

Agroforestry Academy
August 5-9, Columbia, MO 2013

Evaluation Report

The University of Missouri Center for Agroforestry (UMCA) developed a set of two surveys to evaluate the results of the Agroforestry Academy, a one week “Train-the-trainer” program held on August 5-9, 2013 in Columbia, Missouri.

The first two days of the Academy included workshops (comprehensive classroom presentations) on the latest science and practice in support of agroforestry practices plus information intended to assist landowners develop financial budgets for agroforestry practices and market the products they grow. Days three and four consisted of visits to practitioners’ farms with established agroforestry sites along with a “hands-on case study” farm that does not yet contain agroforestry. The academy concluded with an agroforestry design exercise which summed up all the knowledge and experience received during the week. The case study design exercise (with small group presentations and follow up discussions) facilitated experience in the implementation of agroforestry design and encouraged collaborative learning community efforts. The planning process helped participants envision how agroforestry practices can be successfully integrated on a farm. Lunch and dinner also included presentations from a number of agroforestry practitioners, partner agencies and group discussions. All presentations were recorded and will be made available on the Center for Agroforestry website to reach a wider audience and to be available for later use.

At the beginning of the academy, a survey was administered to all participants to assess both their motivation to participate in this event and the level of knowledge about the topics presented. At the end of the week, a second survey was administered to assess the participants’ perception about the event, to determine the level of satisfaction with the content and organization, the gain in knowledge after listening to the presentations, assess how the academy changed their interest in agroforestry and future involvement.

The evaluation surveys had the following objectives:

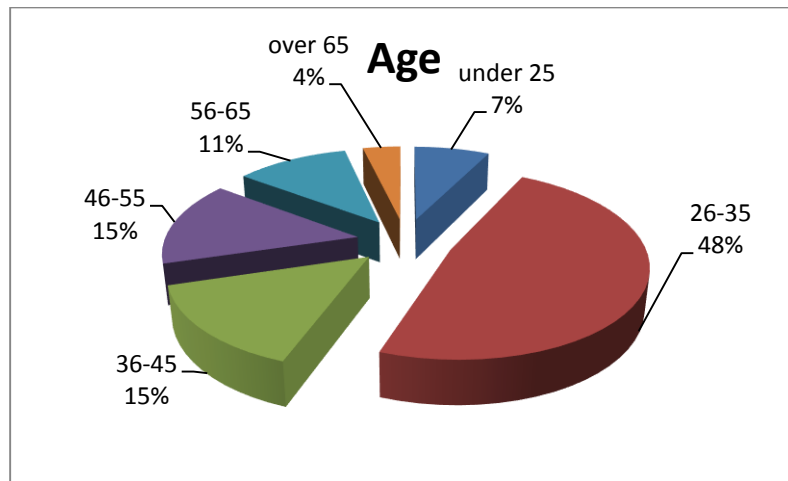
1. Document the demographic characteristics of the participants at the Agroforestry Academy
2. Identify participants’ motivation to attend the academy.
3. Evaluate participants’ reaction to the content and organization of the academy.
4. Assess the level of knowledge before the academy related to specific topics and compare it with the level of knowledge after the academy to estimate the gain in knowledge.
5. Obtain suggestions that will help better organize similar events in future years.
6. Obtain participants’ input related to the implementation of agroforestry practices (e.g., drivers and barriers for agroforestry adoption, training and assistance needs).

Objective 1: Document the demographic characteristics of the participants at the Agroforestry Academy.

The Agroforestry Academy attracted 27 trainees: natural resources professionals (37%), natural resources educators (4%), members of government agencies (19%), members of University Extension (19%) and farmer-educators from 7 states: IA (3), IL (6), MN (3), MO (7), NE (4), PA (1) and WI (3).

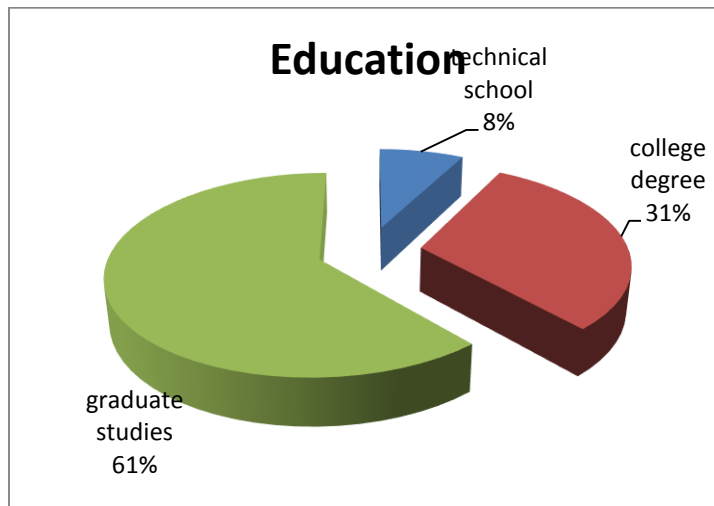
The demographic characteristics, based on 27 surveys collected at the beginning of the event are as follows:

Seven percent of respondents were younger than 25 years, 48% between 26 and 35 years old, 15% between 36 and 45 years old, 11% between 56 and 65 years old and 4% over 65 years.



N=27, pre-academy survey

Eight percent of respondents attended technical school, 31% held a college degree and 61% held a graduate degree.

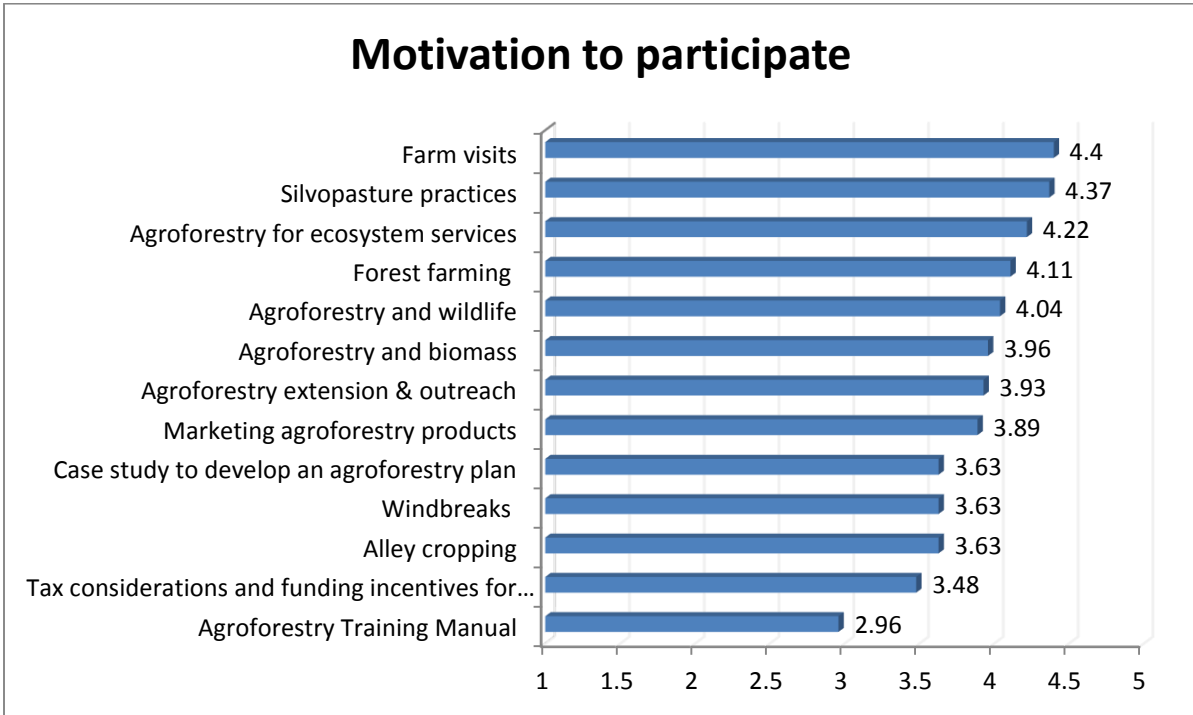


N=27, pre-academy survey

Objective 2: Identify the motivation to attend the workshop (pre-academy survey)

Eighty-two percent of participants were strongly influenced to participate in the academy by the topics to be presented. Academy participants were mainly interested in visiting farms of agroforestry practitioners. Among practices, silvopasture, agroforestry for ecosystem practices and forest farming were the top preferences for participants.

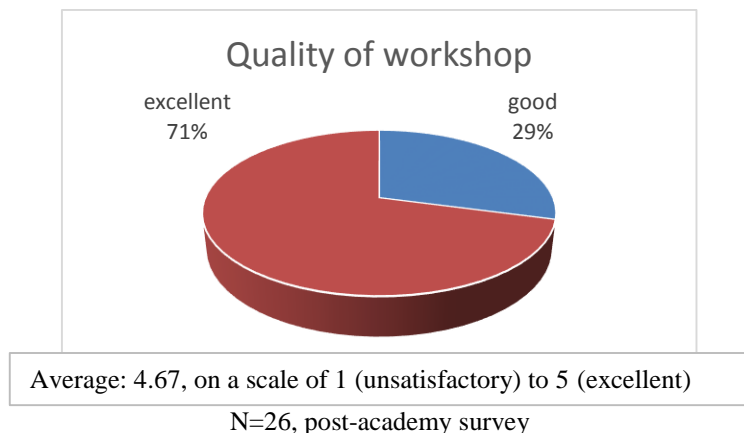
On a scale of 1 (not at all) to 5 (very much), the average ratings for how much each topic motivated the participants to register for the academy are presented below:



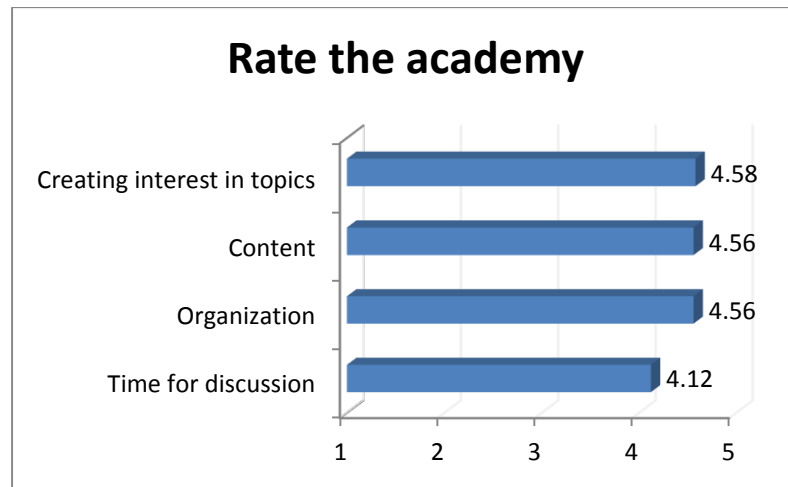
N=27, pre-academy survey

Objective 3: Evaluate participants’ reaction to the content and organization of the workshop (post-academy survey)

Participants were very satisfied with the Agroforestry Academy. The quality of workshop overall was rated excellent by 71% of participants and good by 29%.

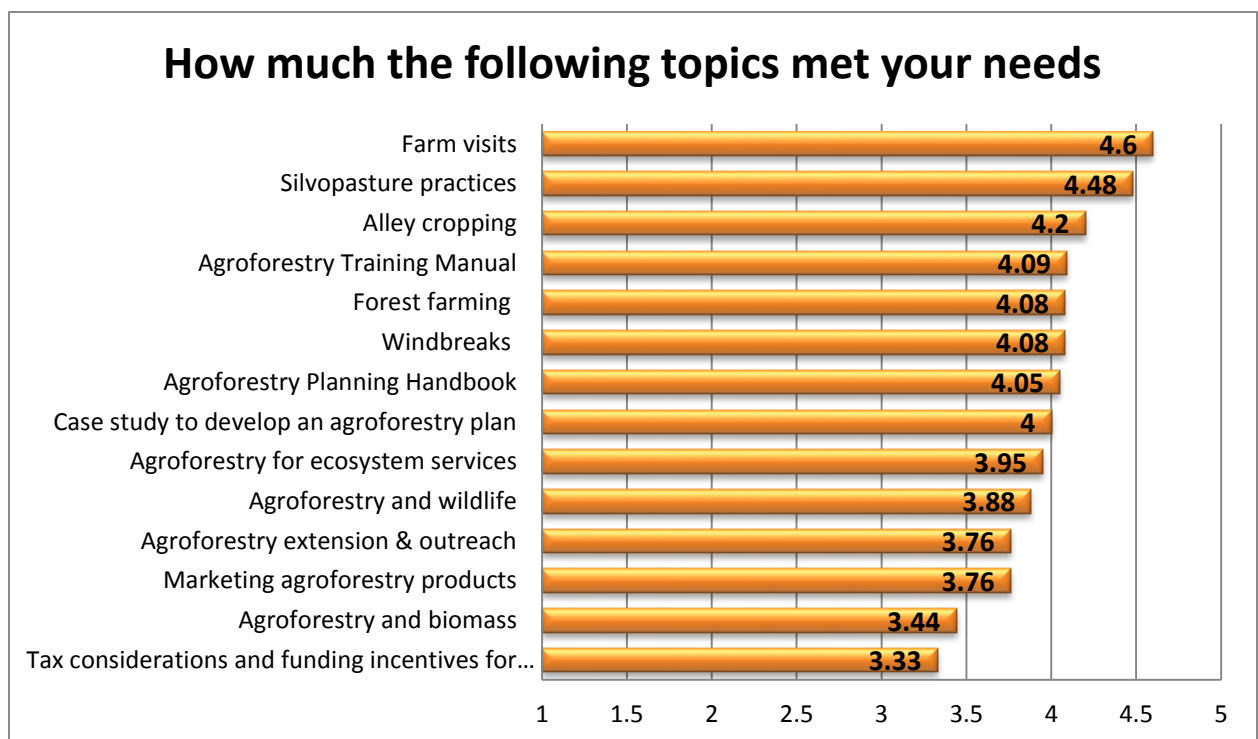


When rating different aspects of the academy, creating interest in the topic was rated 4.58 on a scale of 1(boring) to 5(stimulating). Content of presentations received a 4.56 rating on a scale of 1(of little use) to 5(useful), organization was rated 4.56 on a scale of 1(poor) to 5(excellent) and time for discussion received a score of 4.12.



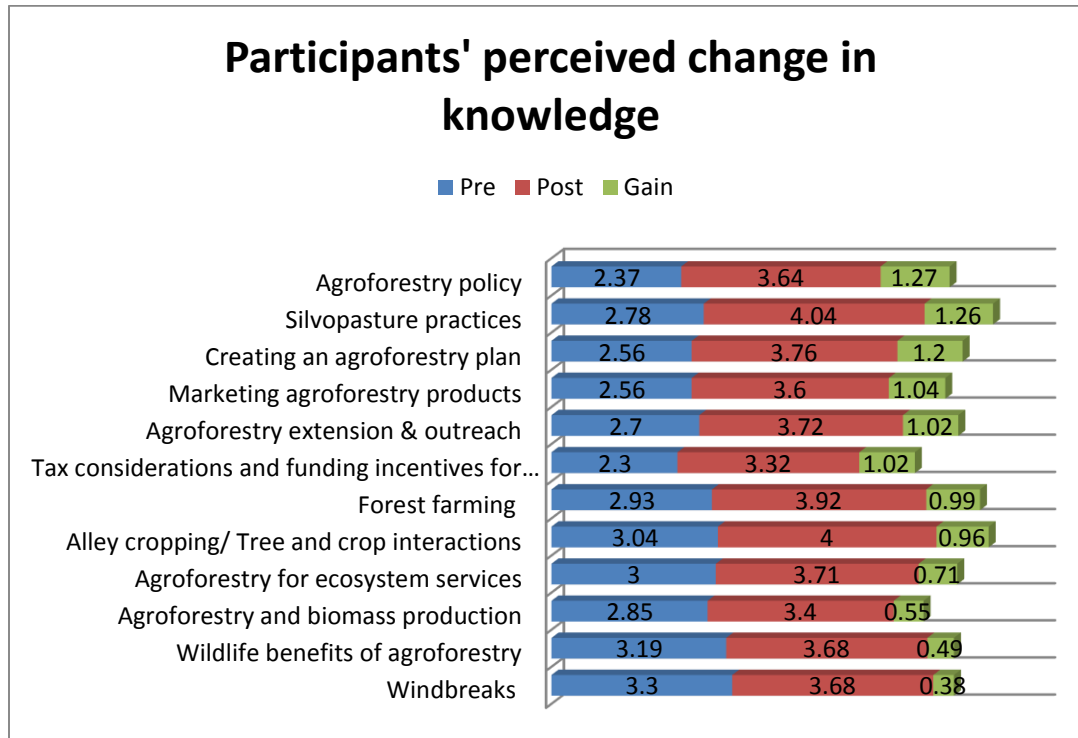
N=26, post-academy survey

The chart below shows how much each of the topics and materials met participants' needs at the end of the academy. The values represent average of ratings from 1-not at all to 5-very much. All ratings are high, between 3.33 and 4.6. Farm visits, silvopasture practices and alley cropping met the most the needs of participants.



Objective 4: Assess the level of knowledge before the academy related to specific topics and compare it with the level of knowledge after the academy (Pre (N=27) and Post (N=26) academy surveys).

A scale of 1 (nothing), 2 (very little), 3 (some), 4 (quite a bit) and 5 (a lot) was used to assess the level of knowledge. The level of knowledge before, after and the gain in knowledge is presented below (average ratings):



Participants had some knowledge about the topics presented (between 2.3 and 3.3 in average on the 1-5 scale). After the academy, the average knowledge ranged between 3.22 to 4.04 on the scale of 1-5, each topic obtaining a gain in knowledge.

One hundred percent of participants declared that they benefited from information about agroforestry practices, 96% are motivated to continue learning about agroforestry and to disseminate information about agroforestry, 92% are motivated to get their organization more involved in agroforestry. Important benefits from participating in the academy are the network of participants and trainers and resource materials for future use. Other benefits mentioned by participants are:

- *a better knowledge of where and when specific practices may be applicable on the ground;*
- *a sense of hope and momentum for conservation agriculture;*
- *insight from producers who have been involved with their agroforestry programs for many years;*
- *motivation to install and demonstrate agroforestry practices on organization owned land;*
- *a sense of inspiration knowing that there are so many people doing the work;*
- *the potential to leverage the impact;*
- *understanding the variety of ways these practices are being implemented;*
- *new ideas from practitioners and agencies.*

Objective 5: Obtain suggestions that will help better organize similar events.

The academy participants provided many comments and suggestions regarding the academy's topics and organization. Their comments are presented below.

What wasn't covered in this academy that you expected?¹:

The participants were very pleased with the academy:

Excellent academy; thorough coverage and survey of Agroforestry topics

I came with very little formal training and found this to be very informative and motivating.

You covered everything I needed information/resources plus more.

Some expectations academy participants had and have not been fulfilled are presented below:

Basic terminology exchange grazers vs. foresters. How to communicate among disciplines

Food forests, organic mixed forestry

Forage calculations

Holistic thought process for consulting with 1 or 2 dimensions farmer on how to add new aspects. Permaculture 12 principles are nice framework that can be leaned on. Views of case studies getting into the weeds of the design process.

Hydrology and watershed restoration

I really like the idea of having a few interested individuals present agroforestry projects they are proposing/working on and getting input from the group (I didn't expect this but I think it is a good idea).

More economics - real world scenarios - what is viable now

More examples of forest products i.e., floral shrubs, wood carvings, etc. How to put together agroforestry training in our area.

More field visits to farms using alley cropping and established silvopasture

More info on fruit crops. Polyculture production. Water management in agroforestry

More on marketing. Small scale agriculture.

More on Woody Biomass (feasibility and financials)

Networking, specialization, understanding the fringe opportunities within agroforestry through practitioners.

Water management; How to set up monitoring of conservation outcomes from implementing agroforestry.

Do you have any comments/ recommendations regarding the content or organization of this forum that can help us organize better events in the future?

All the comments are provided below:

Agroforestry for the small farmer >50 acres

Content was good, tours were good, only thought is to try to be a little less aggressive with the agenda, days were very long. However also engaging.

Days were a little long, not sure the best way around that

¹ Text in italic represents exact quote

*Everything was good buy maybe too much was crammed in; made for really long days
Fewer powerpoint lectures. Too long; 8am-5 pm maximum each day. Tried to cram in too
much information over 4.5 days*

*Get the grasp together right away. Have them come together after each presentation or after
so many presentations to talk about the practice or concept.*

*I really appreciated the mix of participants in the group, especially of having a few
landowners-educators. It would be great to include a few landowners in future academies.
I thought it was excellent. The days were rather long but the content was so excellent, I was
able to stay engaged. If I am coming to MO for a ... I appreciate the efficient use of time.
Kudos for adapting to uncooperative weather*

*More emphasis on designing riparian buffers for multi-use in silvopasture, crops, polyculture.
Silvopasture, the more the better.*

*More small group/large group discussion, time to reflect on information, talk about creative
ways to fund this work*

More time for semi-structured interaction. farm visits.

Perhaps one day shorter

Perhaps shorter, or splitting between newbies and more advanced folks

Really nicely done. Don't tinker too much for 2014.

Select a landowner for case study who doesn't already consider themselves an expert.

start case study earlier in the week

*The context was great. The days were too long. Day one and last day should start at 8.30 to
allow time for travel, locate parking, and checking out of the hotel, etc.*

*The Happy Hour at Broadway Brewery was very good ending early and eating off site is very
good. Letting people share their ideas of what projects/dreams they have.*

This conference ran smoothly despite weather.

*Try to have all attendees in the same hotel for network building. Going until 8 every night is
rough and makes for long days. Try limiting time to work hours, 8 to 6 will work.*

Objective 6. Obtain participants' input related to the implementation of agroforestry practices (e.g., drivers and barriers for agroforestry adoption, training and assistance needs).

What, in your opinion, still needs to be done to increase landowners' awareness, acceptance and adoption of agroforestry?

1. More localized area meetings/trainings. 2. Having booths/presentations at Pork Producers, Beef Producers, Farm Bureau, Grassland Coalition, FFA, County Fair, State Fair, Legislation meetings.

A lot. NRCS needs to head this change. Landowner advocates (champions)

Better education on the definition of "what" is agroforestry.

Outreach to local working groups through people educated in agroforestry.

Demonstration sites would be useful working tools.

Demo sites. Local varieties

Demonstration locations, and solid "how to" manual

Example plots

Examples, presentations of real world cash flow to landowner
Extension and outreach - on site demonstrations
Focus on synergies with conventional systems. A few examples go a long way.
Funding to continue the great demonstrations and research; develop landowner field days of existing research at HARC.
Get agroforestry in the Farm Bill.
Greater adoption and promotion by SWCD's.
Demonstration & research sites - disperse geographically
I think more agency training would help a lot b/c the producers learn from their knowledge; if the person at the agency doesn't know about that topic, a lot is lost.
Local demonstration projects
Lots! University research on crops and practices in other states.
Build networks like grazing networks.
Better cooperation between forestry and ag. educators.
More awareness, recognition, acceptance from state cons/ag. agencies, Fed. agencies, extension.
Pursue media opportunities aggressively.
More education of practices and benefits
More grounding in semantics, cultivation of shared language as agroforestry cross pollinates with many different groups
More publicity about what agroforestry is.
Site visits and examples of landowners who are practicing agroforestry
More train the trainer - work with master gardeners, master naturalist, peer to peer education
Outreach/education opportunities to allow landowners the chance to learn more about agroforestry. Establish demonstration sites regionally to further establishment through ed.
Segmenting landowners into demographics is good (i.e., hobby farmers, w/independent \$, financially secure farmers wanting to experiment, young farmers, etc.) This should be part of "marketing" in future talks.
Showcase the success stories
Subsidize farm visits (where AF is practiced) for farmers, educators and TSPs (including seed/feed dealers, chem. guys, financial advisors)
Demonstration sites, educated training teams (this academy), time and success.

What might be barriers or concerns standing in the way of landowners' awareness, acceptance and adoption of agroforestry?

Additional enterprise budgets
Agency knowledge, public perception
Better data for the cash flow and putting value on techniques.
Budget and time.
Many times it is finding ways to be invited to these local working groups.
Competition with commodity crops
Creating clear economic benefits

Disregard for perceived risks by practitioners. Merge AF solutions with conventional systems.
Economics
Economics/profit
Funding; conflicts with traditional farming methods
Knowledge and acceptance of these practices by resource staff and willingness to recommend practices.
Policy
Knowledge up and down supply chain/knowledge chain
Seeing neighbors and others in the area
Developed markets for products, i.e., Terry's coop as key part of local food infrastructure
Lack of knowledge, unfamiliar with markets, unwillingness to take the leap.
Lack of management knowledge; Uncertainty about finances; Major support for row crops
Lack of specific production and variety advice.
Economic risk
Equipment & infrastructure costs.
One-on-one technical assistance;
Information, awareness of agroforestry practices.
Outside of time and money - need more demonstration of practices and/or opportunities for peer-to-peer learning to build trust/relationship
Reluctance for change and inability to modify traditional practices. I do believe the younger generation is aware change in agriculture is needed for progress - so basically more outreach opportunities
Risk, investment, and ROI / Possible losses
Social conformance
Too much reliance on the agribusiness monoculture model of farming.
Varieties for integration
Need more USDA funding to assistance
Prioritize agroforestry
"We've never done that, what will my neighbors think, I will be dead before I see anything profitable, Where will I put my corn"?
Education, fear, seeing is believing (demos), \$, embarrassment, cost shares and programs.

What will it take for you and your organization to increase participation in this effort?

Demonstrated value to private landowners served.
Funding & expertise; make implementation easy for landowners; provide skills training to farmers. Collaboration with experts.
Funding and local demo sites
Funding is the only limitation
Funds \$\$, greater collaboration
I think demonstration sites and cost-share funds would help.
Knowing where cost share is available, having experts present at local trainings, public relations w/press release, radio/TV interviews, getting into Ag magazines.
Land to practice/demonstrate

Leadership at senior level of administration at university. At minimum, one dedicated Extension specialist
More foresters attending this training - opportunity for me to share knowledge to my peers, which I already have a presentation scheduled. Opportunities to continue networking.
More knowledge not just at local level but at state level
More outreach and education = develop understanding of agroforestry among agencies
More people, faculty with research programs in agroforestry.
More successful example, individuals doing it
Not much. Already planning follow up trainings.
NRCS - greater familiarity with AF among staff. AF Initiative (special EQUIP sign up).
Support for field day logistics, both promotion and supplies/resources.
Time and resources (materials and funding). This meeting and book will help. Bringing the multi-agency group from IL together will help move us forward.
Time, capital, willing landowners, network with professionals.
Farm Bill = large scale, training and team effort on local scale.

What information, training and other assistance is needed?

Ability to expand training to specific practices e.g. silvopasture and follow up at Wurdack.
Access to presenters' resource materials and presentations. Database of useful web based resources.
Advance workshops, 2-3 days - we could choose the one(s) that match most close our expertise.
Agroforestry academies in additional regions. Connections/directories/list serves for agroforestry discussions and work.
Continued information and training on forestry, agroforestry issues.
Entrepreneurship for agency personnel.
Financial analysis and follow up to plans. Helping forum/landowners develop/improve their business/whole farm plans.
Having Certified Agroforesters. Keeping up with latest practices/discoveries/innovations, brochures geared towards our local area.
Individual component training i.e., Silvopasture. Ex: 1-2.5 day indoor plus field training
Knowing who else is in this industry, their current and desired role(s).
More in depth training on specific practices. Production and economic info for other regions.
More on silvopasture
Not sure at this point. I think we have good info and contacts to get started.
NRCS - top down approach, emphasize potential for environmental benefits from AF to NRCS leadership, this will drive policy and program changes to promote agroforestry.
Opportunity to network with this working group and continuing education.
Perhaps designing a second conference to take this to the next level as more information develops. Say every other year or so to reunite and network.
Plant material management; livestock management.
Policy, policy, policy, both state and federal.
Continued coordination with experts, spin off training opportunities, in state on site potential assistance, getting something on the ground.

What barriers or concerns stand in the way of you and your organization becoming more active in promoting agroforestry?

Budget and time. We are all pulled in hundreds of directions and this though important, is another direction to be pulled. Budget and time will determine time dedicated to agroforestry.

Comfort with knowledge of technical, social and marketing of the business ventures.

Corn and land prices; management knowledge.

Full speed ahead!

Funding.

Funding, time, knowledge.

Knowledge at the state and local level.

Leadership at senior level of administration at university. Staff tasked with promoting agroforestry. Everyone's plate is already pretty full.

Need more research on practices/species in WI.

Not sure yet.

Scope of grant funding/mission of organization. Can we provide value to traditional landowners with AF practices?

The only barrier at this point would be funding but our organization is currently engaged and working on development of AF demo site.

Time and money getting boards & managers to think outside of corn, soybeans, and cattle on grass with no trees in sight.

Time constraints, lack of training and prioritizing agroforestry within mission statement

Time, money, knowledge.

Time; how do we integrate practices into lasting programs/networks so people are not overwhelmed. Suggest having topics spread out over time, core group of trainings and invite others interested in key topics.

Too many "opportunities" and powers.

We need to pursue targeted training for our staff working with landowners to bring them to a level of comfort of knowledge to incorporate agroforestry ideas into plans and discussions.

Within Missouri, the concept of grazing "forestland" is sensitive. Need to work with good producers (Fred Martz like to show success stories. Correct emphasis in NRCS is "soil health" but from a cropland/pastureland standpoint. The concept of AF has not been considered other than buffer.)

In conclusion, the first Agroforestry Academy was very successful. It contributed to broader agroforestry knowledge base among resource professionals, greater partnering across agencies, and potential for increased support by professionals toward landowner adoption of agroforestry and other integrated, and perennial land management practices.

The participants' comments and recommendations are a valuable resource for improving future efforts in organizing similar events and for increasing farmers' awareness, acceptance and adoption of agroforestry.