

USDA National Agroforestry Center



A Brief Introduction

Agroforestry Horizons Meeting | April 27-28, 2016

The USDA National Agroforestry Center



The **USDA National Agroforestry Center (NAC)** is the only USDA unit that provides national leadership for agroforestry.



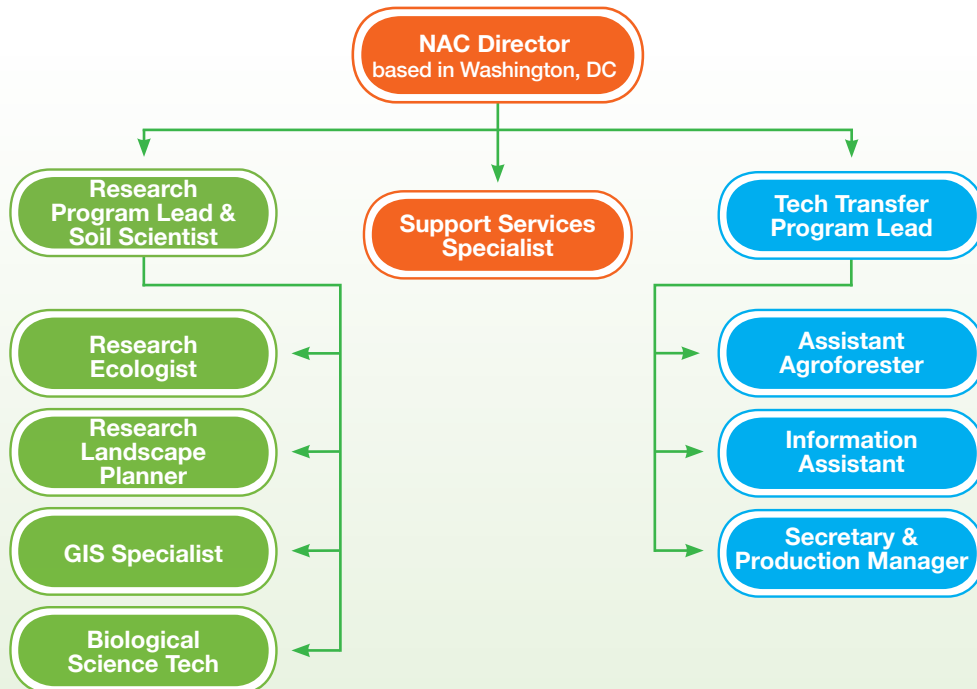
Located in Lincoln, Nebraska, NAC is a long-standing partnership between the Research & Development and State & Private Forestry Deputy Areas of the Forest Service (FS) and the Natural Resources Conservation Service (NRCS).



The goal of the FS/NRCS partnership is to transform research results into targeted and timely science delivery employing a variety of outreach activities.



Organizational Diagram



In addition to the FS/NRCS partnership, NAC's national network includes university/cooperative extension, other USDA agencies (e.g., Agricultural Research Service, Farm Services Agency, and National Institute of Food and Agriculture), State forestry agencies, conservation districts, and non-governmental conservation, landowner and regional planning organizations.



NAC's mission is to provide America's natural resource professionals and landowners with the knowledge and tools needed to accelerate the adoption of agroforestry. By working through a national network of partners, NAC conducts priority research, develops technologies and tools, establishes demonstration projects, and provides educational materials and training as guided by the USDA Agroforestry Strategic Framework (2011-2016).

Research & Development



The Research Work Unit (RWU) in Lincoln:

The primary function of the RWU is to help conduct and facilitate research critical for the development and delivery of key agroforestry outreach/assistance products.



NAC R&D Approach:

Along with ongoing basic and applied research, NAC's R&D Program focuses on synthesizing and distilling existing research into science-based agroforestry guidance needed to help inform current land management decision-making.



Accomplishing NAC's R&D with Partners:

NAC works with external research partners to generate the wide range of agroforestry information needed for advancing the development and use of agroforestry knowledge and technologies. Such collaborations have included work on field performance of agroforestry plantings, economics and valuation of agroforestry ecosystem services, and development of tools to guide field-to-landscape agroforestry design and placement.

More information about
NAC research can be found online at:
nac.unl.edu/research

Providing the science and tools to resource professionals for:

Building Better Buffers:



NAC develops user-friendly planning and design tools, such as *AgBufferBuilder*, to examine where and how to locate and design riparian buffers with better water quality protection services, and the *Conservation Buffer Guide*, now translated into 6 languages, for assisting in the planning and design of buffers for multiple products and services.

Counting Tree Carbon and Agroforestry's Other Greenhouse Gas Contributions:



NAC, along with universities, US Forest Service Forest Inventory Analysis (FIA), NRCS, and others, is working to develop the science and tools so that the carbon sequestering and other greenhouse gas mitigation contributions of agroforestry can be accounted for at the field, regional and national scales.



AgBufferBuilder can assist in prioritizing sites within fields and watershed for providing the most effective buffer installations.

Technology Transfer & Applications Program

The Technology Transfer and Applications (TT&A) Program at NAC:



NAC produces and delivers a variety of publications and products. In the past three years, NAC has delivered 183,200 requested publications to all 50 states and internationally. NAC partners with NRCS to incorporate agroforestry into conservation standards, programs, and training courses.



TT&A's Primary Customers:

Natural resource professionals across federal, states, and private sectors are the primary audience for the TT&A products. Secondary audiences include farmers, ranchers, Tribes, and communities.



NAC's TT&A Products:

NAC produces a wide range of informational materials, from printed publications to virtual webinars. These materials include: info sheets, brochures, technical notes, and newsletters.



NAC's publications are conveniently hosted online at:
nac.unl.edu/publications

TT&A provides assistance to natural resource professionals and landowners through:

Educational Materials:



NAC publications focus on describing agroforestry and how it can be used to address local economic, social, and environmental concerns. Recent publication topics include pollinators, climate change, Pacific and Caribbean islands, Farm Bill opportunities, and growing food for local markets.

Field Demonstrations:



NAC is working with the Nebraska Forest Service on a hazelnut evaluation and demonstration site. This project is part of a larger partnership with Oregon State University and Rutgers University to develop high yielding plants for nuts and potential biofuel oil.

Training:



NAC assisted the Kansas Forest Service and NRCS to conduct the 2013 Southern Plains Windbreak Renovation Workshop which focused on the use of agroforestry for increasing landscape resilience under extreme weather. NAC partnered with the University of Missouri and the Mid-America Agroforestry Working Group to develop and deliver a first-ever Agroforestry Academy in 2013. The 7-state train-the-trainer program was updated and delivered in 2014 and 2015, with additional academies scheduled for 2016.

Support for Regional Cooperation:



NAC efforts to facilitate the exchange of ideas and technologies on agroforestry practices specific to US regions has included helping develop regional working groups in the Chesapeake Bay watershed, the Northeast, the Mid-West, and the Pacific Northwest.

Charting the Next Five Years

The National Agroforestry Center is revising its charter. The new charter will cover the next five years. Problem areas to be explored by NAC staff during this period are outlined below:

Problem Area 1:

Better understanding and quantification of agroforestry ecosystem services will improve the capability of decision-makers to identify and develop promising agroforestry technologies and programs. Such information will also help to promote the development of science-based tools that provide reliable guidance for planning, designing, and managing high-performing agroforestry practices. NAC's work in this problem area will include:

- Protection and enhancement of crop, livestock and non-timber forest production;
- Protection of water quality;
- Establishment and protection of critical habitat;
- Climate change adaptation and greenhouse gas management; and
- Inventory of agroforestry practices in the US.

Problem Area 2:

Landowners, managers, Tribes and communities are the ultimate decision-makers on agroforestry adoption and management. Understanding their attitudes towards conservation, agroforestry, and other topics is critical to successful agroforestry adoption. Future NAC endeavors in this area will encompass:

- a. Agroforestry planning and decision-making processes;
- b. Agroforestry economics; and
- c. Agroforestry decision-support tools.

Problem Area 3:

The National Agroforestry Center provides national leadership in agroforestry outreach. The Center initiates and facilitates the production and sharing of agroforestry information. The primary audience is natural resource professionals who assist landowners, including new farmers, limited resource landowners, and Tribes in agricultural and conservation management. NAC's involvement in this area will involve:

- a. Producing and disseminating agroforestry information to natural resource professionals and landowners;
- b. Promoting and facilitating networks of organizations, agencies, and landowners; and
- c. Providing technical and program support to USDA agencies.