30 to 40 inches (75-100 cm) tall. The grafted trees were chip budded onto container-grown rootstocks in the spring of 2012, and grown in 2-gal pots in 2013 to about 30 to 40 inches (75-100 cm) tall; they were more branched than the seedlings. The spacing of the trees was 26 feet (8 m) within row and 40 feet (12 m) between rows (104 trees/ha or 43 trees/A). For the data presented here, we are considering two rows of PQ seedling full-sib progeny of the cultivars 'Peach' and 'Qing' planted alongside a row each of their grafted parents, 'Peach' and 'Qing'. The trees have been fertilized, provided with moderate weed control, and protected from deer. The data presented here are from the 2022 and 2023 crop years, *i.e.*, from the trees' 8th and 9th growing seasons since planting. However, it is noteworthy that in 2016, the planting endured an emergence of periodical cicadas, which set the trees back by at least one growing season. So, the tree size was more comparable to 6- to 8-yr-old trees, and the 2022 crop was our first substantial crop.

Figure 1. *Alternating rows of seedling and grafted chestnut trees, planted spring 2014; photo taken May 2023. PQ = 'Peach'/'Qing' full-sib progeny. Qing = grafted 'Qing'. Peach = grafted 'Peach'.*

RESULTS

Even though the grafts were more branched and larger than the PQ seedlings at planting time, the PQ seedling trees grew faster. The difference in size between the faster growing PQ seedling trees and slower growing grafted trees has become increasingly obvious over time (fig. 1).

Survival of seedlings (40 out of 42) has been better than survival of grafted trees (28 out of 38). The total harvest from each of the experimental trees was tallied and evaluated in 2022 and 2023. The main purpose of the evaluations was to assess the genetic differences among individuals in the seedling population and compare them to their parents. The harvests from the grafted trees (parents) were tallied and evaluated for quality, but harvests from individual trees within cultivars were just bulked, not kept separate by tree.

Data collected included harvest date, total weight of nuts, number of nuts, and number of culls (splits, anthracnose, other defects). Samples from each tree were peeled and tasted. Considering all data collected, seedling trees were each given a subjective rating of "Good", "Intermediate/Inconsistent", or "Bad". A Bad rating meant that the trees were flagged for removal, mainly because of a high percentage of cull nuts or low yields.

YIELD

In general, 2022 was a heavy crop year while 2023 was a lighter crop year. There was no obvious crop-reducing event like a spring freeze or drought in 2023; it's not clear why yields were so much lower in 2023 than in 2022. It is noteworthy that young tree yields tend to vary more from year to year than older tree yields – and these are young trees. In 2022, the grafted 'Qing' trees were uniformly "loaded" with a heavy crop. The grafted 'Peach' trees had a uniformly light crop. The PQ seedling trees varied in their crop load with few

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individuals looking as "loaded" as the 'Qing' trees. However, because the seedling trees were substantially larger than the grafted trees, their average yield exceeded the heavy-cropped 'Qing' trees (Table 1). In 2023, both 'Qing' and 'Peach' trees had light crops nearly equal to each other and less than one-third the average yield of the seedling trees.

PQ seedling trees varied substantially in yield. In 2022, the yield varied from 0 to 61 pounds per tree. In 2023, the yield varied from 0 to 56 pounds per tree. It is noteworthy that the two top yielding trees in 2022 dropped into the bottom half of ranked tree yields in 2023. But the third highest yielder in 2022 was the fifth highest yielder in 2023. (In spite of its high yield, this particular tree had larger nuts than both of its parents, and comparable low defects.) Considering the yield rankings of the seedling trees over the two years of this study, seven out of the twenty individuals moved from the top half of yield in 2022 to the bottom half of yield in 2023. It follows that seven out of the twenty individuals moved from the bottom half of yield in 2022 to the top half of yield in 2023.

Detailed evaluation of seedling tree variation is the subject of a future publication, but for our purposes here, it is relevant that complementary year-to-year yield variation of individual seedlings may help even out the year-to-year yield variation of the planting as a whole. Also, yields and nut quality for this PQ seedling tree population was averaged over highly variable individuals. Removal of the data derived from poorly performing individuals (table 1) makes the yield picture look even better.

RIPENING DATE

Over the two years of this study, the dates of first nut drop for both 'Qing' and 'Peach' trees were consistent, occurring from 30 Sep to 2 Oct. The first nut drop dates of their PQ seedling offspring were variable, ranging from 19 Sep to 12 Oct. Dates of first nut drop were not always precisely determined as every tree was not checked every day. Nevertheless, it is apparent that the ripening dates of the offspring varied from tree to tree, some being earlier and some being later than their parents. Thus, the harvesting period for the PQ seedling trees was longer than the harvesting period for these two cultivars. Considering that for a given cultivar or individual seedling, nuts may drop over a 2-week period, the practical implication is that the cultivars dropped nuts over a 2-week period while the seedlings dropped nuts over a 4-week period.

Table 1. *Mean yields of grafted ('Peach' and 'Qing') and PQ seedling ('Peach'/'Qing' full-sibs) trees. "Minus Bad trees" = data from poor-performing trees removed from mean yield calculation.*

	Number Planted	Number Remain	lb/tree	
			2022	2023
'Qing' grafts	20	17	17.9	2.9
'Peach' grafts	18	11	6.0	2.9
PQ seedlings	42	40	22.4	9.8
Minus "Bad" Trees		29	28.0	11.9

NUT SIZE AND QUALITY

'Qing' and 'Peach' trees both produced nuts that averaged 13 to 15 g/nut. Of the PQ seedling trees that produced nuts, only four of them produced nuts that were smaller than their parents. Mostly, PQ seedling trees produced nuts that were comparable in size to their parents, with four trees producing larger nuts that averaged over 20 g/nut. Nut quality, in terms of % cull nuts, was very good for the cultivars, exhibiting less than 5% culls. The nuts of the PQ seedling trees were quite variable in nut quality, with about half of them exhibiting >10% culls (splits or rots) in one or both years. About half of the PQ seedling trees had nut quality comparable to their parents.

CONCLUSIONS

For this planting, which is at the beginning of its commercial production, trees from seedlings of named cultivars, on average, have substantially out-performed their grafted counterparts in terms of yields of commercially acceptable chestnuts and in terms of nut size. The seedling trees have grown faster and survived better than their grafted counterparts.

On the downside for trees from seedlings of named cultivars, the harvest period was longer. However, the two cultivars evaluated here, 'Qing' and 'Peach' have similar harvest times. In a hypothetical orchard of many cultivars, the harvest period for that orchard would be as long as for a seedling orchard. The most profound downside for the seedling trees was their lower nut quality (higher cull rate) and presence of some small nuts. However, the total volume of high-quality nuts after grading still exceeded that harvested from the grafted trees. Furthermore, the vast majority of small and defective nuts were produced on specific trees. The plan for this orchard is to remove these poorly performing trees.

The strategy of establishing a chestnut orchard by planting chestnut seedlings derived from superior parents, and planting at a density that will allow (require) thinning at age 8-15 is supported by this study to be substantially better than planting an orchard of grafted cultivars. Of course, this is a small study with only two cultivars and their offspring. Further research is warranted and encouraged.

ABOUT THE AUTHOR

Greg Miller (empirechestnut@gmail.com) is a full-time chestnut grower in Carrollton, OH, having converted his father's hobby farm into the Empire Chestnut Company, a commercial orchard and nursery. He is part of the Route 9 Cooperative formed with other growers to pack and market their chestnut crops. Greg has a Ph.D. in forestry (tree breeding and genetics) from Iowa State University. Greg has served for many years as the NNGA President and Research Grants Committee Chair.

The article was prepared to provide additional details to Greg Miller's presentation given at the 2023 Joint Conference held in Columbia, MO and originally appeared in the Spring 2024 issue of The Nutshell*, the quarterly publication of the Northern Nut Growers Association. Learn more about NNGA at nutgrowing.org.*

Membership Application/Renewal Form

Chestnut Growers of America, Inc.

Please complete application and **EITHER** mail to:

Chestnut Growers of America, Inc., Attn: Jack Kirk, 2300 Bryan Park Avenue, Richmond, VA 23228

OR email (scanned copy or fillable PDF, available for download at www.chestnutgrowers.org/resources.html) to: jackschestnuts@gmail.com.

Instruction for completing PDF application: Download fillable PDF and save it to your computer. Open the PDF with Adobe Acrobat or Reader (not a web browser). Fill out the form by clicking in the purple text bars. Go to File > Save As, and then save the PDF with your name (for example, "CGA 2020 Membership Application - Smith). Before emailing your application, close Adobe Reader, and then re-open your application and make sure the information you filled in still appears in the document. Then attach your application to your email to Jack.

For dues payment, **EITHER** mail check to Jack Kirk at Richmond address; **OR** submit your dues online via PayPal at www.chestnutgrowers.org/paydues.html. ***Please ensure that you have submitted both your application and dues.***

A Farm/Business/Organization Name:

B

First Name	Last Name	First Name	Last Name
(Individual/First Household Member)		*(Second Household Member)*	

☐ **New Member Application** *(please complete sections C-K below)*

☐ **Renewal** *(please complete sections I-K below)*

- ☐ No updates to lines C-H below. Please use info from last year.
- ☐ My information has changed. I have provided updates below.

C Address

D

City	State/Province	Zip/Postal Code	Country

E

Phone	Fax
( )	( )

F

Email	Website

G

Acreage in Chestnuts	# of Trees	Year First Planted	Previous Year's Production (lbs)

H Cultivars Grown

I Please send newsletters in the following format (*$5.00/year for print to cover cost of printing and postage):*

☐ Email Only ☐ Print Only ☐ Both Email and Print

J Listing on the CGA website grower directory (chestnutgrowers.org/growers; *see reverse for more info*):

☐ Free Listing ☐ Paid Listing ☐ Please do not list my information on the website.

Continued on reverse ➔

☐ **New Member** or **Renewal** ***before*** **April 1**

K	Membership Dues	
	☐ Household Membership	$55.00
	☐ Individual Membership	$45.00
	☐ Associate Membership	$60.00
	☐ Print Format Newsletters (see **I** above)	$5.00
	☐ Paid Listing on CGA Website (see **J** above)	$25.00
	Total dues for this year:	_____

Renew Today!

A $10 late fee is applied after April 1; after that date dues increase to $65 for a household membership and $55 for an individual membership.

☐ **Renewal** ***after*** **April 1**

K	Membership Dues	
	☐ Household Membership	$65.00
	☐ Individual Membership	$55.00
	☐ Associate Membership	$70.00
	☐ Print Format Newsletters (see **I** above)	$5.00
	☐ Paid Listing on CGA Website (see **J** above)	$25.00
	Total dues for this year:	_____

Today's Date:

_____

Listings on chestnutgrowers.org Grower Directory

Paid listings include a photo of you taken in your orchard/farm, your orchard name, address, phone number, email, website link, and a description of your orchard. This is a great way to make your information stand out to potential customers! Free listings include the orchard name, address, and phone number.

If purchasing a paid listing, send a high-quality photo and your written description (150-200 words) to the webmaster at chestnutgrowersofamerica@gmail.com.

Paid Listing Example

Allen Creek Farm

PO Box 841, Ridgefield, WA 98642
(Website) (Email) Phone: 360-887-3669

Planted in 1999, Allen C
customers throughout
flour and a delicious pa
are inspected annually
certificate that allows tl
WSDA is done of the co

The Youngs practice su
population and a foliar
nutrient needs of the tr
and is not a potential s

Nuts are refrigerated within 24 hours of harvest at 33° F

Curious about just how things are done? Visit our websi
trees to you. (2016)

Free Listing Examples

Chestnut Ridge of Pike County
18483 US Hwy 54
Rockport, IL 62370
217-437-4281

Thistle Creek Orchard
35 Shady Ln.
Avon, IL 61415
309-678-7216

Green Glades Chestnuts
10396 E. 1000th St.
Macomb, IL 61455
309-255-6189

Twinsholler Chestnut Orchards
1514 190th Ave.
Cameron, IL 61423
309-221-2955

Atlas Nuts
18521 US Hwy 54, Rockport, IL 62370
516-641-4513

Highlights of the 2024 Northern Nut Growers Association Joint Conference with the Chestnut Growers of America

The 2024 Northern Nut Growers Association joint conference with the Chestnut Growers of America exceeded expectations with outstanding presentations, posters, exhibits, profitable auction, fill to capacity banquet, and excellent field tours. One attendee said as she checked out, the woman who headed up the front desk told her that we were the best group she ever had to work with, so understanding and easygoing. We need to give a big thank you to the members of the planning committee from the NNGA, CGA, and New York Nut Growers Association along with staff from the Collegian Hotel and Suites and Syracuse University Environmental Science and Forestry for all their efforts to make this a very successful conference.

At this conference, more than 215 people registered for the entire conference and more than 70 registered for a single day. Because we included the banquet in the registration fee, most of these folks are in the group photo (photo credit: Jeff Jensen). More than half of those attending indicated they were first time attendees. About half the attendees indicated they belong to one or more of the sponsoring organizations with 82 percent indicating they were NNGA members. Growers made up the highest percentage of attendees (49%) followed by hobbyists (20%) and academia (20%). We had individuals from 29 states and Canada with heavy representation from New York, Pennsylvania, New Jersey, Massachusetts, and Canada. The conference was not without some controversy as two organizations opposed to GMO trees brought posters and freely mixed with the attendees.

Throughout the conference, there was a lot of information sharing both formally from the more than 80 presenters and informally during the welcome BBQ, frequent breaks, poster/exhibit sessions, panel discussions, and field stops. This mix of formal and informal information exchanges appeared to work well. Oral presentations were videotaped and will eventually be posted on the NNGA website in the members-only portal along with the 72-page conference program which contained presenter's abstract, bio, and contact information.

Monday's auction brought in over $9,100 to the NNGA's and CGA's research programs. The NNGA had donations from forty-two members and organizations that brought in more than $8,200 for the NNGA Research Endowment. The generosity of bidders and the CGA allowed the NNGA Research Grants Committee to fund two extra research proposals.

After the banquet, NNGA and CGA shared time to recognize the Tree and Sapling donors along with the annual election and presentation of a few awards.

Registrants were polled on their interests for topics from planting stock to marketing. Orchard management (127) was number one followed by cultivar selection (102) and nut processing (103). These topics were well represented in the program and field tours. Seedling (83) and vegetative propagation (97), orchard establishment (83), insects and diseases (84), harvesting (82), and marketing (64) round out the interest for this year's attendees.

We had a lot of interest in the Wednesday afternoon field tours with 26 registered for the Black Squirrel Farms's tree to table black walnut experience, with 80 registered for the Z's Nutty Ridge tour of hazel/chestnut orchard and seedlings, and with 48 registered for the Finger Lakes Nut Farm, a producing orchard of cold hardy Chinese/Chinese hybrid chestnuts. The latter two tours also included a tour of the New York Tree Crops Alliance Processing Center.

Chestnut Growers of America
2300 Bryan Park Ave.
Richmond, VA 23228

The Chestnut Grower

Summer 2025