

2026

NORTHERN NUT
GROWERS ASSOCIATION &
CHESTNUT GROWERS OF AMERICA

Joint Annual Conference

July 31 - August 3
Amherst, MA

PROGRAM

UNIVERSITY OF MASSACHUSETTS AMHERST



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2026 Joint Annual Conference

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Friday, 31 July 2026

Friday's activities include the annual NNGA Board meeting in the morning and CGA Board meeting in early afternoon in Campus Center on the UMass-Amherst campus. Registration on campus from 3:00 – 5:00 pm. Setting up of unsecured posters, displays, and exhibits on the Concourse from 3:00 – 5:00 (or 7:30 – 9:00 am on Saturday morning).

Friday afternoon, Yellowbud Farm will be hosting field tours 3:00 – 5:00 before we journey to the Sunderland Town Park Pavilion for the evening social with cash bar, welcome reception/dinner, and the traditional Show and Tell program with lightning talks.

8:00 – 12:00 Northern Nut Growers Association Board of Directors Meeting, Room 162, Campus Center

12:00 – 1:00

Lunch on your own. For on-campus options today located near or within Campus Center (CC) and their hours during the conference, check out the following list or go to umassdining.com/hours:
Harvest Market: 8 am – 9 pm (CC)
People's Organic Coffee: 7 am – 3 pm (CC)
Worcester Commons: 7 am – 9 pm (667 N Pleasant St)
The Commonwealth Restaurant: 11 am – 9 pm (667 N Pleasant St)

12:00 – 2:00

Chestnut Growers of America Board of Directors Meeting, Room 177, Campus Center

12:30 – 2:30

Registration Packet Assembly. Volunteers will put together the registration packets in the Storage Room (Room 165). If you have fliers you want in the registration packet, they need to be in Room 165 by 12:30 pm.

1:00 – 3:00

Continuation, if necessary, of the **Northern Nut Growers Association Board of Directors Meeting**, Room 162, Campus Center

- 3:00 – 5:00 **Registration in Campus Center**, pick up your name tag and registration packet at the registration desk outside Room 163-164 in the Campus Center. *There will also be registration at the Sunderland Town Park for those attending the tour at Yellowbud Farm.* Auction items with donation sheets can be turned in at the registration desk. Auction items, exhibits, and posters needing secure overnight storage should be placed in the lockable Storage Room (Room 165). Key available at registration desk. If you have questions or post information during the conference, check with the registration desk and add it to the adjacent white board, respectively.
- 3:00 – 5:00 **Set up Posters, Exhibits, and Displays**, Concourse Area, Campus Center. The Concourse is a public area in a public building. Posters, exhibits, and displays can be stored overnight in the Storage Room (Room 165).
- 3:00 – 5:00 **Yellowbud Farm Field Tour** (544 Millers Falls Rd, Northfield, MA 01360). Guided tours of the Yellowbud hickory nursery and orchards, chestnuts, forest farming, hickory oil pressing, and more. If you do not have transportation, check at the registration table to make arrangements to car pool to Yellowbud Farm and/or the Sunderland Town Park Pavillion.
- 5:30 – 7:00 **Registration** at Sunderland Town Park Pavilion
- 5:00 – 6:00 **Welcome Social with Cash Bar**, Sunderland Town Park Pavilion (just past 42 Park Road, Sunderland, MA 01375). Sunderland is 6 miles northwest of the UMASS campus via MA-116 N/Amherst Rd.
- 6:00 – 7:00 **Welcome Buffet Dinner** at the Sunderland Town Park Pavillion. Meal catered by Wheelhouse featuring local summer vegetables and chestnut flour generously donated by Route 9 Cooperative.
- 7:00 – 8:30 **Show and Tell with Lightning Talks**, Sunderland Town Park Pavillion, Jerry Henkin, Session Moderator
- 7:00 – 7:05 Shawn Mehlenbacher, *NNGA/CGA Welcome*

Continued →

FRIDAY, 31 JULY, CONTINUED

7:05 – 7:15	Elodie Eid, <i>Free Temperate Tree Crop Guidebooks</i>
7:15 – 7:25	Scott Brainard, <i>Counting Chestnut Burs from the Air: Using Drone Imagery to Track Orchard Performance and Harvest</i>
7:25 – 7:35	Douglas Spangler, <i>NNGA Library Resources</i>
7:35 – 7:45	Jeff Polfer, <i>New Horizons with EarthBrew for Life</i>
7:45 – 7:55	Brian Caldwell, <i>New York Tree Crops Alliance Chestnut Marketing and Aggregation Pathways</i>
7:55 – 8:05	Andrew Faust, <i>Creating Permaculture Legacy Landscapes</i>
8:05 – 8:15	Richard Tegtmeier, <i>Developing the First Chromosome-Scale Honey Locust Genome to Support Breeding, Conservation, and Agroforestry</i>
8:15 – 8:25	Dan Lefever, <i>1,2,3 Chestnuts</i>
8:25 – 8:30	Announcements , Updates on Schedule of Events and any other housekeeping remarks

Saturday, 1 August 2026

Saturday's schedule of events includes the 117th NNGA Annual Business meeting, our first keynote presentation, the first day of technical presentations, two forums, and the auction. The day will start with a short Business meeting. The technical session will open with our first keynote presentation followed by concurrent sessions. Presentations have been divided into traditional (30 min with Q & A) or in-depth presentations (60 min with Q & A) throughout the day ending with two concurrent forums (panels or group discussions). Lunch will be on your own. It is suggested to try the Worcester Commons, UMASS's version of a food court. After dinner on your own, participate in the poster/exhibit session until the live auction begins. Plan to be an active bidder as proceeds from the auction go to support the NNGA or CGA research grants programs.

- 7:00 – 8:30 **Breakfast on your own.** Check out the following list or go to umassdining.com/hours for today's on-campus dining options located within or near Campus Center (CC) and their hours during the conference:
Harvest Market: 8 am – 9 pm (Campus Center)
Worcester Commons: 7 am – 9 pm (667 N Pleasant St)
We suggest the Worcester Commons as Harvest Market in Campus Center is too small to accommodate all the conference attendees at one time.
- 7:30 – 9:30 **Set up posters, exhibits, and displays** on the Concourse in Campus Center.
- 8:00 – 17:00 **Registration**, Foyer outside Auditorium. Pick up name tags and registration packets. **Auction items** can be turned in at the registration table where volunteers will move them to the Storage Room (Room 165) for display until the evening. Registration will remain open all day, and the registration desk will serve as **our information desk** to answer questions, sell merchandise, post notices on the whiteboards, etc.
- 9:00 – 10:00 *Informal CAPS gathering and planning of group activities. A volunteer familiar with Amherst will be in Room 163-164 to provide suggestions and directions to local venues.*
- 8:30 – 9:00 **Northern Nut Growers Association 117th Annual Business Meeting**, Auditorium
- 9:00 – 9:05 Roger Blackwell, *Welcome*
- 9:05 – 10:00 **Keynote:** Russell Wallack, *Successes and Failures at Breadtree Farms*
- 10:00 – 10:30 **Break** – There are coffee shops on the entrance floor.
- 10:30 – 12:30 **Saturday Morning Concurrent Technical Session** (see schedule on next page)

Continued →

SATURDAY, 1 AUGUST, CONTINUED

Saturday Morning Concurrent Technical Session

	Session A Location: Auditorium Moderator: Ray Rusmisl	Session B Location: Room 163-164 Moderator: MJ Oviatt
10:30	Buzz Ferver – <i>Plant Physiology, Stratification, and Grafting – Lessons Learned During My Time Growing Plants</i>	Diana Laurenitis – <i>Creating a Small-Scale Agroforestry Nut</i>
11:00		Harry Greene – <i>Financing and Funding Chestnuts with Farmer-Controlled Markets</i>
11:30	Jesse Marksohn – <i>Update on Genetics and Potential of Yellowbud Hickory</i>	Tina Barney – <i>Non-chemical Means of Protecting an Orchard from Pests</i>
12:00		David Hughes – <i>Marketing Quality Nuts</i>

12:30 – 1:30 **Lunch on your own** – Suggest the Worcester Commons food court, about a 5-minute walk from Campus Center (see map inside back cover).

1:30 – 5:00 **Saturday Afternoon Concurrent Technical Session**
(see schedule on next page)

5:00 – 6:00 **Dinner on your own** – We suggest the Worcester Dining Commons food court, about a 5-minute walk from Campus Center because Harvest Moon is too small to accommodate everyone attending the conference.

5:00 – 6:30 **Chestnut Handlers and Processors Quarterly Meeting.** All participants will grab dinner to go from Harvest Market in Campus Center and listen for further announcements. Anyone interested in or participating in chestnut handling and processing is welcome to join. *Please see Elodie Eid for more details.*

6:00 – 7:00 **Poster/Exhibit Session,** Concourse Area

Saturday Afternoon Concurrent Technical Session

	Session C Location: Auditorium Moderator: Alex Tanke	Session D Location: Room 163 Moderator: Rick Hartlieb
1:30	Lou Judge – <i>Nuts for the Next Generation: Farm Succession Planning</i>	Eric Toensmeier – <i>Update on Oak Breeding</i>
2:00	Tom Molnar – <i>Five New Hazelnut Cultivars for the Eastern United States</i>	
2:30	Bob Stehli – <i>Update on Our Chestnut Breeding Program</i>	Seva Water – <i>Hazelnut Culture: Integrating Indigenous and European Practices</i>
3:00	Sasha Sherman – <i>The Great Chestnut Experiment</i>	
3:30	Break – There are coffee shops on the entrance floor.	
4:00	Forum A: Chestnut Marketing, Aggregating, and Economics Facilitator: Greg Miller Panelists: Roger Blackwell, Amy Miller, Harry Greene, Roger Smith, Jon Nash, Russell Wallack, Sasha Sherman, Brian Caldwell	Forum B: Hazelnut Breeding and Propagation Facilitator: Tom Molnar Panelists: Shawn Mehlenbacher, Mark Hamann

- 6:30 – 7:00 **Registration for Auction with cash bar** at the marble desk. View the auction items in the Storage Room (Room 165) and obtain your number for the auction at the Clerk's Table in Room 163-164).
- 7:00 – 9:00 **Auction**, Room 163-164. Bid freely as proceeds go to support the NNGA and CGA research grants programs.
- 9:00 – 10:00 **Set Up**. Pay for and remove purchased items. Cash, check, or credit cards accepted.

Continued →

Sunday, 2 August 2026

Sunday's schedule of events will include the second keynote presentation followed by concurrent sessions with either traditional (30 min including Q & A) or in-depth (60 min including Q & A) presentations throughout the day. The technical session ends with two concurrent forums (panels or group discussions). Lunch will be on your own. In the evening, we will have the traditional group photo, social, and banquet.

- 7:00 – 8:00 **Breakfast on your own.** For today's on-campus options located near or within Campus Center (CC) and their hours during the conference, check out the following list or go to umassdining.com/hours:
Harvest Market: 8 am – 9 pm (Campus Center)
Worcester Commons: 7 am – 9 pm (667 N Pleasant St)
We suggest the Worcester Commons as Harvest Market in Campus Center is too small to accommodate all the conference attendees at one time.
- 8:00 – 17:00 **Registration,** Foyer outside the Auditorium in Campus Center. Pick up name tags and registration packet. Registration will remain open all day and serve as our **information desk** to answer questions, sell merchandise, post notices on the whiteboards, etc.
- 8:00 – 9:00 **Chestnut Silvopasture Walking Tour.** Lisa Depiano will lead a 50-minute walking tour from Campus Center to the on-campus 8-year-old chestnut-sheep silvopasture practice.
- 9:00 – 10:00 *Informal CAPS gathering and planning of group activities. A volunteer familiar with Amherst will be in Room 163-164 to provide suggestions and directions to local venues.*
- 9:00 – 10:00 **Keynote, Auditorium:** Jono Neiger, *Big River Chestnuts: A Chestnut Agroforestry on the Connecticut River*
- 10:00 – 10:30 **Break** – There are coffee shops on the entrance floor.

Sunday Morning Concurrent Technical Session

	Session E Location: Auditorium Moderator: Sara Tyler	Session F Location: Room 163-164 Moderator: Geoff Williams
10:30	Erik Shellenberg – <i>Syntropic Agroforestry Practices with Nut Trees</i>	Matt Grason – <i>KTCC Nut Processing Update</i>
11:00		Dale Bergdahl and Martin Kratt – <i>Persisting Butternut Tree Populations with Natural Regeneration</i>
11:30	Amy Miller – <i>You Harvested Your Chestnuts – Now What?</i>	Zach Elfers – <i>The Past, Present, and Future of Hickories</i>
12:00		Matt Kaminsky and Rachel Hass – <i>Learnings on Silvopasture and Chestnut Orchards</i>

10:30 – 12:30 **Sunday Morning Concurrent Technical Session** (see schedule above)

12:30 – 1:30 **Lunch on your own.** We suggest the Worcester Commons, about a 5 minute walk from Campus Center, because Harvest Market is too small to accommodate all the conference attendees at one time.

1:30 – 5:00 **Sunday Afternoon Concurrent Technical Session** (see schedule on next page)

Continued →

SUNDAY, 2 AUGUST, CONTINUED

Sunday Afternoon Concurrent Technical Session

	Session G Location: Auditorium Moderator: Samantha Bosco	Session H Location: Room 163 Moderator: Zach Elfers
1:30	Dusty Hinz – <i>High-density, “Hybrid Swarm” Chestnut Seedling Planting in SE Minnesota</i>	Jonathan McRay and Samantha Bosco – <i>Mycena Agroforestry Initiative: A Social Vision for Farming with Trees</i>
2:00	Bill Stouffer – <i>Chestnuts and Wheat Alleycropping</i>	William Padilla Brown – <i>Native Truffle Cultivation: Growing America’s Hidden Fungi</i> (recorded)
2:30	Magni Hussain – <i>Automated Chestnut Sorter for Damage, Pests, and Disease</i>	Mark Hamann – <i>Update from the Upper Midwest Hazelnut Development Initiative and Possible Breakthrough for Hybrid Hazelnut Stem Cutting Propagation</i>
3:00	Nate Westrick – <i>Oak Wilt at Our Doorstep: What It Means for Oaks and Chestnuts in the Northeast</i>	
3:30	Break – There are coffee shops on the entrance floor.	
4:00	Forum C: Oak Wilt in Chestnut	Forum D: Black Walnut Questions & Answers
4:30	Facilitator: Geoff Williams Panelists: Nate Westrick,	Facilitator: Jim McKenna Panelists: Sara Tyler, Ben

- 5:00 – 6:00 **Take Down.** All posters, exhibits, and displays are to be taken down and removed from Campus Center.
- 6:00 – 6:10 **Group Photo** – The social and cash bar will not open until after the group photo. Listen for announcements during the week as to where to meet for the group photo.
- 6:10 – 7:00 **Social with cash bar,** Ballroom, Student Center. Student Center is adjacent to Campus Center. Cash bar opens after group photo.
- 7:00 – 8:00 **Banquet,** Jim McKenna, MC, Ballroom, Student Center
- 8:00 – 9:00 **Banquet Program,** Roger Blackwell and Jim McKenna
- Shawn Mehlenbacher, Travelogue-Hazelnuts in Chile
 - Crowning of the 2026 NNGA Big Nut
 - Recognition of Major Sponsors, Donors, and Guests
 - Announcement of 2026 Research Grant Recipients
 - Election of NNGA Officers and Directors-at-Large
 - Presentation of NNGA Merit and Service Awards

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CAPS Opportunities

There is no formal CAPS program for the 2026 Conference in part because the UMASS campus offers many interesting sites within walking distance of the Campus Center. From 9:00 to 10:00 on Saturday and Sunday mornings, a volunteer familiar with Amherst will be in Room 163-164 to provide suggestions and directions to local venues.

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Monday, 3 August 2026

Monday's schedule of events includes a choice of two field tours: Big River Chestnuts and Carr's Preservation Orchard (8:00 am – 3:00 pm) or Lockwood Farm and Sleeping Giant Chestnut Plantation (8:00 am – 6:00 pm). Chartered bus transportation and box lunch are included for both options with the full and Monday field tour registrations. We need people to ride the chartered buses because of limited parking at some sites. The conference will adjourn when the buses return to the UMASS campus Monday evening. **There is a large amount of poison ivy at some of the tour sites; please wear long pants and closed-toed shoes if you are sensitive.**

- 7:00 – 7:45 **Breakfast on your own.** For on-campus options today located near or within Campus Center (CC) and their hours during the conference, check out the following list or go to umassdining.com/hours:
People's Organic Coffee: 7 am – 3 pm (CC)
Worcester Commons: 7 am – 9 pm (667 N Pleasant St)
- 7:00 – 7:45 **Check out of dorm rooms and hotel** if not staying Monday night; store luggage in personal vehicles and leave vehicles parked on campus if you were a registered guest.
- 7:45 – 8:00 **Load the chartered buses** at 686 N Pleasant St (west of Worcester Commons), if you registered for field tours with bus transportation. Maps will be available for those using their own vehicles or carpooling to the field sites at the registration desk during the conference.

Option A: Big River Chestnuts and Carr's Preservation Orchard

- 8:00 – 8:30 **Travel to Big River Chestnuts** (195 River Rd, Sunderland, MA).
- 8:30 – 10:30 **Orchard tour** at Big River Chestnuts.
- 10:30 – 11:00 **Load buses and travel** to Sunderland Town Park Pavilion.
- 11:00 – 12:00 **Lunch** at the Sunderland Town Park Pavilion (just past 42 Park Road, Sunderland, MA 01375). Google Maps

shows the location as "Sunderland Town Park" or maps.app.goo.gl/kbED7Mf5U73Hczu57.

- 12:00 – 12:30 **Load buses and travel** to Carr's Ciderhouse Preservation Orchard (12 Mt. Warner Rd, Hadley, MA). Parking for private vehicles is at the Carr's Ciderhouse (295 River Dr., Hadley, MA 01035). A few cars will then carpool up to the Preservation Orchard. Cars that are already full may go directly to 12 Mt. Warner Rd, Hadley, MA.
- 12:30 – 2:30 **Orchard tour** at Carr's Preservation Orchard.
- 2:30 – 3:00 **Load buses and travel** back to the UMASS campus.

Option B: Lockwood Farm and Sleeping Giant Chestnut Plantation

- 8:00 – 10:00 **Travel to Lockwood Farm** (890 Evergreen Ave., Hamden, CT 06518).
- 10:00 – 12:00 **Field tour** at Lockwood Farm.
- 12:00 – 1:00 **Lunch** at Lockwood Farm.
- 1:00 – 1:30 **Travel to the Sleeping Giant Chestnut Plantation** (Chestnut Lane Hamden, CT). Park along the right side of the road after the first house on the left.
- 1:30 – 3:30 **Field tour** at Sleeping Giant Chestnut Plantation.
- 3:30 – 5:30 **Load buses and travel** back to the UMASS campus.
- 6:00 – ? Informal gathering for beverage and supper. If you are staying at the Residence Halls Monday evening, expect a group of nut growers to informally gather at the entrance to Campus Center and then walk to a local restaurant for a beverage, supper, and shared conversation. The following dining options are open on campus Monday evening:
The Commonwealth Restaurant: 11 am – 9 pm (667 N Pleasant)
Worcester Commons: 7 am – 9 pm (667 N Pleasant St)
Harvest Market: 8 am – 9 pm (Campus Center)
Various locations at the "Blue Wall" in Campus Center are open until 6:30 pm.

Forum Descriptions

CHESTNUT MARKETING, AGGREGATING, AND ECONOMICS

Facilitator: Greg Miller

A panel discussion on tree nut marketing and aggregation pathways for economic scaling that still supports small farms, including cooperative models, value added products, and other arrangements. Top question: "How are we going to support this industry once all of these acres come into production?"

HAZELNUT BREEDING AND PROPAGATION

Facilitator: Tom Molnar

OAK WILT IN CHESTNUT

Facilitator: Geoff Williams

This forum will cover growers' experience with oak wilt in chestnut plantings, results of recent research, and current best practices to mitigate severity of oak wilt in chestnut plantings.

BLACK WALNUT QUESTIONS & ANSWERS

Facilitator: Jim McKenna

This forum will cover practical black walnut harvesting and processing techniques for beginners and established growers alike. Panelists will share real-world experiences from small-scale processing to larger processing, including insights from recent research and experienced growers. Attendees can ask questions and share their successes and challenges.

Field Site Descriptions

YELLOWBUD FARM

544 Millers Falls Rd, Northfield, MA 01360

Yellowbud Farm (www.yellowbud.farm) will host guided tours of the Yellowbud hickory nursery and orchards, chestnuts, forest farming, hickory oil pressing, and more. Northfield is 23 miles north of the UMASS campus via MA-63 North.

UMASS CHESTNUT-SHEEP SILVOPASTURE PRACTICE

UMass Campus, Amherst, MA

The UMass Carbon Farming Initiative is a 2-acre agroforestry living laboratory and demonstration site that is training the next generation of farmers. The initiative was founded by students and faculty in 2018. The site contains a silvopasture of Chinese chestnuts grazed by sheep and chickens, an alleycropping field of Asian pears and elderberry with cut flowers and annual veggies, and a recently planted silvopasture for leaf forage of willow, persimmon, mulberry and honey locust. We are a part of the larger 40 Acre Agriculture Learning Center with student run enterprises including Stockbridge Livestock, UMass Student farm, Permaculture Initiative, and the Stockbridge Floral Design.

CARR'S PRESERVATION ORCHARD

12 Mt. Warner Rd, Hadley, MA

Parking for private vehicles is at the Carr's Ciderhouse (295 River Dr., Hadley, MA 01035). A few cars will then carpool up to the preservation orchard. Cars that are already full may go directly to 12 Mt. Warner Rd, Hadley, MA. Parking for buses for the orchard tour is at 12 Mt. Warner Rd, Hadley, MA. Preservation Orchard (www.carrsciderhouse.com), a recently named historic orchard, is committed to preserving traditional

Continued →

Field site Descriptions, *continued*

foodways, preserving farmland, and preserving the balance of our ecosystem by never spraying, minimally mowing, practicing silvopasture with goats and sheep, and planting lots and lots of trees! After years of planting and managing European cider trees, the owners recently added chestnut, Japanese walnut, persimmons, and papaws trees to their orchards. Carr's Ciderhouse is a family-run operation, committed to handcrafting small batch, naturally made hard ciders as well as apple cider-based products for the pantry. Their century old cider press is housed in a chestnut-lined barn. Carr's Ciderhouse is located on the northwest slope of Mt. Warner in Massachusetts, overlooking the breathtakingly beautiful Connecticut River valley.

BIG RIVER CHESTNUTS

195 River Road, Sunderland, MA 01373

Big River Chestnuts is a diversified alley cropping and silvopasture agroforestry farm in Sunderland, MA owned and operated by Jono Neiger. Initiated in 2018, the farm vision is to produce commercial quantities of chestnuts while stewarding the river terrace soils and habitat. The farm grows Chinese and Chinese hybrid chestnuts as well as heartnuts, hazelnuts, chinkapin, aronia, elderberry, black currant, persimmon, and pawpaw grown either in the alleys or farm edges. The farm currently has 85+ acres in tree crops, primarily chestnuts, in fields on four properties. In addition to alleycropping agroforestry, the farm also practices silvopasture grazing on 7.5 acres with Meadowfed Lamb (www.meadowfedlamb.com) bringing their sheep flock into the orchard to graze on the fertile pasture under the chestnuts. The farm is building a chestnut processing hub with equipment and systems for cleaning, processing, aggregation with other farms, and distribution.

On the tour, we will see the active farm management, chestnut and berry crops, soil management, hedgerow and wet meadow areas, and see the active sheep grazing silvopasture management with Meadowfed Lamb grazers Rachel Haas and Matt Kaminski. Jono will also discuss the farm operation and outreach and communication strategies, and development of the processing hub for aggregation and distribution.

BREADTREE FARMS

2129 Co Rd., Salem, NY, 12865

Visit Breadtree Farms for a post-conference tour on Tuesday to learn how they're stewarding 20,000+ food-producing trees and shrubs — including chestnut, hickory, oak, seaberry, and apple — across orchards grazed by sheep and cattle. Tour their multi-functional landscapes, hear about their ongoing research projects, and get the latest on their chestnut processing facility currently under construction. The tour will be Tuesday morning from 9:30 - 11:30am. Please RSVP and learn more at bit.ly/breadtree-nnga-tour.

LOCKWOOD FARMS/SLEEPING GIANT CHESTNUT PLANTATION

890 Evergreen Ave, Hamden, CT 06518

The Lockwood Farm and Sleeping Giant Chestnut Plantation together hold one of the longest-running chestnut breeding programs in North America, managed by the Connecticut Agricultural Experiment Station (CAES). The Sleeping Giant Chestnut Plantation, set within Sleeping Giant State Park in Hamden, traces back to March 1930, when Dr. Arthur H. Graves planted chestnuts of various species he received from across the country and started performing his own hybrid crosses. CAES joined the effort around 1939 under geneticist Dr. Donald F. Jones, and in 1949 Graves reserved 8.3 acres for the Experiment Station's tree breeding work when the surrounding land passed to the state for the park. Graves continued his chestnut work there until his death in 1963. Several cultivars, including the 'Sleeping Giant' ortet (R5T13) and several grafts (R9T4, R28T7) and its parents originating from seed from China (R32T1) and Japan (R34T6) planted in 1935 reside in the Sleeping Giant Chestnut Plantation.

The companion plantings at Lockwood Farm approximately an 8-minute drive from Sleeping Giant extend that legacy with a living collection of a wide array of chestnut species and cultivars, and decades of breeding work and research on blight resistance by Dr. Sandra Anagnostakis. The Lockwood Orchard is also the site of many walnuts, hickories, heartnuts, and butternuts.

Poster Presentations

Posters will be set up in the Concourse Area of the Campus Center from Friday evening or Saturday morning through Sunday afternoon. Poster presenters will be asked to be near their poster during the Poster/Exhibit session Saturday evening from 6:00 to 7:00 pm preceding the auction. Other opportunities for viewing are Saturday and Sunday before the session starts and during the morning and afternoon breaks. *The following is the list of known poster presenters when the conference program went to the printer, although we expect at least three more.*

Hypovirulence for Chestnut Blight Management

Susanna Keriö, Elena Karlsen-Ayala, Elisabeth B. Ward, and Nathaniel Westrick

Predicting Foliar Nutrients in European Hazelnut Trees Using a Handheld NIR-SWIR Spectrometer

Corey Lunden and Richard Tegtmeier

ESF American Chestnut Project Update

Andrew Newhouse, Sophia Suriano, and ESF's Research Team

Market Potential for Agroforestry-Grown Chestnuts in New England

Sajja Panta and Ranjit Bawa

Biotechnology Complements Classical Approaches: Investigating the Role of Soil Microbes in American Chestnut Restoration and Management

Sophia G. Suriano, Shannon Lynch, Julie Maresca, and Andrew Newhouse

Exhibits & Displays

Exhibits and displays will be set up in the Concourse Area of the Campus Center from Friday evening or Saturday morning through Sunday afternoon. Exhibitors will be asked to be near their exhibits during the Poster/Exhibit session Saturday evening from 6:00 to 7:00 pm preceding the auction. Other opportunities for viewing are Saturday and Sunday before the session starts and during the morning and afternoon breaks. *The following is a list of the exhibitors when the conference program went to the printer.*

Agroforestry Coalition, Kitt Healy
www.agroforestrycoalition.org

AMB Rousset, Renaud Rousset
www.amb-rousset.com

Berkshire Ag Ventures, Ben Crockett
www.berkshireagventures.org

Black Squirrel Farms, Sara Tyler
www.blacksquirrelfarms.net

Breadtree Farms, Noah Simon
www.breadtreefarms.com

Foggy Bottom Tree Farm, Don Knezick
www.foggybottom.farm

Hickory Cultivar Display and Crackers, Zach Elfers

Keystone Tree Crops Cooperative, Sean Walsh
keystonetreecrops.com

Northeastern Organic Farming Association-MA, Hannah McDonald
www.nofamass.org

Propagate, Harry Greene
www.propagateag.com

Regenerative Design Group, Jono Neiger
www.regenerativedesigngroup.com

Rich Earth Institute, Julia Cavicchi
www.richearthinstitute.org

Treeborn Products Inc. & New Era Chestnuts, Roger Blackwell
www.treebornproducts.com

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Conference Presenters – Titles, Abstracts, Bios, and Contact Info

TINA BARNEY

Non-chemical Means of Protecting an Orchard from Pests

Abstract: Tender tree bark, spring sap, and nutritious nut meat are all food for many creatures in an intact ecosystem, not just humans. Working with ecological and mechanical controls for pest species can help your trees thrive and produce enough nuts for you to still get a good harvest. Come learn about non-chemical strategies that seek to keep your orchard productive without poisoning plants, birds or mammals. (Warning, there will be photos of snakes!)

Bio: Tina started a permaculture-style fruit and nut orchard in zone 5 Vermont in 2001, experimenting with a wide range of species. Once trees matured to fruiting age, she needed to cope with the range of creatures that were drawn to the orchard. With a background in human medicine, she wanted to avoid chemical exposure for herself, her pets and her soils. Deeply attached to the land and a life-long learner and lover of biology, she has taken adult courses in gardening, composting, herpetology, bear ambassador, and this fall will join the Vermont Master Naturalist training.

Contact: Christine 'Tina' Barney, tbarneyvt@me.com

DALE BERGDAHL AND MARTIN KRATT

Persisting Butternut Tree Populations with Natural Regeneration

Abstract: Butternut tree (*Juglans cinerea*) has undergone a devastating decline over the past 60 years due primarily to Butternut Canker Disease (BCD) caused by the fungus *Ophiognomonia clavignenti-juglandacearum* (OCJ) and habitat loss throughout its

range. This has resulted in butternut receiving endangered species status in some jurisdictions and varying predictions of regional extirpation by 2030 to 2084. Wild populations of pure *J. cinerea* with surprisingly healthy trees and natural regeneration, however, persist in the Champlain Valley, Vermont and therefore warrant a renewed look at the equation and further investigation into how these populations are surviving. We have jointly developed two research sites with regenerating wild butternut populations in Vermont in collaboration with research scientists Dr. Sean Hoban from Morton Arboretum and Dr. Aziz Ebrahimi from Purdue University/University of Georgia on health assessments, habitat analysis, genotyping, and relationship analyses. These efforts are supported by an NRSC IFKF grant, additional funding from the Morton Arboretum, Kratt Bros Creature Hero Society, and our In-Kind contributions. Our aim is to understand how butternut trees in these populations have been tolerating the OCJ fungus and achieving natural regeneration on the landscape.

Bio: Dr. Dale R. Bergdahl is Professor Emeritus of Forest Pathology at the University of Vermont. His research on butternut and butternut canker disease (BCD) has primarily focused on both local and regional health assessments over time (1993-present) as well as with important insect relationships with BCD, especially those that might be potential vectors of the causal fungus. Butternut trees exhibiting tolerance/resistance to BCD are being selected from field sites and DNA tested for purity. Trees that test pure butternut are now part of an ongoing research and restoration effort in cooperation with other institutions and agencies.

Bio: Martin Kratt is writer/producer of the educational wildlife series, *Zoboomafoo* and *Wild Kratts*, and is director of the Kratt Bros Creature Hero Society, a wildlife conservation organization protecting critical habitats for endangered species. A discovery of a persisting pure butternut population (with healthy trees and natural regeneration) on his abandoned farm/woodland developed into an inventory of 850 butternut trees, the premiere of the episode “The Butternut Tree” for *Wild Kratts* on PBS, and a comprehensive research project with Dale Bergdahl and other scientific partners.

Contact: Dale Bergdahl, dale.bergdahl@uvm.edu

Contact: Martin Kratt, mwkratt@krattbrothers.com

ROGER BLACKWELL

Marketing, Aggregating, and Economics Forum Panelist

Abstract (Forum): See *Greg Miller* for forum abstract.

Bio: Roger has been involved with growing chestnut trees for over 38 years. He is Vice President of Chestnut Growers Inc. of the Michigan chestnut grower co-operative, co-owner of New Era Chestnuts, LLC, and V.P., Business Development at Treeborn, Inc. Roger currently is President of Chestnut Growers of America, a non-profit organization which represents chestnut growers throughout the USA. He has a great deal of experience in chestnut production, processing, marketing, and sales. He is a dedicated supporter of the Michigan chestnut industry.

Contact: Roger Blackwell, rblackwel@comcast.net; 810-923-2954

SCOTT BRAINARD

Counting Chestnut Burs from the Air: Using Drone Imagery to Track Orchard Performance and Harvest

Abstract: Most chestnut orchards are grown from seedlings, so trees vary widely in yield, nut quality, and how reliably they crop. However, hand-scoring every tree is too laborious to give growers a full picture of an orchard's performance. This talk introduces method for using photographs of chestnut trees taken by a drone, combined with image processing, to automatically count the burs on each. A single flight produces a tree-by-tree map of bur load across the whole orchard. The presentation will show how growers can use these counts to study orchard performance, identify their best (and worst) trees, and estimate the coming crop early enough to plan labor, equipment, and storage for harvest. This same data can help advance participatory breeding work aimed at delivering higher-yielding, more dependable chestnut varieties to growers sooner.

Bio: Scott Brainard is a Tree Crop Breeder at the Savanna Institute and a scientist at the University of Wisconsin-Madison, where he earned his PhD in plant breeding. He breeds chestnuts and hazelnuts, pairing traditional selection with genomics and high-throughput phenotyping methods.

Contact: Scott Brainard, Tree Crop Breeder, Savanna Institute,
scott@savannainstitute.org

WILLIAM PADILLA BROWN

Native Truffle Cultivation: Growing America's Hidden Fungi (Pre-recorded)

Abstract: North America is home to an incredible diversity of native truffles with untapped ecological and agricultural potential. This presentation explores the biology, cultivation, and conservation of species including *Tuber canaliculatum*, *Tuber lyonii*, *Tuber cumberlandense*, *Tuber canirevelatum*, *Leucangium onedanse*, and *Imaia pachyascus*. Attendees will learn how these fungi form partnerships with trees, practical methods for establishing orchards, selecting host species, and understanding habitat requirements. Drawing from current field research and on-farm trials, this talk highlights opportunities for growers, foresters, and foragers to participate in developing a resilient native truffle industry while supporting forest health and regional biodiversity.

Bio: William Padilla-Brown is the founder and CEO of MycoSymbiotics LLC, a mycologist, educator, and agricultural researcher specializing in fungi, algae, and botanical extraction. He has spent more than a decade teaching cultivation, foraging, and applied mycology through workshops, conferences, and research collaborations. William currently leads native truffle research supported by Northeast SARE and collaborates with scientists and growers to develop cultivation methods for North American truffle species. His work focuses on bridging scientific research with practical agriculture, helping farmers diversify production through fungi while promoting conservation of native ecosystems. Through MycoSymbiotics, he develops educational resources, conducts field research, and produces standardized mushroom extracts used by consumers, researchers, and agricultural professionals alike.

Contact: Will Padilla-Brown, Founder & CEO, MycoSymbiotics LLC,
will@mycosymbiotics.com; mycosymbiotics.com

BRIAN CALDWELL

Marketing, Aggregating, and Economics Forum Panelist

Abstract (Forum): See *Greg Miller* for forum abstract

New York Tree Crops Alliance Chestnut Marketing and Aggregation Pathways

Abstract (Show and Tell): The New York Tree Crops Alliance (NYTCA) is a grower cooperative in central NY state. It was incorporated in 2019 and currently has 14 members who have small commercial plantings of chestnuts and/or hazelnuts. Young plantings are coming into production, with our largest chestnut grower selling 5000 pounds from his own website last year. We are working on logistics for joint marketing and for heat-treating and storing chestnuts at "satellite" farms before transferring them to our hub location for storage and sale. The economics for both chestnuts and hazelnuts depend on increasing the labor efficiency of harvest, which we are also working on. We are indebted for the great work of pioneer growers and coops in the East and their generous sharing.

Bio: Brian Caldwell operates Hemlock Grove Farm in West Danby, NY producing certified organic apples, pears, chestnuts, and hazelnuts. His first chestnut planting went in in 1980, with more in past few years. He was a Cornell Cooperative Extension Educator, and then field manager for the Cornell Organic Cropping Systems Project until retiring in 2018.

Contact: Brian Caldwell, hgforganicapples@gmail.com; 180 Walding Lane, West Danby, NY 14883; 607-564-3346

BEN CHAPRUT

Black Walnut Q&A Panelist

Abstract (Forum): See *Jim McKenna* for forum abstract.

Bio: Ben Chaprut is a Boston-based forager, baker, and founder of Bruncle Ben's Bounty, a small New England food business celebrating the bold and distinctive flavor of wild black walnuts. What began as curiosity about the black walnut trees growing around his neighborhood has grown into a hands-on effort to map, harvest, crack, process, and bake with local black walnuts. Through Bruncle Ben's Bounty, he develops black walnut baked goods and confections while exploring the practical challenges of small-scale harvesting, shelling, sorting, food safety, and product development. With a background in

process development, Ben is especially interested in helping make underused native nut and fruit crops more accessible to small producers, local markets, and regional cultural identity.

Contact: Ben Chaprut, brunclebensbounty@gmail.com; bchaprut@gmail.com, 508-367-9559 (call or text), brunclebensbounty.com; brunclebensbounty.etsy.com

LISA MARIE DEPIANO

UMass Chestnut-Sheep Silvopasture Agroforestry

Abstract (field tour): The UMass Carbon Farming Initiative is a 2-acre agroforestry living laboratory and demonstration site that is training the next generation of farmers. The initiative was founded by students and faculty in 2018. The site contains a silvopasture of Chinese chestnuts grazed by sheep and chickens, an alleycropping field of Asian pears and elderberry with cut flowers and annual veggies, and a recently planted silvopasture for leaf forage with willow, persimmon, mulberry and honey locust. We are a part of the larger 40 Acre Agriculture Learning Center with student run enterprises including Stockbridge Livestock, UMass Student farm, Permaculture Initiative and the Stockbridge Floral Design.

Bio: Lisa DePiano is Senior Lecturer and '26-'27 [iCons](#) teaching fellow in the Stockbridge School of Agriculture on the UMass Campus.

Contact: Lisa Marie DePiano, M.R.P., ldepiano@umass.edu; 308 Bowditch Hall, Stockbridge School of Agriculture, University of Massachusetts, 201 Natural Resources Rd; 610-955-7168; stockbridge.cns.umass.edu/lisa-depiano

ELODIE EID

Free Temperate Tree Crop Guidebooks

Abstract: Free practical guidebooks by Elodie Eid, Eric Toensmeier, and Samuel Thayer for temperate agroforestry and tree crop farmers with a focus on chestnut, honey locust, and yellowbud hickory. These in-depth resources cover genetics and cultivar selection, establishment and management, nursery stock, yield data, harvesting and processing

equipment, and more. Each draw on the direct experience and knowledge of the authors and dozens of practitioners, grounded in peer-reviewed research where it exists. This project was made possible by a grant from the Sustainable Agriculture Research and Education (SARE) program (FNE23-047), through Big River Chestnuts.

Bio: Elodie is a chestnut-apple-sheep agroforestry farmer in Western Massachusetts and works at the intersection of tree crop production, farmer education, culture creation, and community building in the Northeast. With a decade of hands-on tree crop experience, she created the Temperate Tree Crop Guidebooks to share practical, peer-grounded knowledge with farmers exploring agroforestry and tree crops.

Contact: Elodie Eid; eid.elodie@gmail.com

ZACH ELFERS

The Past, Present, and Future of Hickories

Abstract: There is a long history going into the deep past of human relationship to hickory trees. This presentation will trace the modern history beginning with Antoine, tracing the arc of interest and growth in *Carya* as a tree crop, into the present day. Understanding where we have come from helps us guide where we are going.

Bio: Zach Elfers is a plantsman and nursery operator for Future Forest Plants, specializing in tree crops, grafting, and native plants. He is involved as Processing Director with the Keystone Tree Crops Cooperative pressing nut oil and developing other value-added tree crops products. In his spare time, he likes to hike, canoe, botanize, and write.

Contact: Zach Elfers, zachelfers@gmail.com; 717-826-8603

ANDREW FAUST

Creating Permaculture Legacy Landscapes

Abstract (Show and Tell): I will present on the work Permaculture Land Trust is doing to answer several important questions and to train up a new wave of nut tree cultivators and to protect rare and valuable historic planting and groves. I plan to cover creating permaculture

legacy landscapes; nut trees, protecting and training people to grow and distribute them; where to plant them; and what are the most resilient, diverse and integrated into wild ecologies ways to plant out the food forests of tomorrow. We received a \$50,000 grant from USDA-Beginning Farmers to train Agroforestry enthusiasts in how to start nurseries and to propagate plant stock with some of the top nursery people in the region teaching them, Buzz Ferver, Erik Schellenberg, and Zach Elfers are some of our lead instructors and advisors. Our program is training our participants in a more ecologically restorative approach to Agroforestry with an emphasis on a permaculture design process for the planting, superior genetics and the long-term protection of them for future generations to have an inheritance of greater Tree Crop abundance!

Bio: Andrew Faust has more than 30 years of work in environmental / ecological education with high school, college-age, and adult students. Founder and Director of Center for BioRegional Living permaculture designer, teacher, and activist. Faust is an advocate for social and environmental justice. He believes that permaculture can play a crucial role in addressing issues such as climate change, food insecurity, and social inequality by promoting sustainable and regenerative practices. He moved to Brooklyn in 2007 applying his knowledge to the urban landscape and the Hudson river valley creating a unique curriculum for their Permaculture Design Certification course, which is [PINA](#)-endorsed. He released *Earth Is Our Home* in 2024, a Bioregional Permaculture Design Book. He co-founded Permaculture Land Trust with David Harper in 2022.

Contact: Andrew Faust, andrewfaust12@gmail.com; 917-584-4588; www.permaculturelandtrust.com

BUZZ FERVER

Plant Physiology, Stratification and Grafting – Lessons Learned During My Time Growing Plants

Abstract: The conventional knowledge available on plant propagation and seed handling provides many mixed messages and is often incorrect from the nursery operators perspective. Join me for an interactive conversation about what I have learned in my nursery life. We will examine chestnut seed stored for longer than

one year. Talk in depth about storage techniques of seed and scion wood. There will be a grafting demo. We will be eating raw chestnuts from the fall 2025 season.

Bio: I am forever preoccupied with the natural system of the planet we currently inhabit. I spent my childhood studying plant communities and am continuing my naturalist study daily while learning about meeting human needs at farmstead scale. In the 1970's I studied horticulture and landscape design at the feet of my father and continue with my horticulture fantasy at my farm in Berlin Corners, VT. In the 1980's and 1990's I worked with two of the largest mushroom growers in Pennsylvania growing *Agaricus bisporus* to build revenue producing operations from their previously underutilized stream of mushroom growing substrate which gave me access to a steady stream of compost from organic mushroom production and could research and overcoming the particular issues with using this material as a horticultural growing media. I have worked for 30 years as a consultant to farming operations on every scale, to design, and develop on-farm composting as appropriate technology. Today, using permaculture principles to help guide my farms development, I propagate, plant and plant and plant. And make compost. And build soil. I was on the Board of Directors of Yestermorrow Design Build School for 9 years and still teach there occasionally. I have been on the Board of Directors for the Northern Nut Growers Association, who have as one of their goals to illuminate the importance of nut growing for human food and saving the rapidly disappearing remains of the northern food forest that fed the people who were here before us. I have killed untold thousands of fruits and nut tree seedling in my time at all in the quest for Zone 4 hardiness.

Contact: Buzz Ferver, www.perfectcircle.farm/contact

MATT GRASON

KTCC Nut Processing Update

Abstract: Driven by growing interest in sustainable agriculture and resilient, local food systems, a number of businesses and organizations have popped up in the Northeast US recent years. Keystone Tree Crops Cooperative (KTCC) first formed in 2022 to fill gaps in the food supply chain – aggregation, storage, value-added processing, and

marketing of hickories, chestnuts, hazelnuts, and black walnuts grown by new and small farmers in Pennsylvania and surrounding states. Uniquely, KTCC is fostering opportunities for folks who don't own their own land by organizing and empowering hickory nut foraging opportunities. KTCC's recent progress can provide value insight for other groups in the space on how to build organizational and physical infrastructure, navigate cooperative governance, secure needed financing, and support the development of other nut processing cooperatives in the region. If you have an organization, come and learn from our successes and challenges. If you're new, learn about how you can become part of the movement!

Bio: Matt Grason is Board Secretary and Grant lead for Keystone Tree Crops Cooperative. He brings to the cooperative 22 years of professional non-profit development and grant writing experience. Currently he provides strategic guidance and grantwriting support for climate technologies and land-based solutions to climate change through the grant services firm Climate Finance Solutions and his own consultancy, Lush Life Consulting. He has served on several Boards for volunteer-run cooperative efforts. Matt also owns and operates a bare-root tree nursery, Hostile Takeover LLC, which focuses on native nut and fruit trees as well as flowers.

Contact: Matt Grason, secretary@ktcc.coop

HARRY GREENE

Marketing, Aggregating, and Economics Forum Panelist

Abstract (Forum): See *Greg Miller* for forum abstract.

Financing and Funding Chestnuts with Farmer- Controlled Markets

Abstract: As young chestnut systems start to bear, and more nuts enter the market, we need to *create and retain value* as close to growers as possible. This *did not* occur with Almonds in California, and farmers are tearing out almond trees due to low nut prices (and drought), while aggregators capture all of the margin. Pistachios have maintained value, however. How? What can we learn from them? (Melanie Jones is also keyed in here).

Continued on page 41 →



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- Web access to science-based information on propagation, growing, and marketing of nut and select fruit trees.
- An invitation to our annual conference and the right to vote at our annual business meetings.
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info@ktcc.coop

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ALL ANNUAL REPORTS (1910 THROUGH 2016) THE NUTSHELL (2011 TO PRESENT)

In 2020, the NNGA had all the *Annual Reports of the Northern Nut Growers Association* from 1910 to 2010 scanned and digitized along with *Annual Reports* embedded in *The Nutshell* from 2011-2016. Since 2017, *The Nutshell* publishes our technical articles. All reports were then combined into a single readable PDF that was copied to a thumb drive as a fund-raiser. Searching for the occurrences of a word or string of words in a single large PDF was slow even when transferred to one's own computer.

Thanks to advancements in AI, Optical Character Recognition (OCR) has improved dramatically in the last five years. The original scans have been enhanced and digitized again, to reveal better recognition of individual characters, resulting in more comprehensive searches. Current *Annual Reports* are now included in our quarterly *The Nutshell* newsletter/journal. These *Annual Reports* have also been incorporated into the new thumb drive up through the summer of 2026.

Updated thumb drives will be available at the 2026 conference for 100 dollars each.



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Continued from page 32...

The goal is not just increasing production, but doing so in a way that builds farmer autonomy, ecological and local economic control.

Currently, growers are advised to sell whole, fresh nuts. But if farmers and co-ops just sit on fresh nuts and large downstream buyers capture all of the final sale price, this siphons value out of rural communities. This will amplify and become more complex with value-add. Conversely: if chestnut growers add value (MSU/CGI, Route 9) and own/manage the *communication of value* (marketing), this increases vitality of tree-based farming.

Planting chestnuts takes time, energy, and funds. Regardless of where that energy comes from, the biggest question funders have is: *Who buys chestnuts?* Or "How do I sell these things?" Some ask only after they have thousands of pounds of nuts to sell. The NNGA/CGA has a great understanding of buyers, but funders (and newer farmers) do not. Many see pricing as the #1 point of uncertainty, and need to see redundant information about pricing dynamics and maintaining a fair distribution of value.

Propagate has financed and funded chestnuts in a number of ways, and we now own and manage 580 acres of chestnuts (planted 2021-2023). What do all of these sources of capital have in common? How do they differ? What have we learned?

- Working farms: Farmers and landowners looking for something different from corn/soy.
- Landowner-investor partnerships: Shared ownership model/trees on leased land.
- NGOs: Impact first, but still *need* to see economic viability. Great Lakes Protection Fund, namely.

Outside of the time lag to yield, which is unavoidable, the biggest constraint to planting more trees, voiced by sources of funding (farmer or non-farmer), is buyer certainty and thus: stable, predictable livelihoods tied to chestnuts. Hence, this is what Propagate has been working on.

Bio: Harry Greene is the Chief Research Officer and co-founder of Propagate. Harry manages a 50-acre farm in Trumansburg, New York, with 15 acres of chestnuts planted. Propagate is a software, development, and financing ecosystem that makes it easy for farms to

transition acreage to agroforestry. Our platform provides access to agronomic insights, technical assistance, and financing so that farms can reduce risk while integrating fruit, nut and timber trees with animal or crop farming systems. Propagate's software product, Overyield, currently supports 55,000+ acres of agroforestry, with over 3 million trees & shrubs planned. Propagate also actively manages over 2400 commercial acres, and growing, through its regional agroforestry hubs in NY and KY and has planted over 180,000 trees in the last 5 years.

Contact: Harry Greene, harry@propagateag.com; 978-501-3888;
www.propagateag.com

MARK HAMANN

Hazelnut Breeding and Propagation Forum Panelist

Abstract (Forum): See *Tom Molnar* for forum abstract.

Update from the Upper Midwest Hazelnut Development Initiative and Possible Breakthrough for Hybrid Hazelnut Stem Cutting Propagation

Abstract: Clonal propagation of desirable hybrid hazelnut varieties has long been the most important limitation to scaling a hybrid hazelnut proto-industry in the Upper Midwest, where most of the plant material is derived directly or indirectly from multi-generational *Corylus americana* x *C. avellana* and *C. americana* x *C. avellana* x *C. cornuta* hybrid seedlings purchased from Badgersett Research Farm's private breeding program in the 1990s and 2000s. Since 2024, Upper Midwest Hazelnut Development Initiative (UMHDI) researchers and a private nursery in Bayfield, WI (Hauser's Superior View Farm) have developed and refined a softwood stem-cutting technique that utilizes coppice shoots with hyper-juvenile blanched (etiolated) bases, dramatically increasing success rates, uniformity, and total plant production. At this point, we think that we may have a seriously commercially-viable technique - possibly even for varieties that we consider difficult to propagate, within a species where even 'easy' varieties are generally considered difficult. I will discuss the technique, our results, and thoughts for future steps. If time allows, I'll shift gears and share some of my personal experience as an amateur hazelnut grower trying to rejuvenate and manage an older, privately-owned planting of Badgersett hazelnuts, where I'm trying to select

and propagate interesting plants while experimenting with various management tactics.

Bio: My name is Mark Hamann. I have about 10 years of experience working with hybrid hazelnuts - currently as a research technician with the University of Minnesota's hazelnut project (part of the Upper Midwest Hazelnut Development Initiative), and formerly as an apprentice with Philip Rutter at Badgersett Research Farm. I'm mostly involved with and interested in breeding and selection work, but I've also contributed to our recent advances with stem cutting propagation. As a side project from my day job at UMN, I also help manage the hazelnuts at Twin Ponds Farm in northwest Illinois. The farm includes a 23-year-old, 5-acre planting of Badgersett seedling hazelnuts, where I'm trying to identify, propagate, and breed productive or otherwise interesting plants, and I'm experimenting with various management tactics.

Contact: Mark Hamann, hamannm@umn.edu

DUSTY HINZ

High-density, “Hybrid Swarm” Chestnut Seedling Planting in SE Minnesota

Abstract: Are you growing fewer trees and putting more time and resources into protecting each one? Or are you growing a lot of trees and putting fewer resources into protecting them, accepting some loss along the way, with the intention of selectively thinning as the trees grow larger? This is a fundamental question Dusty Hinz invites you to explore with him. Dusty lived and worked at Badgersett Nut Tree Research Farm in 2018. On his own farm in southeast Minnesota, he has largely implemented the high-density, “hybrid swarm,” seedling chestnut growing strategy which he learned from Philip Rutter at Badgersett. In this presentation he will present the concept and give a practical overview of his successes and failures, five years into his new chestnut planting.

Bio: Dusty Hinz is a co-founder of the Experimental Farm Network, which is a seed company focused on offering seed of all kinds of perennial edible plants (and many other seeds as well!). If you have seed of something that you think may be a good fit for the EFN seed

catalogue, please reach out. At his farm in SE Minnesota, Dusty has planted around 25 acres of high-density, “hybrid swarm” chestnut, hickory, and hazelnut.

Contact: Dusty Hinz, dusty.hinz@alumni.augsburg.edu; 612-834-7502; store.experimentalfarmnetwork.org

DAVID HUGHES

Marketing Quality Nuts

Abstract: Presentation will discuss the important considerations for getting the fair value for the farmer who grows the nuts, and the importance of only selling top quality produce.

Bio: I was introduced at a young age to a wide range of outdoor activities by my father who was a Tennessee native and an avid outdoorsman. Farming has run deep in my roots for many generations. I've been gardening since I was 12 and always longed to live the homestead lifestyle. I chose to be self-employed at 21 as a cabinetmaker. In 1998, I started selling produce to restaurants in Nashville, TN. I didn't know it at the time, but I was at the forefront of the farm to table movement. After a few years of building cabinets and raising produce, I gave up the cabinets and started growing produce full time. In 2010, I added a nursery to the operation focusing on nut trees and flowering trees for beekeepers. The nursery is mostly mail order focused on small growers and homeowners. There is a vast amount of diversity in the plant world, and I want to share what I find with others.

Contact: David Hughes, Owner, Rock Bridge Co. Inc., 199 Dry Fork Creek Road, Bethpage, TN 37022; rockbridgetrees@gmail.com; 615-841-3664; rockbridgetrees.com; Rock Bridge Trees: www.facebook.com/rockbridgetrees; Trees For Bees: www.facebook.com/treesforbees; Backyard Pecan Growers: www.facebook.com/groups/251372718704826

MAGNI HUSSAIN

Automated Chestnut Sorter for Damage, Pests, and Disease

Abstract: The global chestnut industry reached a market size of \$3.7 billion in 2023. In the U.S., the introduction of resilient chestnut hybrids has spurred growth, but production bottlenecks remain—particularly in postharvest inspection for defects that affect marketability. Common defects include chestnut weevil damage, blossom-end rot, and splits, all of which reduce product quality. Manual inspection is labor-intensive and increasingly impractical due to labor shortages and rising costs. Work will be presented on the development of an automated chestnut sorter designed to address these challenges using state-of-the-art technology. The project had two main objectives: (1) to evaluate the performance of deep learning-based detection algorithms for identifying chestnut weevil damage, blossom-end rot, and splits; and (2) to develop and integrate a vision-based defect detection system and sorting mechanism into an automated chestnut sorter capable of classifying and sorting chestnuts based on defect presence.

Bio: Magni Hussain, Ph.D., is an Assistant Research Professor in Electronics, Instrumentation and Control Systems in the Department of Agricultural and Biological Engineering at the Pennsylvania State University. He received the B.S. and M.S. degrees in electrical engineering in 2016 and 2019, respectively, and the Ph.D. degree in agricultural and biological engineering in 2023 from The Pennsylvania State University. His current research interests are in applying artificial intelligence, robotics, and advanced control systems to agricultural applications including specialty crop production, automated safety technology for agricultural equipment, and dairy cattle welfare. Dr. Hussain has contributed to research on machine vision systems and robotic solutions for tasks such as green fruit thinning and precision chemical thinning in apple orchards. His work also explores bio-inspired optimization algorithms, including the Lévy flight firefly algorithm, for adaptive signal processing and digital filtering.

Contact: Magni Hussain, msh5334@psu.edu; 814-865-2252

LOU JUDGE

Nuts for the Next Generation: Farm Succession Planning

Abstract: Nearly 300 million acres of American agricultural land are expected to change hands in the next twenty years. As aging agricultural landowners prepare to retire, the future of the land they

steward is at a critical turning point. This is even more pertinent in the case of nurseries and tree crops. How and to whom this land is transferred will have an enormous impact on the next generation of farmers and nut growers and the opportunities available to them, marking the importance of succession planning. Getting started with your succession plan can be daunting but there are people and organizations that are dedicated to easing that transition. We will walk through some of the initial steps in the succession planning process, review relevant resources and tools, and identify who can help you through the process in your region. Regional food systems, local economies, and climate change solutions all depend on intentional succession plans and the next generation's ability to access and steward the land well. It is never too early to start planning!

Bio: Lou is a Farmland Information Specialist with American Farmland Trust's Farmland Information Center. She has spent years working as a reference librarian at public libraries in New Hampshire and Massachusetts and has worked on several organic vegetable and livestock farms in the New England region. In her varied roles, Lou has built a wide skill set in agricultural knowledge preservation and dissemination, working closely with farmers, activists, municipalities, and research institutions. Her work in recent years has focused on farmland protection and land access. Lou holds a Master of Library and Information Science from Valdosta State University as well as a Master of Arts in Film Studies from Eötvös Loránd University.

Contact: Lou Judge, Farmland Information Specialist,
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MATT KAMINSKI AND RACHEL HASS

Learnings on Silvopasture and Nut Orchards

Abstract: Meadowfed Lamb Silvopasture has worked for the past nine growing seasons to build a productive & profitable system for grazing in orchard environments. By working with a wide variety of perennial & tree crop species (chestnut, heartnut, cider apple, pear, persimmon, mulberry, small fruit, and more to come), they have developed an understanding of how to use silvopasture to maximize livestock herd health, tree crop health and quality, benefit tree pest and disease management protocols, and improve soil health. Enjoy a slideshow of

photos from their adventures with fruit & nut orchard silvopasture and hear about their experiences with this emergent way of growing.

Bio: Rachel Haas and Matt Kaminsky are co-owners and operators of Meadowfed Lamb, a silvopasture farm operation based in Hadley, MA. Their work centers intensive rotational grazing of sheep and poultry in diversified fruit & nut orchards in active partnership with Preservation Orchard, Carr's Ciderhouse, and Big River Chestnuts. Their products include 100% grass-fed lamb, woolen yarns, sheepskins and felted wool products, and silvo-pasture-raised eggs and chicken. They can be found at local farmers markets in the Connecticut River Valley and Hudson Valley, and at the onsite farmstand at Carr's Ciderhouse.

Contact: Matt Kaminski, Meadowfed Lamb at Preservation Orchard, 12 Mount Warner, Rd, Hadley, MA 01035; meadowfedlamb@gmail.com, 860-230-1236

SUSANNA KERIÖ, ELENA KARLSEN-AYALA, ELISABETH B. WARD, AND NATHANIEL WESTRICK

Hypovirulence for Chestnut Blight Management

Abstract (Poster): Chestnut blight is a deadly stem canker disease caused by the invasive fungal pathogen *Cryphonectria parasitica* which has made American chestnut (*Castanea dentata*) functionally extinct. Control of chestnut blight is possible with hypovirulent strains of *C. parasitica* carrying double-stranded RNA viruses which reduce pathogen virulence and support canker healing. The viruses are transmitted via hyphal anastomosis or conidiospores among genetically similar *C. parasitica* strains with the same vegetative compatibility type (vc type). Four species of hypoviruses have been identified: *CHV-1* (Italy and France), *CHV-2* (New Jersey), *CHV-3* (Michigan), and *CHV-4* (Appalachia), of which *CHV-1* has shown most promise for disease management. The impacts of *CHV-1* strains on pathogen sporulation and thereby on virus transmission are variable, and the optimal virus would reduce pathogen virulence while allowing sporulation. This project revisits a 50-year-old hypovirulence chestnut field trial established at the Lockwood research farm of the Connecticut Agricultural Experiment Station. The plot was planted in 1976 with 72 American chestnuts that were treated in 1978-1981 with a

slurry of hypovirulent strains containing different viruses (*CHV-1* and *CHV-3*). In 2013, dsRNA was present in 14 out of 15 trees (Anagnostakis, unpublished results), indicating the presence of hypoviruses, but the virus species persisting in these trees have not been identified. This project will identify the vc groups, confirm the presence of the ds-RNA viruses by RT-PCR, and identify the viral strains by sequencing. The viruses with most promise for biocontrol will be used to create new hypovirulent strains which will be tested for chestnut blight management in managed forests. We have selected sites in Connecticut where the performance of the new hypovirulent strains will be tested and monitored in 2027 to 2030. The project will generate a collection of new hypovirulent *C. parasitica* strains and builds capacity for chestnut blight biocontrol in Connecticut and neighboring states.

Bio: Dr. Susanna Keriö is an Assistant Scientist at the Connecticut Agricultural Experiment Station (CAES). Susanna has her background in forest pathology and forest ecology, and her current research at CAES focuses on tree stress diagnostics, tree stress physiology, and tree health management in trees growing in forests and in urban areas. Her chestnut research includes the impacts of drought, mycorrhiza, and pathogen infection on chestnut physiology and defense responses, and more recently the use of hypovirulence in chestnut blight management. Her most publication is "Genomic approaches to accelerate American chestnut restoration" (Westbrook et al. 2026, Science Vol 391, Issue 6786, DOI: 10.1126/science.adw3225).

Contact: Susanna Keriö, D.Sc., Department of Environmental Science and Forestry, Connecticut Agricultural Experiment Station, 123 Huntington Street, New Haven CT 06511; susanna.kerio@ct.gov; 203-974-8491

DAN LEFEVER

1,2,3 Chestnuts

Bio: Dan Lefever grew up on a homestead in SE PA that was started by his father, who went "back to the land", immediately following World War II. His father read Jay Russell Smith's tree crops and began planting nut trees, and also got involved in organic growing as well. Dan taught himself grafting, as a teenager, by finding a copy of *The Grafters Handbook* in his high school library. He got involved with

NNGA in 1975 by reading a notice of John Gordon's Northern pecan seed distribution program in Mother Earth News; and has been a member ever since. Got a package of the pecan seed which he planted, grew, and transplanted 8 trees in 1981. They are now mature trees, 40 years old, and producing nuts, with one of them being superior. He is currently working with small mature chestnut plantings, on other people's properties. He has also been a member of NAFEX since 1976. Dan has worked with organic horticulture for 60 plus years. In the process of attempting to develop a least toxic strategy to control chestnut weevil, he found that using increased boron and foliar nutrition is reducing chestnut weevil, plum curculio damage, and chestnut anthracnose incidence.

Contact: Dan Lefever, BioRational Resource, Nellysford, VA;
bioratpa@gmail.com; 484-318-3789

DIANA LAURENITIS

Creating a Small-Scale Agroforestry Nut Farm

Abstract: Diana Laurenitis operated Firefly Farm in Sunderland, MA, not far from Jono Neiger. She has implemented a food forest/small scale agroforestry farm with nut trees and would like to share about her farm.

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COREY LUNDEN

Predicting Foliar Nutrients in European Hazelnut Trees Using a Handheld NIR-SWIR Spectrometer

Abstract: Laboratory leaf tissue analysis services are the standard method for assessing fertilizer needs in hazelnut production. However, this method can be labor-intensive, cost prohibitive, and delay decision making. Handheld near-infrared and short-wave infrared (NIR-SWIR) spectroscopy offers a rapid, non-destructive alternative for estimating foliar nutrient concentrations in the field. We conducted a preliminary calibration study using the handheld NIR-S-G1 spectrometer (900–1700 nm; 7nm resolution) across three organic hazelnut field trials at Rodale Institute in Kutztown, PA. A total of 137, 3- to 4-year-old trees

representing four cultivars ('Beast', 'Grand Traverse', 'Raritan', and 'Somerset') were sampled from alley cropping, organic fertilizer, and rootstock $\times$ scion interaction trials. For each tree, 10 fully expanded leaves were scanned individually prior to standard laboratory tissue analysis. Partial Least Squares Regression (PLSR) models were evaluated across 13 macro- and micronutrients following model selection with multiple spectral preprocessing methods. Thus far, prediction accuracies were the highest for Mg ($R^2 = 0.89$), N ($R^2 = 0.85$), Ca ($R^2 = 0.85$), S ($R^2 = 0.85$), B ($R^2 = 0.79$), K ($R^2 = 0.77$), and Cu ($R^2 = 0.74$). Moderate accuracy was obtained for P ($R^2 = 0.60$), Mn ($R^2 = 0.57$), and Na ($R^2 = 0.41$), while lower accuracy was observed for Fe ($R^2 = 0.39$), Al ($R^2 = 0.38$), and Zn ($R^2 = 0.32$). These preliminary results demonstrate that handheld NIR-SWIR spectroscopy has strong potential as a high-throughput phenotyping tool for rapid assessment of foliar nutrient status in hazelnut. Ongoing work will expand the calibration dataset through end-of-season sampling across multiple compost and bloodmeal fertilizer rates within the three field trials to capture wider variation of foliar nutrient concentrations. Increasing sample sizes and evaluating various non-linear machine learning approaches to nutrient prediction will help to improve prediction accuracy. This project aims to support the development of practical decision support tools for more precise nutrient management for commercial hazelnut production.

Bio: Corey Lunden is the Research Technician for the Perennial Research Program at the Rodale Institute in Kutztown, Pennsylvania. Corey's work is driving forward tree crop research in organic management and agroforestry systems with a focus on European hazelnut production in the Northeast United States. Corey is interested in integrating high throughput phenotyping, cultivar evaluation, and precision orchard management to improve the productivity and resilience of sustainable perennial cropping systems.

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JESSE MARKSOHN

Update on Genetics and Potential of Yellowbud Hickory

Abstract & Bio: *[Not available]*

Contact: Jesse Marksohn, miller@yellowbud.farm;
www.yellowbud.farm

JIM MCKENNA

Black Walnut Forum Facilitator

Abstract (Forum): This forum will cover practical black walnut harvesting and processing techniques for beginners and established growers alike. Panelists will share real-world experiences from small-scale processing to larger processing, including insights from recent research and experienced growers. Attendees can ask questions and share their successes and challenges.

Bio: Today, James R. McKenna is the CEO and Founder of a consulting firm, *A Breed Above Timber*, that offers genetic resource management, custom propagation, orchard and reforestation designs, and educational programs. Among a trusted network of landowners, nurseries and foresters, scientists, farmers and breeders, I offer select seed from known genotypes and provenances. I am proud to currently be NNGA's Vice President. I also serve as an officer on several other non-profit tree groups such as the Indiana Nut & Fruit Growers Association (INFGA), the Indiana Chapter of the American Chestnut Foundation (IN-TACF), and the Walnut Council (WC). My research background has focused on breeding disease resistance in trees.

Contact: Jim McKenna, 3216 Elkhart Street, West Lafayette, IN, 47906; mckenna3216@gmail.com; 765-775-6693

JONATHAN MCRAJ AND SAMANTHA BOSCO

Mycena Agroforestry Initiative: A Social Vision for Farming with Trees (“Nobody owns the trees . . . the trees are always for everyone.”)

Abstract: Beyond agroforestry as solely a tree crop enterprise, can our agroforestry systems branch out from the social and political connections needed for dignified work and a good life? Cultivating an agri-culture that meaningfully feeds people in harmony with the web of life can't depend on idealistic volunteers or individualistic entrepreneurs, and building a robust food system with trees requires a social economy that supports people who are passionate about trees and ready to commit to them for generations. More people could thrive in

agroforestry if supported by networks designed to help them succeed. To nurture that aim, Mycena Agroforestry Initiative cultivates and celebrates farming with trees through communal organization and collective action. Along with the down and dirty propagating and planting of trees, Mycena Agroforestry seeks to organize an association of producers, build local relationships where trees are needed, and supply the right trees in compatible places with cooperative people. In this short presentation, we'll share more about this vision and some of the early nodes we've grown, including results from a NE SARE funded listening session with farmers and tree nursery operators, our "People's Forum for Social Agroforestry", a recently completed on-farm tree giveaway and planting with steps towards a nursery assembly, and more!

Bio: Jonathan McRay is a father, farmer, facilitator, and writer. He grew up in the Appalachian Mountains of East Tennessee and now lives in the Shenandoah Valley of Virginia. He farms with Silver Run Forest Farm (silverrunforestfarm.org/), an agroforestry nursery rooted in living soil and living well to propagate beautiful and useful tree crops and plant allies that cross-pollinate food sovereignty and ecological restoration. Through the nursery and its Community Solidarity Agroforestry, he helped start the Mycena Agroforestry Initiative. He supports grassroots groups and social movement organizations as a teacher and mediator through conflict transformation, restorative justice, and participatory decision-making. He organizes locally for land care, popular education, and community safety, regionally with Southern Movement Assembly, and internationally in Palestine, where he's most recently worked with agroforestry nurseries and agricultural popular committees for land protection. Jonathan does what he does because he loves trees and roots and myths about them, he loves his friends and the responsibilities that radiate out from them, and he loves the beautiful biodiversity of rainbow coalitions to grow good life.

Bio: Samantha Bosco, PhD, is a multi-genre musician, DIY artist, community organizer, forager, and agroforestry researcher. Originally from suburban NJ, Samantha earned her PhD 'treesearching' the role of temperate nuts in Haudenosaunee food sovereignty and commercial agroforestry across upstate NY. Currently, she has taken root in the upper Midwest in Dr. Sarah Castle's Sustainable Landscape and Livelihoods Lab at the University of Wisconsin-Madison (castlelab.cals.wisc.edu). Samantha utilizes community-based and interdisciplinary methods to answer questions about how land practices, people, and policies lead to and adapt agroforestry

adoption; the ecological and economic consequences of scaling up agroforestry enterprises; and, the social change needed to support agro-ecological food system transitions. She is also the Agroforestry Coalition's Demonstration Site Working Group chair, which was instrumental in creating a national directory and map of agroforestry demonstration sites in collaboration with the Virginia Tech Catalyzing Agroforestry Program (www.catalyzingagroforestry.org/arkx-farms). Additionally, Samantha is a founding board member of the Mycena Agroforestry Initiative (www.mycenatrees.org), and is an at-large board member of the Northern Nut Growers Association (www.nutgrowing.org).

Contact: Jonathan McRay, silverrunforestfarm@gmail.com

Contact: Samantha Bosco, sbosco@wisc.edu

SHAWN MELHENBACHER

Hazelnut Breeding and Propagation Forum Panelist

Abstract (Forum): See *Tom Molnar* for forum abstract.

Travelogue: Hazelnuts in Chile

Bio: Shawn Mehlenbacher, raised on a family farm in western New York State, earned his B.S. in Horticulture from Penn State University (1978) and Ph.D. in Plant Breeding from Cornell University (1982). After four years as a tree fruit breeder at Rutgers University, he joined Oregon State University in 1986 to lead the hazelnut breeding program, where resistance to eastern filbert blight is an important objective and 28 cultivars have been released, some widely planted in Oregon and Chile. He teaches Plant Breeding and has mentored 19 grad students. His network of professional colleagues includes former visiting professors and student interns from several countries. He led tours to Turkey (1996), Chile (2012) and Georgia (2017). He hosted the International Congress on Hazelnut in 2000 and 2022, and the annual meeting of NNGA in 1991 and 2014. His importations of scions and seeds expanded the USDA and OSU collections. He officially retired on February 29, 2024 but continued leading the hazelnut breeding and genetics project in a half-time position until the arrival of the new project leader on January 1, 2025. Shawn continued to work half-time to provide guidance and training. Shawn looks forward to traveling

more and collecting additional hazelnut germplasm. Shawn is a fellow of ISHS and ASHS and lifetime member and the current President of NNGA.

Contact: Shawn Mehlenbacher, shawn.mehlenbacher@oregonstate.org

AMY MILLER

Oak Wilt in Chestnut Forum Panelist

Abstract (Forum): See *Geoff Williams* for forum abstract.

Marketing, Aggregating, and Economics Forum Panelist

Abstract (Forum): See *Greg Miller* for forum abstract.

You've Harvested Your Chestnuts – Now What?

Abstract: Post-harvest handling of chestnuts is critical to the supply chain. The quality of chestnuts as a result of post-harvest handling can make or break customer relationships. There is not a one-size-fits-all model for optimal handling. Many factors must be taken into account, including the genetics of your chestnuts, pest and disease risk factors, intended end-use of the chestnuts, the time window between harvest and sales, and ambient conditions during harvest and processing at the farm. This talk will provide a high-level overview of post-harvest decision making and troubleshooting.

Bio: Amy C. Miller is the general manager for Route 9 Cooperative in Ohio and owner of a diversified fruit and nut farm in eastern Ohio. She has a Ph.D. in Plant Pathology from The Ohio State University, specializing in nut and fruit diseases, and facilitates many kinds of chestnut research at the farm. She is committed to specialty crop research and continuing the family orchard legacy while focusing on long-term environmental and economic sustainability.

Contact: Amy Miller, Ph. D., Manager, Route 9 Cooperative, Carrollton, OH, route9cooperative@gmail.com

GREG MILLER

Marketing, Aggregating, and Economics Forum Facilitator

Abstract (Forum): A panel discussion on tree nut marketing and aggregation pathways for economic scaling that still supports small farms, including cooperative models, value added products, and other arrangements. Top question: "How are we going to support this industry once all of these acres come into production?"

Bio: Since earning a Ph.D. in Forestry (tree breeding and genetics) in 1983 from Iowa State University, Greg has been a full-time commercial chestnut grower in Carrollton, Ohio, having converted his father's hobby farm into an orchard and nursery operation, Empire Chestnut Company. In 2010, Greg and four other chestnut growers formed the Route 9 Cooperative, an agricultural cooperative, to pack and market their chestnut crops. Greg currently serves as Immediate Past President after having served as NNGA President for five years. He currently chairs the Awards Committee and the Research Grants Committee.

Contact: Greg Miller, Empire Chestnut Company Owner, Carrollton, OH, empirechestnut@gmail.com

TOM MOLNAR

Hazelnut Breeding and Propagation Forum Facilitator

Abstract (Forum): *[Not available when booklet was sent to printer.]*

Five New Hazelnut Cultivars for the Eastern United States

Abstract: The Rutgers University – hazelnut breeding program is releasing five new hazelnut cultivars – ‘RU1055’ Atlantic™, ‘RU213’ Hudson™, ‘RU434’ Cumberland™, ‘RU540’ New Brunswick™, and ‘RU129’ Burlington™ – to complement the first generation of Rutgers releases introduced in 2020. Those cultivars, particularly ‘Raritan’, are now being established in orchards across the eastern United States, creating a growing need for additional high-quality pollenizers with diverse incompatibility (S) alleles and complementary bloom periods.

The new cultivars were developed to provide improved pollination options while maintaining the disease resistance, productivity, and kernel quality required for commercial production. All five selections exhibit high levels of tolerance or resistance to eastern filbert blight (EFB). They produce attractive, round kernels with excellent blanching characteristics and flavor suitable for premium kernel markets. In addition, the cultivars were selected to work together within orchard systems, offering complementary S alleles, pollen shed, and female bloom timing to support efficient cross-pollination and consistent nut set. Similar nut maturity dates, kernel characteristics, and harvest attributes further facilitate mixed-cultivar plantings and streamlined postharvest processing. This presentation will provide an overview of the breeding and selection process, highlight the key horticultural and kernel quality attributes of each cultivar, and discuss the role these cultivars will play in supporting the continued expansion and long-term sustainability of the eastern U.S. hazelnut industry.

Bio: Tom Molnar is a Professor in the Department of Plant Biology at Rutgers University in New Jersey. He obtained his PhD from Rutgers in 2006 and today is responsible for the Rutgers' hazelnut breeding program. The focus of the program is developing high yielding trees resistant to the disease eastern filbert blight (EFB), the primary limiting factor of hazelnut production in the eastern United States. Tom has been working on this project since 1996 and has traveled widely in search of new hazelnut germplasm in close collaboration with Shawn Mehlenbacher at Oregon State University (OSU). Today, many new EFB resistant plants have been identified and are being used in breeding. Through the Rutgers-OSU collaboration, new cultivars adapted to eastern regions were released from Rutgers starting in 2020 and are now being planted in the Mid-Atlantic region and beyond.

Contact: Tom Molnar, Professor, Department of Plant Biology, Rutgers University, Rutgers, NJ, thomas.molnar@rutgers.edu

JON NASH

Marketing, Aggregating, and Economics Forum Panelist

Abstract (Forum): See *Greg Miller* for forum abstract.

Bio: Jon Nash is a sixth-generation horticulturist and owner of Nash Nurseries, a 200-acre family nursery in Michigan established in 1860. Growing up surrounded by horticulture, Jon developed a love for working with all types of plants and now leads orchard and landscape design and build projects throughout Michigan and the Great Lakes region, drawing on the hundreds of species grown at Nash Nurseries. He is also a founder of Treeborn Inc., which focuses on value-added nut & fruit products such as chestnut flour, roasted chestnut chips, and pawpaw puree. Jon's current projects include advancing tissue culture propagation for chestnuts, pawpaws, and hazelnuts, as well as collaborating with Michigan State University and industry partners to promote agroforestry and sustainable nut production. Jon is an active member of the Northern Nut Growers Association, Chestnut Growers of America, Michigan Nursery & Landscape Association, and Michigan Garden Clubs.

Contact: Jon Nash, Nash Nurseries, 4975 W. Grand River Rd., Owosso, MI, jon@nashnurseries.com; 517-651-5278; www.nashnurseries.com

JONO NEIGER

Big River Chestnuts: A Chestnut Agroforestry on the Connecticut River

Abstract: Jono Neiger will explore the development of Big River Chestnuts, an evolving agroforestry system that integrates chestnut production with small fruit (including elderberry, black currant, and aronia), hazelnuts, and silvopasture with grazing sheep. The presentation will highlight strategies for building soil health and fostering biodiversity. Jono will also discuss his work in market development and collaborative efforts, such as the farm's partnership with Meadowfed Lamb and community events like the annual Chestnut Festival. He will also discuss his professional work with the Regenerative Design Group, where he helps farms establish agroforestry and tree crop systems.

Bio: Jono Neiger operates Big River Chestnuts, a chestnut agroforestry farm with 80+ acres of fields in Sunderland, South Deerfield, and Easthampton, Massachusetts. He is an agroforestry planner at Regenerative Design Group Cooperative, a small worker-owned design and planning firm in western Massachusetts where he works with farmers, landowners, and communities in planning and

design of farms, properties, and larger regional projects. He also teaches agroforestry at UMass Amherst.

Contact: Jono Neiger, Big River Chestnuts, 195 River Rd, Sunderland, MA; bigriverchestnuts@gmail.com; bigriverchestnuts.com

ANDREW NEWHOUSE, SOPHIA SURIANO, AND ESF'S RESEARCH TEAM

ESF American Chestnut Project Update

Abstract: Following our hosting of NNGA/CGA's 2024 meeting, ESF's American Chestnut Research and Restoration Project has continued to grow and make progress. Our blight-tolerant transgenic American chestnuts are STILL under federal regulatory review, though we expect a decision from one agency (USDA-APHIS) soon. In the meantime, research continues! Two recent scientific publications confirm that our Darling 54 transgenic chestnuts grow a little slower than their non-transgenic relatives in some environments, but growth form and diameter are comparable. A recent study of natural blight infections showed that Darling 54 trees have substantially better blight tolerance than wild American chestnuts, so they look promising for initial restoration plantings. We also published our indoor rapid pollination methods, showing not only pollen production but a full breeding cycle (pollen to seed) in less than one year. We look forward to extending these benefits to other chestnut species, and to seeing fully American chestnuts thrive again!

Bio: Andrew Newhouse has been working on projects that overlap the fields of conservation biology and molecular biology since 2003. Starting in 2007 he has worked with the American Chestnut Research & Restoration Project, at the State University of New York's College of Environmental Science & Forestry (ESF). This project has developed transgenic American chestnut trees with enhanced tolerance to chestnut blight, a disease that nearly extirpated mature trees from their native range in the eastern USA. Andrew's contributions to this project have ranged from molecular analyses to ecological comparisons, with a recent focus on the federal regulatory review process that is required before transgenic trees can be distributed or used for restoration. In addition to American chestnuts, ESF's research team has made progress on trees such as Ozark chinquapin, American elm, and

American beech, with the goal of protecting these and other threatened native trees from introduced pests.

Contact: Andrew Newhouse, Director, American Chestnut Research & Restoration Project, SUNY College of Environmental Science & Forestry, 1 Forestry Drive, Syracuse, NY; aenewhou@esf.edu

SAJJA PANTA AND RANJIT BAWA

Market Potential for Agroforestry-Grown Chestnuts in New England

Abstract: Agroforestry systems integrate trees and shrubs with crops or livestock, offering environmental benefits while creating opportunities for diversified farm income. In New England, where forest cover is extensive and interest in perennial agriculture is growing, consumer demand may be important for determining whether agroforestry products can support viable markets. This study estimates consumer willingness to pay for agroforestry-grown products, focusing on apples, blueberries, and chestnuts. Using a discrete choice experiment, we evaluate how shoppers respond to product attributes including price, production method, organic certification, and geographic origin. Respondents choose among hypothetical product options, allowing us to isolate the willingness-to-pay premium associated with agroforestry production while accounting for related product attributes such as organic certification and local origin. Results shall clarify whether agroforestry labeling and related marketing strategies can generate price premiums that support adoption by crop growers in the Northeast.

Bio: Sajja Panta is a third-year PhD student in Natural Resources and Environmental Studies at the University of New Hampshire, where she recently completed an MS in Economics. Her research explores how agroforestry can become a more viable land-use option for farmers in New England. Working with Dr. Ranjit Bawa, she studies 'both sides' of adoption, the factors that shape farmers' decisions to establish these systems and the extent to which consumers value products grown in them. More broadly, her work combines environmental valuation, survey research, GIS-based land-use analysis, and applied econometrics to better understand where tree-based agricultural systems may be feasible and how markets and policy can support sustainable land-use practices.

Contact: Sajja Panta, sajja.panta@unh.edu; 603-866-3255

JEFF POLFER

New Horizons with EarthBrew for Life: Soil First, Building Chestnut Resilience for Generational Sustainable Health, Production & Nut Quality

Abstract (Show and Tell): Jeff Polfer of EarthBrew for Life will speak on his vision and hypothesis for generationally sustainable chestnut tree health, resulting in high quality nut yields, abundant production, in an environment free from chemicals, pressure from chestnut blight undesirable insects and weevils. Jeff's focus is on natural, regenerative processes, which have resulted in proven innovative solutions that have yielded sustainable results in chestnut groves and farm crops throughout the Midwest. His talk will discuss his insights into soil, soil microbes and the most recent case studies highlighting successes throughout the Midwest.

Bio: While Jeff's degrees in conservation management and biology guide his work in this space, his hands-on observations and attentive trial and error over several decades have led him to discover and understand the intricate relationships among microbes, plants, and soils. This understanding has translated into the development of his EarthBrew® products that are increasingly drawing attention from farmers, nut growers, vineyards and more for both their chemical free natural ingredients and positive impact on soil, plants and trees in northeast Iowa. Attendees can learn more about Jeff and his biochar and liquid extracts at www.earthbrewforlife.com.

Contact: Jeff Polfer, jpolfer@acrec.com; 563-568-7258

RON REVORD

Black Walnut Q&A Forum Panelist

Abstract (Forum): See *Jim McKenna* for forum abstract.

Bio: Ron Revord, Ph.D., is an Associate Professor and the Director of the University of Missouri Center for Agroforestry. He joined UMCA in 2019 as the lead tree nut breeder after completing his doctoral

research on hazelnut at the University of Illinois. At UMCA, he's focused on utilizing the tree nut repositories at UMCA to build systematic field breeding programs for chestnut, eastern black walnut, and elderberry. His lab also collaborates with the Hybrid Hazelnut Consortium for hazelnut improvement.

Contact: Ron Revord, r.revord@missouri.edu; 573-882-9421

ERIK SHELLENBERG

Syntropic Agroforestry Practices with Nut Trees

Abstract & Bio: *[Not available]*

Contact: Erik Shellenberg, jkochosc@gmail.com

SASHA SHERMAN

Marketing, Aggregating, and Economics Forum Panelist

Abstract (Forum): See *Greg Miller* for forum abstract.

The Great Chestnut Experiment

Abstract: Over the past three years, The Great Chestnut Experiment has served 10,000+ customers at the Bryant Park Holiday Market, presented to 100+ restaurants across New York City, shipped chestnut gift boxes and spiced chestnut crème direct to consumers, supplied chestnut purée and frozen peeled chestnuts to food service operators and industrial manufacturers, and worked with food media and chefs to put the chestnut story back into American food culture. This presentation shares what we've learned about selling chestnuts — what works at Bryant Park, what consumers do with chestnut crème, what restaurants ask for, and what industrial buyers need to commit. It also previews what's next: the retail launch of Chestnog (a spiced chestnut beverage that's been a hit at Bryant Park Winter Village), a chestnut ice cream co-launch with Adirondack Creamery Ice Cream this fall, and our plans to grow demand and purchasing for chestnuts across the industry. The goal is to give NNGA a clearer picture of where consumer demand is heading — and start a conversation about how we scale buying alongside scaling supply.

Bio: Sasha Sherman is the founder of The Great Chestnut Experiment, a New York City-based company building consumer demand for chestnuts in support of US growers. He's been championing chestnuts for the past three years.

Contact: Sasha Sherman, sasha@chestnutexperiment.com

ROGER SMITH

Marketing, Aggregating, and Economics Forum Panelist

Abstract (Forum): See *Greg Miller* for forum abstract.

Bio: Roger Smith is the owner of Prairie Grove Chestnut Growers based in Columbus Junction, Iowa.

Contact: Roger Smith, gsons3@aol.com; 563-260-6333;
prairiegrovechestnutgrowers.com

DOUGLAS SPANGLER

NNGA Library Resources

Bio: Douglas Spangler is the NNGA Librarian. He lives in Michigan with his wife and family, and he keeps busy planting, tending, and learning about nut trees. He joined NNGA in 2022, when he decided to try his hand at planting and breeding Hazelnuts. Some 300 trees later, he is still adding new cultivars of hazelnuts to his plantings along with other nut trees and paw paws. As a teenager in the 1980s, Douglas planted a dozen Persian walnuts along with some hazelnuts, black walnuts, and two seedling pecans on his family property. The pecans (as yet no filled nuts) and the black walnuts survived, but most of the Persian walnuts and all of the hazelnuts died. From this modest planting, he learned that information about cultivars and tree culture is essential for success with nut trees. Don't hesitate to contact him if you are looking for an article or book from the NNGA Library!

Contact: Douglas Spangler, spanglerarboretum@pm.me; 517-438-4599

BOB STEHLI

Update on Our Breeding Program

Contact: Bob Stehli, wintergreenbob@gmail.com; 330-586-3517

BILL STOUFFER

Chestnut and Wheat Alleycropping

Abstract: We will be discussing my experiences with chestnuts and alleycropping. In 2009, I started planting chestnut trees and experimenting with alleycropping.

Bio: Bill Stouffer graduated from The University of Missouri with a BS in Agriculture Economics in 1969. He worked as a farm manager for five years before he moved back to the home place in 1975 in central Missouri upon the death of his father. Bill has been active politically. He was elected to the MFA Cooperative Board of Directors in 1979 and served until 1995, having served as Chairman for 12 years. In 2008, he was the 41st honoree named to the Missouri Institute of Cooperatives Hall of Fame. From 2005 – 2012, he served in the Missouri State Senate representing the 21st Senatorial District and served as Chairman of the Senate Transportation Committee from 2006 to 2012. In 2009, he started planting chestnut trees and experimenting with alleycropping. His plantings are frequently included on agroforestry field tours hosted by the UM Center for Agroforestry.

Contact: Bill Stouffer, bill@cedarhillfarms.com; 660-287-4510

SOPHIA G. SURIANO

Biotechnology Complements Classical Approaches: Investigating the Role of Soil Microbes in American Chestnut Restoration and Management

Abstract: The American chestnut (*Castanea dentata*) was an ecologically and culturally important tree until the early 20th century when an invasive pathogen (*Cryphonectria parasitica*), the causal agent of chestnut blight, rendered it functionally extinct. One promising effort is the blight-tolerant transgenic American chestnut trees, by

American Chestnut Research and Restoration Project at SUNY ESF. As deregulation of these trees is approaching, the American chestnut is on the verge of reintroduction. However, there is limited understanding of how below-ground microbial communities could influence restoration efforts and disease management strategies. Using both biotechnology and traditional laboratory methods can robustly address these gaps in knowledge.

Bio: Sophia Suriano has been working with the American Chestnut Research and Restoration Project at SUNY ESF since 2023. She received a Master of Science in 2025, studying the persistence of the Beech Leaf Disease causing nematode in leaf litter. She is currently pursuing her doctorate in Forest Pathology and Mycology at SUNY ESF, studying the belowground microbiome of the transgenic American chestnut and potential restoration land. She received Her Bachelor of Science in Botany and Microbiology from the University of Maine. While at UMaine, she worked in their Fungal Pathology lab working with pathogens of lowbush blueberries. She has a passion for plant pathology and microbes, and is excited to continue working with American chestnuts and other trees!

Contact: Sophia Suriano (MS) , PhD student working with the American Chestnut Research and Restoration Project at SUNY College of Environmental Science & Forestry

RICHARD TEGTMEIER

Developing the First Chromosome-Scale Honey Locust Genome to Support Breeding, Conservation, and Agroforestry

Abstract (Show and Tell): Honey locust (*Gleditsia triacanthos* L.) is a promising multipurpose tree for silvopasture providing dappled shade and high-value fodder from sugary pods dropping late in the season. Despite the growing interest in more comprehensive breeding of this species, genomic resources remain limited without a publicly available reference genome. To address this, we assembled the first reported chromosome-scale reference genome for the thornless honey locust cultivar 'Millwood' using PacBio HiFi long-read sequencing and Omni-C chromatin conformation capture scaffolding. The resulting assembly showed high completeness with a 98% BUSCO score, and scaffolded

into 14 chromosome-scale pseudomolecules, consistent with expectations for the genus. Comparative analyses with *Gleditsia sinensis* revealed high synteny between the two species. This reference genome provides a foundation for identifying genetic variation associated with thornlessness, sex expression, pod quality, and other agroforestry-relevant characteristics. The long-term goal is to support breeding of improved honey locust germplasm for livestock fodder and diversified silvopasture production systems.

Bio: Richard Tegtmeier, PhD, is the Orchard Scientist at Rodale Institute leading the perennial research program. Richard holds a PhD in plant breeding and genetics from Cornell University with previous research focused on genetic mapping, genomics, and marker development to better understand disease resistance across wild and domesticated apples. Richard's research at Rodale focuses on genomic resource building and developing improved methods of breeding resilient woody perennial crops for organic and regenerative agroforestry systems. This primarily includes Chinese chestnut, hazelnut, honey locust, and mulberry. His work integrates field-based cultivar evaluation, genomics, and high-throughput phenotyping to improve the efficiency of selecting genotypes best suited for low-input agroforestry. His long-term goal is to connect a broad multi-disciplinary coalition to advance perennial cropping systems that are productive, resilient and provide ecosystem services. am the Orchard Scientist at Rodale Institute in Kutztown PA leading our perennial research program.

Contact: Richard (Ricky) Tegtmeier, PhD; Orchard Scientist, Perennial Research Program, Rodale Institute, Kutztown, PA, richard.tegtmeier@rodaleinstitute.org; rodaleinstitute.org/science/organic-agroforestry-center

ERIC TOENSMEIER

Update on Oak Breeding

Abstract: An update on efforts to wild-select and breed oaks for acorn production for human consumption, livestock, and wildlife. If you haven't looked into the state of oaks in a few years, you may be surprised to see the great diversity of cultivars that have been selected.

Bio: Eric Toensmeier is a writer, trainer, consultant and grower. He

specializes in perennial crops and agroforestry, with a special interest in staple foods from long-lived trees.

Contact: Eric Toensmeier, toensmeier@gmail.com; 413-695-6115; perennialsolutions.org

SARA TYLER

Black Walnut Q&A Forum Panelist

Abstract (Forum): See *Jim McKenna* for forum abstract.

Bio: Sara Tyler is the founder, owner, and general manager of Black Squirrel Farms, the first licensed facility processing black walnuts in New York State. She is an energy professional with over 20 years of technical and leadership experience in both oil and gas and renewables who left the energy business in 2018 for a chance to do something completely different. Sara is married, has two children and lives in Houston, Texas. In addition to her role at Black Squirrel Farms, Sara serves on the Board of the Northern Nut Growers Association, the Board of the New York Nut Growers Association, and as Houston Clean City Commissioner - District G (Reports Committee chair). She received her BS in Geoscience from Bucknell University (1996) and her MS in Geoscience from The Pennsylvania State University (1999).

Contact: Sara Tyler, General Manager, Black Squirrel Farms, sara@tylerseneca.com; 832-493-3419; www.blacksquirrelfarms.net

RUSSELL WALLACK

Marketing, Aggregating, and Economics Forum Panelist

Abstract (Forum): See *Greg Miller* for forum abstract.

Successes and Failures at Breadtree Farms

Abstract: Breadtree Farms is far too young to consider itself a success, but with that said, we strive to conduct our operations in ways that produce lessons. In this presentation, Russell will focus on the risks

Breadtree has taken, the on-farm experiments we have conducted, and what we have learned from operating our farms in these ways...so far.

Bio: Russell Wallack is Breadtree Farms founding farmer. He sees Breadtree as a continuous investigation into the role that nut-bearing trees might play in humans' ability to recreate an agriculture that serves all of life in this region. He has spent much of the past 12 years working to prove that viable agricultural businesses can be built on this mission, and with each passing month he has both more faith in the mission's value and more questions regarding its specifics.

Contact: Russell Wallack, russell@breadtreefarms.com

SEVA WATER

Hazelnut Culture: Integrating Indigenous and European Practices

Abstract: People of the Hazel: Recollecting ancestral roots in perennial culture. Nut trees and 'edible agroforestry' offer incredible productive and transformative potential for degraded landscapes over conventional agriculture. But tree crops have been in our midst for a very long time, because we humans once lived in very intentional relationships with them. Our pre-agricultural mesolithic ancestors around the globe cultivated what we now refer to as deeply integrated agro-ecological food systems, anchored by key perennial crops that they closely tended and revered. One of them, the hazelnut, is found extensively throughout both indigenous North American and Eurasian landscapes. For more than 30,000 years, we humans have drawn food, medicine, shelter, art, and spiritual power from the hazelnut tree. Recollecting this knowledge and rekindling this relationship is about so much more than promoting trendy agroforestry. For us, planting and harvesting hazelnuts has ignited our curiosity to explore the cultural significance of cultivating a perennial food plant with deep roots in both the landscapes of our ethnic ancestors and the land we now call home.

Bio: Seva and Kalyan Water together steward Nutwood Farm, a small regenerative family nut farm on traditional Mohican homelands, in the present-day Berkshire foothills of Western MA. They planted their first acre of hybrid hazelnuts on degraded forestland in 2016, and have committed to growing soil and local food sovereignty through

integrated livestock and perennial agricultural systems. They are part of a committed group of farms working to develop educational, cultural and economic opportunities in agroforestry in the Northeast. In 2023 they finished building an off-grid solar home where they now raise their two sons and tend to unruly gardens, sheep, ducks, and geese.

Contact: Seva Water, seva@regenerativedesigngroup.com

NATE WESTRICK

Oak Wilt in Chestnut Forum Panelist

Abstract (Forum): See *Geoff Williams* for forum abstract.

Oak Wilt at Our Doorstep: What It Means for Oaks and Chestnuts in the Northeast

Abstract: Oak wilt, caused by *Bretziella fagacearum*, is becoming an increasingly relevant concern for oak populations in the northeastern United States. Although the disease has long been established in the Midwest and South, recent detections in the Northeast suggest that it is likely to play a larger role in shaping forest health in the coming years. Red oaks are particularly vulnerable and often die rapidly following infection, while white oaks decline more slowly and may persist as long-term sources of inoculum. This talk will review what is currently known about the distribution and spread of oak wilt in the Northeast, including transmission through root grafts and insect vectors, and the environmental conditions that favor disease development. Practical management considerations such as pruning restrictions, sanitation, trenching to limit root graft transmission, and the role of fungicide injections will be evaluated with an emphasis on what is realistic for landowners and growers. The presentation will also consider what oak wilt may mean for chestnut restoration and nut production, as the disease has more recently become a known and concerning driver of chestnut wilt.

Bio: Nate Westrick is a plant pathologist with the Connecticut Agricultural Experiment Station whose research focusses on the biology and management of fungal plant pathogens on a range of specialty crops and woody perennials.

Contact: Nate Westrick, Nathaniel.Westrick@ct.gov

GEOFF WILLIAMS

Oak Wilt in Chestnut Forum Facilitator

Abstract (Forum): This forum will cover growers' experience with oak wilt in chestnut plantings, results of recent research, and current best practices to mitigate severity of oak wilt in chestnut plantings.

Bio: Geoff Williams has been active in the Walnut Council and served as Fulbright scholar to Argentina and USFS International Programs. He integrates forest pathology, genetics, and epidemiology to understand environment, host, and pathogen roles in disease across scales from microbiome to landscape.

Contact: Geoffrey M Williams, Ph.D., Assistant Professor - Integrative Forest Pathology & Genecology Lab, Department of Environmental Biology - SUNY ESF, Illick Hall Rm. 126 - 1 Forestry Drive - Syracuse, NY 13210; gwill02@esf.edu

BABETTE WILS

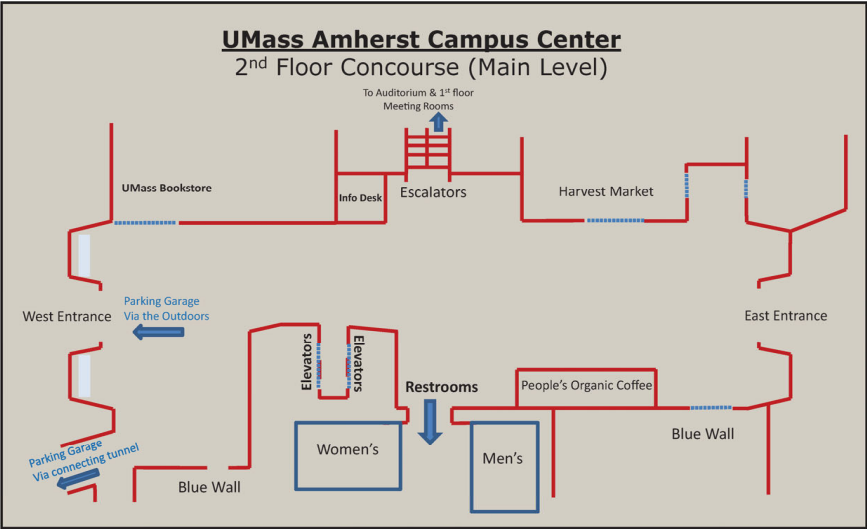
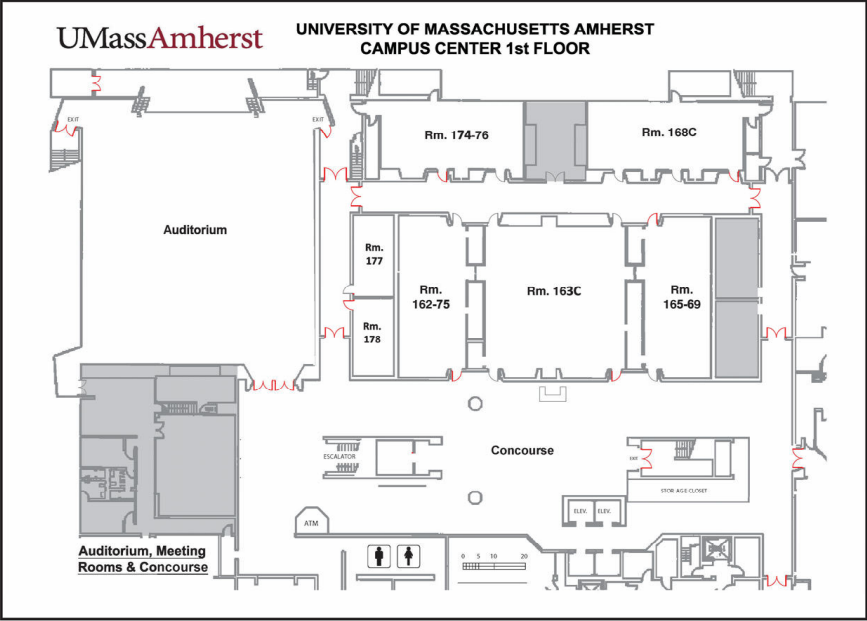
Black Walnut Q&A Forum Participant

Abstract (Participant): Babette is interested in starting a new tradition of black walnut harvesting in western Massachusetts, and to that end, has reached out to a number of farmer colleagues, researched harvesting and processing equipment for micro and small scales, and initiated a nut processing partnership. Her blog is a starting point for what equipment is currently available for harvesting and processing nuts at different scales.

Bio: Since 2019, Babette has owned and managed Big Foot Food Forest using permaculture and soil health (regenerative) principles. The farm has approximately 4 silvopasture acres with young chestnut, pecan, and walnut trees that are grazed by a small flock of sheep. The farm also has shiitake on logs, chickens, and berry bushes. As a small-scale farmer, Babette is particularly interested in exploring cooperative ways to manage processing and marketing with other local farmers - building more strength in numbers.

Contact: Babette Wils, bigfootfoodforest@gmail.com

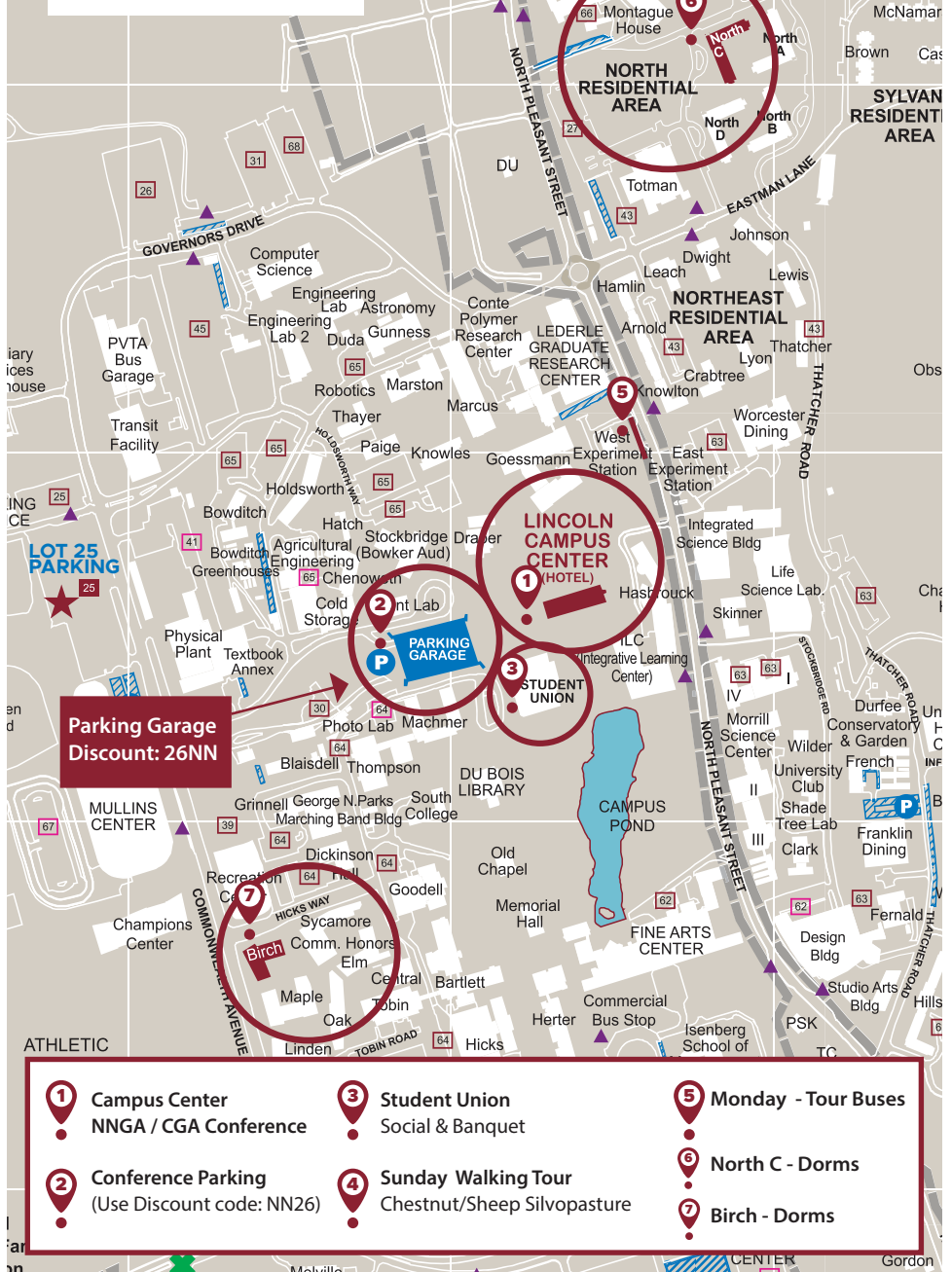
Conference Maps



CAMPUS MAP

UMassAmherst General Location Campus Map

For the more detailed campus map, please visit:
<https://go.umass.edu/map/>



CONFERENCE LOCATIONS



WELCOME (Fri. 7/31)
**SUNDERLAND TOWN
PARK PAVILLION**
On Park Road
Sunderland, MA 01375



CONFERENCE (Sat. 8/1 &
Sun. 8/2)
UMASS - CAMPUS CENTER
Near 91 Campus Center Way
Amherst, MA 01002



YELLOWBUD FARM
544 Miller Falls Road
Nortfield, MA 01360



UMASS - SILVOPASTURE
Walking Field Tour from Campus



FIELD TOURS (Wed. 8/3)
Bus Transportation Provided



BIG RIVER CHESTNUTS
195 River Road
Sunderland, MA 01373

OR



**LOCKWOOD FARM AND
SLEEPING GIANT
RESEARCH ORCHARD**
890 Evergreen Avenue
Hamden, CT 06518



CARR'S CIDERHOUSE
295 River Dr.
Hadley, MA 01035

OTHER AREAS OF INTEREST

AMTRAK
Springfield, MA

LOGAN INT'L AIRPORT
Boston, MA

BRADLEY INT'L AIRPORT
Windsor Locks, CT