



# Action in Agroforestry

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Michael Gold and Hyelee Won, editors

## Agroforestry Network Continues to Grow with Completion of 4th Training Academy

The MU Center for Agroforestry hosted its' 4th Agroforestry Academy from July 25-29, 2016 in Columbia, Missouri. Twenty seven highly motivated trainees from twelve states (coast to coast - MA/NY to WY/OR) spent a very full week learning about agroforestry practices and agroforestry planning and design on campus and in the field.

New to the 4th Academy, a number of "hands-on/how-to" activities were built into the schedule including: bee keeping, soil identification, tree grafting, and laying out silvopasture plots in existing woodlands. For the second year, there was a special emphasis on providing agroforestry training to US military veteran farmers. Twelve military veteran farmers received scholarships from UMCA through a USDA Beginning Farmer and Rancher Development Program "Armed-to-Farm" grant subaward from the University of Arkansas. Fifteen of the twenty seven academy trainees were farmers/landowners.

In addition to a visit to the MU Horticulture and Agroforestry Research Center showcasing germplasm collections of numerous specialty crops and agroforestry practices, three different landowners were visited during the Academy demonstrating different agroforestry practices (e.g., silvopasture, alley cropping) and specialty crop options (e.g., chestnut, black walnut, pecan, oak, elderberry, pine straw).

Supported by an expert group of trainer/mentors drawn from UMCA, MU Forestry, USDA National Agroforestry Center, Lincoln University, the Savannah Institute and selected farmer educators, groups of trainees participated in an "agroforestry case study design exercise" throughout the week in order to apply what they had learned each day to their case study plan. This culminated in five individual group presentations to the entire Academy including active participation by the "case study farm landowner" at the close of the week.

A post-academy evaluation revealed that 93% of trainees rated the academy as excellent (82%) or good (11%). Trainees ranged in age from ~25 to 65+. One trainee commented "Great job! This is a well thought out course presented by people that earnestly enjoy teaching. I really learned a lot and had a great time." To date, the Agroforestry Academy has trained 108 individuals over four years.

Stay tuned for dates and details on the 5th Agroforestry Academy to be held in the summer of 2017.

## Summer 2016 Agroforestry Graduates

**Christopher R. Heim.** Advisor: Dr. Coggeshall. Start: Fall 2014 – Graduated Summer 2016. M.S. thesis title: "Quantitative trait loci mapping and analysis of adaptive traits in northern red oak (*Quercus rubra* L.)".

**Thad Rhodes.** District Forester, Kansas Forest Service. Advisor: Dr. Jose. Start: Fall 2011 – Graduated May 2016 (online MS). Thesis title: "A study of factors that influence the adoption of riparian forest buffers in the Tuttle Creek reservoir watershed of Kansas".

**Robert H. Lusk, III.** Assistant Area Forest Pest Management Specialist, Southern Area, Pennsylvania DCNR. Advisors: Jose/Gold. Start: Fall 2014 - Graduated Summer 2016 (online MS). Project Title: "Designing Riparian Forest Buffers to Improve Salmonid Habitat and Generate Private Fishing Income in Cold Water Pennsylvania Streams".



## UMCA Students-MU Legislative Tour

UMCA students, technical staff along with UMCA collaborators were invited to present their findings as a team to state representatives including: Representatives Justin Alferman, Lauren Arthur, DaRon McGee, Jeff Messenger, and Lynn Morris during an MU legislative tour on July 12th.

The highlighted projects included: 1) bioremediation of dioxins, 2) biofuel, 3) purification of urine to drinking water, 4) conversion of blood types into universal blood, and 5) technology transfer and commercialization. Only 2 teams were selected from the MU campus.

Note from Life Sciences Center Director Jack Schultz: "You all were TERRIFIC during today's legislative tour! The visitors were knocked out, and frankly so was I! I think this was our best tour ever! Thanks again for a wonderful show-and-tell!"



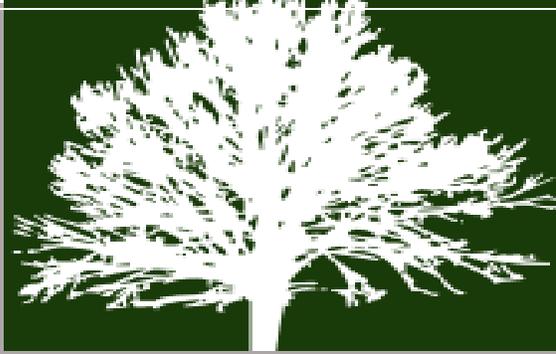
## Ecosystem Services of Cover Crops Workshop: A Big Success

A one-day workshop on "Ecosystem Services of Cover Crops" was held on August 3, 2016, at the Chariton County Soil Health Demonstration Farm, Prairie Hills, MO. During the morning field tour, Dr. Shibu Jose welcomed the participants and talked about agroforestry and cover crops; Kenny Reichert, Chairman, Chariton Soil Water Conservation District, detailed farm operations including selection of cover crops and cash crops; and Dr. Ranjith Udawatta presented research findings on cover crop benefits to soil quality, water quality, soil moisture, and on-farm economics.

The afternoon session, held at the Knights of Columbus, Salisbury, MO, included five talks by nationally recognized leaders on cover crops. Keith Berns, President, Green Cover Seed, presented on "Carbonomics" and explained the mechanisms of cover crops on soil-plant economics and sustainability; Jim Plassmeyer explained opportunities in Missouri for cover crop adoption "Evolution of Missouri Soil and Water Conservation Program Cover Crop Practice"; Tim Reinbott spoke on his experience working with cover crops; Lauren Cartwright, NRCS Ag. Economist, discussed the economics of cover crops. To close out the workshop, Dr. Robert Myers spoke on "Trends with Cover Crops Across the Corn Belt".

The workshop, attended by 86 producers, organic farmers, and NRCS personnel, and suppliers, was funded through a USDA-NRCS-National CIG program award.

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### UPCOMING EVENTS

#### August 31 Agroforestry in Action Webinar Series

11:00 AM (CDT) -- live

The Contribution of Agroforestry to Sustainable Development.

Dr. Florencia Montagnini, Senior Research Scientist, Yale School of Forestry and Environmental Studies.  
<http://www.agroforestryinaction.org/>

#### Sept 16 Hammons Products Black Walnut Field Day: Black Walnut as an Orchard Crop

8:00 am – 4:30 pm, Hammons Products Co., Stockton, Mo.

Field day focused on establishment, management and economics of black walnut as an orchard or alley crop in Missouri and the Midwest. Free and open to the public, advanced registration is requested.

To register, contact Caroline Todd, UMCA: 573-884-2874; [toddcs@missouri.edu](mailto:toddcs@missouri.edu)

#### Sept. 23 Alternative Fruit & Nut Tree Field Day

1-5 pm, Southwest Center, Mt. Vernon, Mo.

Join University of Missouri researchers, extension specialists and experienced growers to learn about alternative fruits and nuts that have economic potential for Missouri.

For more information contact Andy Thomas, [thomasal@missouri.edu](mailto:thomasal@missouri.edu), 417-466-0065. <http://southwest.cafnr.org/>

#### Oct 8 Missouri Chestnut Roast

10 am– 4 pm, Horticulture and Agroforestry Research Center, New Franklin, Mo.

Roasted chestnuts, cooking demonstrations, fresh chestnuts and nut trees for sale, farm tours, music, children's activities, Hickman House tours, many producers and exhibitors.

[www.centerforagroforestry.org](http://www.centerforagroforestry.org)

#### Oct 15 Great River Road Chestnut Roast

10 am – 4 pm, Forrest Keeling Nursery, Elsberry, Mo.

<http://www.fknursery.com>



The Center for Agroforestry  
University of Missouri

*A Global Center for Agroforestry, Entrepreneurship and the Environment*