



Action in Agroforestry

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Missouri Workshop Highlights Forest Farming Opportunities in the Ozarks

Ozark Mountain Ginseng's Dennis Lindberg (right) has been growing and conserving ginseng, goldenseal, and other at-risk forest medicinals since 1983, after becoming inspired to get to know these plants reading Euell Gibbons' *Stalking the Wild Asparagus*. On June 10th and 11th this year, farmers and landowners in southern Missouri with an interest in conservation and cultivation of valuable medicinal plants joined the Center for Agroforestry's Hannah Hemmelgarn and Gregory Ormsby-Mori, with Oregon County Extension's Jamie Gundel, to tour Mr. Lindberg's demonstration ginseng and goldenseal forest farm (below). Before entering the forest, Mrs. Hemmelgarn introduced a few concepts central to forest farming entrepreneurship, highlighting the at-risk status of valuable medicinal forest plants, the importance of stewardship through propagation and monitoring, and identifying key regulations that apply to the harvest and sale of at-risk medicinal roots.

As peer-to-peer forest farming networks have grown in the eastern United States, farmer-landowners in the Missouri-Arkansas Ozarks

interested in starting or continuing their

stewardship of non-timber forest products have greater access to technical guides and other resources. The Appalachian Beginning Forest Farmer Coalition, United Plant Savers, the American Herbal Products Association, and buyers of plant materials are among the most common sources of information and advising. The Center for Agroforestry is primed to share these resources with Midwestern forest farmers as both producer and consumer interest develops.

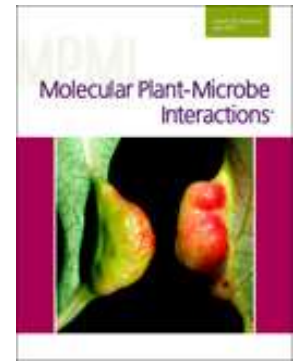
The June workshop at Ozark Mountain

Ginseng, originally scheduled for Friday and Saturday, June 7th and 8th, was rescheduled due to rain. As a result, of the nearly 50 people who registered (or were added to a wait list) for the event, only 23 people were able to attend. In order to ensure that this group of interested landowners receives adequate information and training, continued forest farming workshops and field days will be scheduled to demonstrate opportunities for non-timber forest products in this region.



Publications

1. Body, M.J.A., M.S. Zinkgraf, T.G. Whitham, C.H. Lin, R.A. Richardson, H.M. Appel, and J.C. Schultz. 2019. *Heritable Phytohormone Profiles of Poplar Genotypes Vary in Resistance to a Galling Aphid*. *Mol Plant Microbe Interact* (Featured cover article). 32(6):654-672. <https://doi.org/10.1094/MPMI-11-18-0301-R>
2. Body, M.J.A., W.C. Neer, C. Vore, C.H. Lin, D.C. Vu, J.C. Schultz, R.B. Cocroft, and H.M. Appel. 2019. *Caterpillar chewing vibrations cause changes in plant hormones and volatile emissions in Arabidopsis thaliana*. *Frontiers in Plant Science* (selected as an editor's pick). doi: 10.3389/fpls.2019.00810.
3. Anderson, S.H. and R.P. Udawatta. 2019. *Agroforestry: A System for Improving Soil Health*. In M.R. Mosquera-Losada and R. Prabhu (eds.) *Agroforestry for Sustainable Agriculture*. Burleigh Dodds Science Publishing, Cambridge, UK.
4. Gold, M. 2019. Agroforestry for the cultivation of nuts. Chapter 17. In: M.R. Mosquera-Losada and R. Prabhu (eds.) *Agroforestry for Sustainable Agriculture*. Burleigh Dodds Science Publishing, Cambridge, UK.
5. Udawatta, R.P., L.M. Rankoth, and S. Jose. 2019. *Agroforestry and biodiversity*. *Sustainability* 11, 02879, 22p. doi:10.3390/su11102879 Invited
6. Dollinger, J., C.-H. Lin, R.P. Udawatta, V. Pot, P. Benoit, and S. Jose. 2019. *Influence of agroforestry plant species on the infiltration of S-Metolachlor in buffer soils*. *Journal of Contaminant Hydrology* 225, 103498. doi.org/10.1016/j.jconhyd.2019.103498
7. Rankoth, L.M., R.P. Udawatta, C.J. Gantzer, S. Jose, K. Veum, and H.A. Dewanto. 2019. *Cover crops on temporal and spatial variations in soil microbial communities by PLFA profiling*. *Agronomy Journal*. doi:10.2134/agronj2018.12.0789



The Agroforestry Podcast: Polyculture Farming with Trees

This month's Agroforestry Podcast episode features Dr. Michael Gold, Interim Director of the Center for Agroforestry, and Red Fern Farm's Kathy Dice and Tom Wahl. Often planted and maintained for their conservation value, trees on farms can also be an integral part of a farm's crop production. With diversity comes resilience *and* complexity: hear both academic research and on-the-ground farmer perspectives about the why, what, how, and when of perennial tree crops. Listen at <http://www.centerforagroforestry.org/pubs/podcast.php> or on any podcast app.

Dr. Michael Gold was also recently featured in Successful Farming Radio's "Growing Chestnuts" episode. Listen to this informative and intriguing sound bite here: <https://www.agriculture.com/podcast/successful-farming-radio-podcast/growing-chestnuts>

Employment Opportunities at the Savanna Institute

The Savanna Institute is seeking to fill three new positions: Associate Director, Communication Specialist, and Tree Crop Development Lead. These new positions will work closely with academic, non-profit, business and farmer collaborators. Detailed job descriptions are [available here](#), and on the Savanna Institute website.

Applications are due July 1st, 2019.

KUDOS

Congratulations to recent graduates at the University of Missouri Center for Agroforestry:

Ryan Dibala. Ph.D. Dissertation title: "Forage Production and Diversification for Climate-Smart Tropical and Temperate Silvopastures". Major professor, Dr. Shibu Jose.

Amanda Dwikarina. M.S. Thesis title: "Quantification and Characterization of the Antitumoral Agent Taccalonolides Isolated from Black Bat Flower (*Tacca chantrieri*) in Indonesia". Major professor, Dr. Chung-Ho Lin.

Dorin Lida Kusumawardani. M.S. Thesis title: "Factors Affecting Adoption in Indonesian Social Forestry". Major professor, Dr. Laura McCann.

Dayu Soraya. M.S. Thesis Title "Community-Based Forest Management (CBFM): Participation and Perceptions A Case Study in Malang, Indonesia." Major professor, Dr. Hank Stelzer.

Dienda Hendrawan. M.S. Thesis title: "Factors Contributing to Smallholder Farmers' Perceived Resilience to Water Scarcity in South Sulawesi, Indonesia." Major professors, Dr. Francisco Aguilar and Dr. Zhen Cai.

UPCOMING EVENTS

2019 North American Agroforestry Conference

June 24 - 27, 2019 | Association for Temperate Agroforestry | Corvallis, Oregon

The Association for Temperate Agroforestry will convene for the 16th AFTA Biennial Conference, this year focusing on Agroforestry for Sustainable Production and Resilient Landscapes. More information at <https://afta2019.org/>.

Diversified Agroforestry Field Day at Red Fern Farm

June 20, 2019 | 1-5pm | Red Fern Farm, Wapello, IA

Red Fern Farm is a family-owned nursery and farm run and owned by Tom Wahl and Kathy Dice. It is the site of ongoing research on a variety of tree crops and forest farming systems. During this field day, Tom and Kathy will give a tour of their farm and walk groups around the chestnut trees, pawpaw groves, persimmon, and other plantings. More information and registration at <http://www.savannainstitute.org/events.html>.

Specialty Mushrooms Project Monthly Webinars

First Wednesday of each month, 3pm-4:30pm EST | Cornell Small Farms Program | Free online webinars

The Cornell Small Farms Program hosts a monthly webinar series highlighting the latest research and stories from experienced growers around the region. These free webinars occur on the first Wednesday of each month, from 3 p.m. to 4:30 p.m. EST, and are recorded and posted for later viewing at www.CornellMushrooms.org. Learn more and sign up for the webinars at www.CornellMushrooms.org.

Backyard Forest Field Day

June 29, 2019 | Trees Forever | Squaw Creek Park, Marion, IA

Hosted by Trees Forever, the Iowa Dept. of Natural Resources, and Linn County Conservation, this workshop will cover a wide range of land management topics, including chainsaw safety and felling, burning, removing and identifying invasive species, and more. Forester Mark Vitosh and others will share their knowledge and expertise. Register by June 27th at <http://www.treesforever.org/BackyardForest>.

Northern Nut Growers Assoc. & North American Fruit Explorers Annual Meeting

July 28 - 31, 2019 | NAFEX/NNGA | Graduate Hotel, Iowa City, IA

The joint annual meeting of the Northern Nut Growers Association and North American Fruit Explorers is open to all people with an interest in nut and fruit trees. This multi-day event includes technical sessions, field tours, an exhibit hall, and many networking opportunities.

More information and registration at <https://nutgrowing.org/nnga-2019-annual-conference/>.

Practical Farmers of Iowa Carney Family Farm Tour

August 3, 2019 | Carney Family Farms | Maxwell, IA

This working farm silvopasture field tour will include featured speakers Keefe Keeley from the Savanna Institute, on the impact of agroforestry for Midwest farms; Luke Gran from Prudenterra, on the Carney's forestry plan; and Clint Miller from Polk County Natural Resources Conservation Service, on cost-share opportunities for agroforestry practices. RSVP by July 31st at <https://practicalfarmers.org/events/>.