Agroforestry: Programs, Policies, and Trends

The view from the National Agroforestry Center and from Washington DC

USDA National Agroforestry Center
Agroforestry Workshop
Corvallis, Oregon
October 21-22, 2014
USDA National Agroforestry Center (NAC)

USFS and NRCS partnership

Mission: accelerate the application of agroforestry through a national network of partners

Origin: 1990 Farm Bill

USDA National Agroforestry Center
Lincoln, Nebraska 68583
http://nac.unl.edu/
Center Director (FS)

TT&A: 1 Lead FS Agroforester
       1 Assistant FS Agroforester
       1 Information Assistant

R&D: 3.75 FT Scientists (FS)
       1 GIS Specialist
       1 Technician

Admin: 2 Admin Professionals

FS R&D and S&PF and NRCS
Lincoln, NE

Non-Timber Forest Products
Blacksburg, VA

NAC Director
Washington, DC

A partnership of
NAC Network

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NRCS National Technology Support Centers

Non-Timber Forest Products
Blacksburg, VA

NAC Director
Washington, DC

A partnership of
Mid-American Agroforestry Working Group (MAA WG)

midamericanagroforestry.net

Members:

- Leopold Center for Sustainable Agriculture
- USDA National Agroforestry Center
- Agricultural Marketing Resource Center
- Center for Agroforestry, University of Missouri
- Center for Integrated Natural Resources & Agricultural Management, University of Minnesota
- Forest Agriculture Enterprises LLC, Wisconsin
- Green Lands, Blue Waters
- Red Fern Farm, Iowa
- Trees Forever
- University of Minnesota Extension
- USDA Agricultural Research Service
- USDA Natural Resources Conservation Service
Mid-American Agroforestry Working Group (MAA WG)

Goals:

• Identify the core issues (gaps, barriers, conflicts, opportunities) for advancing the adoption of agroforestry as a cornerstone of productive land use in the Midwest;
• Initiate and coordinate actions to address and resolve the core issues; and
• Communicate effectively with key audiences about the working group’s purpose, goals, core issues actions and findings.
Recent activities:
- Received SARE grant to hold “train-the-trainer” agroforestry workshops in July 2013 and July 2014 with participants from seven states
- Works with Green Lands, Blue Waters to address hypoxia in the Gulf through increased “continuous living cover” on the landscape: agroforestry, cover crops, perennial forages, perennial biomass, and perennial grains
Chesapeake Bay Agroforestry Working Group

Members:

• State agencies: Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Department of Agriculture, Maryland Department of Forestry, West Virginia Division of Forestry

• Federal agencies: Forest Service, NRCS, USDA National Agroforestry Center

• Universities: Penn State, Virginia Tech, Frostburg State
Chesapeake Bay Agroforestry Working Group

History:
• Emerged from Chesapeake Bay Agreements and Chesapeake Forestry Workgroup
• 2010 Chesapeake Bay TMDL for nutrients led to State Watershed Implementation Plans and Chesapeake Executive Order Strategy
• This includes forest restoration and agroforestry, particularly riparian forest buffers
• Agroforestry working group had its first meeting in May 2014
Chesapeake Bay Agroforestry Working Group

Priorities:
• Regularly scheduled training for natural resource professionals
• Setting a “common language”
• Getting both farmers and agency people excited about agroforestry
• Support incentives for practitioners
• Network-building between disciplines

Upcoming:
• Survey of participants about involvement
• Applying for Northeast SARE grant for training in 2015
Regional Group Questions

- What are the natural resource concerns agroforestry can help address in the PNW?
- Who is interested in agroforestry?
- Do people know who to turn to for agroforestry information?
- What types of agroforestry are already going on? What types of agroforestry could be expanded?
- What are the needs of technical service providers in the region related to agroforestry?
- What communication already takes place? What more could take place?
Regional Group Questions

• What are the opportunities and constraints provided by existing policies? E.g. riparian buffer requirements
• What is the role of restoration in agroforestry?
• How does agroforestry help get at existing work related to working lands?
• Does the amount of gathering of non-timber forest products indicate these could be “forest farmed”?
• The PNW has many operations that are already diverse – could more trees be added to these systems?
• How does agroforestry relate to existing orchards?
• Are there opportunities related to local food efforts, particularly around processing infrastructure?
How do federal programs and policies relate to regional efforts?
USDA Agroforestry Strategic Framework, 2011-2016

- Released June 2011
- Developed by interagency team (five USDA agencies, National Associations of State Foresters & Conservation Districts)
- Input from 90+ stakeholders
USDA Strategic Framework for Agroforestry, 2011-2016

Purpose:
• Increase awareness & support for agroforestry
• Identify future USDA emphasis areas for agroforestry R&D and technology transfer

Three Goals:
• **ADOPTION** – Increase use of agroforestry by landowners and communities
• **SCIENCE** – Advance the understanding and tools
• **INTEGRATION** – Incorporate agroforestry into USDA programs
USDA Strategic Framework for Agroforestry, 2011-2016

Key accomplishments:

• USDA Departmental Regulation on agroforestry (http://www.ocio.usda.gov/sites/default/files/docs/2012/Agroforestry_DR_2013.pdf)

• USDA Agroforestry Executive Steering Committee (guides Strategic Framework implementation)

• First-ever USDA report on agroforestry FY 2011-12 financial commitments, accomplishments, case studies, next steps
USDA Strategic Framework for Agroforestry, 2011-2016

USDA Agroforestry Executive Steering Committee

✓ Agricultural Marketing Service (AMS)
✓ Agricultural Research Service (ARS)
✓ Farm Service Agency (FSA)
✓ Forest Service (FS)
✓ National Agricultural Statistics Service (NASS)
✓ National Institute of Food and Agriculture (NIFA)
✓ Natural Resources Conservation Service (NRCS)
✓ Rural Development (RD)

Current Chair: Wayne Honeycutt, NRCS Deputy Chief
Agroforestry: USDA Reports to America

- Comprehensive (~180 p) & in brief (~30 p) versions
- Federal Fiscal Years 2011-2012
- $333 million invested by USDA (FY 2011-12)
- 15 case studies – feature producers, scientists, partnerships, others
Agroforestry: USDA Reports to America

$333 million invested in agroforestry (FY 2011-12)
• < 1 percent of USDA’s total obligations
• 95% ($328 million) supported technical and financial assistance to help landowners apply practices
  • 99% to riparian buffers and windbreaks
  • 1% to alley cropping, multi-story cropping/forest farming, and silvopasture
• Primary programs:
  • Conservation Reserve (FSA)
  • Environmental Quality Incentives (NRCS)
POLICIES

2012 Census of Agriculture included the first-ever agroforestry practice question:

“At any time during 2012, did this operation practice alley cropping or silvopasture as an integrated Agroforestry system?”

- 2,725 farms in all but three states said “yes”
- Makes possible: follow-on surveys and analysis of producers who responded “yes” or “no”
2,725 farms said they practiced alleycropping or silvopasture
Policies

FSA Conservation Practices
- CP5 Field Windbreak
- CP16 Shelterbelt
- CP17 Living Snow Fences
- CP22 Riparian Buffer
- CP31 Bottomland Timber Establishment on Wetlands

NRCS Technical Standards
- Alley Cropping (311)
- Multi-Story Cropping (379)
- Riparian Forest Buffers (391)
- Silvopasture establishment (381)
- Windbreak/Shelterbelt Establishment (380)
- Windbreak/Shelterbelt Restoration (650)
States and territories that have adopted the NRCS Technical Standard on Alley Cropping (311)

35 States, 8 territories, and Washington, DC
States and territories that have adopted the NRCS Technical Standard on Multi-Story Cropping (379)

11 States and 8 territories
States and territories that have adopted the NRCS Technical Standard on Riparian Forest Buffers (391)

50 States, 8 territories, and Washington, DC
States and territories that have adopted the NRCS Technical Standard on *Silvopasture* (381)

24 States and 8 territories
States and territories that have adopted the NRCS Technical Standard on Windbreak/Shelterbelt Establishment (380)

45 States, 8 territories, and Washington, DC
States and territories that have adopted the NRCS Technical Standard on Windbreak/Shelterbelt Renovation (650)

35 States and 8 territories
1) Climate Change

Click on a region to learn more about the USDA Climate Hub in your area.
1) **Climate Change**

NAC Publications related to mitigating and adapting to climate change
ISSUES

1) Climate Change

Agroforestry & Climate Change:
Reducing Threats and Enhancing Resiliency in Agricultural Landscapes (May 2014, Nebraska City, NE)

- **Purpose:** to produce a USDA technical report on the potential of agroforestry to serve as a mngt option for both GHG mitigation & climate change adaptation tool.
  - to feed into the 2017 National Climate Assessment

- **Focus:** on many areas in agroforestry where the scientific research is growing and benefits can be seen; as well as on the major gaps that impede our understanding and application, and therefore, what are those major research priorities.

Support document on agroforestry for the 2017 National Climate Assessment
ISSUES

2) Local Food and Organic Food
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NAC publications related to markets for local food produced in agroforestry systems
ISSUES

3) Pollinators

Federal Strategy to Promote the Health of Bees and other Pollinators (announced June 20, 2014): must devise a national pollinator health strategy within 180 days.
3) Pollinators

Technical notes on:

- Agroforestry: Sustaining Native Bee Habitat For Crop Pollination
- Improving Forage For Native Bee Crop Pollinators
- Enhancing Nest Sites For Native Bee Crop Pollinators
- Pesticide Considerations For Native Bees In Agroforestry
TRENDS

1) Partnerships and Networks

Windbreaks

Southern Plains Windbreak Renovation Workshop
May 21 - 23, 2013
Dodge House Hotel
Dodge City, KS

Riparian Forest Buffers

Conservation Buffers
Design Guidelines

Alley Cropping

Carbon studies at the Center for Environmental Farming Systems

Silvopasture

Federation of Southern Cooperatives Agroforestry Demonstration

Forest Farming

YouTube videos

eXtension Forest Farming
What are Ramps?
(Allium tricoccum)

AGROFORESTRY CENTER

A partnership of USDA NRCS
1) Partnerships and Networks

Association for Temperate Agroforestry: aftaweb.org

Canada’s Agroforestry Development Centre
2) Agroforestry Education
University of Missouri Center for Agroforestry

National “Certified Agroforester” program
(Journal of Forestry commentary, Dec 2012)

Advancing Agroforestry through Certification of Agroforesters: Should the Society of American Foresters Have a Role?

Andy Mason, Catalino Blanche, Tom Crowe, Mike Gold, Mike Jacobson, Shibu Jose, Scott Josiah, Eric Norland, Kome Onokpise, and Bruce Wight

2011 commentary, “Seven Billion Reasons to Manage Forests” notes: “… all seven billion of us rely to some degree on forests for wood for heat and fuel; as a source of food; for lumber, paper, and other forest products; and for less tangible but no less important values such as recreation.” All true! How will we sustainably produce the food, fiber, and bioenergy demanded by a global population that the United Nations estimates will exceed 9 billion by 2050 and over 10 billion by the end of the century? While enhancing environmental services and at the same time supporting agricultural production, agroforestry can be an important part of the answer.

Are America’s natural resource professionals equipped to help our farmers, ranchers, Tribes, woodland owners, and communities...
2) Agroforestry Education

Alabama Agricultural and Mechanical University
Alcorn State University
University Arkansas in Pine Buff
Florida Agricultural and Mechanical University
Fort Valley State University (Georgia)
South Carolina State University
Tennessee State University
Virginia State University
West Virginia State University

Lincoln University (Missouri)
Langston University (Oklahoma)
Delaware State University
North Carolina Agriculture and Technical Univ.
Tuskegee University
Prairie View A&M University (Texas)
Southern University (Louisiana)
Kentucky State University
University of Maryland Eastern Shore
Questions?

Publications available at: http://nac.unl.edu/

Kate MacFarland
Assistant Agroforester
USDA National Agroforestry Center
kdmacfarland@fs.fed.us