

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 Maple

Producers Ass'n

- Blueberries – 70 MM pounds

- Woody ornamentals and decoratives



Fiddleheads

photos courtesy Dave Fuller, ME Extension



Vermont

- **#1 nationally 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
- Bald Cypress
- 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



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Nutrition Facts	
Serving Size 1 Tablespoon (21g)	
Amount Per Container (50)	
Calories 50	
	% Daily Value*
Total Fat 0g	0%
Sodium 0mg	0%
Total Carbohydrate 12g	6%
Sugars 10g	20%
Protein 0g	0%

NET WT. 44 OZ (2 3/4 LBS.)
1.25 KG.

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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?

