

Finding



in the
2014

Farm Bill

Pg. **6** Whole Farm Revenue Protection

Pg. **11** Implementing Silvopasture with Farm Bill Programs



NAC Director's Corner

A commentary on the status of agroforestry by Susan Stein, NAC Director

This issue of *Inside Agroforestry* provides examples of how USDA Farm Bill programs such as the Conservation Reserve Enhancement Program (CREP), the Environmental Quality Incentives Program (EQIP), and the Sustainable Agriculture Research & Education (SARE) grant program support agroforestry implementation, research and education. While critically important to the advancement of agroforestry and other sustainable agriculture practices, these programs represent only one slice of the pie. A vast array of Farm Bill programs support

a host of other activities in America's rural and urban areas. These include programs run by the US Forest Service in association with State Forestry agencies to conserve and sustain America's 360 million acres of private forest lands as well as those to restore public forest lands. In addition, Farm Bill programs support organic agriculture certification and implementation, markets for local and regional agriculture, new and beginning farmers, bioenergy research, rural housing, and so much more. Farm Bill programs are an effective tool to enhance the sustainability of our rural and urban landscapes through agroforestry and many other conservation practices.

Finding Agroforestry Opportunities within SARE

Article based on an interview with Rob Hedberg, Director, Sustainable Agriculture Research & Education

Kate MacFarland

USDA National Agroforestry Center

The mission of the Sustainable Agriculture Research and Education (SARE) program is to advance innovations that improve profitability, stewardship and quality of life by investing in groundbreaking research and education. Managed by the National Institute for Food and Agriculture (NIFA), the SARE program has a variety of opportunities available for landowners, natural resource professionals, researchers, non-profits, and others interested in agroforestry.

Three programs that have provided significant support for agroforestry include:

Farmer/ Rancher Grants

Also referred to as producer grants in some regions, these grants are for farmers and ranchers who want to explore sustainable solutions to problems through on-farm research, demonstration, and education projects. They do not support establishing new farms or farm enterprises, but can be used for testing new ideas.

Professional Development Grants

These grants, which often use a train-the-trainer approach, support training for agricultural educators and service providers with the Natural Resources Conservation Service, or in the extension, private, or not-for-profit sectors. Projects often use farmers as educators. Some of the best professional development projects have included demonstrations of successful practices through a variety of means, including inviting successful farmers to speak at workshops or visiting farms to see, first-hand, how practices have been implemented.

Producer + Professional Grants

Also called partnership or on-farm grants, these are targeted at agricultural professionals (such as Cooperative Extension or Natural Resources Conservation Service staff) who coordinate a project, with a farmer or rancher serving as project advisor.

SARE also has grants for graduate students and researchers that can support projects related to agroforestry. As of 2015, SARE has funded sustainable agriculture work by over 500 graduate students, thus helping to support the next generation of sustainable agriculture professionals.

Continued on page 10

Farm Bill | 2014

agroforestry

On February 7, 2014, President Obama signed the Agricultural Act of 2014 (2014 Farm Bill). This bill provides numerous opportunities for landowners to get financial support for agroforestry through USDA programs. Although the Farm Bill includes many more funding programs than described here, the programs covered represent federal sources with the greatest application to agroforestry. The primary programs for agroforestry establishment are the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program, (CSP), Agricultural Conservation Easement Program (ACEP), Conservation Reserve Program (CRP), and Continuous Conservation Reserve Program (CCRP).

	Alley Cropping	Riparian Forest Buffer	Windbreak	Silvopasture	Forest Farming	Tree Planting
EQIP	F	F	F	F	F	F
CSP	-	S	S	S	S	S
ACEP	-	F,E	-	F,E	F,E	F,E
CRP	F,R	F,R	-	-	-	F,R
CCRP	-	F,I,R	F,I,R	-	-	F,I,R

*not all practices or programs are available in all states

F = Financial Assistance **I** = Incentive Payment **R** = Rental Payment **E** = Easement Payment **S** = Stewardship Payments

Other programs relevant to agroforestry producers:



Loans:

- Direct and Guaranteed Farm Loans
- Down Payment Loans
- Microloans
- Conservation Loans
- Farm Storage Facility Loans



Cost Share/Incentives:

- National Organic Certification Cost Share Program
- Biomass Crop Assistance Program



Insurance:

- Organic Crop Insurance
- Whole Farm Revenue Protection for Diversified Farms



Processing & Selling Assistance:

- Good Agricultural Practices and Good Handling Practices Audit Verification Program
- Business and Industry Loan Guarantee Program's Local and Regional Food Enterprise Provision
- Value-Added Producer Grants

Other:

- Conservation Reserve Program – Transition Incentives Program
- National Sustainable Agriculture Information Service/ATTRA

For more information, please go to:

<http://usda.gov/farmbill>

LIVING SNOW FENCES

SAVE LIVES • SAVE MONEY • SAVE TIME

Financial assistance for living snow fences in Minnesota

Eric Ogdahl

University of Minnesota

“SAVE LIVES, SAVE TIME, SAVE MONEY.” This phrase may sound like an overly optimistic advertisement for some new miracle drug but, in Minnesota and other cold-weather states, it’s actually seen on roadside signs next to rows of trees and shrubs, preceded by the words “Living Snow Fences”.

Living snow fences (LSFs) are windbreaks planted to keep snow and ice from blowing off of farm fields and onto adjacent roads. They do this by creating wind turbulence along their length, causing blowing snow and ice particles to deposit in drifts around the barrier. Most of the drifts form downwind of the snow fence, requiring it to be set back a certain distance from the protected roadway.

Indeed, LSFs have been shown to effectively reduce blowing snow and ice on roadways, which otherwise can require high snow removal costs, involve many road salt applications, increase travel time, and raise the risk of motorist accidents. The Minnesota Department of Transportation (MnDOT) estimates that an average of \$17 in snow removal costs is saved for every dollar they invest in LSFs. However, in most cases, the state-owned rights-of-way are not wide enough to accommodate the necessary (or required) setback distance. Consequently, most LSFs are placed on private land. Many farmers lack time and money required to plant and maintain living snow fences. Fortunately, there are a number of state and federal programs that can financially assist farmers in installing and maintaining LSFs on their land. These include the Conservation Reserve Program (CRP), Environmental Quality and Incentives Program (EQIP), and MnDOT’s LSF program.

CRP and EQIP are two USDA programs included in the 2014 Farm Bill that can be used to establish LSFs. These programs are administered by the Farm Service Agency (FSA) and

Natural Resources Conservation Service (NRCS), respectively. Both programs provide technical and financial assistance to eligible landowners to address conservation issues, such as reducing soil erosion or improving water quality, on their land. CRP primarily applies to cropland or pastureland, while EQIP is more flexible in its land eligibility requirements. With the continuous sign-up CRP LSF practice (Conservation Practice 17A), producers sign a 10 to 15 year agreement to install and maintain a LSF. Under the continuous CRP they receive a sign-up incentive payment, partial compensation for the eligible costs of installing and maintaining a LSF, and annual land rental payments.

EQIP contracts, on the other hand, vary in length and only provide partial compensation for the costs of installing and maintaining a LSF. While EQIP does not provide an annual rental payment, it is more flexible than CRP regarding the landowner’s management options. A key trade-off between CRP and EQIP is that the vegetation planted under EQIP can be harvested, given that it maintains full functionality, whereas this is not permitted under continuous CRP. For example, berries on a row of shrubs included in a LSF could be harvested under EQIP but not under CRP.

In Minnesota, CRP and EQIP agreements can be used in coordination with an agreement from the Minnesota Department of Transportation (MnDOT) to assist landowners in installing and maintaining LSFs along sections of state roadways with blowing snow problems. Under MnDOT’s LSF program, landowners receive an annual payment based on the landowner’s snow storage area, an annual maintenance rate, and the Farm Product Price Index (FPPI). The snow storage rental rate is based on the acreage of the snow storage area. This is determined by multiplying the length of the snow fence by a 150 foot snow catch area directly downwind of the snow fence. If the snow catch area is planted into a native prairie mixture, MnDOT matches 100% of the Continuous Conservation Reserve Program (CCRP) soil rental rate for the land; otherwise, MnDOT matches 50 percent of the CCRP soil rental rate, paying no less than \$50 per acre.

In addition to the snow storage rate, MnDOT pays the landowner an annual fee of \$155 per acre to maintain the LSF through watering, weed control, pruning, and other best management practices. Together, the annual snow storage rental rate and maintenance rate

**A living snow fence in southern Minnesota.
Photo by Gary Wyatt**

create the baseline payment for MnDOT's LSF agreement. This payment can be increased during the contract if the previous year's FPPI, which reflects agricultural commodity values, increases above the FPPI of the year prior to sign-up. If the FPPI declines, MnDOT's payments to the landowner will not fall below the baseline value at the time of sign-up.

Considering that MnDOT's payments occur on top of CRP or EQIP payments, Minnesota's LSF program can provide substantial incentives for landowners to incorporate an agroforestry practice. However, there is still a large need for landowners to sign up. MnDOT has identified 3,841 areas, totaling 1,233 miles, along state roadways where blowing snow is a severe problem. Since 2002, when Minnesota's collaborative LSF program began, MnDOT has issued 69 contracts, 10 to 15 years in length, through CRP or EQIP, resulting in the protection of 22 miles of state roads. While not a small accomplishment, this only represents approximately 2 percent of the problem areas. Thus, while Minnesota has developed a unique

collaboration with two Farm Bill programs to assist landowners, more work is still needed to spread the word and help save lives, time, and money. Both CRP and EQIP support living snow fences in several other states, in addition to Minnesota. Landowners interested in this practice should contact their local FSA or NRCS office to determine their eligibility for these programs.

Resources

The University of Minnesota's Blowing Snow Control Tools website:
<http://snowcontroltools.umn.edu/>

The Minnesota Department of Transportation's living snow fence webpage:
<http://www.dot.state.mn.us/environment/livingsnowfence/>

Converting Planted Pine to Silvopasture: Benefits Cattle and Timber

Michael Goodchild
Institute of Food and Agricultural Sciences Extension
University of Florida

Silvopasture is an agroforestry practice that combines trees, forage, and livestock to optimize production of all three. The term "silvopasture" means "forest-pasture," where "silvo" is derived from a Latin word that means "forest." Silvopasture can be established by planting trees in an existing pasture, or by planting forage in an existing stand of trees. This article provides recommendations for converting planted pines to silvopasture.

In Walton County, Florida, fully stocked pine stands and previously thinned pine stands have been transitioned into silvopasture over a two year period with proper management. Thinning pine stands to a 40-60 basal area, or approximately 150 trees per acre is ideal. The diameter of your trees at breast height (DBH) determines basal area and how many trees per acre you will have. A prism (10 factor for our area, cost around \$40) is used to calculate the basal area. Contact your local state forester or consulting forester to show you how to use the prism to determine basal area.

The most common design for a new silvopasture stand is 2-3 solid rows of trees with 40 feet or more of open space between each set of rows. Make sure diseased and dead trees are removed from each row to keep the

understory clean for forage production. Tree size and health needs to be considered per stand. Initial planning and management is important before logging commences. Natural pine stands can also be converted to silvopasture, but the focus of this article is on conversion from planted pines.

Once the stand has been thinned, prescribed burning is the next step, followed by a shallow disking (4-6 inches) to avoid tree root damage. In some situations, a herbicide application may be needed to kill underbrush like yaupon holly and privet, if fire doesn't do the job.

Soil testing to determine liming requirements is important as most pine stands have acidic soils. A pH of 5.5-6 would be ideal; a higher pH could negatively affect the growth of your pine trees.

Pensacola bahiagrass, combined with overseeded ryegrass in the winter are a proven combination for silvopasture in this area, both for establishment and financial considerations. Other varieties will work, but may be less adaptable or cost more. Depending on ground cover, various types of planting methods can be used to get your grass established. No-till drills, three-point PTO spreaders, or even cows can be used to

stomp in your seed. Different types of clover can also be planted with the ryegrass in the fall to provide a nitrogen source that will benefit both trees and grass. Also the partial shade provided from the planted pines will extend the growing season for some of the less heat tolerant varieties of clover.

Stocking rates for cattle will depend on the amount of forage in the stand. Initially it will be low until the forage is established.

In summary, research has shown that timber production and cattle production can work well together, if managed properly. Diversification of agricultural land helps manage market risks, and can increase income over the long term. Cost-share programs for silvopasture may be available in your county through the Natural Resource Conservation Service (NRCS) Environmental Quality Incentives Program, to help offset some of the establishment costs.

For more information on converting expiring CRP into silvopasture, please see NAC's Working Trees Information Sheet:

<http://bit.ly/1OmFOmU>

Whole-Farm Revenue Protection: Reforming Risk Management for Diversified Farming Operations



Photo: Nicolas A. Tonelli

James Robinson
Rural Advancement Foundation International - USA

Risk Management, Credit, and Crop Insurance

Historically, farmers managing specialty crop and diversified farm operations often have not had access to crop insurance or were not able to insure their crop at the price point of high-value markets. Lack of access put producers at an obvious risk-management disadvantage. This higher risk also made it more difficult for these producers to access the credit needed to start and grow their agricultural operations. Because crop insurance, in most cases, guarantees some revenue, credit providers consider producers with crop insurance to be a safer bet. Consequently, farmers without access to crop insurance were at a two-fold disadvantage.

For more than a decade, USDA's Risk Management Agency (RMA) provided whole-farm insurance called Adjusted Gross Revenue (AGR) and Adjusted Gross Revenue-Lite (AGR-Lite). AGR and AGR-Lite had many attractive features for farmers that had been historically underserved by crop insurance. These programs could cover the entire revenue of a farm rather than one crop and provided a premium discount for diversifying income across multiple crops. However, availability of these policies was geographically limited and farmers reported additional access barriers, including cost and coverage levels. As a result, AGR and AGR-Lite were underutilized by eligible farmers. For example, in North Carolina only three AGR-Lite policies were sold in each of the last three years of the program.

The disadvantage faced by farmers lacking access to risk management programs was perhaps most acute during the North Carolina tobacco transition. Farmers found themselves needing to replace lost tobacco

income in the late 90s, a consequence of ending the tobacco quota program. Replacing tobacco income often required diversifying crops and accessing high-value markets, such as farmers' markets and markets for organic or specialty products. However, the lack of crop insurance for diverse, high-value operations stood in stark contrast to the extensive risk management available for tobacco. It also increased the risk of farming during the transition, especially from a lenders perspective. Vollmer Farm in Bunn, NC serves as a typical tobacco transition case study. John Vollmer, who passed away last year, served as president of the North Carolina Tobacco Growers Association in the 1980s, but foresaw the end of the tobacco quota program and transitioned his farm to a highly diverse fruit and vegetable operation, which is now run by his son Russ. Despite the success of the operation, John called the lack of risk management programs a challenge.

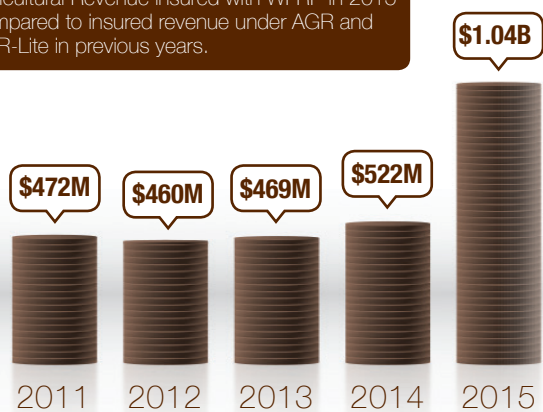
Whole-Farm Revenue Protection

The 2014 Farm Bill required changes to whole-farm insurance, resulting in the development of Whole-Farm Revenue Protection (WFRP). RMA developed WFRP during 2014 and made the policy available for the first time in 2015, replacing AGR and AGR-Lite as RMA's whole-farm insurance policy option. WFRP in 2015, thanks to RMA's collaboration with diverse stakeholders within the agricultural community, made significant improvements over AGR and AGR-Lite. The maximum subsidy level was increased from 59 percent to 80 percent, which reduced the cost for farmers. In addition, the program is available in all but five states and the coverage level was increased from a maximum of 72 percent to a maximum of 85 percent.

Since the end of the sales closing period for 2015, preliminary data indicates that farmers approve of WFRP. Policies sold increased 34% across the country with the majority of new policies being sold in counties where AGR and AGR-Lite had previously been available. There was also a 100 percent increase in agricultural revenue insured (program liabilities) from prior years when AGR and AGR-lite were available (Chart I).

The strong positive sales indicators demonstrate the demand for the program. However, long-term success of the policy depends on both farmers' willingness to sign up for the policy and their experience with loss adjustment. 2015 claims will not be filed until farmers have filed their 2015 taxes. A full evaluation of WFRP's performance, both as a safety net for farmers and an insurance program bound by actuarial soundness requirements, will not be possible until claims data is available.

Chart I: Agricultural Revenue insured with WFRP in 2015 compared to insured revenue under AGR and AGR-Lite in previous years.



Source: RAFI chart of USDA Summary of Business data as of 9/2/15

Figure 1 Whole Farm Revenue Protection (WFRP) Comparison

	WFRP 2016	WFRP 2015	AGR-Lite	AGR
Type of coverage	Revenue	Revenue	Revenue	Revenue
Tax History	3 Years of Schedule F Forms	5 Years of Schedule F Forms	5 Years of Schedule F Forms	5 Years of Schedule F Forms
Maintain Eligibility if Missing Tax years Due to Physical Inability to Farm	Yes	No	No	No
Diversification Incentive	Yes	Yes	Yes	Yes
Coverage Level	50%-85%	50%-85%	65%-80%	65%-80%
Payment Rate	100%	100%	75%-90%	75%-90%
Maximum Subsidy	80%	80%	59%	59%
Livestock Revenue Limits	\$1 million	35% of total revenue and no more than \$1 million	none	35% of total revenue
Nationwide Availability	Yes	No	No	No
Covers Post Production Expenses	Yes, on-farm, post-production expenses that do not add value	Yes, on-farm, post-production expenses that do not add value	No	No
Liability Limit	\$8.5 Million	\$8.5 Million	\$1 million	\$6.5 million

Source: Author's analysis of programs.

 Denotes changes to whole-farm insurance in 2015 and 2016.


2016 Changes to WFRP

It is important to note that preliminary outcomes have been positive despite barriers that exist in the 2015 version of WFRP. For example, beginning farmers could not access the policy until developing five consecutive years of revenue history. Additionally, farmers missing one year of revenue history, even as the result of a medical condition or military deployment, were ineligible.

In August 2015, RMA announced additional changes to WFRP for the 2016 crop insurance year that are designed to address these and other remaining barriers, starting with the 2016 crop year. These include reduced revenue history requirements for beginning farmers and farmers missing a year of revenue history as a result of illness or military deployment, as well as nationwide availability, a first for any RMA crop insurance policy. These changes further improve the potential for WFRP to be a successful program and, most importantly, further extend the agricultural safety net for historically underserved producers. “WFRP has the potential to have a dramatic impact on the success of a wide variety of farms in Texas, providing protection options that have not been available previously. Small fruit and vegetable operations as well as diversified farms have not really had any product that covered their entire operation in an affordable way,” says Susie Marshall, President of the Texas Organic Farmers and Gardeners Association. A detailed list of key changes made to whole-farm insurance in 2015 and 2016 can be found in Figure I.

Why Are the 2016 Changes So Important?

The first iteration of WFRP expanded the availability and coverage options beyond what AGR and AGR-lite provided. However, beginning farmers still needed 5 years of farm revenue history to be eligible, proving a significant obstacle for beginning farmers seeking a risk management program. Farmers in five states in the Mid-South were also ineligible, putting some agricultural operations in those states at a competitive disadvantage with those in neighboring states. Thus, 2016 WFRP changes ensure earlier access and more equitable access, addressing some of the major objectives facing whole-farm insurance reformers when work began in 2013. Underscoring the importance of crop insurance reforms made through the development of WFRP, Dean Benson, Senior VP of Insurance Services at Farm Credit Northwest, says, “We feel [WFRP] is a very important risk management tool and have tried to get the word out to as many producers within our marketing territory as possible and will continue to do so for 2016.”

The enrollment period for WFRP in 2016 began September 1, 2015 and closes, depending on your state, in January, February or March of 2016. If you are interested in WFRP for your farm, further information is available on the USDA fact sheet about WFRP. Enrolling in WFRP is done through private crop insurance agents. If you do not have a crop insurance agent, you may find an agent through the USDA crop insurance agent locator. 

Opportunities & Constraints

Using federal cost-share programs for a multifunctional riparian buffer establishment

Kate MacFarland
USDA National Agroforestry Center

Katie Commender
Virginia Tech

Riparian forest buffers have long been valued for many benefits, including water quality enhancement, stream bank stabilization, wildlife habitat, and cooling effects on streams. In more recent years, the potential economic benefits of conservation buffers are recognized as they can also include trees and shrubs that produce crops of native fruit, nuts, and florals. Landowners can harvest and sell these crops for additional income or consume them at home. Opportunities to use federal cost-share programs to establish these “multifunctional” riparian forest buffers are growing.

Recently, a non-profit organization, Appalachian Sustainable Development (ASD), and its partners have been working to create multifunctional riparian forest buffers in southwest Virginia. For many years, the U.S. Fish and Wildlife Service’s Partners for Fish and Wildlife (FWS PFW) Program has worked with landowners in the Clinch River watershed to enhance and restore habitat for threatened and endangered fish and mussel species. Although landowners were often on board with in-stream improvements and stream bank restorations, they were generally not interested in riparian forest buffers. Many expressed concern that a 35 foot riparian forest buffer would cut into their hay profits and reduce their farmable land.

ASD’s Non-Timber Forest Products program began partnering with the FWS PFW Program to establish multifunctional riparian forest buffers with edible and floral species. Landowners who were not initially interested in establishing riparian forest buffers became enthusiastic about adoption. By the end of 2016, nearly a dozen landowners will have established multifunctional riparian forest buffers covering 23 acres in the Clinch River,

Holston River, and Powell River watersheds. These buffers include elderberry, pawpaw, hazelnuts, redosier dogwood, pussywillow, and persimmons, along with many others species.

In 2014, ASD partnered with Virginia Tech, the FWS PFW, and the USDA National Agroforestry Center (NAC) to continue this work through a Conservation Innovation Grant from the USDA Natural Resources Conservation Service. The grant supports the establishment of 10 to 15 acres of multifunctional riparian forest buffers and the development of outreach materials. These materials will cover technical and economic aspects of managing multifunctional buffers and marketing their products. Part of this work will also involve developing recommendations for buffer establishment and management for possible use in other efforts - the NRCS/Virginia Plant Establishment guide; the Farm Services Agency’s Conservation Reserve Enhancement Program (CREP); the NRCS’ Environmental Quality Incentives Program (EQIP); and the Virginia Department of Forestry’s riparian forest buffer recommendations. A farmer mentor program will also be created to connect new, interested landowners with existing landowners who have already adopted the practice. This will include scheduled farm tours to existing multifunctional riparian forest buffers. Lastly, this project will update NAC’s Buffer\$ tool so that landowners can compare profits from multifunctional riparian forest buffers with profits from crop production and traditional conservation buffers.

Some multifunctional riparian forest buffers have already been established with cost-share through the NRCS Environmental Quality Incentives Program (EQIP), which can be used to support buffer

establishment costs and some management costs. It’s important to note that EQIP pays for conservation grade trees and shrubs, so the left-over cost of planting more expensive species and cultivars is borne by the landowner. Still, the program can provide support to landowners interested in planting these buffers.

Other USDA programs are less compatible with multifunctional riparian forest buffers in the short term. For example, while the Conservation Reserve Program (CRP) plays an important role in establishing riparian forest buffers across the country, this program’s guidelines prohibit harvesting and gaining income from land in a CRP contract and limit management opportunities. Certain edible and floral species are on the approved list for buffer plantings. As a result, CRP funding could be used to help establish these trees and shrubs, with harvest occurring after the contract period ends. However, this depends largely on the discretion of the conservation agent. This program is thus often not as good a fit for multifunctional riparian forest buffers.

Whatever the route to establishment, multifunctional riparian forest buffers can provide many benefits to landowners and society, including resource conservation and income. Native fruits and nuts can help to strengthen special connections with local tradition, culture, and folklore. Multifunctional riparian forest buffers also allow landowners the opportunity to think broadly about conservation and diversify their incomes as well as the foods they eat and/or sell.

Look for NAC’s upcoming Working Trees information sheet on “Why add edible and floral plants to riparian forest buffers?” to learn more about this important topic. 🌱

Sweetening the Pot for Conservation:

Voucher Program to Accelerate use of Federal Programs for Forested Riparian Buffers and other Agricultural BMPs in Pennsylvania's Portion of the Chesapeake Bay Watershed

Clair Ryan
Chesapeake Bay Foundation

The Chesapeake Bay Foundation (CBF) works closely with state, federal, local, and other not-for-profit partners to accelerate the planting of forested riparian buffers on agricultural land in Pennsylvania and other Chesapeake Bay states. Farmers have long been able to utilize U.S. Department of Agriculture (USDA) programs like Environmental Quality Incentives Program (EQIP) and the joint federal/state Conservation Reserve Enhancement Program (CREP) to receive cost share for implementing agricultural best management practices (BMPs). Through CREP, participating farmers earn annual rental payments for land taken out of production and put into conservation. However, during tough economic times and when milk and grain prices are largely stagnant, paying their portion of the initial establishment costs can be a difficult commitment for farmers.

Cognizant of the difficult choices faced by Pennsylvania's farmers and of the need to make marked reductions in agricultural pollution in order to meet Chesapeake Bay clean up goals, CBF developed a Buffer Bonus Program, through which the organization utilizes private foundation funds and state grants to offer cost share vouchers to farmers.

Here's how it works. If a farmer with streamside land agrees to plant a forested riparian buffer, usually with assistance through CREP, he or she then receives a voucher that can be used to pay for the farmer's share of any BMPs identified in the farm's manure management or nutrient management plan. Such practices might include installation of fencing, development of an alternate water source for livestock, heavy use area protection, stormwater diversion, improvement of manure storage facilities, implementation of rotational grazing, or the planting of cover crops. The caveat is that if the farm does not have the appropriate management plan, as required by state law for most commercial-scale farms that either generate or use manure, the farmer must first use the voucher for plan development. Thus, the voucher program makes forested buffers more palatable to farmers, helps decrease the sediment and nutrients leaving farms through buffers and other BMPs, helps improve the rate of farm compliance with state regulations, and can also help farmers' bottom lines by improving herd and soil health.

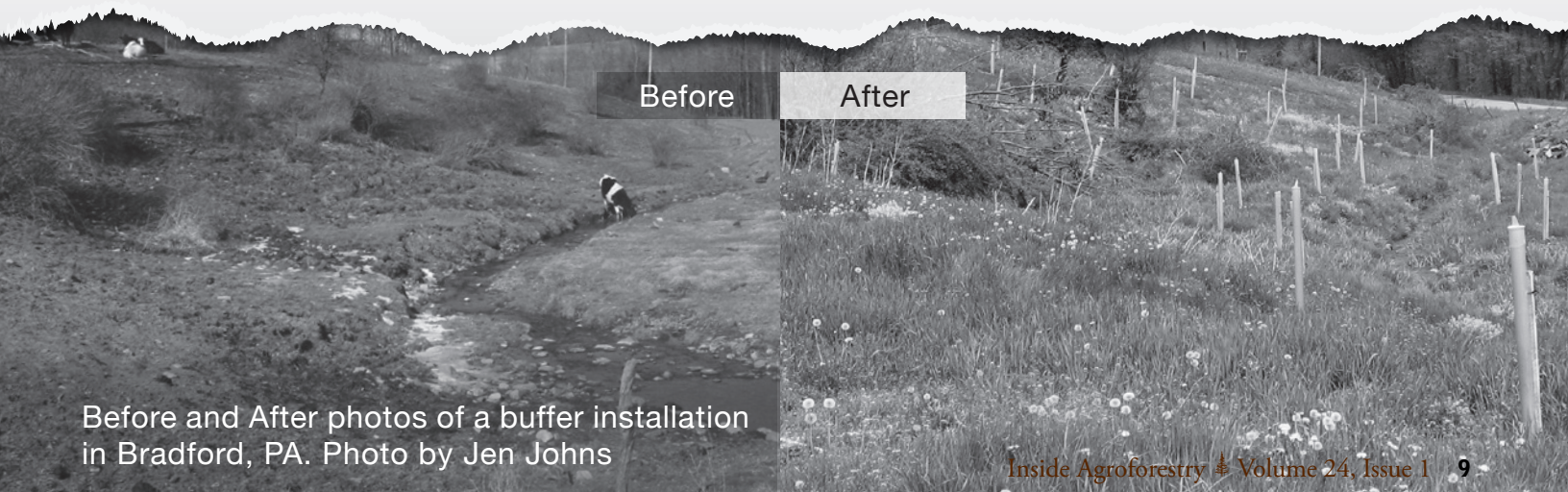
Participants in the Buffer Bonus Program have included Plain Sect (Amish and Mennonite) communities, who tend not to participate in government programs. Some farmers in these communities have established forested riparian buffers without government assistance in exchange for vouchers to be used for on-farm improvements.

The Chesapeake Bay Foundation, administers its Pennsylvania Restoration Program, including the Buffer Bonus Program, from its office in Harrisburg, PA. In addition to a program manager, CBF employs six field staff who work in various locations throughout Pennsylvania's portion of the Chesapeake Bay watershed. These staff work one-on-one with farmers in 19 counties to conduct outreach on the Buffer Bonus Program, CREP, and EQIP, while connecting farmers with additional resources available for farm conservation and nutrient management planning. Cumulatively, the work of CBF's field staff resulted in PA farmers committing 152 acres to forested riparian buffer during the period July 1, 2014 – June 30, 2015.

Response to the program varies by location. Lancaster, Juniata, and Bradford counties are three areas where CBF has seen high interest in the voucher program and greatly accelerated implementation of forested riparian buffers. In fact, CBF's Jennifer Johns and Stephen Smith were recently awarded the Alliance for the Chesapeake Bay and U.S. Forest Service's "Chesapeake Forest Champions" award recognizing on-the-ground impact for their work in Bradford County, alongside key partners from the Bradford County Conservation District and Natural Resources Conservation Service's (NRCS) District Office. Since the inception of CREP in Bradford County in 2003, partners have worked with farmers to establish more than 3,000 acres of buffer.

Despite noticeable progress, CBF and other partners recognize that there is still a lot of work to be done, in cooperation with farmers, in order to meet Federal and State milestones for improving water quality in the Chesapeake Bay.

CBF is committed to working with watershed partners to develop strategies to accelerate the adoption of on-farm practices that reduce erosion and nutrient loss, to the benefit of Pennsylvania's streams and rivers, and ultimately, the Chesapeake Bay. ♣



Before

After

Before and After photos of a buffer installation in Bradford, PA. Photo by Jen Johns

...Continued from page 2

Western SARE:
<http://www.westernsare.org/>

North Central SARE:
<http://www.northcentralsare.org>

Northeast SARE:
<http://www.nesare.org>

Southern SARE:
<http://www.southernsare.org>

Farmers may also get involved in projects through the Research and Education program, if they have working relationships with extension specialists or on-campus researchers. Research and Education projects provide replicated experiments and often rely on university resources to be accomplished.

One strength of the SARE program is that all projects include farmer engagement. Farmers are involved in identifying the problems to be addressed, the approach taken for the project, and mid-course corrections to improve the project. Farmer engagement in SARE projects ensures that information and resources produced by the projects are useful to farmers. While the national SARE website is a helpful gateway to the program, grants are administered through different SARE regions; specific information about each grant is available through the regional websites (see textbox). In addition to providing grants, SARE provides valuable reports on past projects supported with SARE funding. These can be accessed through the national website. To access agroforestry projects, search for agroforestry and then filter by project reports. 🌱

To find more information about SARE and stay informed of upcoming grant deadlines, join the SARE mailing list (<http://www.sare.org/About-SARE/Join-Our-Mailing-List>) or follow the SARE regions on social media.

SARE GRANT OPPORTUNITIES

Types of Programs

North Central Northeast Southern Western

		North Central	Northeast	Southern	Western
Who can apply?	Researchers, educators, non-profits	Research & Education	Research & Education	Research & Education	Research & Education
	Producers	Farmer/Rancher	Farmer	Producer	Farmer/Rancher
	Extension, non-profits	Professional Development	Professional Development	Professional Development	Professional Development
	Graduate students	Graduate Student	Graduate Student	Graduate Student	Graduate Student
	Community organizations, non-profits, extension	N/A	N/A	Sustainable Community	N/A
	Educators	Youth Educator	N/A	N/A	N/A
	Ag researchers	N/A	Agroecosystems Research	Large Systems	N/A

Farmer/Rancher Grant Example

Direct Marketing Non-Traditional Perennial Berry Varieties: Expanding Eater Preferences and Grower Connections

Problem: A growing number of organically managed orchards seek to diversify their farm production and product offerings. However, there are not many markets for small-sized fruits and fruit products. People express a desire for more fruit in CSA boxes and at local farmers' markets (Minneapolis MN, Baraboo, WI, Ashland, WI), yet they are not familiar with berries such as saskatoon, let alone how they should be priced. Little research exists on processing options, marketing messages, and pricing for our areas and scale of operation.

Solution: In this project, farmers Claire Hintz (Elsewhere Farm), Erin Schneider (Hilltop Community Farm), and Rachel Henderson (Mary Dirty Face Farm) addressed these marketing challenges by engaging, educating, and involving existing and future customers to determine uses, products, and pricing of less common small fruits. This information was used to identify the best markets and messages for small to mid-sized growers. Project participants built connections with local food enthusiasts. Fruits focused on included elderberry, currants (red, white, black), honeyberry, and saskatoon.

Source: <http://mysare.sare.org/MySare/ProjectReport.aspx?do=viewRept&pn=FNC12-864&y=2013&t=1>

IMPLEMENTING SILVOPASTURE

Silvopasture in Missouri. Photo by Dusty Walter



with Farm Bill Programs

Tom Ward
NRCS ENTSC

Amanda Schaller
NRCS Raleigh


Financial assistance for agricultural producers to implement conservation practices, including silvopasture, is available from several United States Department of Agriculture (USDA) Farm Bill programs. These include the Environmental Quality Incentives Program (EQIP) and Conservation Stewardship Program (CSP) managed by the Natural Resources Conservation Service (NRCS). Resource concerns addressed with silvopasture through these programs may include: soil erosion, soil quality degradation, water quality degradation, inadequate water quantity, inadequate wildlife habitat, and undesirable livestock productivity.

into existing pasture. There are also many choices of grasses and forbs that can be planted for forage into existing forestland.

Some states offer Farm Bill financial assistance through EQIP to establish silvopasture as a stand-alone practice, with payment made when both trees and forages are fully established. Other states will use EQIP to contract for thinning or planting trees and then separately contract a second activity to establish forages. North Carolina is an example of state utilizing a strategy of separately contracting establishment actions. Additionally, CSP may be utilized to provide some assistance with silvopasture development

assistance and what priority to place on the practices that are offered. Some states do not offer Farm Bill assistance for silvopasture; some offer assistance but make silvopasture a relatively low priority. The best way to determine the situation in your state is to visit your local USDA Service Center and request assistance for silvopastoral practices. If you find that NRCS in your state does not support silvopasture, or has not prioritized it for Farm Bill programs, you can seek to elevate silvopasture through your state's USDA State Technical Committee. State Technical Committees provide input to NRCS State Conservationists in administering Farm Bill programs. Contact your NRCS State Office and request to be placed on the next State Technical Committee meeting agenda so that you may request greater consideration of silvopasture among your state's priorities for financial assistance funding.

Silvopasture can provide many resource benefits. Compared with treeless pasture systems, silvopastured areas have less movement of water soluble phosphorous, greater capacity for phosphorous storage and retention, and higher water holding capacity. Compared with forage-free wooded systems, silvopastured land has greater filtration capacity, higher organic matter content, greater water holding capacity, and reduced runoff and erosion due to increased soil stability and filtration function. Additionally, when managed well, silvopasture areas can provide the benefits of increased quality of wildlife habitat and improved livestock production due to increased sheltering capacity. ♣



There are several possible strategies for establishing silvopasture and individual states are free to decide which ones best fit local conditions.

There are several possible strategies for establishing silvopasture and individual states are free to decide which ones best fit local conditions. Silvopastures can be created either by planting forages (grasses and legumes) into existing thinned forestland and plantations or by planting trees into an existing pasture. Existing forestland may be either hardwoods, conifers or some combination. Likewise, the aforementioned array of trees may be planted

and management. Although there are presently no CSP enhancements specifically for silvopasture, there are several that may be used to support silvopasture, such as "Intensive Rotational Grazing," "Integrate Grazing into Crop and Forest Systems," and "Prune Low Density Pine or Hardwood Trees for Improved Tree Quality and Wildlife Habitat."

Individual states are also free to choose which conservation practices to offer for Farm Bill

USDA National Agroforestry Center
1945 N 38th St.
Lincoln, NE 68583-0822

Official Business
Penalty for Private Use, \$300

Address Service Requested

PRSR STD
POSTAGE & FEES
PAID
USDA — FS
PERMIT NO G-40

Upcoming Events

February 3–6, 2016

Pennsylvania Association for
Sustainable Agriculture Conference
State College, PA
<http://conference.pasafarming.org/>

February 20, 2016

Oregon Small Farms Conference
Corvallis, OR
<http://smallfarms.oregonstate.edu/sfc>

February 23–March 29, 2016

Farm Scale Mushroom Cultivation
Online Course
<http://bit.ly/1QgwYYw>

For more upcoming events, visit our website calendar: <http://nac.unl.edu/events>

"Inside Agroforestry" is published by the USDA National Agroforestry Center.

Phone: 402-437-5178;
Fax: 402-437-5712.

- **Susan Stein**, NAC Director
- **Michele Schoeneberger**, FS Research Lead (ext. 4021)
- **Richard Straight**, FS Lead Agroforester (ext. 4024)
- **Vacant** - NRCS Lead Agroforester
- **Kate MacFarland**, FS Assistant Agroforester (ext. 4012)
- **Joseph Banegas**, Information Assistant/
"Inside Agroforestry" Designer (ext. 4014)

<http://nac.unl.edu>



National
Agroforestry
Center

NAC Mission

The USDA National Agroforestry Center (NAC) is a partnership of the Forest Service (Research & Development and State & Private Forestry) and the Natural Resources Conservation Service. NAC's staff is located at the University of Nebraska, Lincoln, NE. NAC's purpose is to accelerate the development and application of agroforestry technologies to attain more economically, environmentally, and socially sustainable land use systems by working 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.

USDA Non-Discrimination Policy

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the

responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at http://www.ascr.usda.gov/complaint_filing_cust.html and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.