

What Social Factors “Sell” Landowners on Agroforestry Practices?

Becky Barlow^{1,2} and
Emily Stutzman Jones¹

¹Auburn University, School of Forestry and Wildlife Sciences

²Alabama Cooperative Extension System

Why do most small-scale private landowners own land?

- To pass on to children?
- Outdoor recreation?
- Enjoy the beauty of nature?
- Part of family farm?

Introduction

- What about timber production??
 - Comes in 5th in importance!!
- Most important
 - Pass on to heirs
 - Outdoor recreation
 - Scenic beauty



From a small-scale forest landowners' perspective

- Timber markets are not what they were
- Alternative/additional income sources are needed
- Want to keep their land
- Agroforestry has the potential to help meet that need for some landowners



What is agroforestry?



What is agroforestry?

Agroforestry: the practice of growing trees and agricultural or horticultural crops and/or livestock on the same site

Among the practices are:

- Riparian forest buffers
 - Streamside management areas
- Alley cropping
 - Agricultural crop between rows of trees
- **Silvopasture**
 - Livestock and trees on the same acre
- Windbreaks
 - Control soil erosion
- **Forest farming**
 - Mushrooms
 - Pine straw

Silvopasture: practice of grazing livestock among forest trees

- System integrates trees, forages, and livestock
- Managed to produce high-value timber products and possibly fruit/nut crops in the long-term
- Obtain short-term economic benefit from livestock and forage components



Forest farming: cultivating or collecting specialty forest products in the forest

- Managing the forest to produce things called non-timber forest products (NTFP's) that can be sold yearly or on a short-term basis
 - Bee products
 - Medicinal plants
 - Fruits and nuts
 - Mushrooms
 - Crafts
 - **Pine straw**



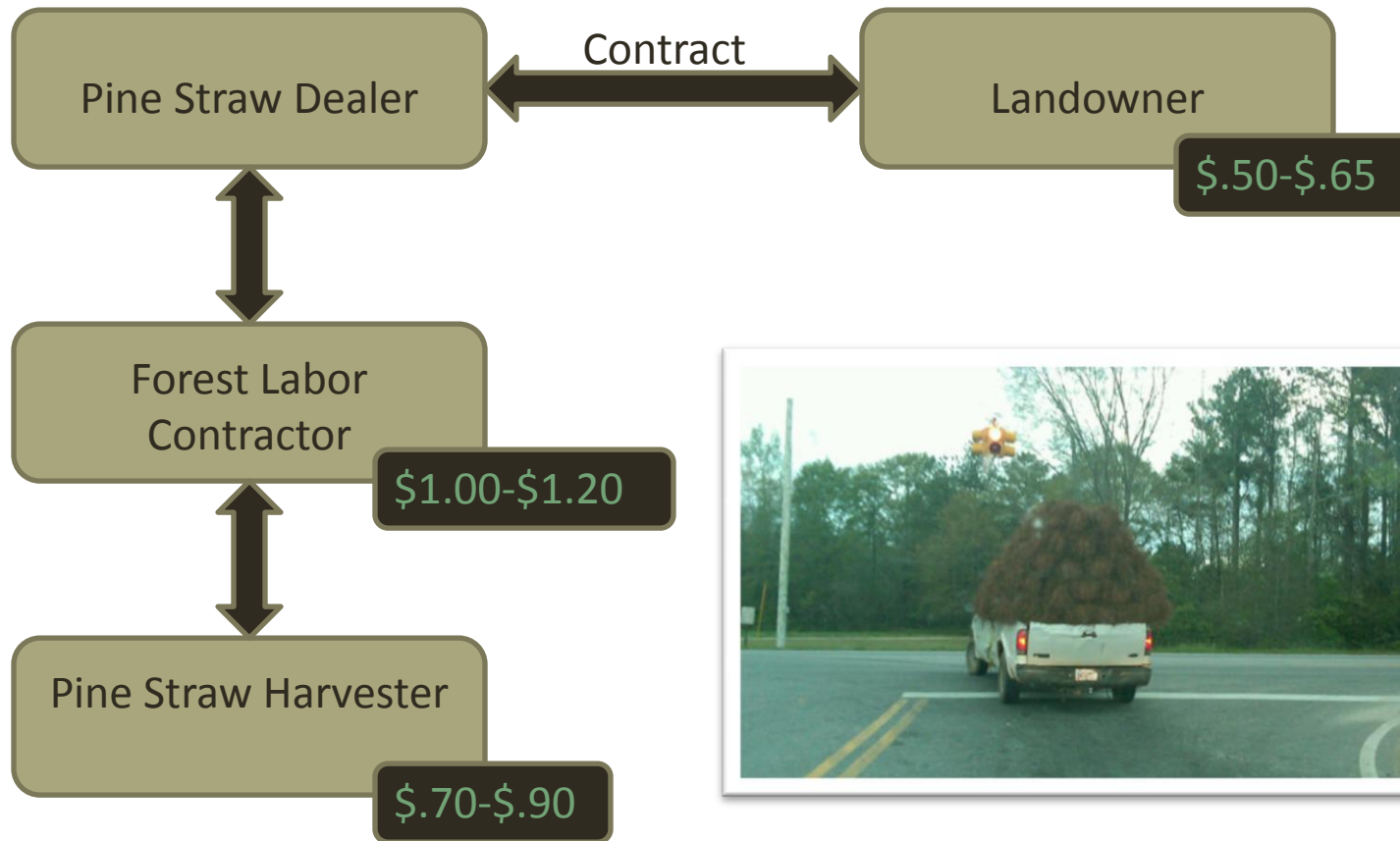
Pine straw – from forest to the front yard

- A popular landscape mulch, pine straw is the needles that fall from southern pine trees during October and November
- These needles can be raked and harvested in December or January and sold to retailers or landscapers who use it as ground cover
- Pine straw production is compatible with many other land uses including timber and livestock production, providing additional revenue for landowners

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Pine straw - Industry chain

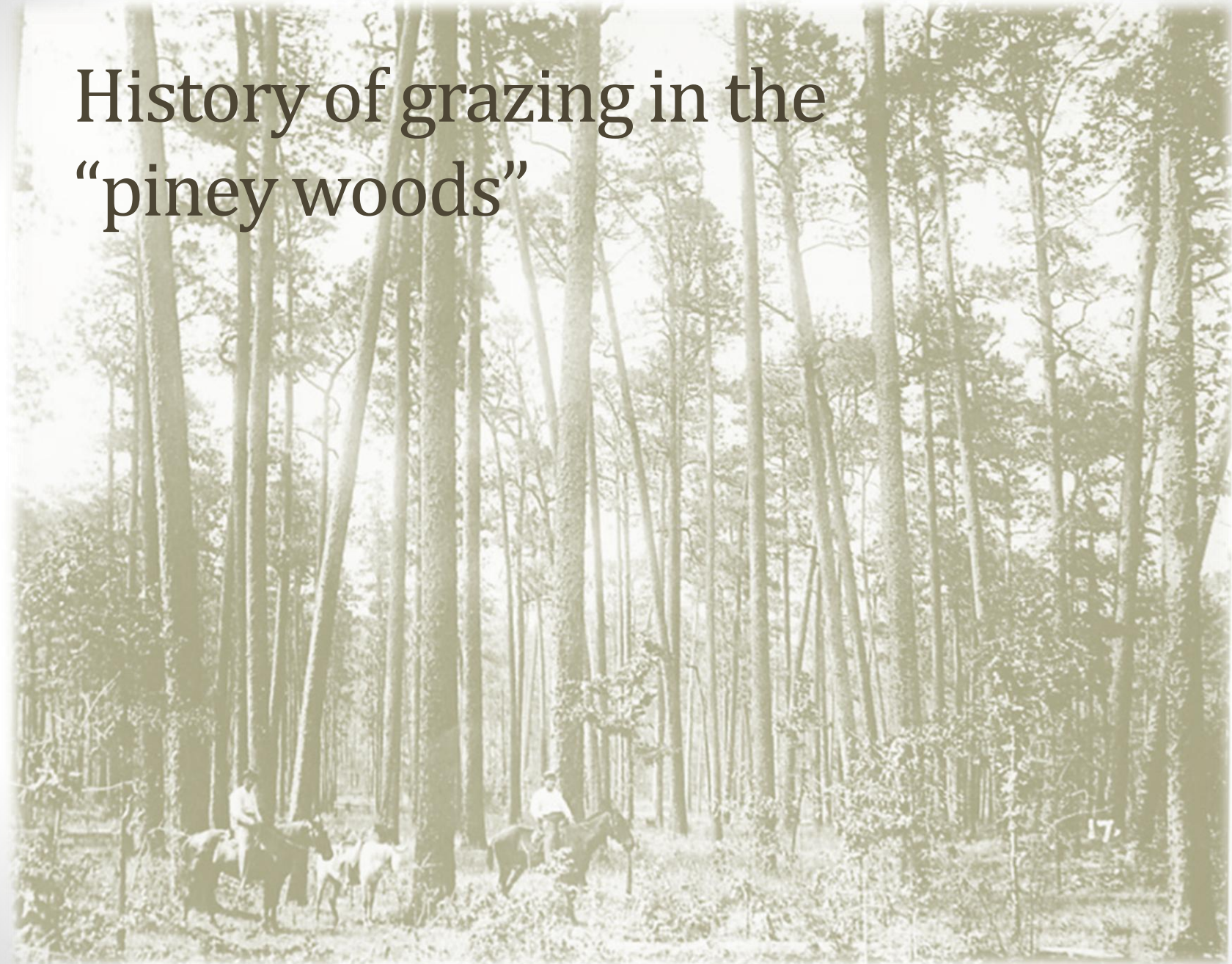


Adapted from Cassanova 2007

“Ok, but I am still not sure...”

- History of grazing in the piney woods
- Synergies of multiple use management

History of grazing in the “piney woods”



Grazing in southern forests- not a new idea

- Southeastern United States longleaf-slash pine forests made up much of the historical range for southern cattle grazing



Grazing in southern forests- not a new idea

- Piney-woods cattle were managed on open rangeland at a rate of about 5-10 acres per head depending on time of year and forage type



Grazing in southern forests- not a new idea

- “In accordance with age-old custom, southern landowners usually tolerate grazing on their forest lands by the livestock of numerous small famers. The typical forest range is open, no permits are required, no fees are charged, and usually no attempt is made to control fires set by stock owners”.
Wahlenberg (1946)

Synergies of multiple use management



Synergies of multiple use management



The time is right for a renaissance in southern pine agroforestry

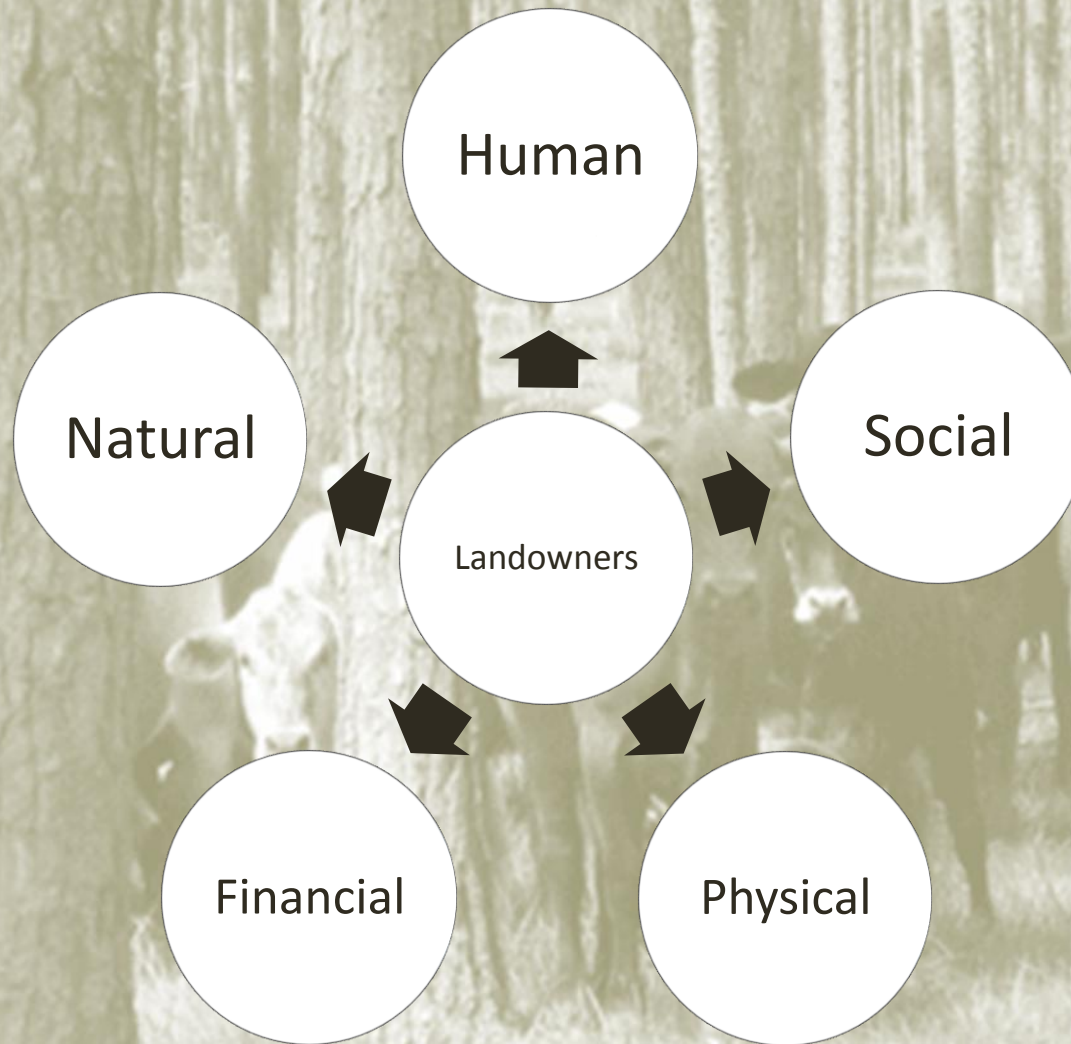
- Grazing in longleaf pine forests is an important part of southern land management history
- Silvopasture moves beyond historical woodland grazing practices
 - Timber, forage, and cattle are actively managed
 - Cattle are a source of additional income and cash flow that can be important to a private landowner
- Pine straw produced from pine silvopasture can produce additional revenue in addition to timber and cattle

Questions?

Now, let's discuss what motivates landowners to engage in agroforestry practices



Livelihoods framework



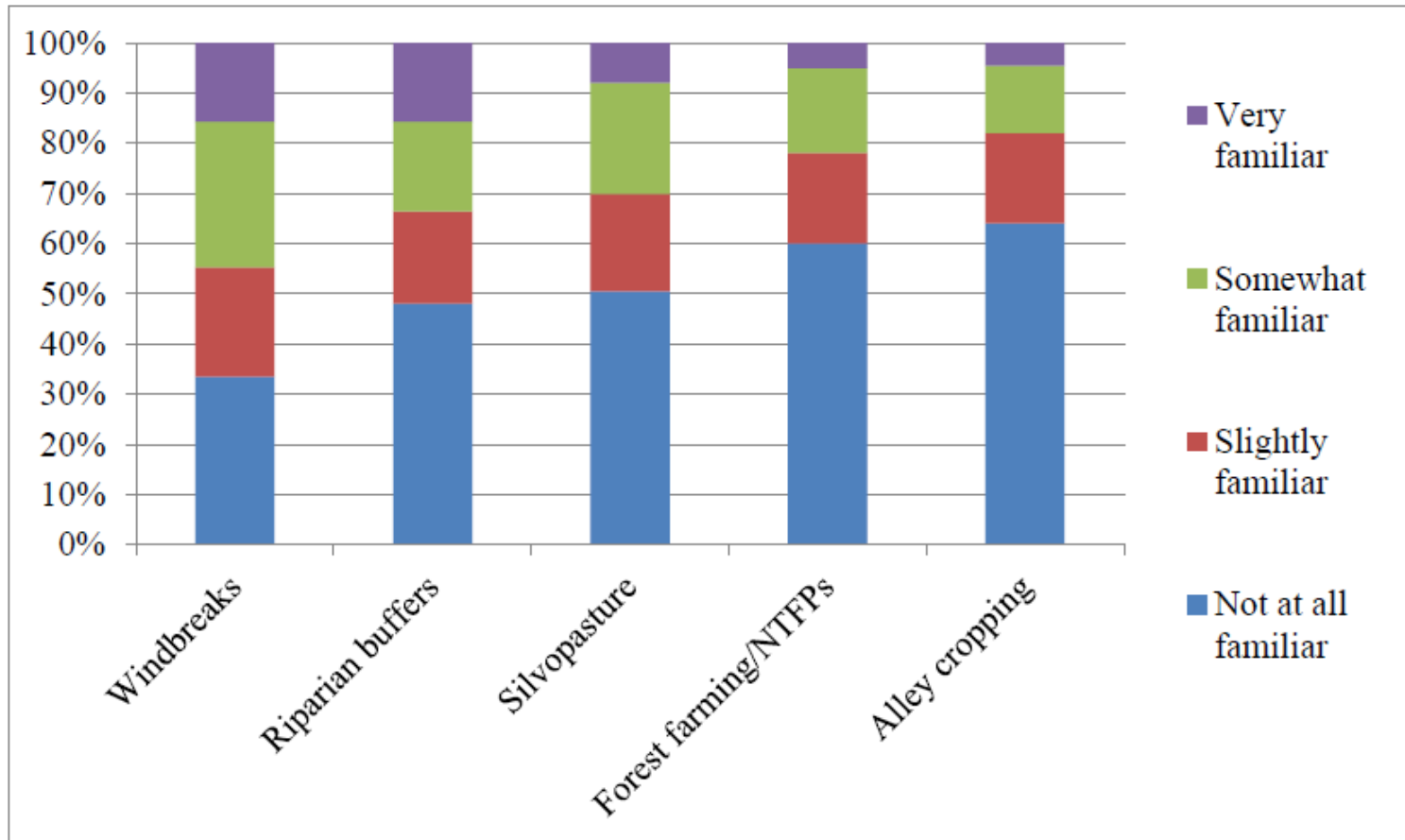
Survey Results – Alabama Landowners

- In 2011 a mail survey was conducted to assess Alabama landowner perceptions regarding agroforestry practices (Dyer 2012)
 - Three Essays on Pine Straw in Alabama: Needlefall Yields, Market Demands, and Landowner Interest in Harvesting (available online at <http://hdl.handle.net/10415/3110>)

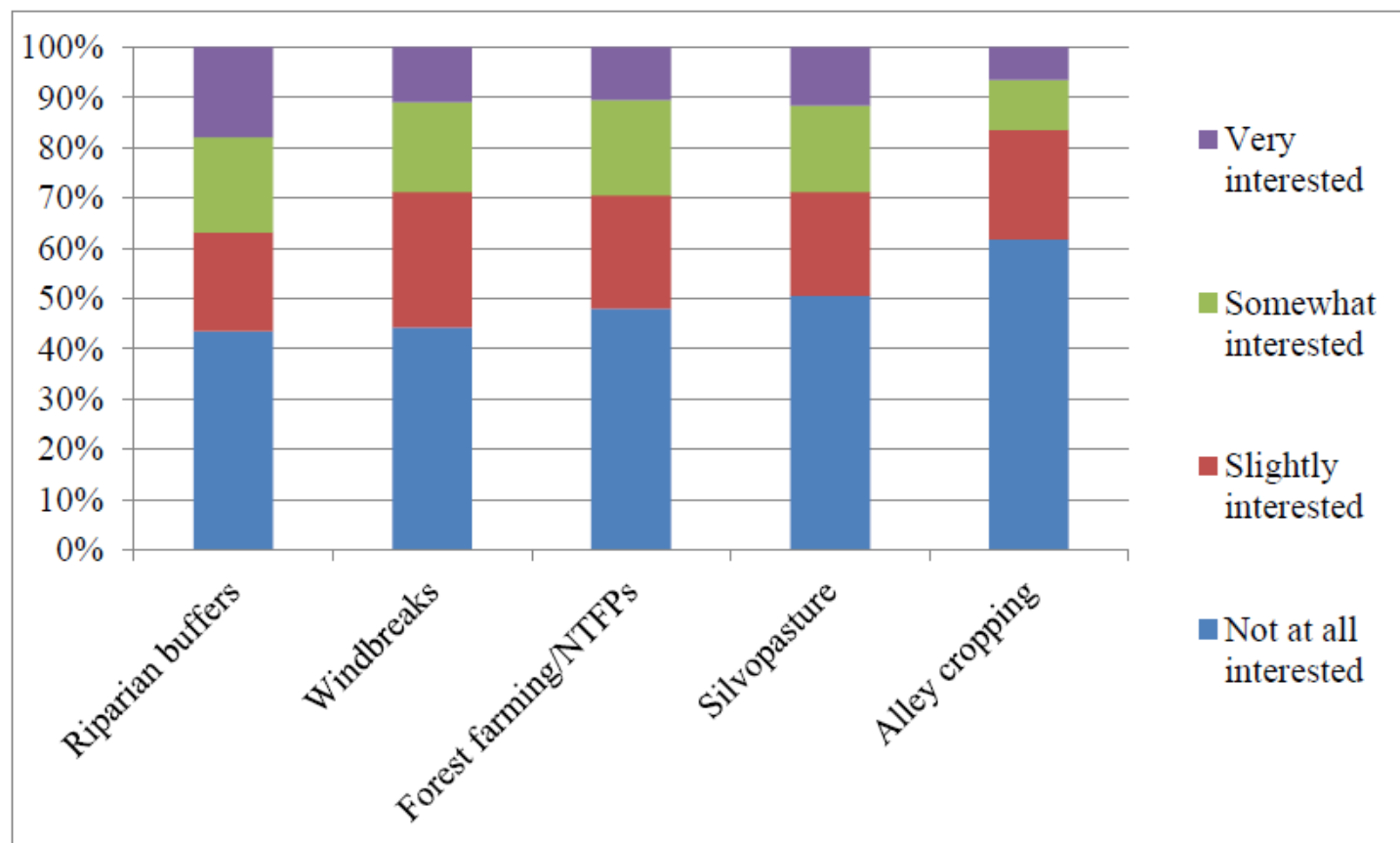
Survey Questions – Alabama Landowners

- Please rate your level of familiarity of each the following agroforestry systems.
- Please rate your level of interest in each of the following agroforestry systems.
- Please rate the importance of the following reasons that would lead you to consider practicing agroforestry on your land.
- Please rate the importance of the following reasons that would lead you to choose NOT to practice agroforestry on your land.

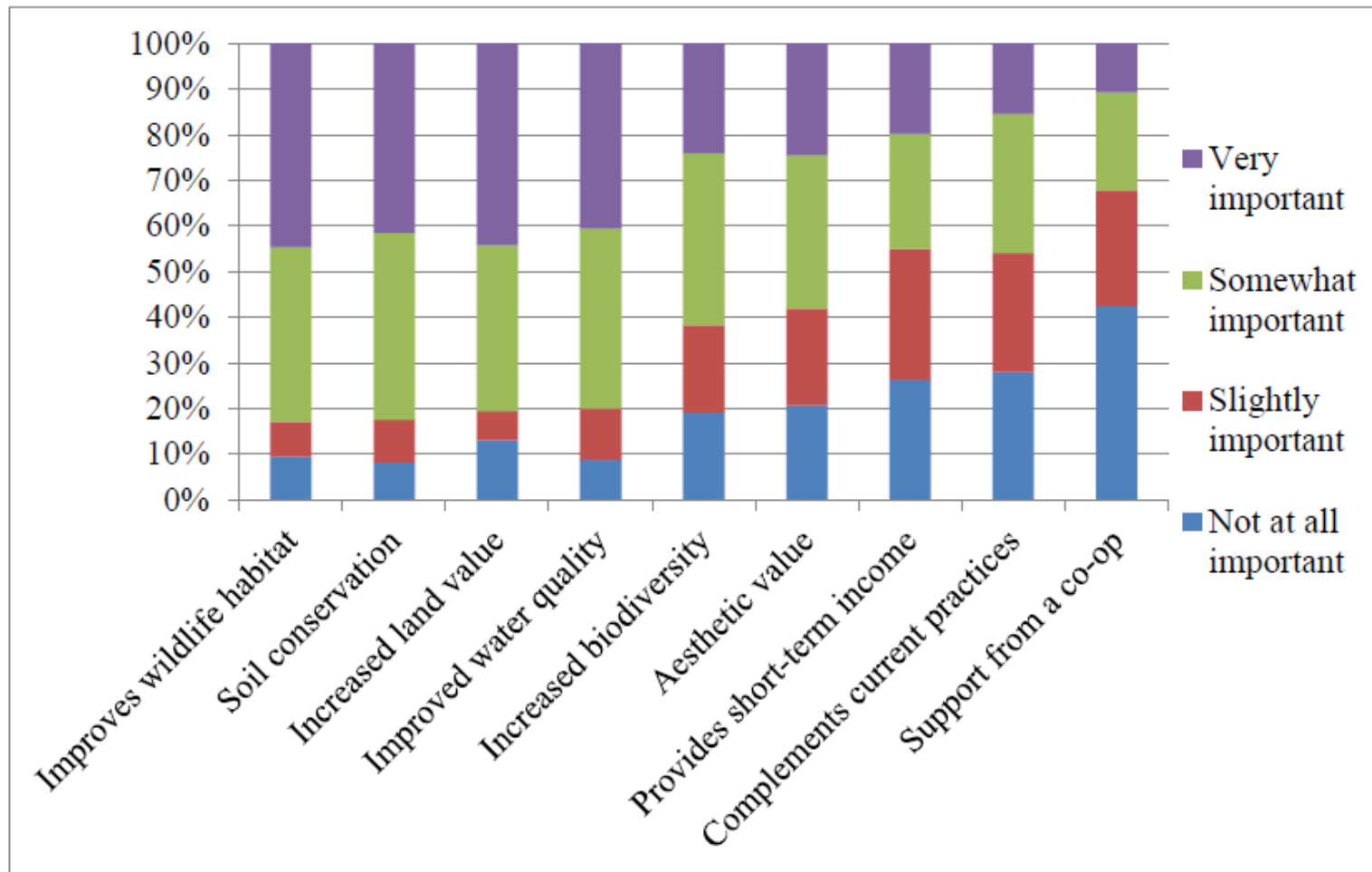
Results: Level of Familiarity



Results: Level of Interest

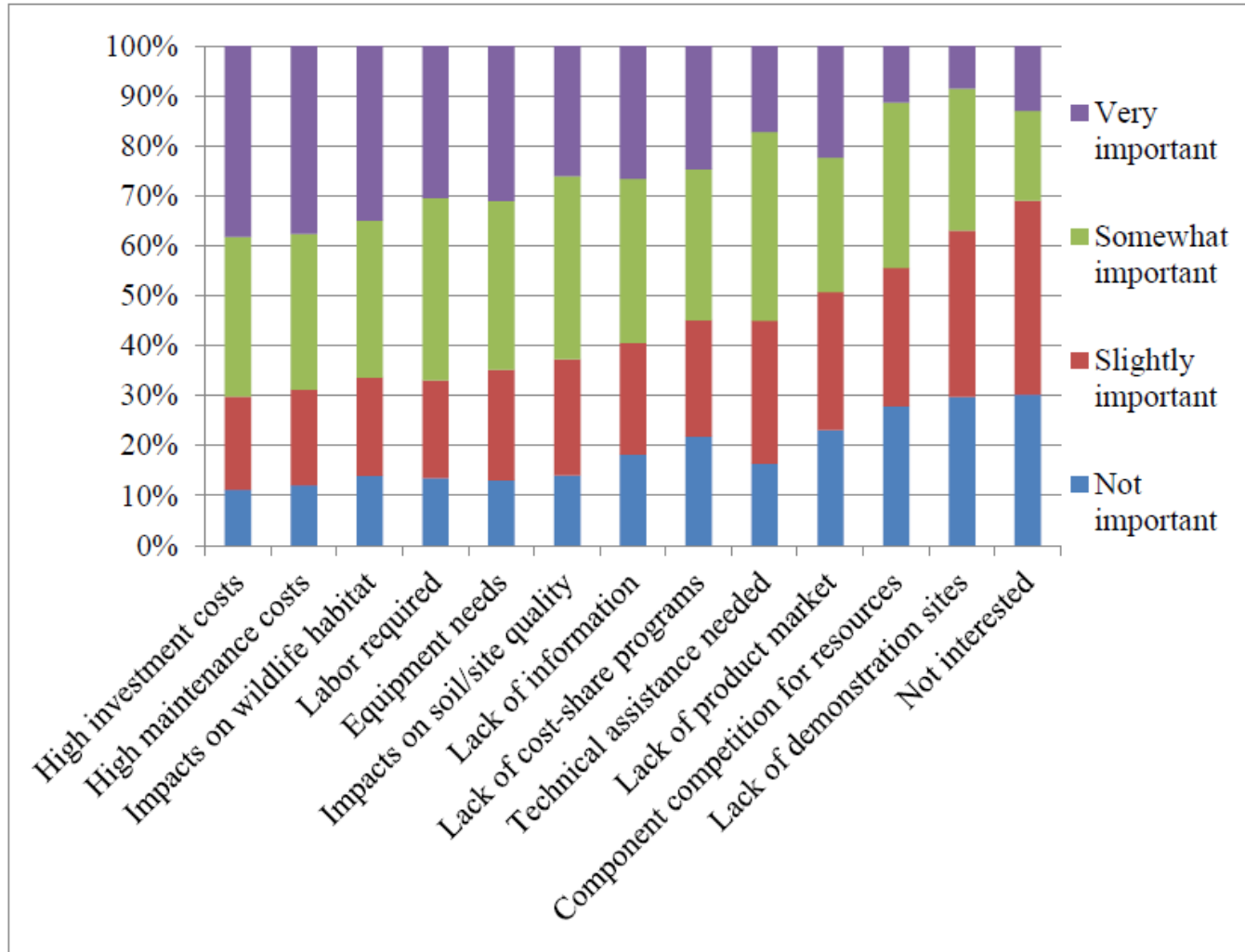


Results: Importance of reasons to consider practicing agroforestry



Janice Dyer, 2012

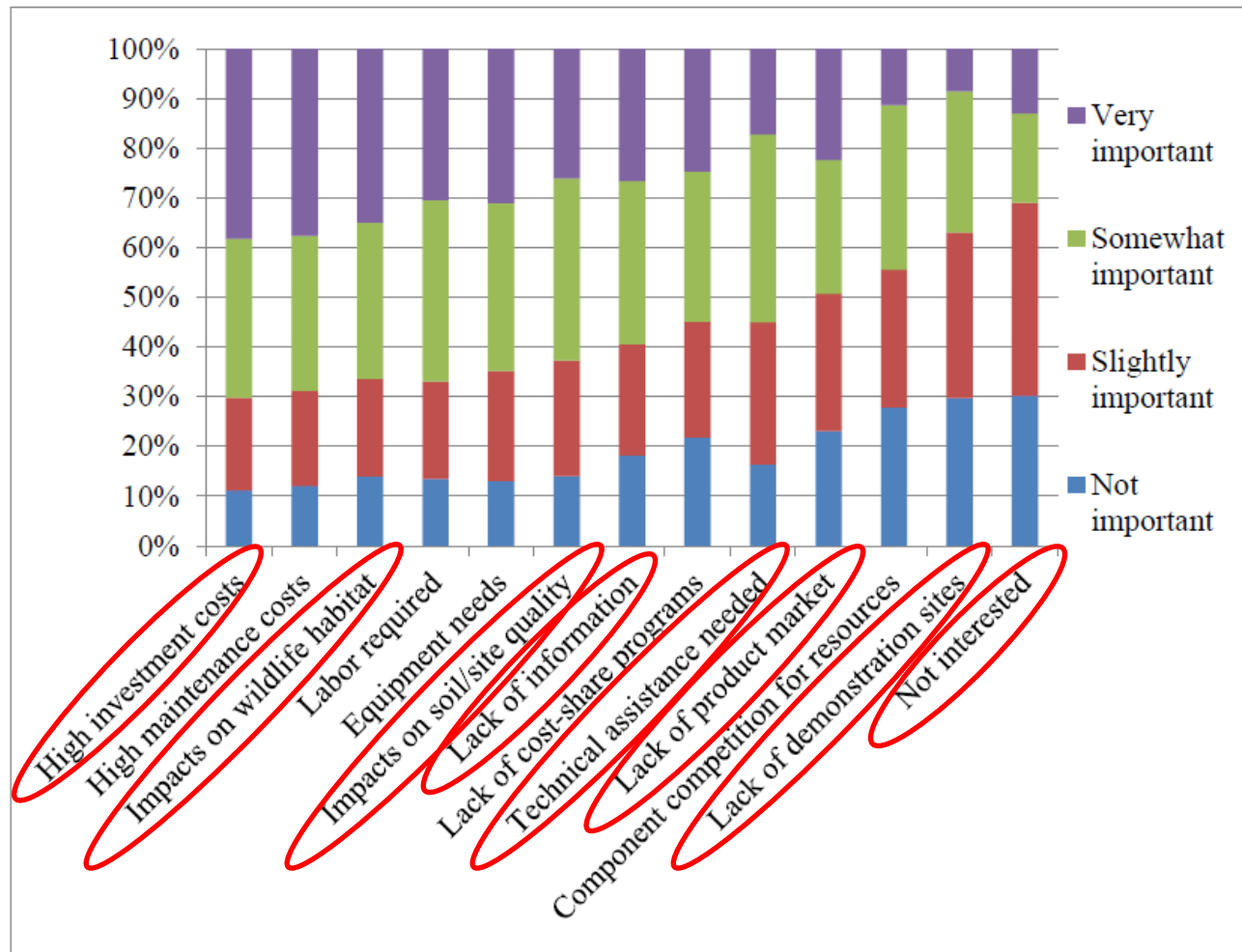
Results: Importance for reasons NOT to practice agroforestry



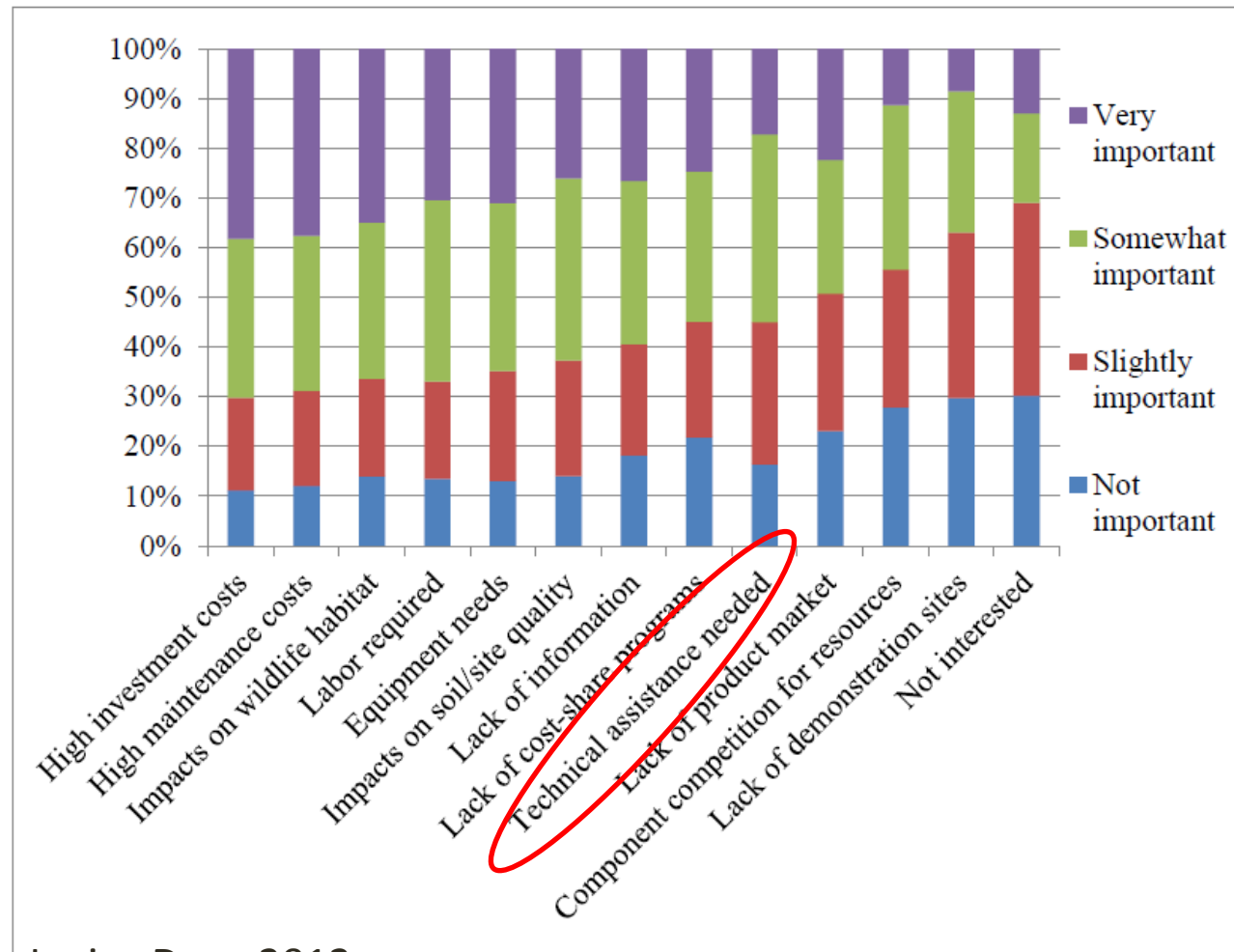
The role of TSPs in facilitating

- Which of those barriers to adoption (reasons for NOT practicing agroforestry) do TSPs have the potential to address?

TSPs and barriers to practicing AF



TSPs and barriers to practicing AF



Janice Dyer, 2012

Information needs: It's not what you know...

- Silvopasture is an integrated system of:
 - Timber (production and marketing)
 - Forest Service
 - NRCS
 - Registered foresters
 - Cooperative extension specialists
 - Forage (production, quality, nutrition, etc.)
 - NRCS
 - Cooperative extension specialists for forage production, soils
 - Livestock (production and marketing)
 - Cooperative extension specialists for production of cattle, sheep, goat, etc.
 - Cooperative extension specialists for animal nutrition
 - Experts on specialty meat production, processing and marketing

Silvopasture-specific information

- Interactions between the three components
 - Timber
 - Spacing impacts tree form and radial growth
 - Forage
 - Tree cover impacts forage composition and growing season
 - Livestock
 - Tree cover reduces temperature for livestock
 - Forage composition is impacted by tree cover

Connecting landowners to financial capital

- The top category of barriers to silvopasture adoption identified by prospective silvopasture managers.
- Cost share programs, loans, and grants.

Demonstration sites

- Set them up
- Promote and coordinate field days

Navigating new markets

- Multiple forest products
 - Timber
 - Livestock
 - Non-timber forest products including pine straw

Helpful resources about agroforestry

- Websites
 - Information library
 - Resources for landowners
- Building your own agroforestry team
 - Form and maintain professional network

USDA National Agroforestry Center

<http://nac.unl.edu/>

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Inside Agroforestry

Many Paths to Success

Current Issue

Many Paths to Success

The latest issue of the Inside Agroforestry Newsletter has hit the streets. In this issue you will find stories of landowner successes, research advancements and new ways of promoting agroforestry in the U.S. and Canada.

[Order](#)

Featured Presentation

Managing Shade Coffee Fact Sheet

Shade coffee production in Puerto Rico has experienced a resurgence in growth during recent years. After

National Agroforestry Center Blog

Webinar May 8th - What Social Factors "Sell" Landowners on the Use of Agroforestry Practices?

The presenters will give an overview of how the practice of woodland grazing has evolved in the region and will discuss the role of social factors in the adoption of agroforestry practices. This webinar will increase your awareness and understanding of agroforestry as a viable land management practice for small-scale landowners.

[Read more about and register for this webinar...](#)

University of Minnesota PhD Graduate Student Assistantship

Posted March 28, 2013

A PhD graduate student assistantship for three years is available starting in July 2013 in the Department of Forest Resources / University of Minnesota Extension, University of Minnesota. The project that the student will work on will involve the assessment of the environmental and economic benefits of woodland grazing (Silvopasture), which will be implemented in central Minnesota. A B.S. and M.S. in a closely related field are preferred and must have strong background on Forest Ecology, Watershed Management, and Hydrology. The assistantship will cover tuition fees, stipends, and health insurance for three years. Interested applicants should submit the following: letter of interest, CV, at least two letters of recommendations, unofficial transcripts, and GRE scores as a single document (PDF or Microsoft Word) to Dr. Diomy Zamora (zamora015@umn.edu) with the subject line including PHD POSITION. The deadline for the application is April 30, 2013.

Midwest Group Helps Agroforestry Efforts Take Root

Posted March 28, 2013

A group of researchers, agency representatives, educators, farmers, and nonprofit consultants from five Midwest states met recently in Ames, IA to discuss the opportunities related to agroforestry. All are part of the three-year-old Mid-American Agroforestry Working Group, also known as MAAGWG. The theme of the March 10-20, 2013 meeting was "From

Upcoming Events

- **Southern Plains Windbreak Renovation and Innovation Workshop** (May 21-23, 2013)
- **New E-Lecture Series – Windbreak Renovation** (Every Wednesday from April 10, 2013 until May 29, 2013)
- **Enhancing Habitats To Provide Multiple Ecosystem Services** (May 22, 2013)
- **First International Symposium on Elderberry** (June 9-14, 2013)
- **The North American Agroforestry Conference (NACC)** (June 19-21, 2013)
- **2013 Cornell Maple Camp** (June 26-29, 2013)

[See our Calendar for more information...](#)

Portable Document Format

To view PDFs (Portable Document Format), please [download Adobe's free Reader software](#) if you do not already have it.

Center for Agroforestry – University of Missouri

<http://www.centerforagroforestry.org/>

The screenshot shows a web browser window displaying the website for the Center for Agroforestry at the University of Missouri. The browser's address bar shows the URL www.centerforagroforestry.org. The website header includes the center's name, logo, and contact information. A main banner features the text "Agroforestry Silvopasture" over a photograph of a cow in a forest. A left-hand navigation menu lists various site sections. The main content area is titled "NEW & NOW" and contains several news items with brief descriptions and links. A "Message from the Director" box is also present.

USDA National Agroforestry | The Center for Agroforestry | Silvopasture: Establishment | silvopasture | SRS Pine straw production: from | www.aces.edu/pubs/docs/ |

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Frequently Asked Questions

Profit in Agroforestry

Policy Issues

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Agroforestry Silvopasture

NEW & NOW


Video: Elderberry Production and Marketing
Integrated Cover Crops Study Wins Grant
The Future of Food vs. Fuel
Agroforestry Academy Wins National Award
Remains of Munitions Past
News Release: First SEC Symposium Will Feature Two MU Sustainability Experts
News Release: First International Symposium on Elderberry
New Video: Elderberry Winemaking Workshop

The Center for Agroforestry at the University of Missouri, established in 1998, is one the world's leading centers contributing to the science underlying agroforestry, the science and practice of intensive land-use management combining trees and/or shrubs with crops and/or livestock.

Agroforestry practices help landowners to diversify products, markets and farm income; improve soil and water quality; sequester carbon, and reduce erosion, non-point source pollution and damage due to flooding; and mitigate climate change.

The five integrated practices of agroforestry (forest farming, alley cropping, silvopasture, riparian buffers and windbreaks) enhance land and aquatic habitats for fish and wildlife and improve biodiversity while sustaining land resources for generations to come.

Message from the Director



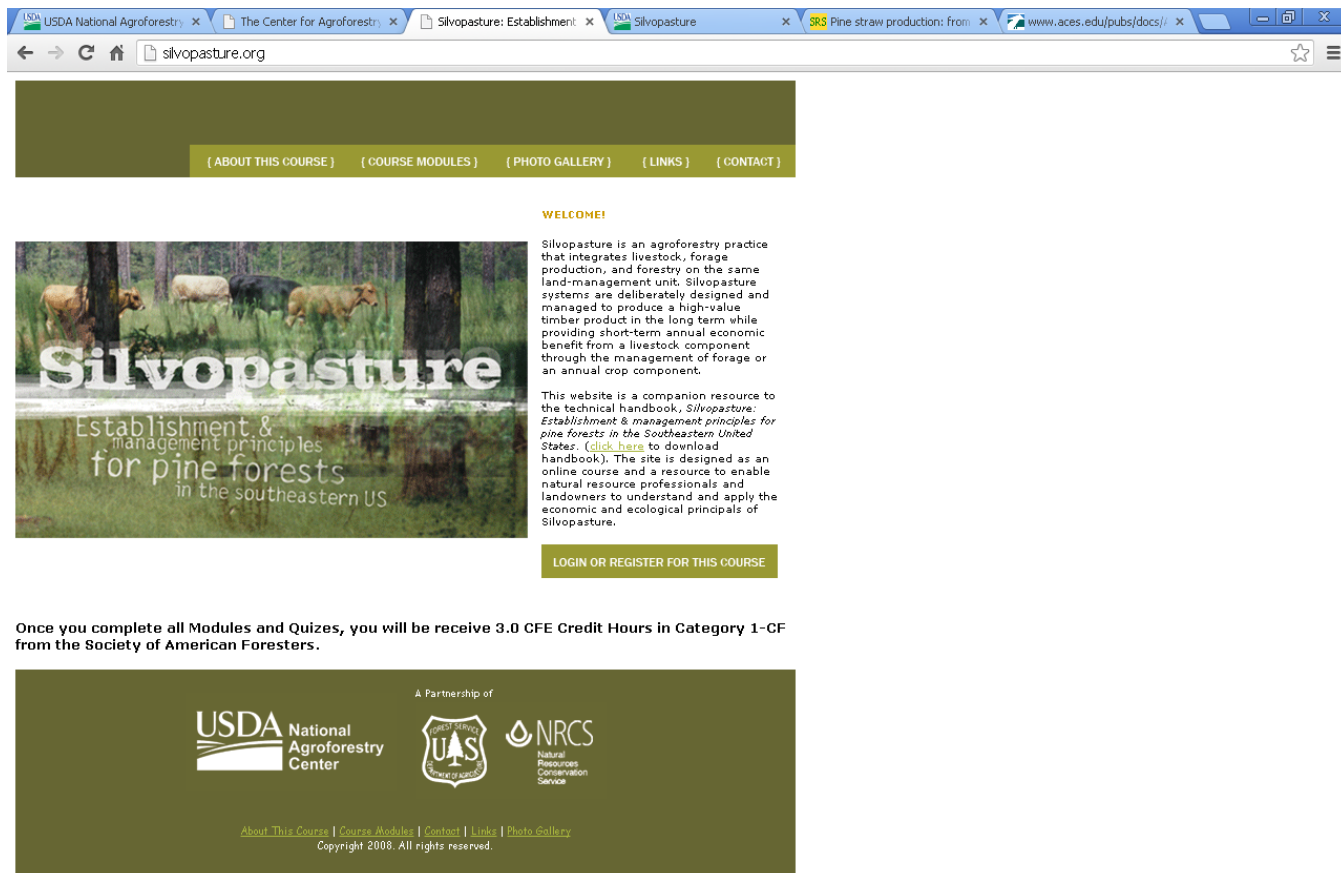
Greetings from The Center for Agroforestry at the University of Missouri! As many of you know, the Center has...
[Read full message >>](#)

MISSOURI

Horticulture & Agroforestry Research Center

start | slides for webinar.pptx | bbarlow saf 2012b.pptx | Preliminary data from... | The Center for Agro... | USDA national AF cen... | 12:10 PM

Online Silvopasture course – <http://silvopasture.org/>




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WELCOME!




Silvopasture is an agroforestry practice that integrates livestock, forage production, and forestry on the same land-management unit. Silvopasture systems are deliberately designed and managed to produce a high-value timber product in the long term while providing short-term annual economic benefit from a livestock component through the management of forage or an annual crop component.

This website is a companion resource to the technical handbook, *Silvopasture: Establishment & management principles for pine forests in the Southeastern United States*. ([click here](#) to download handbook). The site is designed as an online course and a resource to enable natural resource professionals and landowners to understand and apply the economic and ecological principals of Silvopasture.

LOGIN OR REGISTER FOR THIS COURSE

Once you complete all Modules and Quizes, you will be receive 3.0 CFE Credit Hours in Category 1-CF from the Society of American Foresters.

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East Texas Pine Straw Website

<http://essmextension.tamu.edu/pinestraw/index.html#>



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welcome East Texas Pine Straw

The **East Texas Pine Straw** web site was developed by the *Texas AgriLife Extension Service* funded through a grant by the *USDA Forest Service* in cooperation with *Pineywoods RC&D Council Inc.* This site represents the landowners and pine straw harvesters throughout East Texas counties. The mission of this site is two-fold. First it serves to enhance public awareness and perception to the uses and benefits of pine straw as a ground cover mulch. Second, the East Texas Pine Straw web site provides educational, networking, and informational opportunities about a promising new enterprise in Texas that can potentially provide supplemental income to Texas forestland owners during the years when no income will be received from a timber harvest. Chief among our goal is providing and expanding opportunities for all East Texas forest landowners, harvesters, and consumers.



Special thanks to the following contributors:



Pineywoods Resource
Conservation & Development

Clay Alverson
Timberland Pinestraw
Specialists LLC
texaspinestraw.com



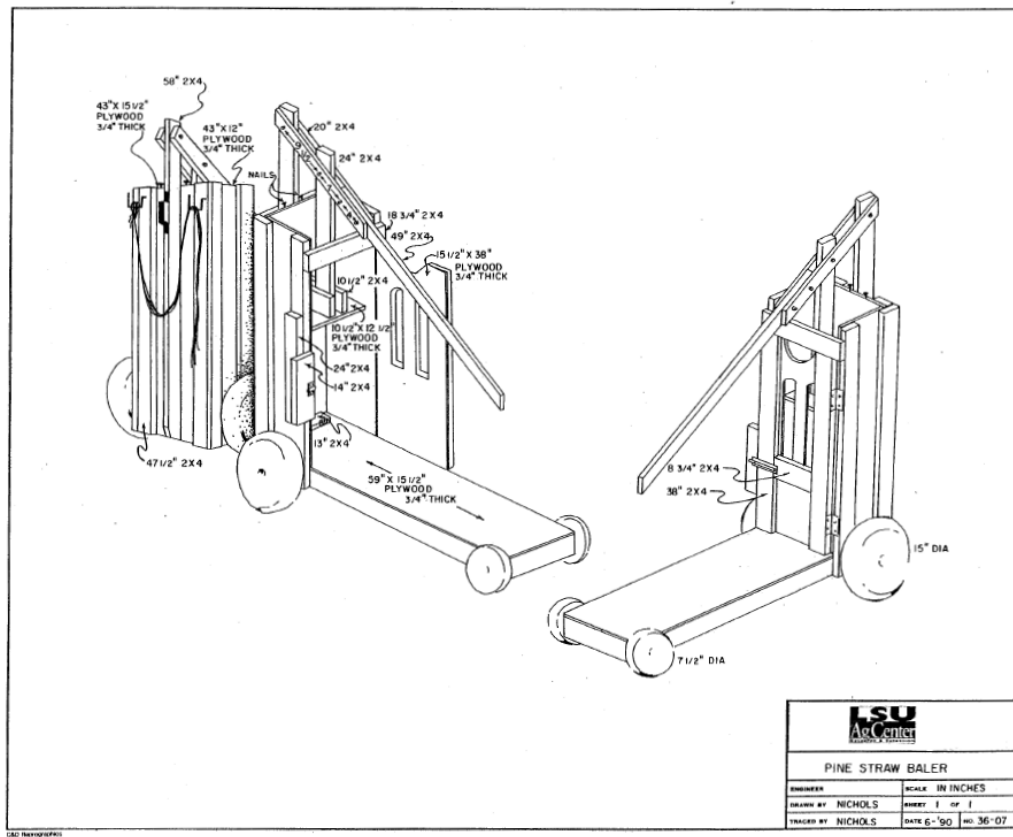
DAWSON'S BALED
PINE STRAW
dawsonspinestraw.com

Henry Pearson
Agroforestry
Consultant

Visitor #
20804

LSU AgCenter Research and Extension

<http://www.lsuagcenter.com/NR/rdonlyres/C46F2910-0A08-465D-B7EC-AA10C7C2D234/14455/3607PineStrawBaler.pdf>



Alabama Pine Straw Association

<http://www.alabamapinestrawassociation.com/page/page/7641870.htm>

ALABAMA PINE STRAW ASSOCIATION



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Welcome to the Alabama Pine Straw Association

Pine straw sales provide an opportunity for owners of pine forests to generate income from a natural renewable resource their pine trees are producing every day. With proper management and preparation a productive stand of longleaf pines can generate up to \$200 per acre per year and a loblolly stand can generate \$100 per acre per year.

With proper training pine straw harvesters can begin operations with very little investment and make as much as \$75,000 per year.

The Alabama Pine Straw Association has the expertise to manage pine stands for optimum production of high quality pine straw, train and connect pine straw harvesters with pine landowners.

Networking to create a high quality product the Alabama Pine Straw Association is creating wholesale and retail markets to generate maximum income for landowners and harvest.

Join the Alabama Pine Straw Association as we make Alabama pine straw the #1 pine straw in the nation.



North Carolina Pine Needle Producers Association

<http://www.ncpineneedleproducers.com/where.html>

North Carolina Pine Needle Producers Association
Post Office Box 2326 Southern Pines, NC 28388



Places longleaf pine straw mulch can be used.

-  Home
-  Contact A Member
-  Benefits
-  Applications
-  Harvesting
-  Become A Member



Home and Commercial Landscaping



Foundation Plantings



Natural Areas



Flower Beds



Alabama Cooperative Extension Service – Pine Straw

<http://www.aces.edu/pubs/docs/A/ANR-1418/ANR-1418-low.pdf>

ALABAMA COOPERATIVE Extension SYSTEM ANR-1418

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Harvesting Pine Straw for Profit

Questions Landowners Should Ask Themselves

Production of nontimber forest products such as pine straw can be a good way for forestland owners to earn an income, especially when traditional timber markets are down. Pine straw consists of the needles that fall from pine trees. Freshly fallen needles can be raked and sold to retailers, landscapers, and others who use the material as ground cover.

Pine straw production is often compatible with other land uses, but landowners need to consider several factors before beginning pine straw harvesting on their land. This publication includes questions landowners should ask themselves to determine if pine straw production is right for them. It also provides a brief overview, in three sections, of issues related to the production and harvesting of pine straw:

- What landowners need to know about their property
- What landowners need to know about their objectives and management strategies
- What landowners need to know about the pine straw market

Note: A consulting forester can help provide answers to many of the site- or treatment-specific questions posed in this publication.

Property

Not all forestland—or even all land forested with pines—is appropriate for pine straw harvesting. Landowners must know certain market or production requirements and understand that their objectives must match what is biologically possible on a site.

Questions to ask

What species is growing?

Alabama has three pine species that are common to




Figure 1. The widely spaced rows of longleaf pine in this stand are conducive to mechanical pine straw harvests. (Photo credit: Becky Barlow)

for more than half of the pine volume in the South. Needles of the loblolly pine are usually 5 to 9 inches long and occur in clusters of three, sometimes four. Slash pine (*Pinus elliottii*) is native to coastal areas and often grows in wet areas, such as near swamps. Its needles are usually 6 to 11 inches long and occur in clusters of two or three. Longleaf pine (*Pinus palustris*) grows better than other tree species in sandy, well-drained soils, but it will grow in almost any soil except prairie soils. Longleaf pine needles are approximately 8 to 18 inches long and usually occur in clusters of three.

Pine straw suppliers and retailers usually prefer species with long needles (like longleaf or slash pine). Longer needle length facilitates collection, has slower deterioration rates, and allows needles to lock and stay in place, providing enhanced mulching benefits. Some buyers prefer loblolly because the needles lay flatter and retain their initial appearance (rather than settling over time), but loblolly does not usually bring a price premium. According to a report from the University of Georgia, prices paid to landowners for loblolly pine

Pine straw production: from forest to front yard

<http://www.srs.fs.usda.gov/pubs/41417>

The screenshot shows a web browser window displaying the USDA Forest Service website. The page is titled "Pine straw production: from forest to front yard" and is part of a larger document. The website header includes the USDA logo, "United States Department of Agriculture Forest Service", and "Southern Research Station". A photo of Paul Hamel, Research Wildlife Biologist, is featured. The navigation menu includes "About the Forest Service", "News", "Jobs", "Maps", "FAQ", and "Contact Us".

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Title:	Pine straw production: from forest to front yard
Author(s):	Dyer, Janice F.; Barlow, Rebecca J.; Kush, John S.; Gilbert, John C.
Date:	2012
Source:	In: Butnor, John R., ed. 2012. Proceedings of the 16th biennial southern silvicultural research conference. e-Gen. Tech. Rep. SRS-156. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 100-108.
Station ID:	Paper (invited, offered, keynote)-SRS-156
Description:	Southern forestry may be undergoing a paradigm shift in which timber production is not necessarily the major reason for owning forested land. However, there remains interest in generating income from the land and landowners are exploring alternatives, including agroforestry practices and production of non-timber forest products (NTFPs). One such alternative more recent to the Southeast is collecting and selling pine straw for use in urban landscapes. It has been shown that longleaf pine straw will bring the landowner more money than straw from other southern pine species. The Regional Longleaf Growth Study will be utilized to provide information on the potential for pine straw production based on overstory density, age class, and site quality. This information will be combined with results of surveys of pine straw producers and buyers in Alabama to provide insight into pine straw markets in the state -from the forest to the front yard.
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Windows taskbar: start, slides for webinar.pptx, bbarlow saf 2012b.pptx, Preliminary data from..., Pine straw production..., NAFC silvopasture.b..., silvopasture.org.bmp..., 12:13 PM

ACES Silvopasture YouTube video

<http://www.youtube.com/watch?v=cy3GP4ABkr0>



The websites just mentioned

- <http://nac.unl.edu/>
- <http://www.centerforagroforestry.org/>
- <http://silvopasture.org/>
- <http://essmextension.tamu.edu/pinestraw/index.html#>
- <http://www.lsuagcenter.com/NR/rdonlyres/C46F2910-0A08-465D-B7EC-AA10C7C2D234/14455/3607PineStrawBaler.pdf>
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- <http://www.aces.edu/pubs/docs/A/ANR-1418/ANR-1418-low.pdf>
- <http://www.srs.fs.usda.gov/pubs/41417>
- <http://www.youtube.com/watch?v=cy3GP4ABkr0>

The time is right for a renaissance in southern pine agroforestry

“An effort must be made to fit forestry to the goals of the nonindustrial private forest landowner rather than attempting to fit these landowners to forestry goals.”

--Olson (1979)

Questions?

