Agroforestry Opportunities Mid-West, Lake States and New England





Northeast Ohio Windbreak Program

Key Points

- 17 NW counties
- 10 acres and 1,000 row feet
- Landowner pays \$0.34 per row foot (2013)
- 1-6 rows of trees and shrubs
- Trends: protect crops and improve wildlife habitat



2013 Windbreak Planting Season Summary

- 9 new windbreaks were planted in six counties totaling 75,172 row feet (14.2 miles), covering approximately 33 acres.
- 8,435 seedlings were used to plant new windbreaks:
 - 4,415 conifers
 - 4,020 hardwoods & shrubs
- Approximately 110 seedlings were used for windbreak replacements.
- 7 planting days were needed from April 1 through April 8, and May 8, 2013.
- One planting crew was used with Division of Forestry personnel.



Ohio

- Mushroom workshops OSU Extension
- Ohio Maple Producers Association
- Northwest Ohio Windbreak Program crop and homestead windbreaks
- Rural Action –Athens, OH
- Roots of Appalachia Growers
 Association medicinals

Wisconsin

- Alley cropping
- Windbreaks
- Maple syrup
- Silvopasture
- Forest Farming
- Mid-West Hazelnut Growers
 Conference March 2014



Entomoforestry trees and insects

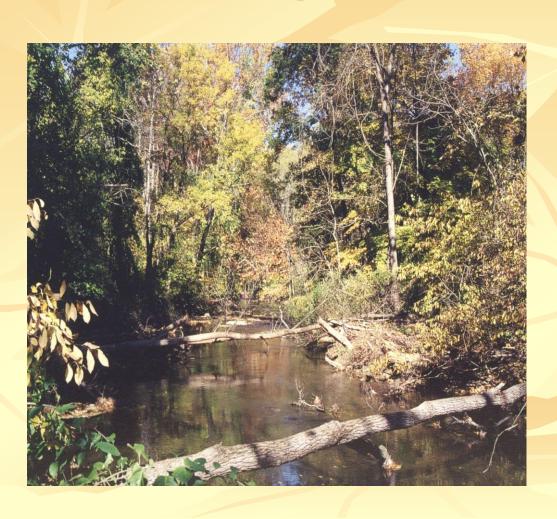


Nectar Sources

- Alders
- Willows
- Maples
- Fruit trees
- Tulip Poplar
- Black Locust
- Basswood
- Asters
- Berries
- Clover



Aquaforestry trees and aquaculture



Illinois

- Windbreaks and riparian buffers mainly through CRP
- Alley cropping, NTFPs,
 Silvopasture gaining some interest
- Mid-American Agroforestry
 Working Group (MAAWG)–
 Training Academy, MN July
- Maple syrup many producers, no organized association

Missouri

Windbreaks

Mushrooms





Missouri Alley Cropping



Missouri

- Silvopasture mainly for plantations; not promoting native woodland or hardwood pasturing
- Forest Woodland Association shittake mushroom workshop
- Nat'l Agroforestry Center demos
- Diggers medicinal plants

Elderberry Symposium Columbia, MO - June 2013



Mid-American Agroforestry Working Group (IA, MN, MO, NE&WI)

Agricultural Marketing Resource Center Center for Agroforestry, University of Missouri Center for Integrated Natural Resources & **Agricultural Management, University of Minnesota** Forest Agriculture Enterprises LLC, Wisconsin Green Lands, Blue Waters, Minnesota Red Fern Farm, Iowa Trees Forever, Iowa **University of Minnesota Extension USDA Agricultural Research Service USDA Natural Resources Conservation Service**

New York

- NY Maple Producers Association
- Northeast Forest Mushroom Growers Network
- NY Nut Growers Association
- NY Agroforestry Center Acra, NY
- Cornell University
 - Arnot Teaching and Research Forest –
 Van Etten, NY

New York Alley Cropping



New Hampshire

- Mushrooms small and beginning farmer workshops
- NH Maple Producers Association
- Black birch- processing for microbrews
- Hobby markets
- No organized agroforestry groups

Chaga Mushrooms Inonotus obliquus





Maine

- More wild harvesting than cultivated
- Wreaths balsam fir
- Maine MapleProducers Ass'n

- Blueberries 70 MM pounds
- Woody ornamentals and decoratives

Fiddleheads

photos courtesy Dave Fuller, ME Extension





Vermont

- #1nationally in maple syrup production
 - 1.2 MM gallons in 2013
 - \$27 MM in revenues
- Fiddleheads
- Mushrooms small markets for cultivated mushroom; chaga mushroom harvesting on the increase
 - Lots of trespass
- No Silvopasture

Common Threads

- Forestry Extension plays a big part in outreach and education
- Maple producers in most states
- More wild harvesting than Forest Farming (cultivated)
- Windbreaks in Lake and Mid-West states
- Silvopasture not encouraged by most state forestry agencies

Common Issues

- Poaching and trespass are major concerns by landowners
- Rotational grazing systems are not being used
- Non-Timber Forest Products vs. forest farming
- No organized agroforestry advocates except in OH, MO, NY, MAAWG
- What is Agroforestry?

Questions?







Silvopasture Combining trees and forage with livestock production.

MO-plantations



Riparian Forest Buffers Iowa South East PA









Trees

- Walnut
- Pecan
- Oak
- Loblolly pine
- White pine



Companion Crops

- Soybeans, corn
- Cool-season grasses
- Wheat, barley, oats
- Forage crops clover, alfalfa
- Specialty crops –
 Christmas trees,
 landscaping plants and
 shrubs, fruit trees
- Biomass Crops willows, birches, poplars

Planning Considerations





Negative impacts happen

Planning Considerations

- Forest or agriculture zoning and land use regulations
- Tax regulations
- Potential timber markets
- Soil types
- Species compatibility



Forest Farming

Manipulating the forest to grow specialty crops



Aromatics

- Balsam fir
- Birch
- Cedar leaves
- Cedarwood
- Hemlock
- Sassafras
- Spruce
- Wintergreen



Aromatics

- Cooking
- Perfumes
- Cosmetics
- Chewing gum
- Repellants
- Room sprays
- Cleaners
- Crafting



Extracts



- Sweet birch
- Devil's club
- Ginseng
- Goldenrod
- Cranberry
- Ginger root
- Witch hazel
- Goldenseal

Forest Botanicals



- Angelica
- Catnip
- Echinacea
- Horsetail
- Lobelia
- Spearmint
- Mullein
- Pipsissewa

Forest Botanicals



- Bloodroot
- Cohosh
- Foxglove
- Ginseng
- Goldenseal
- Mayapple
- Sumac
- Wild onion

Wild Fruits and Berries

- Blackberry
- Black cherry
- Crabapple
- Currant
- Elderberry
- Blueberry
- Huckleberry
- Mulberry
- Pawpaw
- Persimmon
- Raspberry
- Strawberry



Fruit and Berry Products

- Jelly and jam
- Juice
- Salad dressing
- Sauce
- Candy
- Wine
- Cider
- Beer



Cones and Seeds

- Spruce
- Hemlock
- Pine
- Oak
- Walnut
- Alder
- Cedar
- Other nuts



Cooking Wood, Smoking Wood, and Flavorwoods

- Alder
- Hickory
- Apple
- Oak
- Sugar Maple
- Cherry



Wood Decoratives



- Aspen
- BaldCypress
- Black gum
- Redwood
- Willow
- Grapevine
- Maple
- Juniper
- Tupelo

Wood Decoratives



- Musical instruments
- Gun stocks
- Jewelry boxes
- Lamps
- Cutting boards
- Walking sticks
- Ornaments

Florals



- Alder
- Bittersweet
- Cattails
- Dogwood
- Fir boughs
- Grapevine
- Moss
- White birch bark

Honey





Nuts!

- Acorns
- Beechnut
- Black walnut
- Butternut
- Hazel nut
- Hickory
- Pecan
- Chestnut



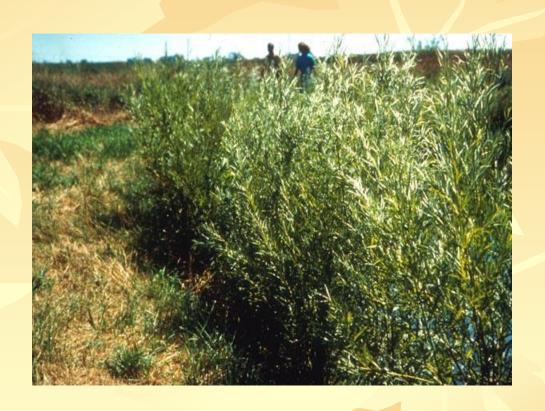
Nuts!

- Candy
- Baked goods
- Ice cream
- Cleaning abrasives
- Glues
- Paints



Weaving Materials

- Alder bark
- White birch
- Black ash
- Hemlock
- Hickory
- Oak woods
- Willow
- Vines
- Pine needles



Weaving Materials

- Ash
- Virginia creeper
- Sedges & rushes
- Beargrass
- Bittersweet
- Honeysuckle
- Sweetgrass



Dyeing Plants

- Aspen
- Alfalfa
- Black walnut
- Bloodroot
- Buttercup
- Cattail
- Dandelion
- Goldenrod
- Horsetail
- Milkweed
- Sumac
- Tansey
- Yarrow



QUESTIONS?

