



Horizons

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Summer 2010 SERVING BENTON COUNTY OREGON SINCE 1956

Reviving Regard for Soil

by Teresa Matteson



Spring Hill Organic Farm garlic
photo: T. Matteson 2010

A farmer who understands how the soil works and adapts farm operations to build soil quality will:

- ✓ use less water and nutrients
- ✓ conserve energy
- ✓ maintain crop yield
- ✓ protect the environment
- ✓ invest in future land productivity

For more Soil Quality Project information contact:
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In the 1920's my grandfather traveled the countryside in his horse-drawn wagon to collect manure from neighbors. The success of his Nebraska farm relied on feeding the soil. Though he couldn't name the myriad organisms and chemical processes that converted other farms' wastes into his plants' nutrients, he implicitly understood the signs and value of soil quality.

Post World War II industry brought the advent of synthetic fertilizers and pesticides. Appreciation for the soil's natural services, such as nutrient supply and disease control, was replaced by prescriptive applications. Across the USA, corporate agriculture and urban sprawl displaced the family farm. Some land managers lost touch with the natural cycles between soil, water and plants.

Many a child left the farm and entered academia. Simultaneous to the loss of on-farm understanding, an explosion of scientific research scrutinized the soil with painstaking care and detailed examination. A wealth of specialized knowledge replaced practical intuition. Organizations such as Benton Soil and Water Conservation District, established in 1956, were formed as part of a national effort to address soil quality and erosion.

Today, the global degradation of water, air and soil warns that the "one size fits all" or "more is better" approach to farm management is untenable. In the Southern Willamette Valley Groundwater Management Area, over 9,000 acres of well-drained Benton County soils house domestic drinking wells contaminated with nitrates that leach from non-point

sources such as agriculture. Worldwide, soil cultivation practices such as tilling, long valued for weed management and planting preparation, disturb underground habitats and stir up soil particles that pollute the air. The costs of these environmental impacts include human and wildlife health.

As one step in a long-term soil quality improvement strategy, the Natural Resources Conservation Service (NRCS) has awarded Benton SWCD a Conservation Innovation Grant for the Soil Quality Project (SQP). During this pilot, we aim to define a set of soil quality assessments (*page 6*) that will help farmers make informed soil management decisions on a site-specific basis. Through education and outreach activities, such as the August 19th Train-the-Trainer Workshop (*page 8*), we will introduce agency staff and field representatives to the SQP report, discuss soil quality constraints, and recommend farming practices to balance agricultural management and environmental integrity without compromise to crop yield or the farmers' livelihood.

The SQP is designed to complement US Department of Agriculture NRCS programs, such as the Environmental Quality Incentive Program (EQIP). EQIP offers cost-share to help farmers rotate crops, grow cover crops, change tillage methods and plan nutrient inputs.

This issue of *Horizons* describes the why and how of soil quality, introduces the SQP Team, reports our progress to date, and sets the stage for future efforts to improve soil quality in Benton County and beyond.

A nation that destroys its soils destroys itself. ~ Franklin D. Roosevelt



Conservation Calendar

Date & Time Location	Event/Speaker	For more information contact:
Saturday, June 26 10 AM - 2 PM <i>Kings Valley Community Center</i>	<i>Luckiamute Watershed Council presents</i> Three Creek Tour in Kings Valley Visit projects near Vincent, Plunkett and Maxfield Creeks. Landowners, restoration specialists and volunteers will discuss conservation practices on private land including: native plantings, log placement for fish habitat, erosion control, Conservation Reserve Enhancement Program projects, culvert replacement.	<i>Free and open to the public</i> Reservations required RSVP: Gail Oberst, 503-871-1242 gailoberst@yahoo.com
Saturday, July 17 2 PM <i>Ritner Creek Bridge near Pedee</i> <i>Polk County</i>	<i>Friends of Ritner Creek Bridge and Luckiamute Watershed Council will dedicate engraved bricks at the historic</i> Ritner Creek Bridge near Pedee live music * tour * Polk SWCD native plant workshop <i>The tour will showcase a railroad piling removal project in Ritner Creek to control erosion and improve fish habitat</i>	<i>Free and open to the public</i> Gail Oberst, 503-871-1242 gailoberst@yahoo.com
Thursday, August 19 8:30 AM - 4:30 PM <i>Benton Co. Fairgrounds</i> <i>Carriage House</i>	Soil Quality Workshop - Train the Trainer <i>SEE DETAILS Page 8</i>	Teresa Matteson tmatteson@bentonswcd.org 541-753-7208 http://www.bentonswcd.org/calendar/
Saturday , October 9 10:00 AM - 4:00 PM <i>Benton Co. Fairgrounds</i>	<i>Mark you calendar for</i> <i>8th Annual Kids Day for Conservation</i> EXPLORE and LEARN <i>Hands-on activities for the whole family!</i>	Dick Powell 541-929-2477 dick@starkerforests.com



Volunteer Thanks!

Since June 2009 the volunteers listed below have generously contributed their time and services to support our work. Activities performed: Native Plant Sale help, teaching adults and youth, Weed Spotters Program inventories, Fish Passage Program surveying, native hedgerow planting, Soil Quality Project field work, publication design and photography.

Kelly Albers	Shari Chavira	Jenna Halsey	Topher Lucas	Anne Rigor
Mike Albrecht	Jared Considine	Jan Harris	Sarah Marshall	John Ross
Ralph Alig	Melissa Cookingham	Sarah Hash	Chaz Matteson	Nina Schmitz
Xan Augerot	Ronjon Datta	Skylar Hawks	Anna Lynn Maxfield	Veronica Sedlacek
Marjean Austin	Nicole DeCrappeo	Jordan Henderson	James Maxwell	Jana Seeliger
Seth Ayotte	Tim Dehne	Kathleen Hill	Becky Mayer	Devora Shamah
Kiana Azizian	Kara DiFrancesco	Alyssa Hinman	Boone McCoy-Crisp	Sally Shaw
Beth Bargsten	Zac Duke	Jason Hotchkiss	Zac Miller	Julie Skopal
Dale Bargsten	Garrett Duyck	Roger House	Sonya Milonova	John Snelling
Matthew Barmann	Carly Dyr Dahl	Kyle Ireton	Jessica Mortimer	Tom Snyder
Lynn Batchelor	Sarah Dyr Dahl	Shayla Jaquish	Cedar Newlin	Rachel Snyder
Tom Bedell	Dave Eckert	Joellen Jarvis	Frank Nusbaum	Henry Storch
Iris Benson	Story Edison	Tessa Jelten	Jessica Onstott	Joe Sullivan
Bobby Bewley	April Fisher	Jonathan Jensen	Susan Pachuta	Diana Sutherin
Steve Bice	Dustin Frazier	Russell Jordan	Wendy Peterman	Kate Taormina
Taylor Bortz	Geoff Gardener	Emma Kemper	Logan Picton	Larry Thornton
Judy Burks	Julie Gibson	Oktar Khudayar	Jeff Picton	Jean Townes
Marion Burrill	Bobby Gomez	Calli Layton	Keith Powrie	Daniel Tucker
Corinne Butzin	Brenda Gomez	Charlie Leineweber	Cosmo Prindle	Karen Van Abelsberg
Laurel Byer	Cheryl Good	Wei Li	Ian Ramfjord	Ellen Watrous
John Caputo	Brian Gray	Sirene-Rose Lipschutz	Linda Ramsey	Jennifer Wig
Dianne Cassidy	Aleen Haddad	Qian Lu	Jeni Richardson	Brian Wilson
Nick Chambers	Cliff Hall	Chrissy Lucas	Jahnsam Richardson	Sunia Yang

SQP Why and How

In its natural undisturbed state, soil performs vital services that maintain environmental balance and are crucial to life on Earth.

- ✓ Properly functioning soil purifies and stores water, reduces the threat of flooding, and replenishes water reservoirs, such as streams, lakes and underground aquifers.
- ✓ Soil is an anchor for roots and recycles wastes to provide nutrients for plants.
- ✓ Soil is home to innumerable organisms; billions thrive in one cup of fertile soil.

Human management impairs soil function and exacerbates environmental decline. Tillage and compaction alter soil structure, lead to erosion, and increase the potential for water and air pollution. Soil organisms and related nutrient cycles are disrupted by soil disturbance and chemical inputs. Roofs, streets, and parking lots redirect precipitation away from soil's cleaning and storage service.

In *Four articles introducing soil quality*, David Granatstein, of Washington State University's Center of Sustainable Agriculture and Natural Resources, points out that "soil degradation is gradual and seldom leads to immediate system failure, [therefore] it has been easy for cultures and civilizations to ignore its gradual decline."

Prudent leaders have instigated programs to prevent our country's demise from soil degradation. In the early 1930's, Hugh Hammond Bennett, father of the federal Soil Erosion Service (SES), understood the need for practices "that fit the capability of the land and the desires of landowners."

Over time the SES morphed to the Soil Conservation Service (SCS) and today is called the Natural Resources Conservation Service (NRCS). Across our nation, NRCS staff members encourage farmers to adopt conservation practices by offering technical assistance and cost-share incentive payments. The Oregon NRCS offers more than 100 conservation incentives, many of which rely on the soil to perform vital functions. Soil quality assessments are a natural complement to NRCS programs that fund practices such as cover cropping, crop rotation, appropriate tillage and nutrient management.

Soil is a nexus of amazing physical, biological and chemical interactions. The challenge in designing a soil quality assessment package is to select methods that will be useful, affordable and practical for farmers. The SQP team has gleaned methods from these research-based models:

- ✓ Cornell University's Soil Health Program reports biological, chemical and physical assessments

- ✓ Willamette Valley Soil Quality Card is a system for farmers to track field observations
- ✓ NRCS Soil Quality Test Kit contains field observation procedures and interpretations.



Ernesto Garay of Honduras, examines New York field soil during the 2009 Cornell Soil Health Train-the-Trainer Workshop
photo: T. Matteson 2009

Additional guidance for selecting assessments was found in other NRCS research reports and publications. According to interviews and research, three elements are essential to the successful adoption of conservation practices: farmer involvement, ease of use, and technical assistance. These vital components are incorporated in the SQP strategy.

What is a Good SQ Indicator?

According to the NRCS publication, *Guidelines for Soil Quality Assessment in Conservation Planning*, a good soil quality indicator will meet the following criteria:

- ✓ easy to measure
- ✓ able to measure changes in soil function
- ✓ done in a reasonable amount of time
- ✓ accessible to many users
- ✓ applicable to field conditions
- ✓ sensitive to variations in climate and management
- ✓ represent physical, biological, or chemical properties of soil assessed by qualitative and quantitative methods.

Dig into Soil Quality Web Resources

Cornell University Soil Health Program
A wealth of soil quality information!!!
<http://www.hort.cornell.edu/soilhealth/>

Four articles introducing soil quality
by David Granatstein, WSU CSANR
<http://grant-adams.wsu.edu/agriculture/Soils/sqarticles.pdf>

Guidelines for Soil Quality Assessment in Conservation Planning
USDA-NRCS Soil Quality Institute
http://soils.usda.gov/sqi/assessment/files/sq_assessment_cp.pdf

People on the SQP Bus

In his book, *Good to Great: Why Some Companies Make the Leap... and Others Don't*, author Jim Collins stresses the importance of having the right people on your organization's bus. The SQP has progressed on-track, due to the generous contributions from a team of experts who have rallied to support our first 8 months. We extend a sincere THANK YOU to the folks listed below - farmers, scientists, agricultural professionals and volunteers - who have contributed to the Soil Quality Project. OSU = Oregon State University

Financial Support

- ✓ USDA-NRCS - Conservation Innovation Grant
- ✓ Benton Soil and Water Conservation District
- ✓ Oregon Tilth
- ✓ Benton County Farm Bureau

Soil Samples and Farm Fields

- ✓ John Eveland, Gathering Together Farm
- ✓ Alice Fairfield, Fairfield Farm
- ✓ Jamie Kitzrow, Spring Hill Organic Farm
- ✓ David Landis, Brooklane Specialty Apples
- ✓ Harry MacCormack, Sunbow Farm
- ✓ Bob Wilt, Sunset Valley Organics
- ✓ Randy Hopson, OSU Vegetable Research Farm

Methods, Supplies, Equipment and Lab and Greenhouse Space, Experience, Advice and Precious Time

- ✓ Lynn Rogers, Microbial Matrix Systems
- ✓ Jenny Ayotte, Benton SWCD
- ✓ Jen Floro, Benton SWCD
- ✓ Dan Sullivan, OSU Crop and Soil Science
- ✓ Alex Stone, OSU Horticulture
- ✓ Will Austin, OSU Central Analytical Lab
- ✓ Yan Ping Qian, OSU Central Analytical Lab
- ✓ Jennifer Parke, OSU Crop and Soil Science/Botany and Plant Pathology
- ✓ Bob Schindelbeck, Cornell University Crop and Soil Science
- ✓ Bianca Moebius Clune, Cornell University Crop and Soil Science
- ✓ George Abawi, Cornell University, Plant Pathology
- ✓ Mark Mellbye, OSU Linn County Extension
- ✓ Ed Peachey, OSU Horticulture
- ✓ Nick Andrews, OSU Metro Small Farms Extension Agent
- ✓ Stefan Seiter, Linn-Benton Community College Horticulture
- ✓ Gwendolyn Ellen, OSU Integrated Plant Protection Center
- ✓ Thomas Snyder, NRCS
- ✓ Cory Owens, NRCS
- ✓ Shepard Smith, SoilSmith Services
- ✓ Marion Burrill, volunteer
- ✓ Wendy Peterman, volunteer
- ✓ Story Edison, volunteer
- ✓ Jared Considine, volunteer
- ✓ Anita Azarenko, OSU Horticulture
- ✓ Anne Chozinski, OSU Horticulture
- ✓ Ray Weil, University of Maryland, Environmental Science and Technology
- ✓ Melissa Fery, OSU Benton County Small Farms Extension Agent
- ✓ Jim Ervin, OSU Greenhouse Manager
- ✓ Doug Collins, Washington State University Small Farms Education



photo: D. Sharps 2008

Teresa Matteson, (left) a 6-year veteran of the Benton SWCD Education & Outreach team, realized the need for soil quality education while attending an April 2009 NRCS-Oregon Tilth cross training. The team "dreamer", she thanks her lucky stars for the cadre that has formed to advance the SQP cause. Teresa earned an OSU Masters in Soil Science based on her fascination with composting. Be forewarned; she is determined to share her soil quality passion with everyone.



photo: T. Matteson 2010

Involved early on, Bonnie Hoffman Cox (left) instigated the SQP partnership with Oregon Tilth. In her OSU Master's research, Bonnie looked at the effects of multiple-year dairy manure amendments on soil biological and physical properties in a sweet corn cropping system. She also evaluated the impact of amendments on root rot severity to assess the potential for organic matter mediated disease suppression in the field.

Bonnie has diligently collaborated with Emily Vollmer (below) to network with experts, research and refine assessment methods, collect soil samples, record field observations and perform laboratory tests.

Emily's ten years of work and educational experiences focus on sustainable agriculture. She has a Masters degree in Horticulture from North Carolina State University for her thesis on no-till organic vegetable production, and has worked on organic farms in Oregon, Vermont, Maine, and Maryland.



photo: OSU 2010

Andy Gallagher (right) is a certified professional Soil Classifier/Soil Scientist. As consultant and proprietor of Red Hill Soils, Andy works primarily to provide soil mapping and fertility guidance to Oregon vineyards. With valuable experience and in-depth local soils knowledge, Andy provides SQP farmers with site specific soil mapping and characterization. Andy earned a Masters in Soil Science from the University of Wisconsin-Madison.



photo: Marion Burrill 2010



Special THANK YOU to John Eveland, Sally Brewer, Chef JC Mersmann, and the Gathering Together Farm staff for hosting the March 18th Soil Quality Workshop for Farmers.



photo: Halbleib 2010

Mary Halbleib (left), Evaluation Specialist, helps align project activities with objectives to reach short and long term goals. Mary works at OSU managing an educational program that aims to provide farmers with Integrated Pest Management alternatives in the Pudding and Yamhill Watersheds.

Education & Outreach

Education, outreach and technical assistance are three key components that will help farmers and agricultural professionals learn about the Soil Quality Project, better understand natural soil functions, effectively use lab and field assessments, and consider impacts on soil quality while planning farm operations. Informed management decisions based on site-specific information will ultimately improve soil quality.

Summarized below, the SQP's first educational event, titled *Soil Quality Workshop for Farmers*, was held March 18, 2010 at Gathering Together Farm in Philomath, Oregon.

21 participants included (categories overlap):

- ✓ Farmers/landowners (11)
- ✓ Benton SWCD Board members (2)
- ✓ SWCD staff from outside Benton County (3)
- ✓ Field reps - agricultural service companies (2)
- ✓ SQP Consultants (3)
- ✓ Volunteer photographer (1)
- ✓ SQP manager (1)
- ✓ Willamette Valley counties represented (4)

Workshop objectives stated that participants will:

- ✓ Understand what soil quality is
- ✓ Learn ways to measure/evaluate soil quality
- ✓ Understand why evaluating soil quality is important
- ✓ Learn how management practices can improve or degrade soil quality
- ✓ Learn about the Soil Quality Project and understand how it is relevant to them and farm operations

This successful workshop format will be used to reach additional farmers and agricultural professionals about the SQP tools and benefits.

See August 19th SQP Train-the-Trainer workshop announcement on page 2

Workshop Agenda

Indoor presentations

- ✓ Soil formation and functions
- ✓ Soil physical, chemical and biological properties
- ✓ Impacts and benefits of soil management
- ✓ Soil Quality Project introduction
- ✓ Soil quality indicators

Field Demonstrations

- ✓ Inherent Soil Properties
- ✓ Active Carbon
- ✓ Infiltration and Compaction
- ✓ Aggregate Stability

Group Discussion

- ✓ Why are you interested in Soil Quality?
- ✓ What would you consider useful or successful short- and long-term outcomes of this project?

Workshop Participants' Evaluation

- ✓ Over half of the workshop participants reported that they improved their understanding of chemical, physical and biological soil characteristics.
- ✓ 64 percent of the participants reported that they improved their understanding of how management impacts soil quality.
- ✓ Over 90 percent of participants reported that they plan to change how they manage soil in the future.
- ✓ Over 90 percent of the participants reported an increased interest in soil testing.

Partnerships Expand SQP Reach

During the first year, SQP field work focused on organic farms, yet the diversity of project support, including NRCS, Oregon Tilth and Benton County Farm Bureau, attests that SQP assessments will provide valuable information to both organic and conventional farmers.

The NRCS Conservation Innovation Grant is the financial base for the pilot project. Oregon Tilth, participating farmers and the Benton County Farm Bureau provide cash and in-kind contributions to help Benton SWCD meet the required 50% grant match.

Working with the Oregon Tilth facilitates education and outreach to organic producers, certification staff and inspectors. The Benton County Farm Bureau supports SQP efforts through workshop funding and event announcements.

Train-the-Trainer workshops will cultivate partnerships with various agricultural professionals and prepare them to interpret SQP reports while building a network of experts to support management recommendations. These efforts will expand the availability of SQP services to all interested farmers.

A long-term objective is to build a data base to rank samples from diverse soil types and various cropping systems. We predict that the management of perennial crops, such as grass seed, protects and improves soil quality due to reduced soil disturbance and organic matter inputs from the crop's seasonal cycle.

To fulfill the NRCS grant agreement, the SQP Team will publish technical notes that will be available free to the public via the Oregon Tilth and Benton SWCD websites.



*March 18th workshop participants explored soil characteristics such as texture and smell
photo: Marion Burrill 2010*

SQP Assessments

Based on recommendations from a committee of researchers and farmers, the SQP Team has selected a suite of assessments similar to the Cornell Soil Health Program with some fine tuning to match Benton County conditions.

Three categories of assessments include:

Physical

- ✓ Soil mapping and characterization
- ✓ Soil Texture Class
- ✓ Available Water Capacity
- ✓ Aggregate Stability
- ✓ Surface and Subsurface Hardness
- ✓ Infiltration

Biological

- ✓ Soil Organic Carbon
- ✓ Active Carbon
- ✓ Potentially Mineralizable Nitrogen
- ✓ Root Health – Bean Bioassay
- ✓ Disease Potential – Cucumber Assay

Chemical

- ✓ Extractable Phosphorus
- ✓ Extractable Bases (K, Ca, Mg, Na)
- ✓ pH
- ✓ Lime requirement (SMP buffer)



Left - In the field, Cornell's sprinkle infiltrometer is used to measure how water enters the soil and runoff potential. photo: T. Matteson 2009

The same apparatus is used to test aggregate stability in the laboratory.



Right - Active Carbon measures the fraction of soil organic matter that is easily available for microbes. photo: Marion Burrill 2010



Left - A cucumber bioassay was added to the SQP suite of assessments to target soil born pathogens common in the Willamette Valley photo: T. Matteson 2010

SQP Future

In addition to expanding the availability of assessments to more farmers, the SQP Team has defined several future program objectives:

- ✓ Create a database to rank soil samples – a minimum of 200 samples are required to rank results
- ✓ Schedule post-project farmer interviews to evaluate project strengths and weaknesses
- ✓ Research and secure funding to support future work and reduce the cost of assessments to participating farmers
- ✓ Network with third-party certifiers and inspectors to encourage the adoption of soil quality assessment in environmental labeling criteria.



Soil judging prepares students for professional careers in soil science and gives them experience outside the classroom.

Calling All Soil Judging Enthusiasts!

In spring 2011, the 51st National Collegiate Soils Judging Competition will be held in Bend, Oregon. Join us to help recruit volunteers and fundraise to support this exciting event. Organizations, such as the Oregon Society of Soil Scientists and the Oregon Chapter of the Soil and Water Conservation Society are collaborating with Oregon State University to host a memorable experience for college student competitors from around the USA.

In preparation for the contest, teams spend four days in practice pits to get to know the local soils and the rationale behind how professional judges have described, classified and interpreted the soils. The actual two-day contest includes both individual and group judging. Practice and contest soils are pre-judged by professional soil scientists from the USDA's National Resources Conservation Service and local experts.

How can you help? Volunteer!

Many and various tasks are involved to plan and implement the competition. Prior to the event, we need to arrange food and lodging for soil judging teams. Do you know of a rental property near Bend that will house a student team and advisor? Is the owner willing to donate the use of their property? At the ground level, sharpen your soil characterization skills and help pre-judge the pits.

Fundraising – we need to raise \$10,000 to host the event. To help with fundraising you can:

- ✓ Solicit businesses to support teams or components of the event
- ✓ Request donations from colleagues
- ✓ Contribute your tax-deductible donation.

For more information, please contact Teresa Matteson, 541-753-7208 tmatteson@bentonswcd.org

Weeds - Another Soil Quality Concern

Weed pressure is a common soil quality constraint that is too costly and difficult to be included in the SQP assessment package. For optimal weed management, identify weeds early and investigate the weed life cycle to maximize eradication efforts.

From the *Cornell Soil Health Assessment Training Manual*:

Factors that contribute to weed pressure include:

- ✓ Poor crop rotations
- ✓ Resistance to herbicides
- ✓ Poor weed management
- ✓ Poor timing of management practices

Weed pressure results in:

- ✓ Poor stand establishment and crop growth
- ✓ Poor crop quality and reduced yield
- ✓ Increased disease and pest damage
- ✓ Interference with cultural practices and harvest
- ✓ Increased cost of weed control



left: garlic mustard basal rosette right: garlic mustard flower
photo credit: <http://www.nps.gov/plants/alien/fact/alpe1.htm>

Garlic Mustard

A weed we can catch with *Early Detection!*

Garlic mustard, *Alliaria petiolata*, is a noxious weed that can grow almost anywhere and displaces native plants, especially woodland wildflowers. This biennial herb forms a basal rosette the first year, and a flowering stalk the second year (see photos on left).

Garlic mustard has a number of characteristics that make it an extremely successful invader:

1. Allelopathic - it poisons the soil around it so nothing else can grow
2. Exploding seeds spread easily - thousands of seeds can be scattered from a single plant and are carried by animals and people
3. Seeds are viable for up to 5 years!
4. S-shaped roots are easy to break and broken remnants can grow whole new plants
5. Tolerates all growing conditions except for highly acidic ones
6. Sets seed even after being uprooted if the flowers have already opened
7. Adaptable: will grow below mower height after being mowed one year.

Garlic mustard has officially been found in 7 Oregon counties, including our neighbor Polk County. Last year, BSWCD's Weed Spotters identified garlic mustard in one location in Corvallis. We can keep garlic mustard from becoming a problem in Benton County by identifying and reporting any early invaders.

If you see garlic mustard, pull it and bag it before disposal.

Also report it by calling 1-866-INVADER.

Visit the Benton SWCD invasive species webpage to learn about our Weed Spotters Program

http://www.bentonswcd.org/invasive_species/index

We are honored to welcome Bobby Bewley *as* Zone 4 Director

Bobby, born and raised in Benton County, has lived in Alsea on the Rycraft family farm for 27 years. They raise hay, cattle, horses, timber and Christmas trees. He learned his business, the farrier trade, from his father who instructed the Linn-Benton Community College Farrier School for over 20 years. Bobby's grandfather was a timber faller and avid outdoorsman, as well as a strong conservationist who served on the Benton SWCD board many years ago. "He was my mentor, teaching me about the environment and its treasured inhabitants," Bobby stated in his application for directorship.

"Through hunting and fishing I have spent a lot of time observing the water and land, and feel obligated to preserve Nature...Growing up in this rural lifestyle has given me a deep appreciation for the land and an informal education of how to live on and take care of it. Being part of the BSWCD [is] an opportunity for me to give back to the land and waterways which have supported many families and species for years."

Bobby competes in amateur and professional rodeo throughout the Northwest and is an active member of the Alsea Grange Hall Executive Committee.



photo: T. Matteson 2010



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**Soil Quality Workshop - Train the Trainer
Thursday, August 19, 2010**

8:30 AM to 4:30 PM

Benton County Fairgrounds - Carriage House
Cost \$25 – lunch included

This workshop will introduce the SQP assessment tools during classroom lecture and hands-on demonstrations. Participants will investigate how soil assessments are linked to farm management during an afternoon fieldtrip.

To register or for more information: call the Benton SWCD office 541-753-7208 or email tmatteson@bentonswcd.org.

Registration Deadline: Friday, July 30, 2010 – fee is non-refundable after August 6, 2010. Attendance is limited and will be based on order of registration.

Workshop topics include:

- ✓ What is soil quality?
- ✓ Why is soil quality important?
- ✓ Hands-on demonstrations of soil quality assessments
- ✓ How will soil quality assessment influence farm management?
- ✓ How can you participate in the Soil Quality Project?

Who should attend: Agricultural professionals who work with farmers to improve management, such as: Extension agents, field representatives, agricultural services staff, soil and water conservation district staff, Natural Resources Conservation Service staff, third party certifiers and inspectors.

THE BENTON SWCD MISSION
is to provide leadership to Benton County residents through education and technical assistance for conservation and responsible use and management of soil, water and related resources.

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- Frank Nusbaum (5)
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- Henry Storch (At Large)

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- Donna Schmitz, Resource Conservationist
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- Heath Keirstead, Education and Outreach Coordinator
- Alice Fairfield, Native Tree and Shrub Sale Coordinator
- Teresa Matteson, Education and Outreach Director & Horizons Editor

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