Developing programs to support silvopasture adoption in the mid-Atlantic USA

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SP adoption: limited in US mid-Atlantic

- Lack of awareness
- Lack of understanding
- Research scope
- Limited outreach and few models of successful silvopastures
- Producer/Technical service provider skepticism
- Social influence and support networks lacking
Historical mid-Atlantic efforts – small scale, research driven

Numerous research papers:

- Belesky et al., 2006abc
- Buergler et al., 2005; 2006
- DeBruyne et al., 2011
- Feldhake and Belesky, 2010
- Fike et al., 2004
- Neel and Belesky, 2015
- Neel et al., 2015

Little outreach/extension programming, producer engagement
Developing SP programs in VA

• Build a team
• (Secure funds)
• Understand audience
• Hold trainings to push vision to service providers
  • Field days in different regions
  • National experts
  • Explore options
• Develop research and demonstration sites
• Engage producer community
Build a team
Initial survey results

Agents express:

- Lack of knowledge
- Mixed feelings -
  - Potential positive environmental outcomes
  - Uncertain economic impact
- Need for more/better demonstrations
Train trainers
Agent responses, 3 mo. post-training

- Training increased knowledge
- Silvopasture is possible
- Spoken with producers
- Now helping with new starts

Numbers out of 40 respondents

- None
- A little
- Quite a bit
- A lot

Agent responses, 3 mo. post-training
Address needs for demonstrations

*In development*
Address needs for demonstrations
On-going efforts

- Add farmer-collaborators
- Create opportunity from existing challenges
- Continue research on system function
- Develop web presence, new tools for demonstrating silvopastures
- Create curriculum for high school ag programming
- Continue outreach, training efforts
Follow producer adoption and attitudes

- Cheaper to plant trees that grow in value
- Transitioning land for generational transfer
- Great for marketing: Customers “get it”
Work with landowners to engage producer community
Concerns with existing animal welfare issues present opportunity

- Fungal hyphae between fescue cells
- Toxins in endophyte-infected fescue
- Payment for stream exclusion
- Stream use for cooling
- Body temperature
- Atmospheric temperatures
- Welfare
- Payment for stream exclusion

Stream use for cooling

↑ Atmospheric temperatures

↑ Body temperature

↓ Welfare

↑ Stream use

↓ Cooling

↓ Stream use

↑ Payment for stream exclusion

↑ Toxins in endophyte-infected fescue

↑ Fungal hyphae between fescue cells
Lambs in silvopastures spend more time lying down and less time grazing.
Disseminating information

• Create publications
• Build websites, Youtube
• Hold site visits, field days
Observations, continued challenges, future efforts

- Not adaptable by all producers
- Not all producers or TSPs willing to leave existing paradigms of land management
- Initial results: high levels of acceptance with training and demonstration
Interest in practices:

• Affected by social influence, risk expectancy, planting experience, performance expectancy, parcel size, among others.

• Greater among newer owners with higher incomes and who are less active in farming.

• Benefited by having “hands on” exposure
Some next steps
Conclusions

Build a team
Address problems / opportunities
Use old and new tools for teaching/learning
Be patient
Forest Farming

Forest farming is the cultivation of high-value specialty crops under a forest canopy that has been modified to provide the correct shade and microenvironment for the crop.

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Thanks/Obrigado!

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