

*Working Trees offer a range of options*



# A diverse portfolio

Most financial planners agree: diversification reduces risk. Just like managing a financial portfolio of stocks and bonds, managing a land portfolio must blend an individual's investment style with various investment instruments. This issue of *Inside Agroforestry* identifies a mix of alternative agroforestry investment options.

### Alternative crops

Allocating time and resources to alternative crops can be straightforward, and easy to reevaluate or roll over into another production venture.

### Alternative enterprises

Prospective risk-takers are looking for innovative ways to obtain a larger share of the consumer's dollar. Alternative enterprises, like U-pick operations or producing goods for niche markets, add

value to conventional agricultural production methods, and thus contribute to the economic and environmental sustainability of both farm and community.

### Ecosystem services

Until recently services like clean air and water purification, decomposition of waste, and climate regulation haven't been seen as revenue sources. These processes are worth trillions of dollars annually, but because they are difficult to assign a price tag to, they are overlooked and potentially threatened. However, ecosystem services and market-based conservation are gaining as slow but steady investment alternatives.

Today a savvy producer realizes that green space and *Working Trees* are realistic ventures. 🍁

## Inside



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CONNECTIVITY =  
POTENTIAL CASH COWS

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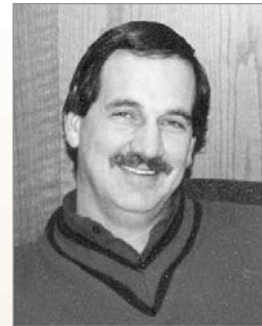
THE COLOR OF MONEY  
(JUST PRETEND THE BROWN INK IS GREEN).

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SILVOPASTURE,  
STEP BY STEP

## NAC Director's Corner

A commentary on the status of agroforestry  
by Dr. Greg Ruark, NAC Program Manager



### It's hard out there for a farmer...

... and you can never have too many options. Farmland in the United States, is converted to residential and commercial uses at a rate of almost four million acres annually. Those landowners that remain often find themselves located near or even adjacent to expanding cities. Scaling up the production of conventional agricultural crops like corn and soybeans seldom helps to increase the economic bottom line unless someone has a lot of land. Sometimes even that does not help.

This issue shows how some landowners have been able to take advantage of agroforestry options. Farm and forest lands adjacent to cities can play a critical role in maintaining ecosystem services and connecting green space at the rural and urban edge, while presenting new income

opportunities. We examine how agroforestry windbreaks can be integrated into organic food production systems to provide physical buffers between organic fields and conventional farming operations to prevent herbicide drift, limit the spread of pollen from genetically engineered crops, and reduce wind speed for bees and other pollinators. In Illinois, the Travis family learned how to convert a patch of unwanted and aggressively spreading wild onions into a sustainable and profitable "ramp" enterprise. In Mississippi, a landowner kept a diary of his experience in converting his native pasture into a loblolly pine silvopasture system. These are only a few examples of how agroforestry practices can help sustain farmers and farmland.

### A website working for *Working Trees*

The USDA National Agroforestry Center's website is new and improved! More than just a facelift, the site was redesigned from the ground up. By complying with W3C standards, we ensure accessibility for all visitors.

Check out the steady stream of agroforestry-related news on our blog, or subscribe to the RSS news-feed and let the news come to you! Looking for agroforestry images for your publication or presentation? Our new image library contains our best photographs and illustrations. More new features are on the way.



Visit NAC online at  
[www.unl.edu/nac](http://www.unl.edu/nac).

### Edible woody landscapes

Typically, urban-type landscape plantings do not achieve their full potential for wildlife or people. Incorporating edible woody plants into a design can create beautiful gardens that provide food for both. Woody landscapes that include fruit and nut trees increase opportunities for wildlife feeding, watching, and photography. Many plants produce showy and fragrant flowers; multicolored stems, leaves, and fruit; and provide visual interest year-round. For more information, see the "Edible Woody Landscapes For People And Wildlife" brochure on NAC's website: [www.unl.edu/nac](http://www.unl.edu/nac).



Get the

# edge

with **Working Trees**

The rural/urban interface is the physical place between a community and the agricultural area surrounding it. This zone is often occupied by people with two completely different sets of goals, lifestyles, daily activities, and expectations. Mixing the two can lead to problems. For instance, in this “zone of conflict” urban residents may object to agriculture’s influence on the adjacent environment like livestock odors, herbicide drift, and slow-moving equipment. At the same time, farm or ranch neighbors can be resentful of urban intrusion into their day-to-day activities.

Using tree-based buffers as a transition zone between land uses can help “reconnect” agriculture and communities, thereby creating a more sustainable landscape.

Farms near cities can take advantage of a nearby labor force for

certain types of intensive production activities, and can also produce food and other agricultural products for direct sale to the nearby population. Finally, there is great potential for education of the general public about the food system; where and how food is produced is becoming an increasing concern for some urban residents.

Planning now for future needs allows for creative solutions that can

## **Agroforestry can help “reconnect” agriculture and communities, while also diversifying a landowner’s income.**

provide many future benefits. A number of farming enterprises can flourish at the interface when



Direct marketing through farmers markets is an important outlet for agricultural producers. Photo courtesy USDA NRCS.

enhanced by *Working Trees*. Non-farmers provide a consumer base for direct sales of farm products including fresh fruits and vegetables, beef, pork, poultry, dairy products, eggs, and nursery landscape plants. Marketing options include:

- U-pick vegetable and fruit sales: short commute distances for customers and ease in publicity due to proximity to city.
- On-farm, roadside sales markets, or farmer’s market: locating on blacktop and well-traveled roads help increase visibility and sales.
- CSA ventures: community supported agriculture

see **Interface** on page 8



## **Alternative enterprises**

Alternative enterprises can take many forms. They can produce food and fiber or have little to do with agriculture. They can produce new or unique crops or livestock or add value to traditional agricultural products. They can produce fun, recreation, nature-based, or educational products. They can rely on traditional farm practices or use alternative methods, such as organic systems. They can be labor and resource intensive or require few inputs. They can operate seasonally or year-round.

But, alternative enterprises have a common theme: farmers and ranchers rely on the natural resources of their land – the soil, water, air, plants, wildlife, and scenery – to keep their family on the farm and the farm in their family. Since the land’s resources generate income, conserving those resources only makes good business sense. In many cases, the value-added alternatives can be combined to yield an even higher income to the farmer or rural community.

### **There are several innovative ways to add value to the farm and generate more income:**

- Grow a commodity for a special market.
- Change the form of a commodity before it is marketed.
- Change the way a commodity is packaged for market.
- Change the way a commodity is marketed.
- Add a new enterprise.





# GREEN FROM GREENS



Fairbury,  
Illinois

## Marty and Kris Travis' farm is located near Fairbury, Illinois, in Livingston County.

In the beginning, Kris and Marty Travis did not intend to harvest wild onions. They merely wanted to keep the perennial forest herb from crowding out the other wildflowers. Marty's cousin, the owner of the 26-acre Illinois woodlot had approach them, concerned that the onions were taking over. That was three years ago. Today, these greens provide almost 70 percent of their total farm income.

Ramps (*Allium tricoccum*), also called leeks or wild onions, are bulbs native to eastern North America. They can be found in patches of rich, moist, deciduous forests from as far north as Canada, west to Missouri and Minnesota, and south to Tennessee and North Carolina. In late winter or very early spring, each plant sends up two or three broad, smooth, ovate leaves, which grow to 8 to 12 inches tall. Ramps reproduce by bulb division as well as by seeds. Large colonies can blanket a whole hillside or cove. Harvest usually starts in late March and early April and continues into May, until the tree canopy shades the understory and the ramp leaves die back.

In March 2003, the Traveses harvested 3,500 pounds of ramps from one-tenth of an acre. They sold them to a distributor for \$14,000 (twice as much income as generated from the rest of their farm's 100 acres of corn and soybean). In 2004 they harvested fewer ramps but generated a higher price-per-pound by selling them directly to restaurants, in addition to distributors. Restaurants paid \$8.00 to \$10.00 per pound whereas the distributors paid \$4.25 per pound. This year, the Traveses harvested just under 4,000 pounds of ramps and several pounds of seed which they



will sell to interested entrepreneurs. For the past two years, they have hosted a "Chef's Day," for nearly 30 chefs and other "foodies" from Chicago and downstate. The chefs help dig, wash

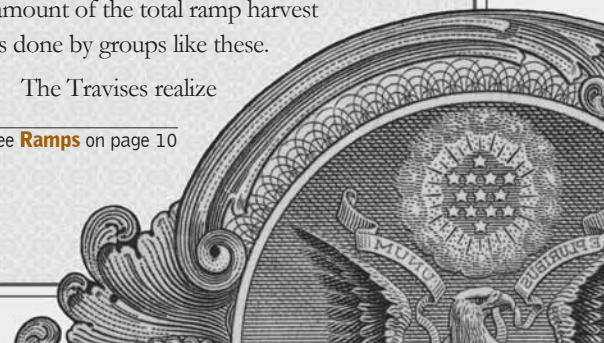
and package ramps in the morning. Then they move into the kitchen to prepare delicious recipes for folks. The Traveses plan to expand the Chef's Day and reduce direct sales to distributors. They are going to test market providing ramp flowers to one of their big customers in the Chicago area.

Digging the ramps is labor-intensive and hard work. The last harvest took about 4 to 5 weeks. Kris and Marty dig most of the ramps themselves with help from high school students that dig and wash ramps during their spring break. When the students return to school, local retirees finish up. Students are paid \$5 per box (dug) and \$8 per box (dug and washed). The retirees are paid \$6 per hour.

In recent years, the market for ramps has grown from a local item to a delicacy on the menus of restaurants in cities like Atlanta, New York, and Chicago. Still, harvesting ramps remains a tradition in many communities.

Annual ramp festivals in North Carolina, Tennessee, and Virginia are fundraisers for many local organizations and communities. Research by Dr. J. Chamberlain, USDA Forest Service, indicates that up to 80 percent of these groups' annual income comes from ramp festivals, and a considerable amount of the total ramp harvest is done by groups like these.

The Traveses realize  
see **Ramps** on page 10







Windbreaks can protect melons from pesticide drift and from damage caused by strong winds, ensuring a higher quality crop for producers.  
*Original photo by Richard Straight.*



# Certified.

**Kimberly Stuhr**  
NAC Technology Transfer Specialist  
Lincoln, Nebraska

No longer just a niche market, organic food and the consumers who buy it are becoming a larger part of the mainstream. The organic sector has grown at least 20 percent per year for the past decade, and currently shows no indication of slowing down. Consumers are increasingly concerned about where and how their food is produced, and they want access to safe and healthy fare, which makes organic a viable and attractive choice for a growing number of producers.

To sell a crop as “organic” it must have been, among other things, raised on land where no

**The organic sector has reached \$7 billion annually and continues to grow at a steady pace.**



synthetic chemical inputs (including fertilizers, herbicides, insecticides, or fungicides) were applied for three years prior to harvest. Also, no “genetically modified organism” (GMO) crops, like

Roundup® Ready soybeans or Bt-corn, are allowed in organic production. Organic growers and certifying agents are naturally concerned about contamination from pesticide drift and potential cross-pollination with genetically-engineered crops. Well-designed windbreaks can offer many advantages to organic producers; in addition to their obvious function, to protect crops from physical damage by strong winds, windbreaks can provide a higher level of assurance that the buffer zone between organic fields and non-organic uses will remain effective as surrounding conditions change.

Windbreaks can reduce movement of applied agricultural chemicals from fields by reducing wind speeds in the fields, and by intercepting the chemical agents as the drift plume passes through the windbreak. Windbreaks can also help mix the drifting compounds vertically in the air by disrupting airflows at the field edge, thereby reducing the concentration of the chemicals in the drifting air. Canada’s draft standard recommends “a hedgerow or trap crop that is 1.5 times the height of the adjacent crop treated with prohibited materials and at least eight meters wide.” Specifics are case dependant; more extreme measures may be necessary adjacent to major sources of contaminants.

In October 2002, regulations set forth by the USDA National Organic Program (NOP) went into effect. Section 202.202(c) of the NOP requires a producer to provide “distinct, defined boundaries and ‘adequate’ buffer zones to prevent the unintended application of a prohibited substance to land under organic management.”

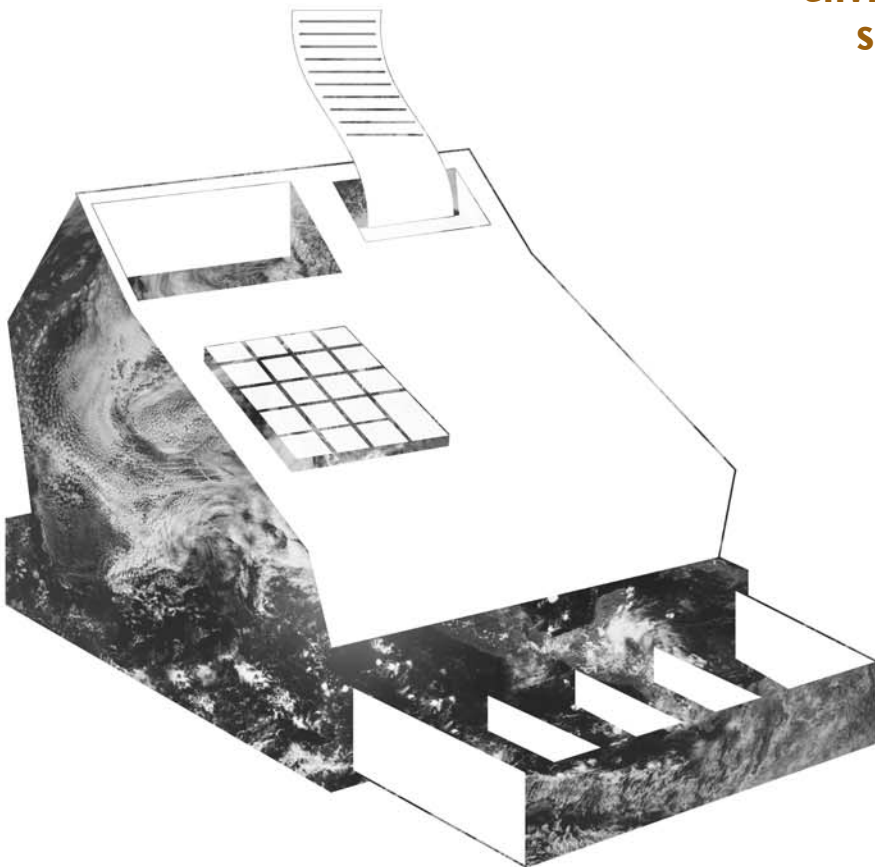
see **Organic** on page 10

# BUYING & SELLING THE EARTH

**H**ealthy ecosystems provide a wide range of economic, environmental, and aesthetic goods and services. We readily recognize goods provided by farms and forests like fruits, vegetables, and timber. Some services, however, are so fundamental to life that they are easy to take for granted; so large in scale that it is hard to imagine that human activities could irreparably disrupt them. For example, bacteria, fungi, and invertebrates help make soil fertile and break down wastes and organic matter; insects, bats, and birds pollinate flowers; trees and other vegetation hold soil in place, regulate the water cycle, supply food for animals, and provide aesthetic beauty and

Secretary of Agriculture, Mike Johanns, announced a new USDA policy on Market-Based Environmental Stewardship

**“...to broaden the use of markets for environmental and ecosystem services through voluntary market mechanisms.”**



spiritual experiences. These services, and the ecological systems that supply them, are so interconnected that they are difficult to quantify and assign value.

Because we are not billed for these services, the true worth of healthy ecosystems is not recognized or accounted for on society's balance sheet. Scientists, however, estimate that the worldwide value of all of these services is \$33 trillion per year. Regardless of their estimated value, they are considered public services because their use and benefits are not exclusively controlled or received by the landowners.

## **Markets**

In a traditional market system, buyers and sellers come together to exchange

goods or services. In the case of ecosystem services, sellers such as owners of forestland, wetlands, and grasslands are providing clean air, clean water, and wildlife habitat. Buyers, such as power plants, community water treatment facilities, and developers may be interested in purchasing credits to offset air emissions, water discharges, habitat/wetland destruction, or simply ensure future benefits.

### Motivation

- Government or public payments to private landowners through conservation incentives and tax credits.
- Voluntary payments to private landowners for philanthropy, public relations, ethical considerations, or protection of investments. For example, a developer might pay a forest landowner to maintain an attractive view, or a bottled water company may protect its water source by paying upstream landowners to implement good management practices.
- Regulations to drive entities to seek more efficient compliance, such as conservation payments. For example, the EPA watershed-based permit for the Tualatin River basin wastewater treatment plants in Oregon allows trading methods to achieve the permit requirement for temperature. Instead of installing refrigeration systems at two Tualatin River treatment plants (at a cost of more than \$60 million), the wastewater utility will pay upstream farmers to plant shade trees in the riparian area (at a cost of about \$6 million).

### Barriers

Markets and mechanisms to assign worth, quantify delivery of services, and target benefits to buyers are currently being developed. There are concerns, however, about: the quality of the services; potentially high transaction costs of facilitating, quantifying, and verifying the services; and a lack of knowledge among buyers and sellers. ✨



### What is the USDA doing?

In August 2005, the Secretary of Agriculture issued a memorandum on USDA Roles in Market-Based Environmental Stewardship. This memo established an undersecretary-level council to facilitate department activities and outlines responsibilities for promoting environmental credit trading to improve the environment and fulfill agency missions. This council will:

- Establish a role for agriculture and forestry.
- Develop a portfolio of tools, models, and procedures for accounting and reporting.
- Enable USDA partners to take advantage of stewardship markets.
- Promote the use of voluntary reporting registries.
- Implement a communication plan, both internally and externally, to promote market-based approaches, and conduct outreach, education, and technology transfer.



### What is the NRCS doing?

Market-based conservation is a set of economic principles and guidelines taken from the free market and applied to our natural resources. NRCS overarching strategy is to facilitate the growth of market-based opportunities that encourage business and industry to invest in conservation on private lands.

- Encourage broader participation in market-based efforts.
- Build infrastructure – internal capacity, communications, research, and strategies to increase the use of marketing principles.
- Develop measurement tools that demonstrate the effectiveness of various conservation practices.



### What is the Forest Service doing?

Ecosystem Services refers to a wide range of conditions and processes through which natural ecosystems, and the species that are part of them, help sustain and fulfill human life.

- An ecosystem coordinator is the primary point of contact and liaison for agency actions involving activities and issues related to ecosystem services and market-based environmental stewardship.
- A Carbon Market Team is identifying opportunities and making recommendations for forest carbon trading systems.
- An agency Ecosystem Service Advisory Group is providing strategic advice and a set of recommended actions to the agency executive leadership team.



## Interface

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delivers a weekly supply of products to subscribers.

- Organic production and sales: this sector continues to increase at 20 percent per year in the US and has reached \$7 billion annually.
- Direct marketing: meats and vegetables for ethnic markets.

Depending on the rural nature of the farm environment, the space available for certain recreational activities, and the ecological services provided by the rural landscape, there are additional enterprises that can be sources of diversified income for interface farm families. Windbreaks and riparian forest buffers can provide raw materials and enhance the natural beauty of these enterprises. Some options include:

- Horse boarding stables, training, and places for riding: growing interest in equestrian sports in the US opens this opportunity for farmers.



Producers can use alternative enterprises or agritourism to help children cultivate an interest in agriculture. *Photo by Rich Straight.*

- Wildcrafting or harvest of wild or semi-wild foods: harvesting mushrooms, berries, or other wild fruits can be a source of income.
- Hunting and fishing on private lands, fee hunting: close proximity to cities

may make hunting difficult, but fishing in ponds or streams may be possible.

- Facilities for special events and catering: some farm families have prepared facilities for weddings, parties, corporate picnics, encounters with livestock, and other child-friendly activities.
- Sports: hiking, cross country skiing, camping, snowmobiling, and bicycling tours.
- Birding and wildlife: wildlife watching generated \$32 billion in retail sales in 2001.
- Landscape and flowers: flower shows/nurseries, prairie restoration.
- Heirloom/exotic animals and heirloom plants.
- Miscellaneous: cooking demonstrations, craft center, general store/souvenirs, and moonlight activities.

*Adapted from:* Farming on the Edge: Agriculture at the Rural/Urban Interface.



## Agritourism

“Agritourism” is a partnership business that can provide a supplemental, off-season income, or it can grow into a year-round primary business. This crossroads of tourism and agriculture allows a producer to generate profits by replacing or supplementing traditional farm operations with innovative on-site ventures. There is a growing concern in the farming sector that consumers are increasingly disconnected from their food supply and, subsequently, the policies that support agriculture. Agritourism provides a means for the agriculture community to reconnect with the consumer. For tips on evaluating potential agritourism ventures, visit ATTRA, [www.attra.org/attra-pub/pickyour.html](http://www.attra.org/attra-pub/pickyour.html).

All aboard! Agritourism is a growing industry in the United States. It helps optimize the connectivity between rural and urban landscapes, and narrows the gap between producers and consumers.

*Photo by Rich Straight.*

### Agritourism ideas include:

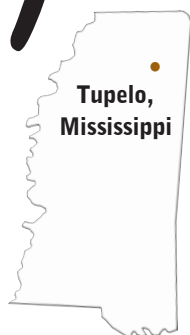
- Seasonal sales and activities: U-pick; small animal petting pens; crop art; mazes and tunnels (corn, hay, sudan), hay rides; sleigh rides, sledding, and ice skating (plus, hot snacks afterward); Christmas trees.
- Agricultural events: festivals, regional identity marketing, tractor pulls.
- Tours: scenic byways, barns, wineries/distilleries/breweries, cider pressing/tasting, maple sugaring, rural education centers, living history farms, historical sites and museums, antique farm equipment.
- Extended visits: bed & breakfasts, vacation farms, dude ranches, retreat centers.



*From my experience, intensive management is the key to this system. If a silvopasture is not managed, it won't function properly.*

# Silvopasture diaries

*Lyn Ellison  
NRCS Forester  
Tupelo, Mississippi*



I *decided* to incorporate a 40-acre silvopasture system into my farm operation during the summer of 2003 after traveling to Florida and Alabama with Jim Robinson, an agroforester with the USDA National Agroforestry Center. I tailored information from examples I saw to fit my site in Chickasaw County, Mississippi. My plan was to establish a silvopasture system with improved loblolly pine trees and improve the pasture grass. Here is a summary of the steps I took.

## *Establishment*

### *June 2003*

Before I ordered seedlings, I visited with Tannis Danley, the Nursery Manager of Bellville Supertree Nursery in Bellville, Georgia. I described the soil type, pH, and overall condition of the site and I explained the raised planting beds I would construct. She recommended loblolly pine seedling families from International Paper (IP) Select 2d Generation. Tannis said, "International Paper provides the genetics, a landowner provides the environment. To get maximum growth and survival both must be intensive."

### *June - August 2003*

Tested soil, fertilized, and harvested two cuttings of hay.

### *September 2003*

I set up the planting beds and added two tons of lime per acre to the entire site. After several rainstorms, I ran a cultipacker over the beds to compact the soil. This eliminated air pockets and created optimum planting conditions for the pine seedlings.

### *December 2003*

We hand-planted IP seedlings on a 5x9-foot spacing. I set a two-row silvopasture system up with 40 foot between each set of two rows of trees. This worked out to be 326 seedlings per acre.

### *Early March 2004*

I band sprayed (six-foot band) the seedling beds with 3 oz. Oust Extra per acre.

see **Diaries** on page 11

A silvopasture is born. Newly-planted loblolly pine seedlings await their complimentary grass planting next fall.

Original photo courtesy Lyn Ellison.

## Organic

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Integrating windbreaks into a farm ecosystem provides many additional benefits for organic growers:

- Windbreak species can be selected to help develop a natural balance of insect pests and predators.
- The buffer zone can be used to grow non-organic forage or feed crops. Windbreaks offer additional crop production choices for home use: seeds, fruit, and even supplementary feed for livestock.
- Crops grow more efficiently when protected from extreme temperatures.
- More effective pollination and better fruit set are possible since bees and other pollinating insects are not exposed to strong winds. Also, wind protection produces more marketable fruit with fewer skin blemishes and abrasions.
- Windbreaks can reduce fire hazards, provided windbreak species are selected with this function in mind. Of course, windbreaks of readily flammable species can potentially increase fire hazard.
- Trees provide a mulch source when windbreaks are trimmed or when temporary internal windbreaks are removed.
- In drier climates, windbreaks can trap snow, thereby improving spring moisture conditions.
- Many wildlife species benefit from the diverse habitat that trees and shrubs provide. The linear nature of windbreaks makes them invaluable as travel corridors.

Organic farming is a complex challenge but a promising alternative for producers. Despite the rigorous standards growers must meet, the number of organic farmers continues to increase steadily. Today, there are approximately 10,000 certified organic producers in the United States.

For more information, visit the USDA National Organic Program website, [www.ams.usda.gov/nop](http://www.ams.usda.gov/nop). 🍁

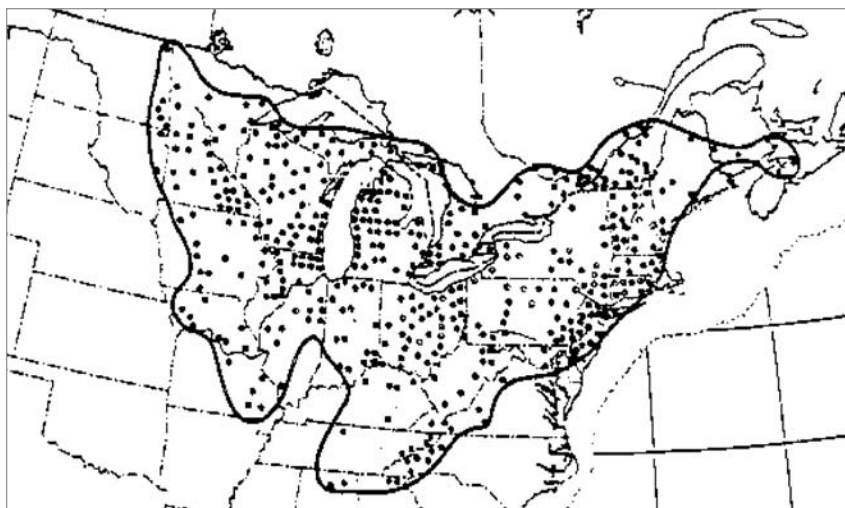


Figure 1. Geographic distribution of *Allium tricoccum*. (Jones 1979)

## Ramps

continued from page 4

that ramps are a major crop and income for their farm and that the production and exposure of ramps will increase in the future. They continue to make furniture, harvest pawpaw fruit, and are involved in farm education with hopes that the diversity of income will show other farmers and young people that there are many alternatives to genetically modified corn and soybeans.

Typical harvest methods remove the whole plant and significantly disturb the regeneration. Studies on ramps show that a ramp population needs many years to recover from a single harvest of this nature. This means that ramps are a vulnerable species to large-

scale, frequent harvesting. Also, logging and ridge-top housing development have long-term impacts on ramp populations; although the extent of the impact is unknown at this time.

There have been studies on cultivation of ramps (Jeanine M. Davis and Jacquelyn Greenfield, *Cultivating Ramps: Wild Leeks of Appalachia*) that indicate that ramps can be cultivated successfully for commercial purposes in a forest setting. Harvesting ramps from easily accessible, concentrated plantings could benefit festival participants, chefs, and consumers, but also create a new marketable product for the commercial grower.

*Adapted from an internal Food and Agriculture Organization (FAO) report by Emil Nilsson, FAO Intern 2004.*



Some common tools of the trade include a good pair of leather gloves, a digging tool, and a sturdy bag to take home the "fruits of the labor" for washing and cooking.

*Photo by Dr. James Chamberlain.*



## Diaries

continued from page 9

### Late June 2004

The beds became overgrown with signal grass and foxtail so we sprayed again with 5 oz. Arsenal AC, 1 oz. Oust, and 1/2 oz. Escort with 15 gallons per acre (GPA) of water. By controlling the competing vegetation the trees were able to grow all summer and into the fall. Like Tannis said, "without a good environment the superior genetics are not fully utilized."

### August 2004

The pasture grass was sprayed with 5 quarts glyphosate to 20 GPA of water to kill summer and winter grass in preparation for planting MaxQ™ fescue, a cool season perennial grass. We decided on MaxQ™ for two reasons: 1) the pastures will be utilized by brood mares, and 2) we planned to use these pastures for winter grazing.

### Future management

- Fertilize each year as needed according to yield and soil test results.
- Introduce white clover as a companion crop for the MaxQ™.
- Establish central livestock watering system.
- Divide property into grazing cells so that we can manage animal impact on the soil, pines, and MaxQ™ Fescue.
- Mares will be moved every seven days into a new grazing cell. If the pastures start to become over-grazed, we will reduce number of head or remove the entire herd.

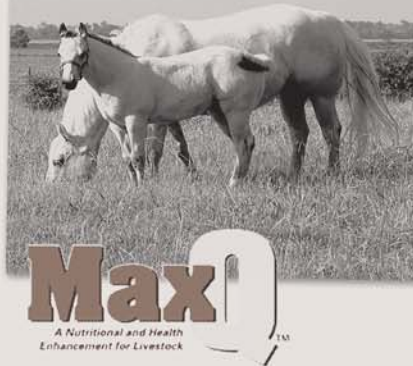


Left, Lyn Ellison stands next to loblolly pine trees on his farm in the spring of 2005. Below, horses graze a MaxQ™ fescue pasture.

Photos courtesy Lyn Ellison.

### October 2004

We drilled in 25 pounds of MaxQ™ fescue per acre.



### April 2005

I sprayed pastures with Weedone LV4 EC to control buttercups and band sprayed the pine seedlings with 4 ounces Arsenal AC, 3 oz. Oust Extra with 15 GPA to control grass near the trees. We also applied fertilizer to the MaxQ™ and the pine seedlings. My seedlings got 35 pounds of Nitrogen and 50 pounds of Phosphorus. The pastures received double this amount. Another cycle of pasture fertilization followed in October.

### Summer 2005

I cut hay on the silvopasture twice to keep the MaxQ™ from producing seed heads. Cutting promotes tillers and increases grass stand density.

### Benefits

This system offers a number of benefits over other pastures on our farm.

- First, we generate additional cash flow from these acres by producing a foal crop that we market each year. The timber benefits from the herbicides we use and especially from the fertilizer applied to the grass. This fertilizer will convert more tons of pine per acre, which translates to dollars at final harvest. Essentially, I have created a cash flow pasture which is also my farm retirement plan.
- By planting MaxQ™ fescue we have reduced our need for hay and eliminated the annual planting of ryegrass for our winter grazing. Since we don't have to till the soil each fall, soil stays on the farm instead of eroding into the creek.
- We share our pastures with deer, turkey, and quail. We move the mares to summer perennial pastures from June to September, so wildlife have the pasture to themselves. This past summer, quail and turkey successfully nested in the areas between tree rows.
- Our farm provides quality habitat for the horses and for wildlife. It provides us with a yearly cash flow and also offers long-term financial security for my family and future generations. 🍁



# Upcoming Events

## August 15–17, 2006

2006 Sustainable Agriculture Research And Education (SARE) National Conference. Oconomowoc, WI.

Contact: Linda Kleinschmit, 402–254–3310, [lkleinschmit@nebraska.edu](mailto:lkleinschmit@nebraska.edu), [www.sare2006.org](http://www.sare2006.org).

## September 5–8, 2006

Floodplains, Riparian Zones, And Buffer Strips. Columbus, OH. Contact: Holly Bartholomew, 843–471–2357,

[bartholomew.6@osu.edu](mailto:bartholomew.6@osu.edu), <http://streams.osu.edu/conf.php>.

## October 25–29, 2006

Eighty-Sixth Annual Society Of American Foresters National Convention: "Our Woods: Wild And Working." Pittsburgh, PA. Contact: Society Of American Foresters, 1–866–897–8720, [www.safnet.org/natcon-06](http://www.safnet.org/natcon-06).

## November 12–16, 2006

Annual Meetings Of The American Society Of Agronomy, Crop Science Society Of America, Soil Science Society Of America, Indianapolis, IN. Contact: Keith Schlesinger, 608–273–8080, [kschlesinger@agronomy.org](mailto:kschlesinger@agronomy.org), [www.acsmeetings.org](http://www.acsmeetings.org).

For more upcoming events, visit our website calendar: [www.unl.edu/nac/calendar.htm](http://www.unl.edu/nac/calendar.htm).



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[www.unl.edu/nac](http://www.unl.edu/nac)

## Mission

The USDA National Agroforestry Center (NAC) is a partnership of the Forest Service (Research and Development and State and Private Forestry) and the Natural Resources Conservation Service. It is administered by the Forest Service, Southern Research Station; and its program manager and headquarters are located in Huntsville, AL, on the campus of Alabama A&M University, while its research, clearinghouse, and technology transfer staff are concentrated in Lincoln, NE, at the University of Nebraska. NAC's purpose is to accelerate the development and application of agroforestry technologies to attain more economically, environmentally, and socially sustainable land use systems. To accomplish its mission, NAC interacts with a national network of partners and cooperators to conduct research, develop technologies and tools, establish demonstrations, and provide useful information to natural resource professionals.

## Policy

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# Inside Agroforestry

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