



Managing Forests to Enhance Wildlife

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Topics



- Vegetation Management Principals
- Early Successional Habitat
- How to Improve Habitat at
 - ▶ Site Prep
 - ▶ Early Release
 - ▶ Mid-rotation
- Wildlife Benefits with Herbicides

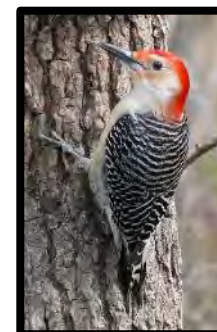
Vegetation Management Principals

- Restore and improve plant, animal and human habitats
- Strive to always make a positive environmental change
- Protect the habitat of threatened and endangered species
- Apply herbicide responsibly, using the appropriate products, amount and application technique to achieve the desired results



Did you know?

- We have increased wood production by up to 5 times and created thousands of native vegetation food plots by controlling woody competition in our southern forests



Red
Cockaded
Woodpecker

The Goal of Forest Management

- Provide sustainable wood supply and improve habitat for a wide variety of plants and animals



The Impact of Forest Management

- Manipulate plant composition to create early successional habitat
- Promote desirable plant and animal species
 - Products
 - Application techniques
 - Cultural practices



Forest Vegetation Management

Landowner Objectives

- Timber Income
- Wildlife Management
- Recreation
- Legacy



Landowner objectives vary but all can be optimized through active forest management!

Forests and Grassland for Wildlife

- Food
- Water
- Cover
- Nesting sites



Early Successional Habitat Loss

- USFWS estimated grasslands loss in U.S.
 - 1982 to 1997 97,000 sq. Kilometers, 24M/Ac
 - Area larger than Indiana



Improving Wildlife Habitat

- Smaller clearcuts – patchwork effect
- irregular shaped clearcuts – more edge
- Streamside management zones
- Fire
- Leave some den trees
- Less mechanical site preparation
- Quality Vegetation Management (QVM)
 - Use of selective herbicides
 - Hub and Spoke wildlife openings



Wildlife Benefits of Arsenal AC Alone

- Increase the most versatile wildlife food and cover - rubus
- Increase legumes that fix nitrogen to improve quality of plant foods
- Increase forbs and grasses that provide food and cover
- Do not spray the wildlife openings as part of the application

Site Preparation

■ Broadcast

● Aerial



● Ground



Plan for Wildlife Habitat before Site Prep



Plan for Wildlife Habitat before Site Prep



Hub and Spoke Wildlife Openings

- Plan for wildlife openings prior to tree planting
- CPR requires 10% to 20% of the area be in permanent openings
- CPR pines and forest openings qualify for 50% cost share
- Spokes should be 60 ft. wide
- Manage spokes with strip disking, fire or herbicides (Plateau)
- Manage spokes for scattered shrubs, grasses and pollinators
- Do not treat the planned wildlife openings with the site prep mix

Hub and Spoke Wildlife Openings



Aerial view of a Hub and Spokes system of forest openings (photo: Bobby Watkins).

Early Release



Early Release



Early Release

Why is this good for wildlife?



16 oz. Arsenal AC
Aerial, NC October 2015

ARSENAL
herbicide
APPLICATORS CONCENTRATE

Internal

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Early Release



Improving Wildlife Habitat – Mid-rotation



Improving Wildlife Habitat – Mid-rotation



Improving Wildlife Habitat – Mid-rotation



Improving Wildlife Habitat – Fire following Herbicide



Internal

Mid-Rotation Release 3 YAT

Why is this good for wildlife?



32 oz. Chopper GEN2



Improving Wildlife Habitat – Mid-rotation



Wildlife Friendly Habitat

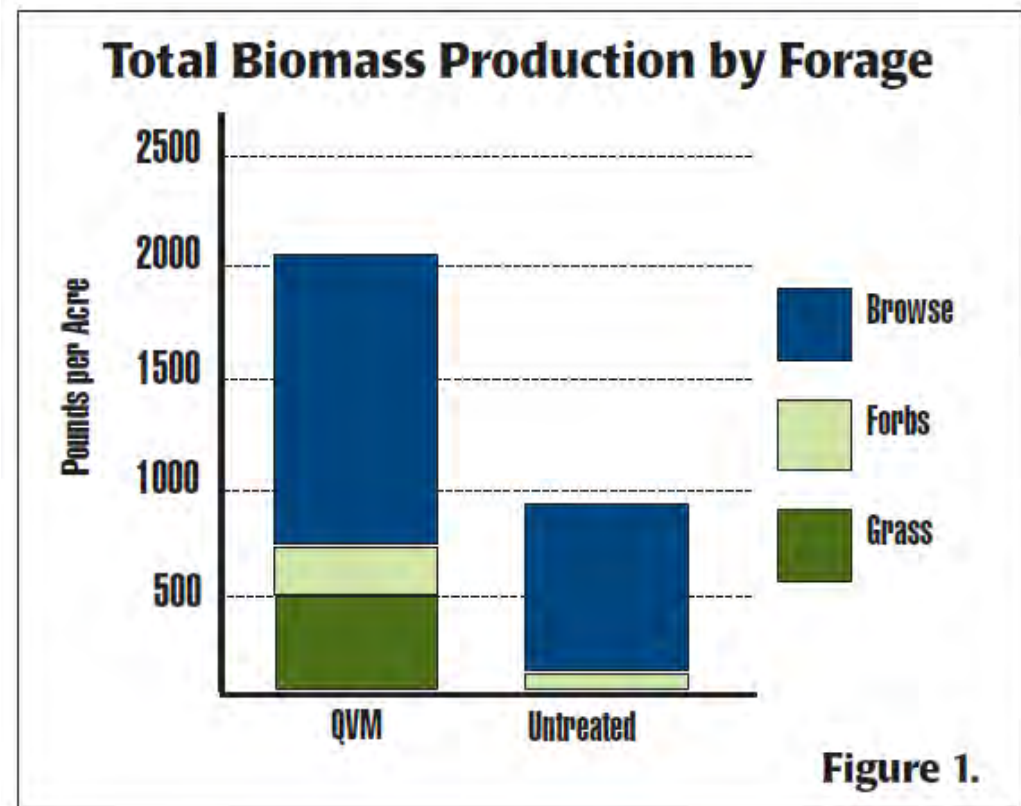
Early Successional Habitat

- Release forbs (flowering plants)
 - Increase in pollinators
- Release legumes
 - Nitrogen fixers
- Increase high quality food
 - Beautyberry
 - Rubus
- Provide Cover
 - Release warm season grasses
 - Cover for Turkey, quail and pheasant



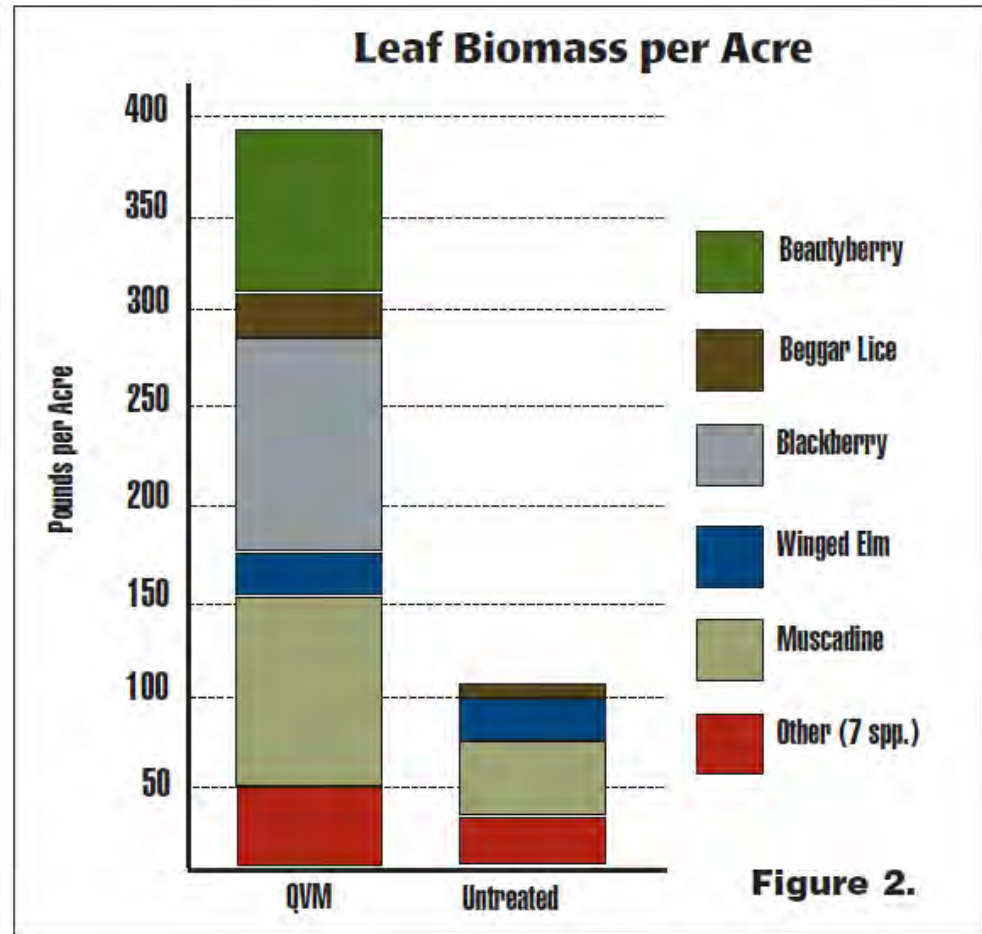
Wildlife Friendly Habitat

- Biomass doubled
 - More forbs and grasses
- Deer Browse Changed
 - From
 - Sweetgum
 - To
 - Beautyberry
 - Blackberry
 - Muscadine
 - Sparklelberry
 - Winged elm

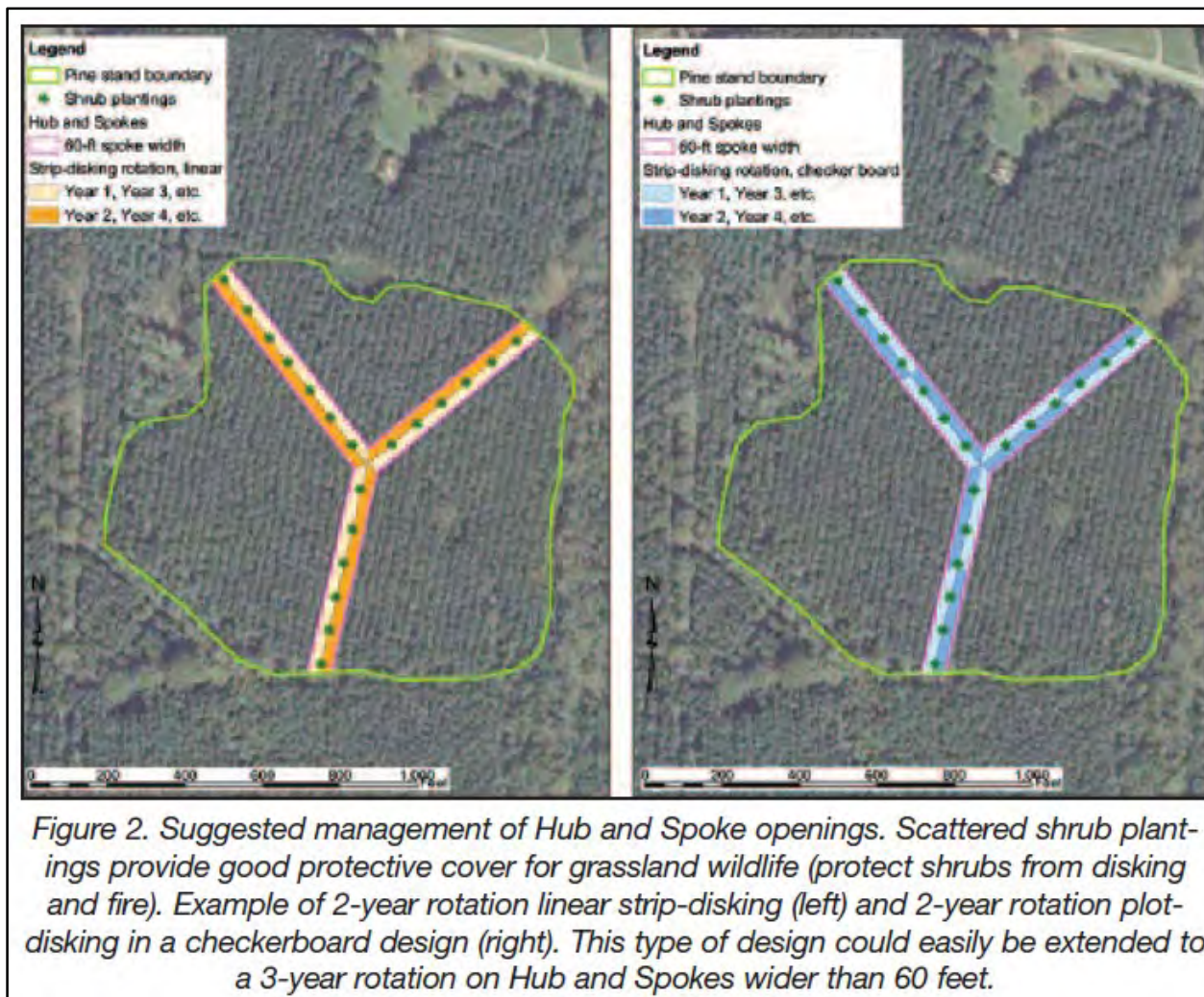


Wildlife Friendly Habitat

- Leaf biomass
 - 350% increase
- Digestible protein
 - 500 % increase
- Plant diversity
 - Arsenal AC
 - 99 species
 - Untreated
 - 38 species
- Result in a high quality diet



Hub and Spoke Wildlife Openings - Midrotation



Hub and Spoke Wildlife Openings



*View of a “spoke” managed for deer forage production
(photo: Bobby Watkins).*

Hub and Spoke Maintenance



Use Herbicides to Maintain Wildlife Openings

Forest Vegetation Management

- Provides quality habitat
- Improves financial returns from timber growth
- Improves aesthetics
- Increases carbon sequestration

Wildlife Friendly Habitat

Increases Wildlife



Longleaf Pine

Establishment and Release



Longleaf Pine Ecosystem



Longleaf Pine Ecosystem

Why is this good for wildlife?



Gopher Tortoise



Red Cockaded Woodpecker

Longleaf HWC

4 oz. Arsenal AC + 8 oz. Frequency



1 MAT



3 MAT

Longleaf Pine Ecosystem



Keys To Success

- Manage wisely and sustainably
- Look for vegetation management guidance
- Partner with local wildlife and environmental groups
- Utilize landowner incentives and options

Summary

- We have a great wildlife message in forest management
- Early successional habitat is the key
- Share your story



Share the Message

■ Forest management provides....

- Increased timber supply
- Carbon sequestration
- Improved water quality
- Better recreation experience
- Cost savings



Share the Message

■ While improving and increasing wildlife.....

- Habitat
- Food quality
- Shelter
- Native plants



BASF ProVM Podcasts

- 5 - 7 Minute Podcasts
 - Posted on the ProVM website
 - Timely subjects

www.bettervm.basf.us



BASF ProVM Webinars

- 15 – 30 Minutes
 - Slides and Audio
 - Posted on the ProVM website
 - Timely subjects



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Questions?

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Thank You!

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