



USDA is an
equal opportunity
provider and
employer.

October 2014

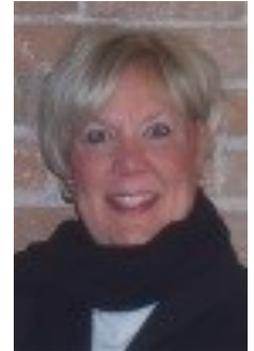


USDA NATURAL RESOURCES CONSERVATION SERVICE

Conservation News

A Note from the Acting State Conservationist

It is a pleasure to serve as Acting State Conservationist while Juan Hernandez is on detail to the NRCS National Office in Washington, DC. We expect Juan to be back in his role as State Conservationist sometime in February. In the meantime, our dedicated staff has closed out Fiscal Year 2014 with much to be proud of, and are starting Fiscal Year 2015 in full swing, with the implementation of the 2014 Farm Bill, its programs and its initiatives as our priority.



In late September, Congress approved and the President signed a Continuing Resolution (CR), which provides funding for the Federal government through December 11, 2014. The CR continues to fund the majority of our discretionary programs in an amount slightly less than what was provided in FY 2014. For mandatory programs that were not exempted from sequestration by the Budget Control Act, they will be subject to a sequestration rate of 7.3%.

I would like to share with you Chief Jason Weller's four priorities for FY 2015. To implement NRCS's mission, the agency will be pursuing these priorities.

1. Deliver excellent and innovative service.
2. Strengthen and modernize conservation delivery.
3. Enhance and expand NRCS's scientific and technical capabilities.
4. Broaden our reach, customers, and partners.

I would like to thank the Maine NRCS employees, our partners and private landowners who are implementing conservation practices to protect our natural resources, for all of their hard work and support during Fiscal Year 2014. As we have said over and over again, conserving our natural resources cannot be done by one person or one agency. It is a partnership effort, and we look forward to working with each and every one of you on this common goal during Fiscal Year 2015...and beyond.

Cathee Pullman

Inside this issue:

Transitioning from the 2008 Farm Bill to the 2014 Farm bill	2
The Benefits of Promoting Soil Health in Agriculture and Rural America	3
USDA Receives 600+ Pre-Proposals for New Program	4
Maine NRCS Provides Grants to Three Recipients	5
Field Day Includes Progress on Maine Conservation Innovation Grant on Bio-char	6
NRCS and PIN Sign Contribution Agreement That Will Benefit the Community	7
Farmer Coffee and Field Tour a Success	8
Soil Health Facts/Stats	10
Managing Manure through Composting	11
Personnel Update	12

Transitioning from the 2008 Farm Bill to the 2014 Farm Bill

Our thanks and appreciation go out to all NRCS employees and partners for all of their dedication and hard work in implementing the 2008 Farm Bill in Maine. As a result, Maine NRCS obligated \$63,645,938 through 3,547 contracts during this five-year period (FY 2009-2013). The table below shows the dollars that were obligated by field office in Maine.

Field Office	AMA # Contracts/\$\$\$	CStP # Contracts/\$\$\$	EQIP # Contracts/\$\$\$	WHIP # Contracts/\$\$\$	Total # Contracts/\$\$\$
Augusta	12 / \$223,441	20 / \$165,393	258 / \$4,569,303	14 / 97,263	304 / \$5,055,400
Bangor	7 / \$342,228	5 / \$250,270	237 / \$4,838,248	9 / \$289,646	258 / \$5,720,392
Belfast	11 / \$134,651	7 / \$46,502	316 / \$5,499,388	31 / \$323,960	365 / \$6,004,501
Dover-Foxcroft	1 / \$8,168	8 / \$133,509	104 / \$1,683,839	8 / \$173,368	121 / \$1,998,884
Farmington	1 / \$8,100	16 / \$285,239	280 / \$3,295,506	36 / \$429,029	333 / \$4,017,874
Fort Kent	5 / \$261,545	0 / 0	159 / \$2,815,953	3 / 98,297	167 / \$3,175,795
Hancock	1 / \$9,504	0 / 0	174 / \$1,810,904	15 / \$177,403	190 / \$1,997,811
Houlton	8 / \$405,946	25 / \$927,402	254 / \$5,199,978	17 / \$368,232	304 / \$6,901,558
Lewiston	11 / \$216,362	5 / \$58,377	258 / \$3,589,396	17 / \$313,043	291 / \$4,177,178
Machias	3 / \$102,679	3 / \$494,455	205 / \$3,257,182	15 / \$860,961	226 / \$4,715,277
Presque Isle	17 / \$1,128,028	3 / \$105,838	138 / \$4,978,437	12 / \$61,138	170 / \$6,273,441
Scarborough	7 / \$183,091	4 / \$29,950	262 / \$4,265,521	19 / \$495,616	292 / \$4,974,178
Skowhegan	3 / \$151,810	15 / \$316,435	233 / \$3,822,388	25 / \$1,158,726	276 / \$5,449,359
South Paris	5 / \$112,046	22 / \$155,537	206 / \$2,636,285	17 / \$280,422	250 / \$3,184,290
Total	92 / \$3,287,599	133 / \$2,968,907	3,084 / \$52,262,328	238 / \$5,127,104	3,547 / \$63,645,938

From the time that we transitioned into the 2014 Farm Bill on February 7, 2014 to the end of FY 2014 on September 30, we successfully obligated \$11,353,535 through 598 contracts. The breakdown by programs is as follows:

- Agricultural Management Assistance Program—28 contracts for \$1,154,264.
- Conservation Stewardship Program—2 contracts for \$1,285 on 135.9 acres.
- Environmental Quality Incentives Program—561 contracts for \$9,903,318.
- Wildlife Habitat Incentives Program (obligated in early 2014) - 7 contracts for Aquatic Organism Passage projects for \$294,668.

The Benefits of Promoting Soil Health in Agriculture and Rural America

NRCS Chief Jason Weller recently spoke before the Subcommittee on Conservation, Energy, and Forestry about soil health. Below are some of quotes from his testimony:

- “Today, our focus on soils goes beyond erosion to include the overall **health** of our nation’s soils. When we speak of improving soil health, we are talking about actually enhancing the soil’s capacity to function as a vital, living ecosystem that sustains plants, animals, and humans.”
- “Previously, we were mostly concerned with the chemical and physical qualities of soil, so focusing on soil health reflects a fundamental shift in the way we view and manage soils. As one farmer recently observed, ‘Anything can have quality, but only living things can have health.’”
- “NRCS has developed and launched an integrated campaign that emphasizes conservation planning that focuses on soil health and builds the information, tools, and knowledge needed to help producers enhance the health of their soils. There are many components of this effort that build upon one another. To date, we have focused on:
 - ⇒ Ensuring that the scientific basis for improving soil health is reflected in Agency conservation practice standards.
 - ⇒ Reviewing scientific literature and case studies to provide information needed by farmers on the benefits of soil health management systems to their ‘bottom line’.
 - ⇒ Modeling efforts at the national scale to help inform estimates of environmental benefits that may be achieved



through accelerated soil health management adoption.

⇒ Aligning funding priorities of our Conservation Innovation Grant Program to support soil health adoption needs.

⇒ Leveraging NRCS’s network of Plant Materials Centers to conduct coordinated evaluations of cover crop mixes and their impacts on soil health across different regions, and to use these Centers as soil health training sites.

⇒ Ensuring that all field staffs across the U.S. are trained in the basics of soil health....

⇒ Establishing an on-line training library that currently holds 28 soil health webinars...”

“Partnerships are key to the success of improving the health of our nation’s soils.”

• “Partnerships are key to the success of improving the health of our nation’s soils. The soil health move-

ment is exciting to be part of due to the speed of innovation and adoption by farmers and ranchers, as well as because of the huge array of partners—including agricultural production associations, universities, Soil and Water Conservation Districts, federal agencies, and non-profit conservation organizations—that are leveraging each other’s expertise and resources. Collectively, we are bringing forward new ideas, solutions, and practical on-the-ground know-how to support producers.”

(continued on page 4)

Promoting Soil Health (continued)

- “For NRCS, the core of our partnership is with individual farmers and ranchers with whom we work daily to plan and implement soil conservation measures that help them achieve their economic and conservation objectives. These producers are making positive soil health decisions field by field that together are generating benefits for not only their operations, but also at larger geographic scales such as in river or lake basins.”



- “The conservation programs supported by the 2014 Farm Bill are making a crucial difference in helping producers start soil health management systems on their operations. Soil health management is a systems approach that brings together suites of conservation practices that minimize soil disturbance, diversity soil biota, and maintain living roots and soil cover year round.”

- “The benefits of healthy soils are tangible for the producer, the environment, and ultimately the public. Farmers and ranchers in nearly all parts of the country, across a wide range of climate zones and cropping systems, are reporting that they see connections between improved soil health and more consistent (and often higher) yields, higher profit margins, and more weather-resilient operations.”

- “...I believe improving the health of our nation’s soils is one of the most important things that we can do for this and for future generations. That is because improving soil health not only supports growing the food, fiber, and fuel needed by a rapidly expanding world population, but it also allows us to simultaneously address some of our nation’s most pressing natural resource needs. It allows us to increase resiliency to extreme weather events, improve water quality, increase carbon sequestration, enhance habitat for pollinators and other wildlife, increase farm profitability, and we believe also reduce economic risk associated with crop production.”

USDA Receives 600+ Pre-Proposals for New Program to Provide Support for On-the-Ground Conservation Efforts

USDA’s new Regional Conservation Partnership Program (RCPP) drew an overwhelming response from partners across the nation. Of the almost 600 pre-proposals submitted in July, about 230 were invited to continue the process by submitting full proposals, which were due October 2, 2014.

“This USDA program provides an entirely new approach to conservation at this scale,” said

NRCS Chief Jason Weller. “RCPP offers a unique opportunity to harness innovation and welcome new partners into the conservation mission. The program puts our partners in the driver’s seat, allowing them to find creative solutions to the conservation issues in their areas.”

RCPP provides a way for private companies, tribes, local communities and non-government part-

ners to collaborate and invest in cleaner water and air, healthier soil and enhanced wildlife habitat. It will enable USDA to partner with third parties or work directly with producers in watersheds and other critical conservation areas to leverage private sector funding to maximize conservation investments.

(continued to page 5)

Resource Conservation Partnership Program (continued)

Applicants from across the nation applied to the program, requesting more than six times the \$394 million in available funding. Partners identified the resources they would bring to the table in order to leverage USDA's investment. Weller said nearly 5,000 partners came together in the pre-proposal phase.

By mid-July, partners had submitted pre-proposals for rigorous evaluation, including 201 for projects related to eight previously-designated critical conservation areas, 60 for multi-state and national-level projects, and 278 for state-level projects, 3 of which came from Maine.

Top proposals will show innovation, encourage broad partnerships and bring additional resources for on-the-ground conservation actions.

Maine NRCS Provides Grants to Three Recipients

Maine NRCS awarded approximately \$184,000 in Conservation Innovation Grants (CIG) funds to three Maine recipients. A component of the Environmental Quality Incentives Program, CIG is a statewide competitive grants process to address some of the state's most pressing natural resource conservation needs.

Recipients of CIG funds are the University of Maine, the Southern Aroostook Soil and Water Conservation District, and the Somerset County Soil and Water Conservation District.

The University of Maine received \$34,854 for "Toward Pollinator Habitat on a Large Scale". The objective of this grant is to provide food for native bees and honey bees by improving plantings selected for pollinator gardens. This will be accomplished through demonstration gardens at Pine Tree Landfill in Hampden, which is managed by Casella Waste Systems, and at G. M. Allen and Son, producer of Maine wild

blueberries in Orland, by: (1) Demonstrating methods of establishing and maintaining pollinator-friendly plants for Maine, (2) Assessing bee visitation rate and other attributes of NRCS-recommended pollinator habitat seeds and plants, (3) Evaluating two NRCS conservation practice

"CIG is a statewide competitive grants process to address some of the state's most pressing natural resource conservation needs."

standards that are due for revision, and (4) Documenting the benefits to other wildlife species of improving pollinator habitat. In addition to cooperators Casella Waste Systems and G. M. Allen and Son in Orland, the steering committee includes Jean Hay Bright of BrightBerry Farm, Dixmont, and Jeffrey and Patty Crawford of Dancing Goat Farm, Montville.

The Southern Aroostook Soil and Water Conservation District in Houlton received \$74,043 for "Building Soil Health with Innovative Potato Cropping Systems", to demonstrate how, through the use of multi-species cover crops and companion plantings, conventionally-farmed potato soil can rebuild itself as a living ecosystem. The objectives of this project are to: (1) Introduce multi-species cover crops and companion plantings on three conventional potato farms in Southern Aroostook, (2) Demonstrate improvement in increased water holding capacity, build-up of soil stability, root quality and yields, and plant-available nutrients, (3) Provide a cost analysis to compare the economic values for farms growing grain in a rotation year versus a diverse cover crop, (4) Develop multi-species mixes for planting in a northern climate and as part of a potato cropping system, and

(continued on page 6)

Conservation Innovation Grants (continued)

(5) Provide educational and outreach opportunities to other farmers on the process and results.

The Somerset County Soil and Water Conservation District received \$75,000 for “Improving Soil Health Through Cover Cropping and Reduced Tillage in the Dairy Belt of Maine”, to demonstrate and quantify the impacts of cover crops and reduced/no-till corn silage systems on soil quality and nutrient management. The objectives of this project are to: (1) Increase winter cover crop planting in Kennebec, Somerset and Waldo counties using new establishment methods for increased success, (2) Increase use of reduced/no till silage corn, (3) Improve soil health, (4) Decrease erosion and nutrient runoff from corn fields, (5) Reduce the levels of chemical fertilizers and pesticides applied to corn silage fields, (6) Improve farm profitability through reduced inputs and labor, and (7) Diversify crops to benefit soil biological communities and reduce the risk of crop loss.

Field Day Includes Progress on Maine Conservation Innovation Grant on Biochar

—by Chris Jones, Assistant State Conservationist for Special Projects

On September 8, 2014 a field day was held at Earth Dharma Farm in Jackson. The Field Day was sponsored by the Waldo County Extension Association



Heather Selin and David McDaniel hosted the field day at their farm in Jackson.

and hosted by Heather Selin and David McDaniel, owners of Earth Dharma Farm, who opened their farm to visitors to discuss the progress of their farm development. The three areas highlighted were biochar production, no-till pasture seeding and an organic vineyard.

Earth Dharma Farm received a Conservation Innovation Grant (CIG) from NRCS in 2011. The purpose of the CIG was to demonstrate an on-farm method to sustainably produce biochar. Recent research on soil health has demonstrated the beneficial aspects of adding biochar to soil. Biochar is the name for charcoal when it is used as a soil amendment and it is produced by pyrolysis of biomass such as wood. Potential uses of biochar include car-

bon sequestration, increase soil fertility and soil remediation. It is a stable source of carbon which in the soil can persist for thousands of years.

McDaniel explained his steps in producing biochar sustainably. He starts with coppice harvesting Speckled Alder (*Alnus incana*). Coppice harvesting involves leaving the living tree roots so it can regrow after harvest. Speckled Alder is



McDaniel discuss parts of his biochar “stove” at recent field day.

one of the few trees that are native to Maine that fixes nitrogen via nitrogen fixing bacteria in its root

nodules. The alder is chipped and placed in a solar dryer to remove the water from the chipped wood. Once the wood is dried it can be placed in a specially-designed retort that operates at high temperatures under limited oxygen. The retort is

(continued on page 7)

Field Day (continued)

ignited by a highly efficient wood burning rocket stove and uses biogas from the heated biomass to complete the burn. This method produces biochar in about 3 hours. Testing at the University of Maine Soil Lab shows the biochar to be 85% carbon. The final step is to add the biochar to their on-farm compost production. The compost inoculates the biochar with beneficial microorganisms, enhancing its usefulness as a soil amendment.

McDaniel is currently writing the final report for his Conservation Innovation Grant on bio char. NRCS plans on having David make a report at a meeting of the USDA-State Technical Committee.

Another part of the field day was a demonstration of using a Great Plains 605NT no-till seed drill available from the Maine Grass Farmers Network (<http://umaine.edu/livestock/mgfn/>) to seed a newly-reclaimed field to productive pasture seed mixes. The Maine Grass Farmers Network rents this drill to interested members of their organization.

McDaniel also gave a tour and discussed their progress in establishing a 2-acre organic grape vineyard.

For more information about Earth Dharma Farm and the biochar Conservation Innovation Grant is available at <http://earthdharmafarm.com/>. This material is based upon work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under number 69-1218-11-16 Sustainable On-Farm Bio-Char Production. Any opinions, findings, conclusions, or recommendations expressed are those of the grantee and do not necessarily reflect the views of the U.S. Department of Agriculture.



Great Plains 605NT no-till seed drill demonstration.

NRCS and PIN Sign Contribution Agreement That Will Benefit the Community

NRCS and the Penobscot Indian Nation (PIN) have entered into an agreement to provide financial assistance funds to be devoted to establishing a new People's Garden/Community Garden.

The PIN and NRCS have a common purpose of helping to bring about the conservation and sustainable use of land, water, wildlife, and related resources. The production of vegetables and fruit is an important source of fresh food and nutrition to small and large communities and urban neighborhoods lacking access to locally-grown produce. This agreement and partnership supports USDA's renewed interest in community gardening and urban agriculture.



PIN seasonal high tunnel funded by NRCS.

PIN initiated a "Peoples Garden" in 2011 with the goal of providing fresh locally-grown produce for the Indian Island community. This project began with the construction of a 30' x 70' seasonal high tunnel funded by NRCS. The

(continued on page 8)

NRCS/PIN Agreement (continued)

People's Garden project is operated by the Penobscot Tribal community volunteers with some assistance from the Department of Natural Resources. The PIN will continue to maintain a People's Garden/Community Garden. The garden:

- a. May be any shape, size or type
- b. Will benefit the community by providing harvest to help those in need.
- c. Will involve collaboration in that the garden will be created/maintained by a partnership of local individuals, groups and/or organizations.

PIN will work with local vendors to design, create and install two signs at the site. One sign will read: "Al'napak KKikhan", which means "people's garden" in the native Penobscot language. This sign will be attached to the vegetable stand. A second free standing sign will be designed and erected in consultation with NRCS. This sign will provide some brief background information about the development and vision of the People's Garden project. NRCS will provide funds not to exceed \$2,500 for the signs.

Farmer Coffee and Field Tour A Success

- by Sam Wright, Soil Conservationist, Houlton Field Office



Sam Wright (left, standing) leads farmer coffee discussion)

On August 14th the NRCS Field Office in Houlton led an early morning session on Soil Health for area farmers, concluding with a field

tour of green manure, interseeding and underseeding trials led by NRCS. The steady rain that morning did not deter members of NRCS, the Southern Aroostook Soil and Water Conservation District, Maine Potato Board and several area farmers from converging on Hagerman's store in Littleton for a 6 a.m. coffee rendezvous. Under the dry confines of the store's break/dining room discussion ensued of the variety of trials and demonstration for the day.

A slake test demonstration was performed using a local potato-producing soil type, with one sample from the cropped field and the other taken from the line fence that has been undisturbed for many years. The visual impact of this demonstration always gets growers talking as we see the fines at the ends of the rows after every rain event. An important factor to remember is that we are looking to heal the soil through soil health practices. Root crops grow underground so disturbance will happen, but it's what we do the other 364 days of the year that can make the difference. Area growers are very eager to continue the work they have been doing in regards to soil health as it results in yield, marketability and sustainability.

Due to the wet conditions of the day, one of the original field visits had to be cancelled. The demonstration consisted of 3 acres of Russets planted without herbicide. Near the hook stage a cover mix was spun on with a spin spreader. The mix consisted of 20 pounds soybeans, 20

Farmer Coffee and Field Tour (continued)

pounds peas, and 10 pounds of buckwheat per acre. NRCS worked with the grower on a mix that would not hinder harvest (grasses) but would promote microbial stimulation and potential Nitrogen fixation. As we know, many of the cover crop species used across the country are very expensive to get to our part of the world, so an emphasis was also placed on what was readily available locally.

In lieu of our field visit, NRCS provided to the group pictures of the field taken the previous day and passed around with discussion. The timing of this practice proves very tricky with many variables to consider, but we expect to see a little more experimentation with this in years to come.



Interseeding of peas, buckwheat and soybeans

The first field visit consisted of a green manure crop containing annual ryegrass, clover, and oilseed radish. Early in the spring, the farmer, NRCS and a seed supplier worked on the custom blend for area potato growers to experiment with. In total, about 75 acres in Southern Aroostook were seeded with this mix.

In the rain and mud, NRCS led discussion on why the mix was selected and some of the expected and unexpected results. Demonstration and use of the penetrometer was a hit as farmers got to feel what the plow pans effect on advancing roots may be. Shovels were used to demonstrate profiles and to show the depth of rooting of the radish and rye. The dense cover and fibrous root system provided by the rye, coupled with the penetrating tap root of the radish, and nitrogen fixing power of the clover hopefully will lend to a diverse, stimulated biological community. Research suggests this type of soil health activity should result in improved yield and quality in next year's potato crop.

(continued on page 10)



Local farmers Greg Schools and Donald Fitzpatrick experiment with penetrometer.

Farmer Coffee and Field Tour (continued)

The second and final stop was at a field of oats that had been underseeded at planting with oilseed radish. This trial is unique as calibration errors on the planter resulted in 50 pounds per acre of radish on one end of the field to the desired 4 pounds per acre on the other. The scavenging, or better yet monopolizing effect of nitrogen (N) the radish exhibited was eye opening. Two additional N applications were made in season in hopes of having any oat crop at all. This field had foot long radish four inches thick in two months of growth prompting plenty of discussion. Though the oat yield suffered tremendously the grower may attempt harvest to obtain the potential oat and radish cover crop seed that certainly exists out there.



June 19—Oats interseeded with radish



August 14—Oats interseeded with radish

With everyone thoroughly soaked, the group parted ways late morning with high hopes and many thoughts and ideas to explore. The general mood was one of upbeat anticipation and excitement and as technical leaders in the agricultural landscape of America, NRCS has a great opportunity to lead and inspire in the growing movement of soil health.

Soil Health Facts/Stats

- It takes more than 500 years to form 2 centimeters of topsoil.
Source: National Park Service
- The plants growing in a 2-acre wheat field can have more than 30,000 miles of roots—greater than the circumference of the earth.
Source: USDA Agricultural Research Service
- NRCS soil survey staff have identified and mapped more than 20,000 different kinds of soil in the United States.
Source: Oklahoma State University
- There are more organisms in a teaspoon of healthy soil than there are people on the earth.
Source: NRCS



Managing Manure Through Composting

A mature dairy cow can produce up to 140 pounds of manure a day, which is more than 50,000 pounds a year. It is important for producers to manage manure efficiently.

Manure can have negative impacts on the environment if not managed properly, but good agricultural producers can protect the environment and utilize this valuable resource. When producers handle and store manure correctly, apply manure to the land at the optimal time, and in the right amounts, it greatly reduces or eliminates impacts on water resources, improves soil health, and helps farmers grow healthy crops. Manure contains nutrients that crops need, just like the nutrients in store-bought fertilizers. Farmers manage manure to keep it in the right place in the right amounts.

NRCS works with producers to manage manure using conservation practices such as composting. Composting manure helps reduce colorful odors and fly problems, and when dry, its light-weight makes it easy to transport and spread.

So, what does a producer achieve when mixing young stock manure, waste feed and silage, horse manure, and a little bit of soil and hay? He makes the best compost desired by many home gardeners and producers in the Kennebec River Valley area of Kennebec County!

Operated as a family-owned dairy farm for more than four decades, Rainbow Valley Farm epitomizes the term “sustainability” by recycling most of the solid farm-generated manure through a turned-windrow compost operation operated by Harland Bragg.

Farm owner Jeff Bragg is the eighth-generation dairy farmer who grew up on the farm while his father, Harland, grew up just three-quarters of a mile down the road on a plot his ancestors began farming in 1772. The “homestead” farm is still an active dairy operated by Harland’s brother. Throughout the years, Jeff helped his father expand the farm, turning it into one of the larger organic dairy farms in the area.

In 2004, the 550-acre farm transitioned to organic production, with 185 milking cows and 185 young stock, for a total of 370



Harland Bragg adds water to compost for optimum moisture level.

cows. The final stage of the farm transition happened on January 1, 2012, when Jeff Bragg and his wife Kathy purchased the remaining real estate from his parents, Harland and Shirley Bragg.

Harland Bragg still works on the farm most days, but rather than handling the cows, he grows vegetables and manages the compost.

The majority of the ingredients Harland uses in the compost are from the Bragg Farm. The 185 young stock provide the manure for the compost operation. Soil particles are added to the compost to give



Young stock manure in concrete manure storage.

(continued on page 12)

Managing Manure through Composting (continued)

microbes something to grab on to, and hay is added for long fiber carbon. The horse manure is obtained from a local racetrack, which makes for a lighter compost containing less lumps.

The Bragg farm uses the manure from the 185 milking cows to grow all the silage corn, hay and grain for the farm.



Mixer forms perfect rows for aerobic composting.

The composting takes about 60 days from beginning to end. Harland Bragg turns the compost 12-15 times during this 2-month period with a compost mixer to allow oxygen into the center of the pile. Turning prevents the compost from reaching above 140 degrees, at which time it would pasteurize the microbes. When the mix turns aerobic, the odor disappears as well as the flies.

Harland Bragg has been composting since 1993. For 11 years the composting was done in a grassy area, which added unwanted mud, worms, grass and weeds to the mix. In 2004, with the technical and financial assistance of the Environmental Quality Incentives Program, Bragg installed an asphalt pad, which provides a better base for the compost.

Whether by the bulk or by the bag, picked-up or delivered, the gardeners and commercial farmers in the Kennebec River Valley appreciate the opportunity to purchase and utilize the compost that contains excess nutrients from the Bragg Farm.

Personnel Update

Maine NRCS welcomes four new soil conservationists to our team. Learn more about them below.



Kelly Schmiermund, Soil Conservationist, Scarborough Field Office

Kelly was born in Hancock, Michigan, and was raised in Brighton, although moving throughout Michigan and Ohio for a few years due to her father's job. She graduated from Michigan State University with a B.S. in Forestry with a concentration in Forest Management and Forest Conservation and Environmental Studies, and a minor in Agronomy.

Kelly first heard of NRCS through a career consultant with the College of Agriculture and Natural Resources, who sent out job opportunities. She saw one for a student training position with NRCS in Michigan and served two summers with them before becoming a soil conservationist in Michigan. After two years in that position, she applied and was selected for the soil conservationist position in Scarborough.

Kelly likes to cook, play soccer, hike, read and paint. Welcome, Kelly!

Personnel Update (continued)



Bianca Diaz-Deliz, Soil Conservationist, Augusta Field Office

Bianca was born and raised in Bayamon, Puerto Rico. She graduated from the University of Puerto Rico, Mayaguez Campus, with a B.S. in Animal Science.

Bianca learned about NRCS at a college job fair. She came on with NRCS as a Soil Conservationist Trainee at the Bangor Field Office during the summer of 2012 between her sophomore and junior year, and returned to Maine during the summer of 2013 to work at the Augusta Field Office. When returning to Puerto Rico for her senior year of schooling, Bianca worked at the Mayaguez and San Sebastian Field Offices in Puerto

Rico part-time throughout the year. Upon graduation in 2014, she came back to Maine as a soil conservationist in the Augusta Field Office.

Bianca enjoys cooking, reading, dancing and doing outdoor activities. Welcome, Bianca!

Misha Vargas, Soil Conservationist, Bangor Field Office



Misha was born in Mayaguez, Puerto Rico and raised in Rincon. She graduated with a B.A. in Agronomy from the University of Puerto Rico, Mayaguez Campus.

Misha has an interest in farming, as she helped her grandparents on their family farm consisting of tropical island crops when she was growing up. As a result, when she heard her older college friends talk about having student internships with NRCS in Puerto Rico, she knew that was something that she wanted to try to obtain. In 2012, Misha applied for and received a summer internship in Mayaguez. She enjoyed it so much that she volunteered for NRCS during the following school

year. During the summer of 2013 she was a summer intern in Pennsylvania, returning to Puerto Rico for her senior year and volunteering for NRCS. Following graduation, she applied for a soil conservationist position in Bangor and was selected for the position. She reported for work on October 20th.

Misha has been a professional dancer for three years, and she and her husband of two years, Luis, taught professional dancing in Puerto Rico, with a focus on salsa dancing. They hope that they will be able to teach dancing in Maine as well. Welcome, Misha!



Terri Teller, Soil Conservationist, Lewiston Field Office



Terri was born and raised in Wolcott, Connecticut. She spent time living in California, Iowa, and Massachusetts before moving to Maine in December 2012 when she began with NRCS as a term Soil Conservation Technician in the South Paris field office. Previously, she attended Harvard University and earned a bachelor's degree in biology, as well as a master's in education.

Her past jobs have included coaching college softball, working in an organic produce distribution warehouse, serving as an environmental educator and an interpretive park ranger for the National Park Service. Terri first learned about NRCS while working on an invasive species removal project in Iowa.

In her spare time, she enjoys cooking, bird-watching, and volunteering at the animal shelter in South Paris. She lives with her partner Laura, and their cat Louie and dog Roxy, in Norway.