



Action in Agroforestry

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Michael Gold and Hyelee Won, editors

Changing of the Guard, Or, Out With the Old and In With the New (Older)

Hello to all friends of UMCA. As of March 1st 2017, Dr. Shibu Jose, who has provided the Center with outstanding leadership since 2009, has taken a new position as the Director of the MU School of Natural Resources. Under his leadership, the Center has evolved and added new dimensions in all aspects of our work: research, education, outreach, international programs, and economic development. Examples include: 1) The development of the Center's highly successful 100% online MS and Graduate Certificate in Agroforestry, the only program of its kind in the world; 2) The establishment of the Annual Research Symposium, streamed live around the world; 3) Overseeing the establishment of two spin-off companies, Elemental Enzymes and Tiger Energy, to facilitate translation of groundbreaking technologies into commercial applications.

Until we search for and hire a new Director/Endowed Chair in Agroforestry (stay tuned – no dates set for this at present), Dr. Michael Gold (that's me) will serve as the Interim Center Director. I have been with the Center since 1998 and have served as the Center's Associate Director since 2002. I look forward to serving the Center as Interim Director and continuing to maintain excellence in all phases of our activities: Research, Education, Outreach, International Programs, and Economic Development.

Since I arrived in 1998, the combined efforts of outstanding faculty, staff and students has enabled our Center to achieve world class status in agroforestry. The impacts of our research, education, outreach and economic development activities continue to grow in breadth and depth. Our strength lies in our core Center faculty and staff, partnering with over 50 associated faculty, staff and external collaborators, and supporting numerous graduate students and postdoctoral research associates who define, fund, design, carry out and publish results from dozens of research projects.

We will continue to focus on our mission to support the long-term future of rural and urban working farms and forests by achieving economic, environmental and social sustainability. The knowledge that agroforestry

offers concrete solutions to many of the environmental and economic challenges that we face today is helping to spur adoption. Working closely with our many partners, our collective efforts are and will continue to help to realize agroforestry's potential. On behalf of UMCA, we look forward to an exciting and productive year in 2017.

Mike

Michael A Gold, Ph.D. Research Professor and Interim Director, UMCA

Pictured: Dr. Shibu Jose, left, Dr. Michael Gold, right.



K Pang, JW Van Sambeek, NE Navarrete-Tindall, C-H Lin, S Jose, HE Garrett. 2017. Responses of legumes and grasses to non-, moderate, and dense shade in Missouri, USA. I. Forage yield and its species-level plasticity. *Agroforestry Systems*. doi:10.1007/s10457-017-0067-8

Annual screenings of forage grasses and legumes for shade tolerance were conducted from 1996 to 2001 in the outdoor Shade Tolerance Screening Laboratory at the Horticulture and Agroforestry Research Center, University of Missouri. Forty-three forages were grown under non-shade (100% of full sunlight), moderate shade (45%), and dense shade (20%) without competition for water and nutrients. Annual forage yield (g pot⁻¹) was equal to or higher under moderate shade for all 43 forages and under dense shade for 31 forages than the non-shade control. Overall, most grass and legume forages have the potential to produce equivalent or higher yields in agroforestry practices featuring light to moderate shade than forages in open pastures when competition from tree roots is minimized.

K Pang, JW Van Sambeek, NE Navarrete-Tindall, C-H Lin, S Jose, HE Garrett 2017 Responses of legumes and grasses to non-, moderate, and dense shade in Missouri, USA. II. Forage quality and its species-level plasticity. *Agroforestry Systems*. doi:10.1007/s10457-017-0068-7

From a series of shade tolerance screening trials conducted in an outdoor Shade Tolerance Screening Laboratory, 22 forages (16 grasses and 6 legumes) were selected for quality evaluation. The forages were grown under non-shade (100% of full sun, the control), moderate shade (45%), and dense shade (20%) with adequate water and nutrients and free of competition from other plants. All 22 forages had equal or higher percent crude protein (%CP) and CP yield (g pot⁻¹) under moderate shade than in the control. Our results suggest most grass and legume forages will maintain or have improved quality when grown in agroforestry practices with light to moderate shade compared to forages grown in open pastures.

UPCOMING EVENTS

Missouri Woodland Conference

9:00 AM - 4:15 PM | April 4 & 5, 2017.

Missouri Farm Bureau Headquarters, 701 South Country Club Dr., Jefferson City, MO 65109

Techniques in Managing Fine Hardwoods for Landowners, Foresters, Industry Specialists, Agencies & Universities, SWCDS, Organizations & Students. The fee for BOTH days is **\$35 per person** payable to "Walnut Council" paid by March 25th. This fee covers two hot lunches, drinks, plus morning coffee and doughnuts. Visit website:

<http://www.walnutcouncil.org/statechapters/missouri.html> for the program and registration form or send an email to: mowalnutcouncil@gmail.com

Doug Allen Field Day (mark your calendars - detailed information coming soon at www.centerforagroforestry.org)

8:30 AM - 4:30 PM | April 29, 2017. Laurie, MO.

Topics Covered Include: Forest Farming Medicinals/Edibles; Timber Stand Improvement; Control of Invasives; Bald Eagle Nesting Site; Glade Restoration; Natural Beekeeping

Comprehensive Elderberry Workshop & Field Tour

Thursday & Friday, June 1 & 2, 2017.

Beginning Growers Workshop, Wednesday, May 31, 2017.

Carver Farm, Lincoln University.

See details at: <https://elderberryworkshopfielddtour.wordpress.com/>

North American Agroforestry Conference

June 27-29, 2017. Blacksburg, VA.

Register today: <https://www.regonline.com/builder/site/Default.aspx?EventID=1865066>

5th Annual Agroforestry Academy

July 23-28, 2017. Columbia, MO.

Registration ends June 30. Limited scholarships available for military veterans.

<http://www.centerforagroforestry.org/academy/2017/RegistrationBrochure.pdf>

Joint Conference - North American Fruit Explorers and Northern Nut Growers Association

August 13-16, 2017. University of Georgia, Athens, GA.

Participants able to attend both nut and fruit sessions for the registration fee. Registration information available at: www.nafex.org and www.nutgrowing.org

For more information, contact Jerry Henkin, Chair, 2017 NAFEX/NNGA Conf., at sproutnut@aol.com, (914)282-1371.

