

LIVING ON THE EDGE

Edge Habitat: A “How To” Guide, Challenges and Funding



David A. Bryan

Private Lands Wildlife Biologist

VT Conservation Management Institute

Quail Action Plan



Scale Impacts

- Yard or Farm?
 - Impacts Project Size and Scope
 - Impacts Practicality of Management
 - Impacts Species that You May Impact Positively



Edge on a Farm Scale

- Field Borders and Odd Corners
 - Least Economical Portions of Field
 - Shade Impacts from Forest Land
 - Nutrient/Water Impacts
 - May Be Hard to Get To
 - Perfect for Stair-stepping Edge Habitat
 - Historic Wildlife Havens Before Clean Agriculture Movement
 - Should be 35 to 120 Feet, Planted or Idled
- Native Grasses, Forbs and Cover Habitats Key

Planted Field Borders



Native Grasses Such as Switchgrass, Indiangrass and Little Bluestem are One of the Best Ways to Enhance Bird Habitat on Your Farm... Rates Vary By Species, Not to Exceed Total of 4.0 lbs/acre

BENEFITS OF *BUNCH* GRASSES



Quail's Eye-View



Cooper's Hawk's Eye-View

Also benefits nesting songbirds, rabbits, wild turkey, white-tailed deer (for bedding), etc.

Planted Field Borders



Planted Corner Area on Farm



Credit: Sally Mills, VDGIF



Credit: www.claytonvnps.org

**Partridge Pea is
FANTASTIC:**

- Food Value – Great for Quail
- High Pollinator Value
- Aesthetic Beauty
- 2.0 lbs/acre is a Good Rate

Other Species to Consider

- Black-eyed Susan
- Lanceleaf Coreopsis
- Plains Coreopsis
- Indian Blanket
- Evening Primrose
- Showy Tickseed Sunflower
- And Many Others...



Ask Your Local Biologist About Seeding Rates...

Credit: Bill Estes

Idled Field Borders



Idled Field Borders





Edge Feathering

JUL 29 2005

Note: Brush Piles Also Effective

Cut-back Borders



Enhancing Edge on a Yard Scale

- Smaller Scale, But Still Stair-Step
- Think From a Bird's Eye View
 - Wildlife Likes Least What Humans Have the Most:
 - More Green Grass
 - More Manicured Areas
 - More Non-Natives
 - Wildlife Likes Most What Humans May Not Have:
 - Native Forbs and Grasses
 - Native Shrubby Cover
 - Native Insect-Attracting Trees
- Target Reasonable Species
- Find the Balance that Works for YOU!



From smallfarms.oregonstate.edu

MAXIMIZE EDGE BY MINIMIZING FESCUE LAWN

Herbicide



April 2004



May 2005

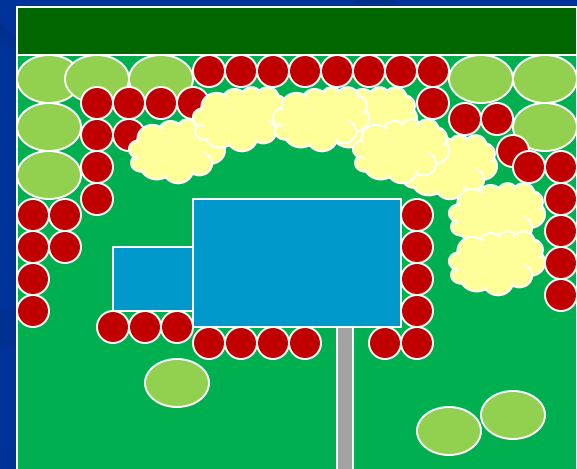
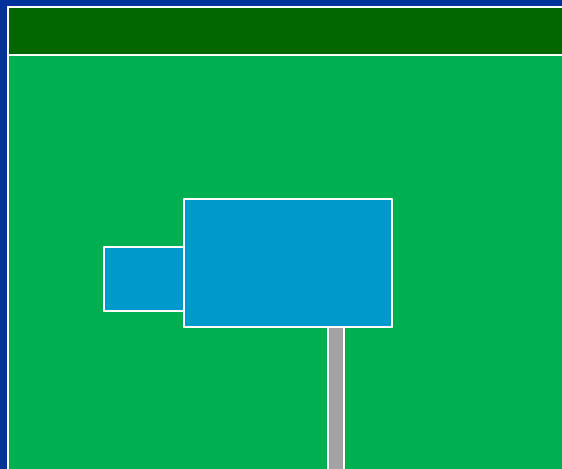


August 2005

(Harper et al. 2007)

After Killing Fescue Where You'd Like...

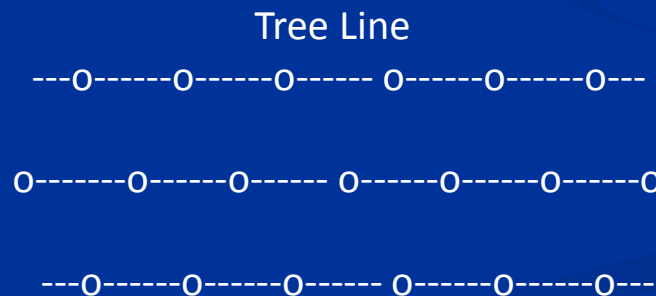
- Plan From Outside, Working Your Way In
- Remember to Stair-Step
 - Start with Shrubby Cover Closest to Woodline or Fenceline
 - Have Forbs, or Native Grasses and then Forbs, closest to Lawn



Shrubby Hedgerows

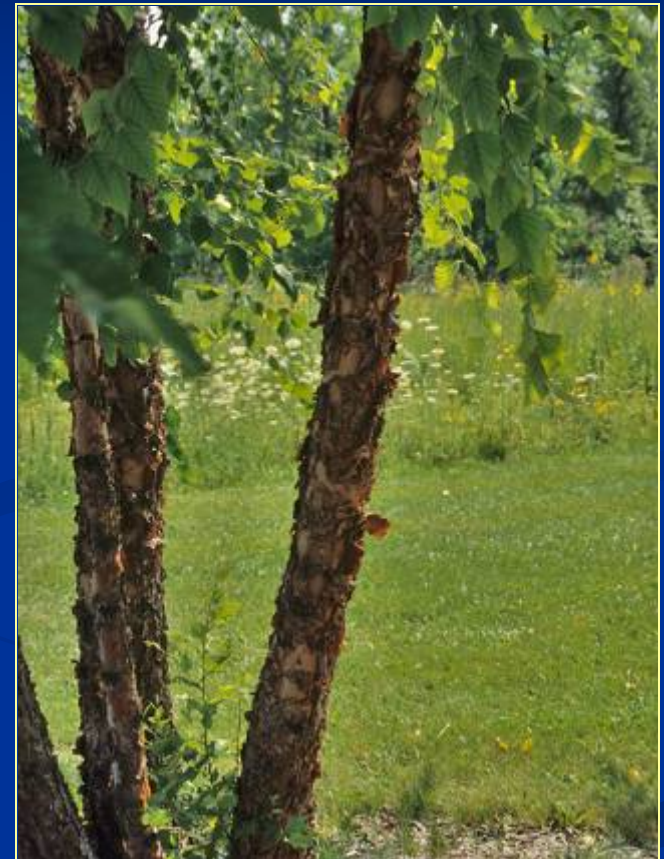
■ Pick Native Species

- A Few of Your Options: Silky Dogwood, Northern Bayberry, Beautyberry, Black Chokeberry, Red Chokeberry, Coralberry, American Black Elderberry, Winterberry Holly, Indigobush and American Plum
- Plant In Irregular, Offset Patterns (More Natural)
- Use 6'x6' or 5'x10' spacing



Ten most valuable woody plant genera for supporting Lepidoptera

■ <i>Quercus</i> (oaks)	534 spp
■ <i>Prunus</i> (cherries)	457 spp
■ <i>Salix</i> (willows)	456 spp
■ <i>Betula</i> (birches)	413 spp
■ <i>Populus</i> (poplars)	368 spp
■ <i>Malus</i> (crabapples)	311 spp
■ <i>Vaccinium</i> (blueberries)	288 spp
■ <i>Acer</i> (maples)	285 spp
■ <i>Ulmus</i> (elms)	213 spp
■ <i>Pinus</i> (pines)	203 spp



Thanks to Dr. Lou Verner and Dr. Douglas Tallamy for this slide's information

Ten most valuable ornamental perennial genera for supporting Lepidoptera

■ <i>Solidago</i> (goldenrod)	115 spp
■ <i>Aster</i> (asters)	112 spp
■ <i>Helianthus</i> (sunflower)	73 spp
■ <i>Eupatorium</i> (JoePye, boneset)	42 spp
■ <i>Ipomoea</i> (morning glory)	39 spp
■ <i>Carex</i> (sedges)	36 spp
■ <i>Lonicera</i> (honeysuckle)	36 spp
■ <i>Lupinus</i> (lupines)	33 spp
■ <i>Viola</i> (violets)	29 spp
■ <i>Geranium</i> (geraniums)	23 spp
■ <i>Rudbeckia</i> (black-eyed Susans)	17 spp



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Challenges to Edge

- #1 Challenge – Management
 - Meadows, Grasslands and Hedgerows are in a Constant State of Change
 - Will Become Overgrown if Not Managed

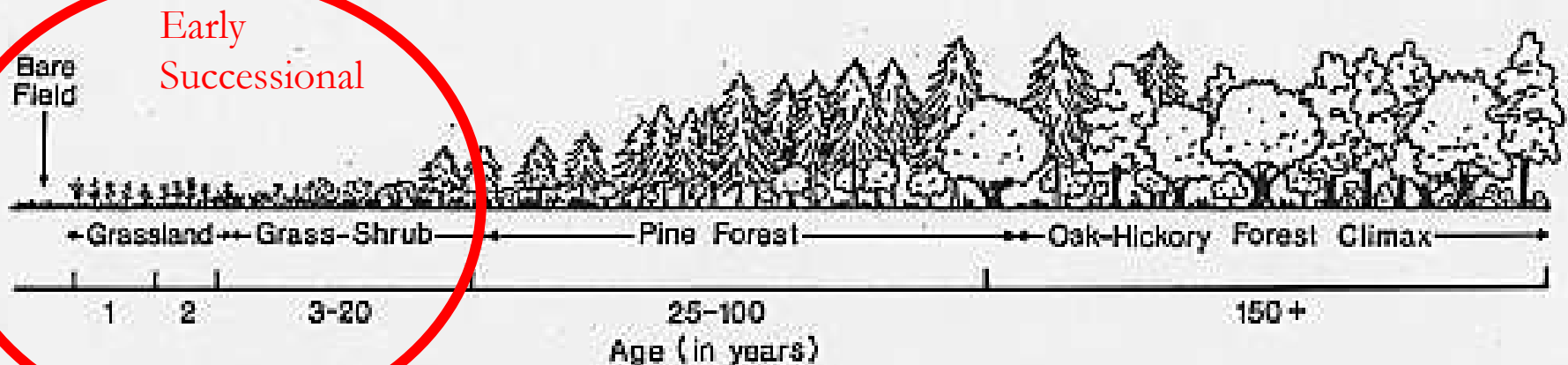


Fig. 4. Typical plant succession in an oak-hickory sere (from Kirk 1975, used with permission from McGraw-Hill, Inc.).

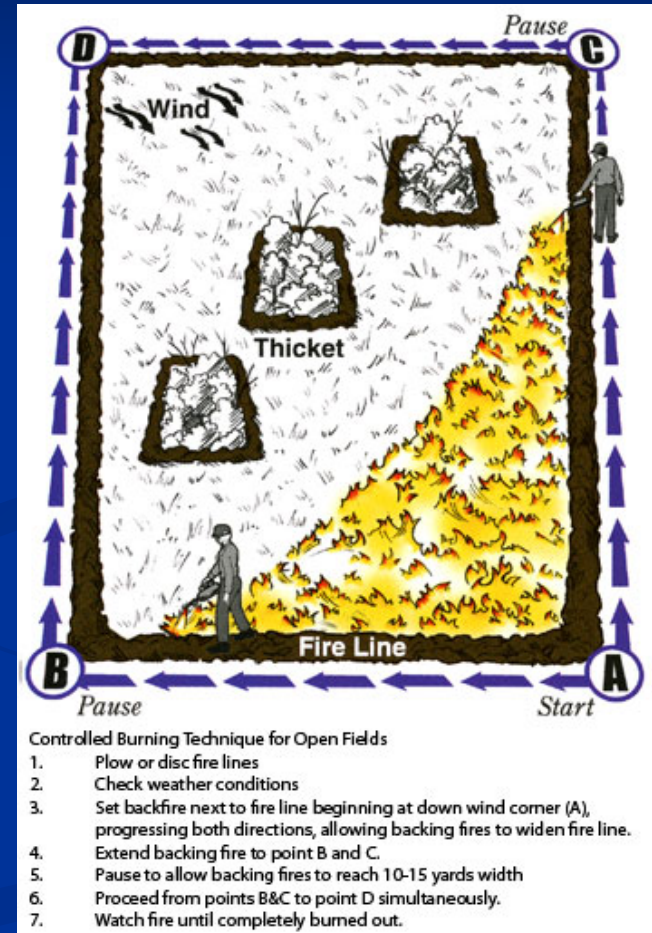
Farm Scale: Light Disking

- Disturbs soils
- Removes or chops litter
- Best in late winter
- Annuals need soil disturbance
 - Provides plant diversity
 - Promotes bug diversity



Farm Scale: Prescribed Burn

- Another Important Management Tool
- Certified Burn Managers
- Burn on a rotation
 - 1/3 of the habitat each year
- Promotes areas of bare ground
 - Prime bugging areas





For Yard Scale...

- Disking and Burning Not Generally Possible...
- Occasional Mowing of Meadow Areas
 - Outside of Nesting Season (April 15th to August 15th)
 - Preferably Late Winter
 - Set Blade High if NWSGs are Present
 - Avoid Unless Necessary to Prevent Thatch Build-Up
- Selective Herbicides
 - Especially for Any Invading Saplings
 - Keep on Top of Fescue!
- Selective Weeding

Challenge: Invasive Species

- Edge Habitats are Some of the Most Easily Invaded by Invasive Species
- Why?
 - Lots of Light
 - Less Competition
 - Easier Dispersal
 - Wind Readily Available
 - Birds Perch and Drop Seed

Challenge: Invasive Species

■ Common Culprits

- Ailanthus/Tree-of-Heaven
- Privet
- Autumn Olive
- Trifoliolate Orange
- Multiflora Rose
- Japanese Honeysuckle
- Sericea Lespedeza



Credit: Missouri Dep't of Conservation

Ailanthus Field Border



Challenge: Invasive Species

■ Treatment

- Depends on Species Type
- Foliar Sprays for Invasive Forbs and Vines
- Woody Species (e.g. *Ailanthus*, *Autumn Olive*)
 - Foliar Herbicide Sprays of Young Shoots
 - Basal Bark Sprays
 - Hack-and-Squirt
 - Cut and Treat
- Often require heavier duty herbicides than just glyphosate (e.g. RoundUp Ultra[®]) --- instead, choose a triclopyr (e.g. Garlon 4[®]) or imazapyr herbicide (e.g. Arsenal[®], Chopper[®]) --- consult a specialist

Challenge: Mindsets

- Clean Mentality
 - “We” like clean edges, green grass – wildlife doesn’t
- Recreational Mowing
 - “We” like everything 1 inch tall – wildlife doesn’t
- Natives vs. Non-natives
 - “We” like the pretty non-native at the nursery – wildlife doesn’t
- Cats – Don’t Create a Trap



Funding - State

- State Quail Best Management Practices Program
 - Only in select counties (Culpeper, Greene, Madison, Orange and Rappahannock are closest to here)
 - Only available for agricultural lands
 - Can be used for the following edge practices:
 - Field Borders
 - Idled
 - Native Grass Plantings
 - Native Grass and Shrub Plantings



Funding - Federal

- Environmental Quality Incentives Program
 - Administered by USDA-NRCS
 - Must meet EQIP Requirements
 - Available Statewide
 - Competitive
 - Can be used for the following edge practices:
 - Brush Management for Invasives (Mechanical and/or Chemical)
 - Herbaceous Weed Control
 - Field Borders
 - Tree/Shrub Establishment or Hedgerows
- Conservation Reserve Program's CP-33

What's Next?

- If Interested in More Information:

- Contact:

- David Bryan

- David.Bryan@va.usda.gov

- (540) 899-9492 ext. 101

- James Barnes

- jbarnes@pecva.org

- (540) 347-2334

- pecva.org

- dgif.virginia.gov

- bringbackbobwhites.org



Questions?