AGROFORESTRY AND FOREST FARMING IN CENTRAL APPALACHIA

Food & Agriculture Systems Working Group
Oct 4, 2017
Objectives

Leading Practitioners and Funders will share key initiatives and address these issues:

- What makes this sector/industry so important in Appalachia?
- What are current strategies being implemented in the region, and by who?
- What are the current and potential impacts in terms of economics, rural livelihood, conservation, human & ecosystem health, and cultural values?
- What are potential roles for regional-scale activities and FASWG support - peer learning, distribution, processing, branding, policy, market development, etc.?
Welcome and Introductions

- Name
- Organization
- Location
Food & Ag Systems Working Group - Background

- Partnership since 2013 between funders (Appalachian Funders Network) and practitioners (Central Appalachian Network - CAN) as peers who learn, plan, and work together.

- Focus areas have included food system capacity-building, aggregation & distribution models, food access & food security strategies, federal Ag policy & the Farm Bill, & more.

- Roles have included learning calls, strategy development, research and publications, and collaborative fundraising.
Update on Current FASWG Efforts

- Productive August meeting for AFN Philanthropic Engagement Project
  - Drafting an overview of regional strategic priorities

- Case Studies project underway – documenting innovative food access models at the intersection of local food & public health

- Concluding USDA Rural Community Development Initiative project, a 2-year, $250,000 grant to strengthen food system capacity in 4 sub-regions
  - Has leveraged over $3 Million in additional funds
Introduction to Forest Farming and Agroforestry

Christine Laporte, Sacharuna Foundation, FASWG Funder Tri-Chair
Agroforestry

“an intensive land management system that optimizes the benefits from the biological interactions created when trees and/or shrubs are deliberately combined with crops and/or livestock. ..The intentional combinations of trees with crops and/or livestock which involve intensive management of the interactions between the components as an integrated agroecosystem.” 1

5 basic practices
- Windbreaks
- Alley cropping
- Silvopasture
- Riparian buffers
- Forest farming

Economic and Ecological Benefits of Integrated Agroecosystems
- Increased profitability potential, e.g. windbreaks protect crops & livestock from damaging winds
- Financial diversification and flexibility of the farming enterprise.
- Conservation and protection of natural resources, e.g.
  - mitigating non-point source pollution, controlling soil erosion, creating wildlife habitat.
- Carbon Sequestration in Soils and Biomass
Forest Farming

“the cultivation of high-value specialty crops* under the protection of a forest canopy ..”

Ideally, NTFP enterprise is Integrated into the Forest Stewardship - Management Plans.

*Non-timber forest products (NTFPs) provide marketable, personal, cultural value.
- Culinary (e.g. mushrooms, ramps, syrups, pawpaw, etc.)
- Medicinal (e.g. cohoosh, ginseng, etc.),
- Decorative: craft and flora (e.g. galax, willows, pine boughs, etc.)
- Nursery stock (e.g. NTFPs, native reforestation spp.)
- Landscaping (e.g. native plants, pine straw)
- Additional categories emerge through cultural ingenuity

Benefits
- Higher agricultural productivity
- Land retention
- Income diversification
- High value products.
- Ecological stability, Ecosystem Services and Conservation for future generations

FF does not include wildcrafting (gathering naturally-occurring plants from native forests).
Presenters

- David Cooke, Executive Director, Grow Appalachia
- Emily Lachniet, Agroforestry Program Manager, Appalachian Sustainable Development
- Tom Redfern, Director of Sustainable Agriculture and Forestry, Rural Action
- Susan Leopold, Executive Director, United Plant Savers
- Nathan Hall, President, Reclaim Appalachia (Coalfield Development Corporation)
- John Munsell, PI, Virginia Tech, Appalachia Beginning Forest Farmers Coalition
- Mikki Sager, Vice President, Director, Resourceful Communities- Conservation Fund
Grow Appalachia
David Cooke, Executive Director
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“We carefully seek out partners who are interested in building a healthier generation of families in central Appalachia”
2017 Forest Farming Initiative in KY and WV coalfield communities
Forest and farms
Whole farm enterprise development
APPALACHIAN SUSTAINABLE DEVELOPMENT

Emily Lachniet
Agroforestry Program Manager
Appalachian Harvest Herb Hub

Income Opportunities from the Forest Understory

Our Vision
Appalachian Sustainable Development envisions a thriving and sustainable herbal economy in central Appalachia, where plant conservation is achieved through cultivation. The Appalachian Harvest Herb Hub will serve to help forest farmers sustainably grow, harvest, process and sell forest botanicals (i.e. ginseng, goldenseal, ramps) to premium-priced markets.

How We Can Help You

- **Trainings**
  Workshops on propagation, herb drying and more. Register online below for invites and expert advice.

- **Cost-Share**
  Limited cost-share funding available for planting stock and certification offering premium market access.

- **Processing**
  A processing center with a root washer and herb dryer available fall 2017 to forest farmers at the Herb Hub.

- **Marketing**
  Connecting forest farmers committed to conservation to higher value markets.

Get Involved

- **APPALACHIAN sustainable DEVELOPMENT**
  276.623.1121
  elachniet@asdevelop.org
  www.asdevelop.org

- **APPALACHIAN BEGINNING FOREST FARMER COALITION**

Registration:
www.appalachianforestfarmers.org/register-3/
Strengthening the Regional Market for Forest Farmed Botanicals

Issues and Opportunities
Appalachian Harvest Herb Hub

Premium pricing

Efficient processing

Forest farming training

through aggregation, certification, and processing in a GAP certified facility

herb washer, dryer, moisture meter

Site evaluation, harvesting, plant ID and propagation

Appalachian Sustainable Development
www.asdevelop.org
Kathlyn Terry, Executive Director
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Emily Lachniet, Agroforestry Program Manager
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Katie Commender, Food Corridor Marketing and Logistics Coordinator
kcommender@asdevelop.org

Office: 276-623-1121
Tom Redfern, Tanner Filyaw, & Karam Sheban

Rural Action Sustainable Forestry Program
Program Objectives

- Support production of NTFP’s on private forestlands
- Support forest management and stewardship
- Support sustainable & value-added supply chains—Forest Grown Verification
Planting Stock Sales & Distribution

- Promoting and supporting wild-simulated ginseng & NTFP production
- 1,460 lbs. of ginseng seed
- 460 lbs. of goldenseal root
- Appx. 375 growers since 1998
- High economic development potential
  - Appx. $4M - $7M
- Appx. 25 new buyers annually

Stratified American ginseng seed ready for planting.
Source: Google Images
NTFP Education & Farm Management Planning

- NTFP production and mgmt. workshops
  - 300-500 attendees/yr.
- Site visits & Consultation
  - ID existing forest assets
  - Assess NTFP production potential
  - Mgmt. recommendations
- Forest Management Plans
  - Help landowners acquire plans that include NTFP mgmt. strategies
  - Pilot project – 2000 acres under management
Sustainable and Verifiable Supply Chains

• Strengthen & expand existing models of Forest Grown Verification (FGV)
• Increase direct to market access for producers
  • Connecting value-added businesses with quality raw materials
• Verifies sustainable wild-simulated origin
• Wild-simulated & sustainable “brand” development

Forest Grown Verified ginseng products manufactured by Mountain Rose Herbs. Source: Mountain Rose Herbs.
UNITED PLANT SAVERS

Susan Leopold
Executive Director
United Plant Savers
founded 1994

www.unitedplantsavers.org
Dedicated to Native Medicinal Plant Conservation
Rosemary Gladstar
Founder of United Plant Savers
United Plant Savers "At Risk" List Statement of Purpose:

For the benefit of the plant communities, wild animals, harvesters, farmers, consumers, manufacturers, retailers and practitioners we offer this list of native medicinal plants which we feel are currently most sensitive to the impact of human activities. Our intent is to assure the increasing abundance of the medicinal plants which are presently in decline due to expanding popularity and shrinking habitat and range. UpS is not asking for a moratorium on the use of these plants. Rather, we are initiating programs designed to conserve and cultivate these important native medicinal plants.

- TOOL created by Dr. Kelly Kindscher from the University of Kansas
- Assisted by Dr. Lisa Castle of the University of Oklahoma
People are focused on what the plant can do for them.

But few are focused on protecting the plants in the wild...

Black cohosh number 6 on the list of top herbal supplement sales

43 million dollars in sales in 2015!

And in regards to Medicinal Plants...

Ginseng and Goldenseal the two plants listed in CITES have yet to be evaluated for IUCN RED listing.
Overharvesting in N. America

- The herb industry has grown tremendously!
- 12 consecutive years of growth
- $6.92 billion spent in 2015 in herbal supplements
- Of the 65 top native N. American herbs only 4/5 are seriously cultivated
- Many herbs like Goldenseal, Black Cohosh, False Unicorn, Slippery elm have been overharvested and depleted from the wild populations

www.unitedplantsavers.org
The problem wild harvesting faces with AT- RISK PLANTS on a commercial scale....
1) The depletion of the resources
2) inconsistency of harvesting from various areas
3) How its dried and stored, and
4) The harvesting of the wrong plant material- not being able to properly identify plants..

There are challenges but there are also benefits to forest farming

To consumers, industry and conservation

1) The quality of the product = consistency and purity
2) Consistent sourcing = production planning
3) And the timing of the harvest= higher medicinal value
4) CONSERVATION/ LEAGACY
Challenges

Forest farming can’t economically compete with harvesting – we have to decide to do it because it the right thing when we talking about conservation....

This is the middle ground between hands off and extinction....

It takes years to grow these plants. We have to think long term.

We need to protect the forest because the plants require high quality woodland habitat and for many we don’t know yet how to grow them, nor do we have the plant material for propagation.

Prices and posts from facebook
Taken spring 2016

Dug over 20 pds of beth root and
Still have 3/ of the hill yet to dig
WE CANNOT HAVE COMMERCE WITHOUT CONSERVATION!

COMPANIES CAN REFORMULATE _ PLANTS CANNOT!
Information on our tool

You tube lecture at the center for agroforestry
https://www.youtube.com/watch?time_continue=105&v=L5rvWgykOMs
Reclaim Appalachia
An Enterprise within the Coalfield Development Umbrella

Nathan Hall, President
nhall@coalfield-development.org
Cell: 606-471-2470
Local news piece on Reclaim Appalachia’s pilot site:
https://www.youtube.com/watch?time_continue=2&v=xFb-6t3quT0
Reclaim Appalachia

- Pilot site in Mingo County, WV
- Rotational Livestock
- Workforce Development
Reclaim Appalachia

- Pilot site in Mingo County, WV
- Mixed Orchards
- Workforce Development
Reclaim Appalachia

Future Direction

- Expansion to additional sites, landscape-scale integrated projects (agroforestry, reforestation, renewable energy, forest conservation)
- Partnerships with TNC, Green Forests Work, etc

Nathan Hall, President
nhall@coalfield-development.org
Cell: 606-471-2470
APPALACHIA BEGINNING FOREST FARMERS COALITION

John Munsell
PI, Virginia Tech
Conservation Credit for Agroforestry Production
Appalachian Beginning Forest Farmer Coalition
Growing Opportunities Beneath the Canopy

UPCOMING EVENTS

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<tr>
<th>DATE</th>
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<tr>
<td>29 SEP</td>
<td>FOREST FARMING - A</td>
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<tr>
<td>14 OCT</td>
<td>GINSENG</td>
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Are you interested in learning the many techniques for adding value to non-forest-related businesses?
RESOURCEFUL COMMUNITIES
Mikki Sager, Director
Vice President, The Conservation Fund
McIntosh SEED Community Forest: The Model
An Important Story

• 1,148 acres protected working forest

• First community forest acquired by African American community group using conservation tools

• Acquired working forest valued at $1.6 million for less than $700,000

• Triple bottom line outcomes/ impacts
Rural Economic Development and Conservation

• Educating and engaging African American landowners in conservation programs and practices
  • Longleaf pine restoration
  • Eco-tourism and bird-watching programming
• Small business development opportunities
• Plans to propagate sweetgrass in wetland areas for Gullah-Geechee sweetgrass basketmaking
Rural Economic Development and Conservation
Q&A Discussion

- What makes this sector/industry so important in Appalachia?
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