

**Agroforestry Academy
July 21-25, Winona, MN 2014**

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 July 21-25, 2014 in Winona, Minnesota.

The five 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, visits to practitioners’ farms with established agroforestry sites along with a “hands-on case study” farm. 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.

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:

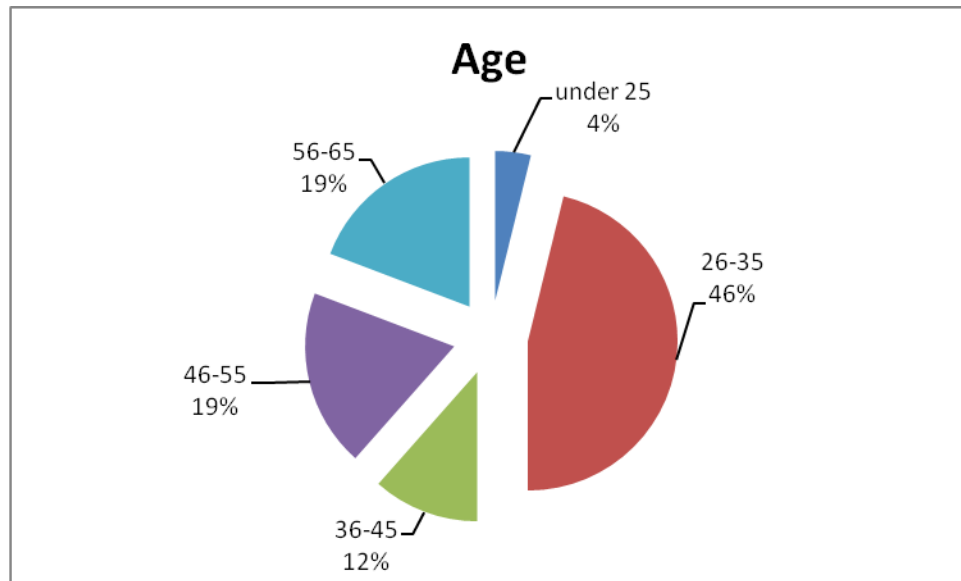
1. Document the demographic characteristics of the participants at the Agroforestry Academy
2. Identify participants’ motivation to attend the academy.
3. Evaluate participants’ reaction to the content and organization of the academy.
4. Assess the level of knowledge before the academy related to specific 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 29 participants: natural resources professionals (34%), natural resources educators (18%), members of government agencies (16%), members of University Extension (16%), and others (16% - farmers, students, professor), from 7 states: IA (1), IL (3), MA (1), MN (9), MO (1), WI(7) and Washington DC(1).

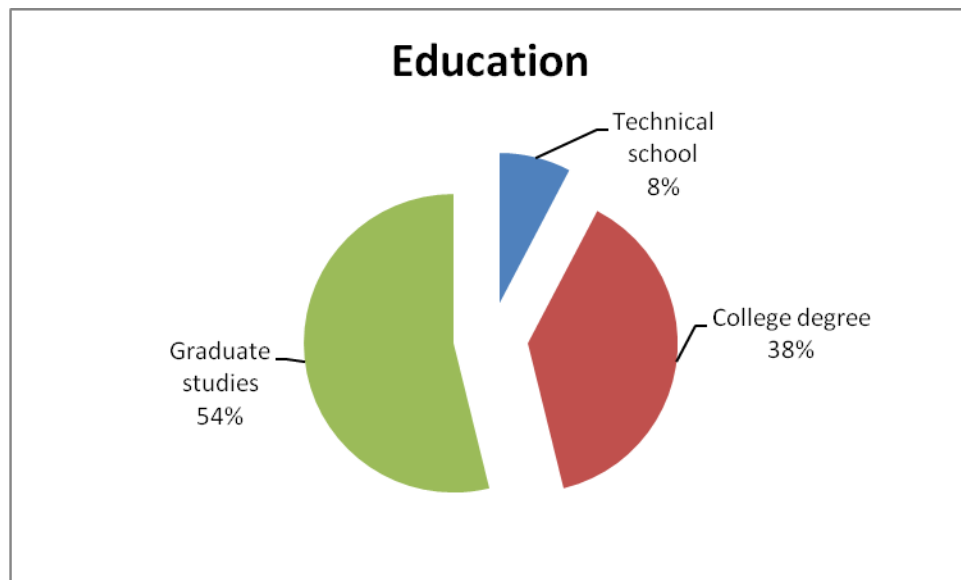
The demographic characteristics, based on 26 surveys collected at the beginning of the event are as follows:

Four percent of respondents were younger than 25 years, 46% between 26 and 35 years old, 12% between 36 and 45 years old, 19% between 46 and 55 years old, and 19% between 56 and 65 years old.



N=26, pre-academy survey

Eight percent of respondents attended technical school, 38% held a college degree and 54% held a graduate degree.

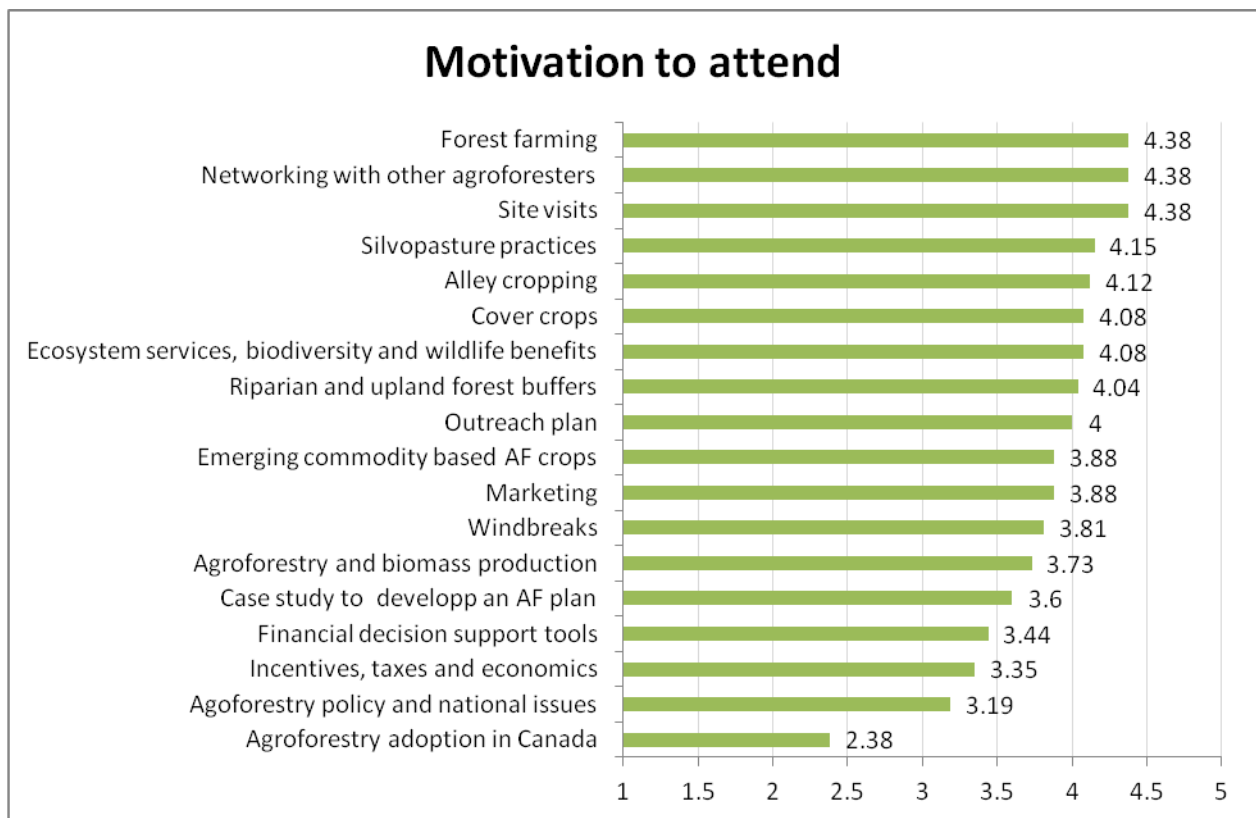


N=26, pre-academy survey

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

Eighty-one percent of participants were strongly influenced to participate in the academy by the topics to be presented, 31% by organizers, 15% by speakers, 40% by location and 19% by other reasons such as farm site visits, networking opportunities and no cost to attend. Academy participants were mainly interested in visiting farms of agroforestry practitioners and networking with other agroforesters. Among practices, forest farming, silvopasture and alley cropping 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 attend the academy are presented below:



N=26, pre-academy survey

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

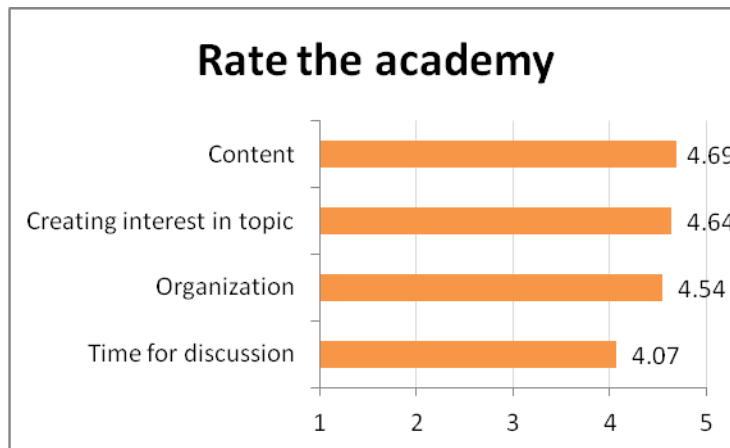
Participants were very satisfied with the Agroforestry Academy. The quality of workshop overall was rated excellent by 76% of participants, good by 21%, and fair by 3%.



Average: 4.72, on a scale of 1 (unsatisfactory) to 5 (excellent)

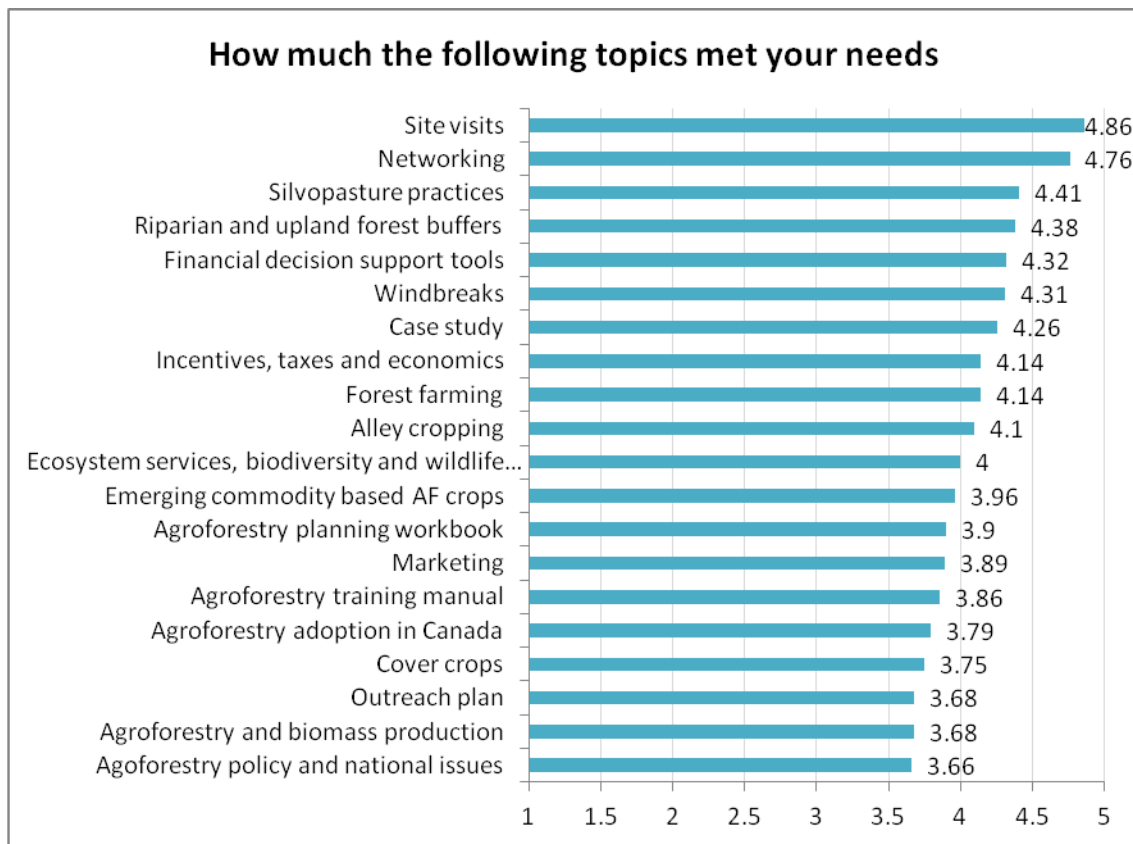
N=29 post-academy survey

When rating different aspects of the academy, Content of presentations was rated 4.69 on a scale of 1(of little use) to 5(useful). Creating interest in the topic received a 4.64 rating on a scale of 1(boring) to 5(stimulating), organization was rated 4.54 on a scale of 1(poor) to 5(excellent) and time for discussion received a score of 4.07.



N=29, post-academy survey

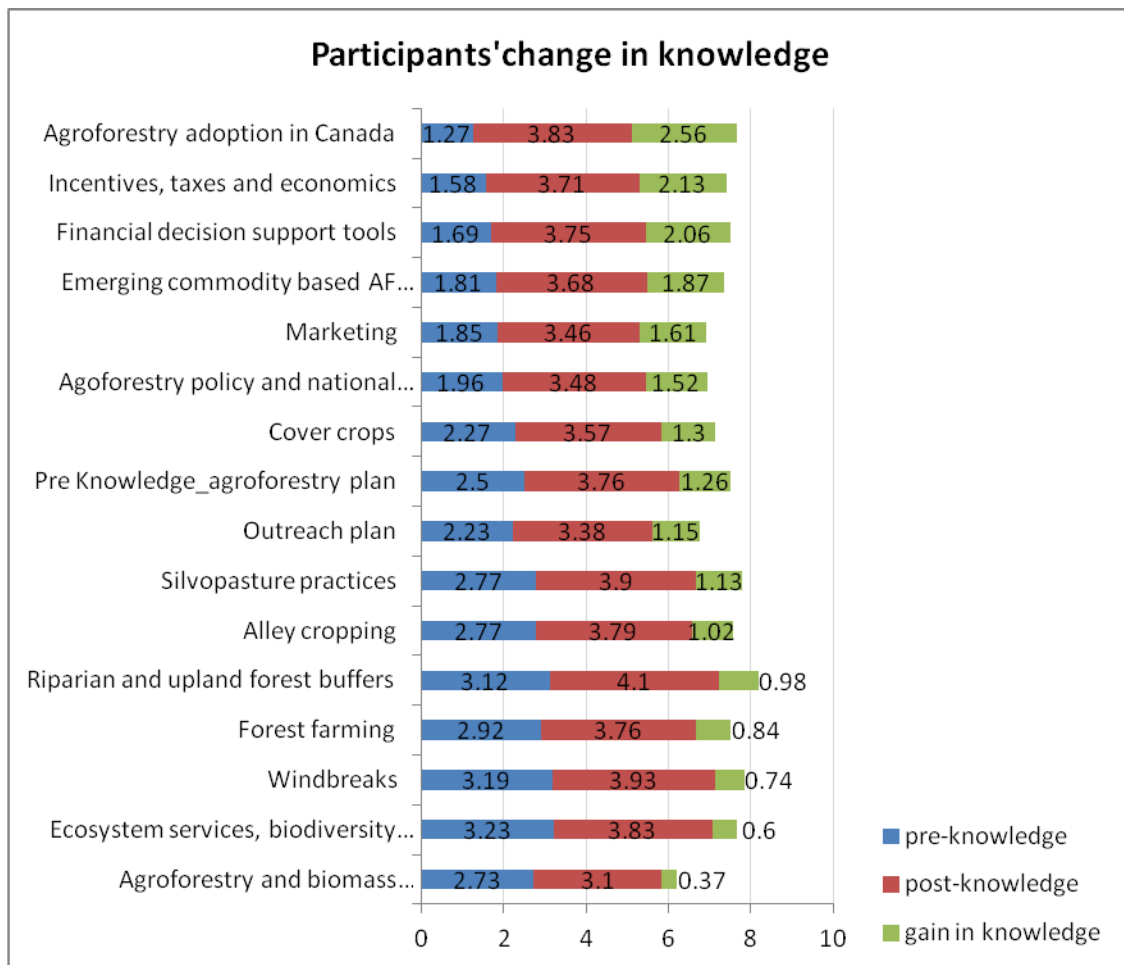
The chart below shows how much each of the topics and materials met participants' needs at the end of the academy. The values represent average of ratings from 1-not at all to 5-very much. All ratings are high, between 3.66 and 4.86. Site visits, networking and silvopasture practices met the most the needs of participants.



N=29, post-academy survey

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=26) and Post (N=29) 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 1.27 and 3.23 in average on the 1-5 scale). After the academy, the average knowledge ranged between 3.1 to 4.1 on the scale of 1-5, each topic obtaining a gain in knowledge.

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:

Very good coverage.

Everything I expected.

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

More depth in tech transfer and ed. design.

More information on challenges/success/barriers to adoption. More farmers' feedback/input on adoption.

More indigenous practices, historical and use and why these inform our decision making.

There was no hands-on, machine assisted, skills building practicum.

¹ Text in italic represents exact quote

<i>I thought I needed more time on the economic tool and financial decision making.</i>
<i>Fruit tree crops get lost in the mix.</i>
<i>I was hoping for a little more technical, but I realize that there are a lot of topics to cover.</i>
<i>Technical aspect of planning- but realize that depends on state, working with agencies.</i>
<i>More about goats grazing exotic invasives.</i>
<i>International (other than North American) agroforestry.</i>
<i>Possible more "Reflection" time to discuss practices.</i>

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

All the comments are provided below:

<i>Excellent.</i>
<i>Very well done.</i>
<i>Great job, no comments.</i>
<i>Provide instructors more time to speak and for discussion.</i>
<i>More time for discussion, later presentations became repetitive.</i>
<i>Include planned time for reflection on the question of "why agroforestry"? Learn about individual perspectives for becoming capable of thinking from the different perspectives extension service providers might encounter.</i>
<i>Flipped classroom approach could significantly improve time for discussion/processing; case studies could be an integrating content per practice throughout the course.</i>
<i>Good to have the diversity of topics and many examples like you did.</i>
<i>More info, site visit for silvopasture.</i>
<i>I loved the field opportunities. Too many times you sit inside and see pictures. Practical application was great.</i>
<i>Good range of site visits to further thoughts on Agroforestry adaptation to other environments.</i>
<i>Morning field trips.</i>
<i>National/international issues less important than field visits and practice discussion.</i>
<i>Fewer presentations, finish earlier in the evening, allow more interaction rather than so many lectures</i>
<i>More time to network and socialize with other professionals at the Academy; follow the break schedule so that people are able to discuss, etc</i>
<i>Try to close Friday at lunch Possibly some topics could be ... as a webinar before the session?</i>
<i>The mix of casual time & leave - connect with the field trips & classroom time, all were amazing - great mix - well organized. Diomy kept us on track and on time with humor. Glad we stayed on time.</i>

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?

<i>More concrete results and real world applications.</i>
<i>Engagement in open discussion of the issues that might be addressed through agroforestry and the options that have been used to address the issues.</i>

<i>Focus on developing the markets & supply chains.</i>
<i>We need more information about how to implement and manage practices in a variety of local settings. And educators and producers always like more info on economics.</i>
<i>1st - regional research centers with demo sites; 2nd - get better plant genetics into state tree nurseries; 3rd - government assistance programs.</i>
<i>Proven profitability and continue to get the word out.</i>
<i>Get some public input.</i>
<i>Address root cause issues, start small-use homestead movement. Connect with permaculture community, present at National Permaculture Convergence in MN this year.</i>
<i>Education and exposure</i>
<i>Just continuing to get the word out about agroforestry - tell everyone you know, family, friends.</i>
<i>Producer to producer interaction. Sites strategically picked for trials.</i>
<i>Education, demonstration sites.</i>
<i>State workshops with farmers.</i>
<i>Ethics for land.</i>
<i>A lot!</i>
<i>More outreach, awareness & practical applications to show and prove that it provides a viable life style.</i>
<i>Marketing and knowledge of practices, a functions for landowner</i>
<i>Show the landowner this can be done and still make money. Make sure state law (IL Forest Dev. Act) and NRCS standards allow for agroforestry practices.</i>
<i>Education of district conservationists and district staff is key to getting the practices out n the ground</i>
<i>Awareness of the general public - what it is and what it can do - for people who want to realize it's part of the toolkit - to push the possibilities of it.</i>
<i>More buy-in from universities. Too many system issues to list</i>
<i>Develop markets so they can be successful w/ agroforestry application</i>
<i>Landowner survey - to understand their interests/concerns</i>
<i>Awareness of the fact that Agroforestry isn't tree farming in sole-purpose plantations.</i>
<i>Market/incentives for practices. Economics comparison of corn/soybean rotation and hazelnuts/aronia berry.</i>
<i>Policy shifts and incentivize adoption from bottom to top. Engaging with young farmers at the time of transition of ownership from older generation to next generation.</i>

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

<i>Risks and benefits haven't totally been proven + the costs of implementation are high. There is so much we have to learn.</i>
<i>Markets - supply chain issues.</i>
<i>Concern about economics. Difficulty of managing complex plantings. Processing and supply chains & markets for new products.</i>
<i>Simple-minded monoculture mentality. People already do crop rotation w/corn & soy, this is an extension of this (admittedly asynchronous) polyculture.</i>

<i>Tax programs; Uncertainty of risk.</i>
<i>Government jargon is confusing. Marketing, taking a risk. They need to see it to believe it.</i>
<i>Different than what they do. Change in marketable products. Loss of incentive cropland.</i>
<i>Financial information.</i>
<i>Incentives, cost share programs, not competitive enough with those offered for row crops. Lack of markets for some crops.</i>
<i>No interest in practices.</i>
<i>Knowledge, Dollars, Markets</i>
<i>Earnings from the land</i>
<i>Avoiding risk.</i>
<i>Extra work. Too intensive.</i>
<i>\$, cost-share, making a living, cultural stance.</i>
<i>Awareness of agroforestry, understanding of agroforestry benefits.</i>
<i>Cost of implementation. Amount of O&M needed.</i>
<i>Information -it being available, them not getting all the info/not realizing the benefits.</i>
<i>Misconceptions of negative impacts of practices.</i>
<i>Soaring corn and bean prices.</i>
<i>Financial .</i>
<i>Neighbor's perceptions; corn/soybean subsidies.</i>
<i>Incentives, profitability, knowledge, taking land out of corn/soybean.</i>
<i>It is a different way of understanding the landscape - it is less about isolating and controlling variables and more about letting the complexity of the system be on advantage - difficult cultural barriers.</i>

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

<i>Connecting with the right landowners and organizations to do effective outreach.</i>
<i>Strategic, targeted education programs.</i>
<i>Continued demand from farmers and landowners. Federal policy support will be great. And \$.</i>
<i>We're doing what needs to be done. More story reach annual reports would be more helpful than general leaflets from the 90s. They should be updated with every printing so the practices don't appear stagnant.</i>
<i>Collaboration.</i>
<i>We're all in already.</i>
<i>Dollars.</i>
<i>Awareness even among other natural resource professional.</i>
<i>One on one interaction.</i>
<i>Developing workgroups.</i>
<i>We are working on it.</i>
<i>More cost-sharing \$, time resources, experience.</i>
<i>Continued training of more professionals to expand efforts, but plan of beginning implementation in my part of the state.</i>
<i>Education and demonstrate that it works.</i>
<i>More awareness by DCs.</i>

<i>Outreach, awareness & education.</i>
<i>Leadership change.</i>
<i>Gain more on-the-ground experience so I am competent with the application of practices.</i>
<i>More public support/concern.</i>
<i>Support from organization's administration.</i>
<i>20 yr economics spreadsheet of corn/soy beans rotation vs. Hazelnuts/Aronia.</i>
<i>I will work on promoting.</i>

What information, training and other assistance is needed?

<i>\$\$ - the will + motivation is there just need finding to support education and implementation.</i>
<i>Possibly training or examples of engagement processes.</i>
<i>Lots more research in our state would be great.</i>
<i>Videos, both short stories & documentaries, specialized equipment description. Get specs, prices, open source plans & manufacturer contact info.</i>
<i>None of them.</i>
<i>Consolidation of resources for average (non-academic/technical) person. Make research papers available to the public- remove academic firewall. Contact farmers with Tech advisors in more informal discussion based settings.</i>
<i>Ongoing support, trained staff and time to give that staff to walk on the effort. We already do not get enough for providing staff and operations plus report to grant programs.</i>
<i>Web materials and more video.</i>
<i>Bankable business models with proven example.</i>
<i>More technical training on the how to and experience.</i>
<i>Continued availability of, shared research results.</i>
<i>Need to engage State Forest Landowner Association and SAF.</i>
<i>Staff training.</i>
<i>Training other professionals to properly utilize agroforestry to offer to landowners, information sharing to the public - create the market/interest in it.</i>
<i>Additional "publicly consumable" research.</i>
<i>Was a great training. Thanks.</i>
<i>Specific info on production of specialty crops, introducing trees to pasture. I see good info in the manual, I will look at that in greater depth.</i>

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

<i>How to incorporate it into private forest management - those not necessarily "farming" the land.</i>
<i>Educational/outreach design issues may be a barrier to more effective agroforestry programming.</i>
<i>Not enough time and money.</i>
<i>Funding mechanism. Use crises as justification for securing funding mechanisms as Aldo Leopold Center Ag Research did. I realize hindsight is 20/20.</i>
<i>Time and financial incentives.</i>

<i>Public resistance. I think our organization would adopt agroforestry practices if and where possible.</i>
<i>Dollars for programming.</i>
<i>We are working on it.</i>
<i>Corn prices and ease of row crop on large acres.</i>
<i>Cultural history, strong corn/soybean, not enough experience with it yet.</i>
<i>Incorporating this program into current workload, not impossible but just a concern.</i>
<i>Need state foresters on board and allowed to practice these techniques.</i>
<i>Funding - Practice standard adoption.</i>
<i>Time and financial incentives.</i>
<i>Spread too thin on other projects. Support from stakeholders.</i>
<i>AFTA is good.</i>
<i>Many of the multicultural farmers I work with rent land. Many are interested in perennials, but land tenure is a barrier. This is the main barrier for me too, as a producer.</i>

In conclusion, the second Agroforestry Academy was another very successful event. 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, 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.