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## Upcoming Events

May 23-25

[Governor's Emergency Preparedness Summit](#)

May 30

Application deadline: DNRC [Watershed Planning & Assistance Grant Program](#)

May 31

Application deadline: DNRC [Community Protection Fuels Mitigation Grant Program](#)

June 1

Application deadline: [NRCS conservation programs](#)

June 8-9

[Governor's Restoration Forum](#)

June 13, July 13, July 19

[Biodiesel Production Workshops](#)

June 19-21

[Montana Range Days](#)

June 26-28

[Adaptive Management of Water Resources](#)

July 1

Application deadline: FWP [Future Fisheries Grants](#)

July 10-14

[Youth Range Camp](#)

July 11-12

[Proper Functioning Condition](#)



## President's Message

*Tom Pick, Montana SWCS Chapter President*

Maybe I shouldn't publicly admit this, but as I write this message, I'm really flyin' high. Actually, I'm guessing that right now we're cruising about 20,000 feet above the mountains and plains of Montana enroute to Washington D.C. A few things obviously stand out from this elevated perspective to someone with an interest in natural sciences. As our jet spiraled up out of the Gallatin Valley and headed east, one could see the farms and fields greening with newly awakened crops of hay and grains and grass sod. The freshly tilled, dark brown fields await fresh seeds like open, hungry mouths scattered about the verdant landscape below.

Also evident are the burgeoning crops of houses, and apartment complexes, and mini-malls, and parking lots mixed among the ponds and rivers draining the valley. Vehicles scurry and nose purposefully along their asphalt and concrete pathways like ants on the way to a well-used picnic table.

At this early hour of day all these features glint brightly and clamor for the aerial viewers' attention in the low angle sunlight. A spring morning is a good time to be in the air and to soak up the hope that this annual revival of life represents. Hey, it's really great to be able to immerse myself in this changing scene on this fine morning. I'm encouraged by what I see. A plus is using many marvels of science and technology to get some needed work done between glances out the starboard portal.

It doesn't take long though, before we enter a different realm; the central and eastern short grass plains stocked with towering buttes heaved up out of the erosion scarred surface. Dry washes and coulees randomly roughen the soft texture of these grassy plains. A less intense hue of green, a pale vernal blanket, has been draped across the landscape to cover the prevailing light earth tones. As the mountains recede into the distance or flank our path, it's good to see their snowy mantles hold healthy banks of moisture that will later provide some respite to the parched earth inevitably coming to visit this land in summer. One needs to stare hard to pick out the farm and ranch buildings now as we soar higher and move away from the standard people draw of mountains and water. A clue to their whereabouts is to follow the increasingly few but well used roads to their end point, especially if a trickle of water is nearby.

Further east as the land becomes more hospitable again, more rich and abundantly moist with sufficient excess moisture to fill potholes, rivers, and streams in profusion. Squares and straight lines are the order of the day now. Land prone to producing more dependable yields- that is of crops along with more transportation routes and houses and people. More trees and forests, too. More commerce and factories, and well, everything fitted in between everything else and lots of it all. Still beautiful, although in a different way, in the soft spring sunlight filtering through the puffy clouds that threaten to obscure my view. To the majority of those living down there, I'm sure this view represents an appealing sense of place and accomplishment.

Ok, please bear with me. This airborne travelogue is going someplace and does have a purpose and viewpoint. As I've viewed the changing scene unfolding below us, I'm struck by what a great landscape we occupy (locally, regionally, and nationally). Also, the attributes of the landscape draw those who are attracted and choose to tolerate or enjoy those same features and conditions but likely for wholly divergent reasons. I guess we are all where we're supposed to be at any given time of our lives.

That said, too often it seems that with all the technical gadgetry driving an increasingly fast pace of life and work, we aren't often able to step back and view the big picture or to focus on the intricacies of our relationship to the big picture. Like the tiny vehicles on the ground, they only experience what's in front of them and that's soon to be where they've

been. My aerial view this morning gave me the opportunity to see our Montana setting relative to others points east of here. Sure there are a few worn spots and nicks here and there which we are working on, but all in all, a pleasant view to inspire us with hope that we are on the right track. I'm glad I'm here to enjoy it and be part of it and I hope you are too.

An old friend of mine recently let me understand a similar thought from another perspective and scale. After returning from a morning of hunting the wily Merriam's turkey in a ponderosa pine - savannah woodland typical of southeastern Montana, he told me that at dawn, a sense of perfection had come over him. He thought to himself, at one point in time, that the moment was so perfect, so memorable that he couldn't chance forgetting it. He couldn't let it blend into the myriad thoughts and experiences we file away every day like worn then shed clothes tossed into the laundry bin. So he concentrated on the sights and sounds to record the essence of the moment, marshalling all his senses to try and preserve it....just because it was so perfect and for no other reason. He smiled broadly again as he recalled it for me.

I hope all of my fellow SWCS members have many memorable moments and are in the place they feel is right for them. Here is to a great summer and field season of accomplishments and reward in doing your life's work.

## Meet a New SWCS Member

*Ross Bricklemeyer, Montana State University - Bozeman*

Greetings fellow Montana SWCS Members,

I am new to SWCS as a member; however I am not new to SWCS as an avid reader. As a former student and present researcher at Montana State University in the Department of Land Resources and Environmental Science, I have consistently found myself looking to the JSWC for balanced, well-written, and reliable reference material for my research. I have also had two peer-reviewed articles published in JSWC in the past four years. To offer a bit of history about myself, I am originally from western Pennsylvania. I attended Penn State University for two years before moving west and working in Yellowstone National Park for three years. In 1997 I moved to Bozeman, MT, enrolled at MSU and completed a Bachelor's degree in Land Resources and Environmental Science with a soil science emphasis in 2000. That fall I decided to continue my education at MSU and in 2003 I completed a Master's of Science degree with a focus on terrestrial carbon sequestration in agricultural systems. I have since continued my research in carbon sequestration in several areas of interest including best agricultural management practices (BMPs), improving measuring, monitoring, and verification (MMV) techniques, satellite remote sensing applications, and using biophysical modeling to estimate carbon sequestration rates. I have participated in carbon sequestration research under the CASMGS and Big Sky Regional Carbon Sequestration projects and was recently awarded a MT Conservation Innovation Grant in 2005-6 to continue an on-farm project into its fourth year. I have also been asked to serve as the carbon sequestration liaison for the Montana USDA-NRCS. I have a keen interest in applying/developing improved MMV techniques in order to further the development of a market-based carbon dioxide trading mechanism that may add value to our Nation's farmland.



*Ross Bricklemeyer accepts a door prize at the 2006 Montana SWCS Chapter annual meeting.*

## Agricultural Carbon Sequestration in Montana

*Ross Bricklemeyer and Perry Miller, Ross is the SWCS Carbon Sequestration Liaison*

Researchers at Montana State University, in cooperation with six farmers, were funded through federal grants to begin a long-term carbon sequestration project in an effort to provide robust regional C sequestration rates in north central Montana cropland. The driving force behind these regional sequestration values is to promote and support a potential carbon credit market in which farmers might be able to "sell" carbon stored in their fields resulting from recent or upcoming change in soil management; adding value to Montana cropland and land stewardship.

Carbon is stored in cropland soil in the form of soil organic matter. By changing the methods in which farmers manage soil, soil organic matter and thus soil carbon, either accumulates or declines. Of the most common soil management techniques, tillage in combination with crop-fallow has been found through 30+ years of research to cause soil carbon levels to decline, whereas adopting no-till and increasing cropping intensity increases the amount of carbon in agricultural soils.

We are studying how tillage and cropping intensity affect soil carbon levels and crop production at six locations in the Golden Triangle (Figure 1). Each site consists of four 20 acre plots that are managed by the participating farmer. The plots are being managed as tilled wheat-fallow, tilled wheat-legume, no-till wheat-fallow, and no-till wheat-legume. The participating farmers make all decisions regarding which crops to grow, the fate of the crop (ex. harvest as forage or grain), and the timing of all management operations. Our role in the research is to measure, monitor, and verify changes in soil carbon in all of the treatment plots. To do this we measure crop yield and biomass annually, and measure soil carbon every other year at the same locations in the plots. Soil carbon is slow to change; therefore it is not necessary to measure carbon annually. Soil samples for carbon are taken to a depth of 50cm in 0-10, 10-20, and 20-50cm increments. We are entering our fourth year of the project and we have secured funding for at least another three years.

To date, baseline soil carbon values (2002) showed greater variability than soil texture and pH values. Analysis of carbon change between 2002 and 2004 showed inconclusive results after only two years of a management change. Studies completed in areas with similar soils and climates have found it takes a minimum of four years after a management change to begin seeing measurable changes in soil carbon. The plots are scheduled for the fourth year sampling after harvest in 2006.

In addition to changes in carbon, we are also interested in how crop production responds to the different treatments. In 2003 and 2005, no statistically significant differences occurred in the legume crops grown. Wheat crop biomass in 2004 showed that no-till was nine percent greater than the tilled system and the continuous cropping system was 72 percent of the wheat-fallow system. The 2004 wheat yield results showed similar trends in results as wheat biomass. Wheat protein tended to be higher in tilled plots and continuously cropped plots. Crop biomass and yield differences in 2004 are likely attributable to differences in soil water status between treatments. The amount of cumulative carbon returned to the soil from crop residues from 2003-5 was greatest in NT and continuous crop plots.

In conjunction with the on-farm research, the National Carbon Offset Coalition (NCOC) is launching a pilot soil carbon trading project in Montana. The NCOC is helping to get Montana farmers involved in one of the first market-based carbon trading pilot projects in the nation. The NCOC and I have toured the Golden Triangle spreading the news and information about this project and the NCOC is now accepting proposals from interested farmers. May 30 - June 1 NCOC and I will be putting on workshops in the Triangle area in order to help those interested in participating fill out the necessary paperwork. We will be in the follow towns: Great Falls, Fort Benton, Havre, Chester, and Conrad. Please contact your local extension agent for times and locations. You can get additional information about the NCOC and their effort at [www.ncoc.org](http://www.ncoc.org). More information about MSU carbon sequestration research and can be found at [www.bigskyco2.org](http://www.bigskyco2.org) and [www.casmsgs.montana.edu](http://www.casmsgs.montana.edu). You can also email Ross Brickleyer at [rsb@montana.edu](mailto:rsb@montana.edu).



Figure 1. Locations of the six farms in north central Montana for the on-farm carbon sequestration research.

## Northern Plains Chapter Development Meeting

*Ed Musser, Montana SWCS Chapter Treasurer*

The 2006 Northern Plains Chapter Development meeting was hosted by the Wyoming Chapter and held in Cody, Wyoming on March 24 and 25, 2006. Attending from the Montana Chapter were Ann Fischer, Tom Pick, Heidi Brewer, and Ed Musser. The meeting was well attended with members from the Wyoming, Colorado, Nebraska, South Dakota, and North Dakota Chapters.

The Wyoming Chapter put together a varied and educational meeting agenda. The educational topics included developing power point presentations, improving resumes, and soil painting. We all got to expose our artistic side (or lack of) with the soil painting activity.

Other agenda items included a presentation by the Colorado chapter on the 2006 National meeting at Keystone, Colorado, a teleconference with the Society's Executive Director, and an evening viewing of a video developed by the Wyoming Chapter on Wyoming's first conservation employee. This was a touching and well-made video worth viewing by anyone interested in the early days of natural resource conservation in Wyoming.



The attendees of the Northern Plains Chapter Development Meeting are pictured above. Montana chapter members Tom Pick, Ed Musser, Heidi Brewer, and Ann Fisher are standing from right to left in the back row.

A highlight of the meeting was a tour of the Shoshone River valley, west from Cody toward Yellowstone National Park. This is a wildlife rich area and numerous deer, Big Horn sheep, elk, and one grizzly bear were seen.

The meeting adjourned Saturday morning with an update from each Chapter. The Chapters are involved in varied activities, but they face many challenges that include membership development and involvement, lack of attendance at Chapter meetings, and limited financial resources. Fortunately, the Chapters are led by an energetic group who are up to the challenges the Chapters face.

The Montana Chapter volunteered to host the 2007 meeting. The Wyoming Chapter set a high benchmark with the 2006 meeting, so we'll need to work hard in 2007 to meet the standard they set.

## SWCS Board Member Profile

*Dick Scheetz, Eastern Area Representative*

I grew up on a farm/ranch in eastern Montana, near Sidney. I was very active in FFA and 4-H in high school. I attended the University of North Dakota-Williston Center and obtained an Associate of Applied Science degree in farm and ranch management. I then transferred to North Dakota State University and obtained a Bachelor's degree in ag education, with an emphasis in ag economics. After being self-employed for several years, I joined the SCS in 1988 in Scobey, Montana, where I worked until 1990. After two years in North Dakota as a soil conservation technician and as a soil conservationist, I returned to Montana in 1992 as a tribal liaison to the Fort Peck Indian Reservation. In 1999, I transferred to the Circle field office as a soil conservationist, and in 2005, I made my latest move to serve as district conservationist in Terry.

I lost my status as a confirmed bachelor in 2003, when I married Carol. We enjoy traveling and seem to spend a lot of time on the road. We own a timeshare on the coast of Texas that we use to trade for other parts of the country, this year Arizona. The move to Terry resulted in us buying some bare lots and a modular home. After much aggravation we now have a garage and are working on landscaping, this should keep us busy for several years.

We own a ranch near Sidney, which is mostly rented out, but we do maintain a small herd of cattle to keep in touch with the production end of resource management. I enjoy traveling, camping, spectator sports (especially hockey), and attending country music concerts.

I joined the SWCS in 1992, and I have served as the eastern area representative to the board of directors since 1997. I have also served as the chairman of the awards committee for the past four years, and have been a member of the scholarship committee for numerous years. I have attended all (I think) Montana SWCS annual conferences since joining, one regional professional development conference, and the international conference three times. I encourage any member who has not attended a regional or international conference to do so.



## Chapter Awards

*Dick Scheetz, Montana SWCS Awards Committee Chairman*

It's not too early to begin thinking about nominations for the Montana chapter awards.

Let me remind you about the awards. For the past two years, the Montana chapter has recognized individuals who are making conservation happen in Montana. There are two award categories. The first is Professional of the Year, which can be anyone who makes a living promoting and selling conservation to the public. Past recipients have been a teacher and an NRCS employee, but this could be almost anyone. The second category is Land Owner/Operator of the Year, just as it reads this, is someone who is implementing conservation on the ground. You work with these people every day.

I know we are all extremely busy, but as you go about your hectic daily lives, keep these awards in mind. Everyone knows someone who would be perfect to recognize. Send me their name, and a little bit about why they deserve recognition and I'll work through the application with you. Don't wait until January when I have to hound people for nominations. Send me the information now, and make it my fault that it gets lost. At least then you can say you did your part to recognize the best in conservation in Montana.

## CNMP Meeting a Success

*Tom Pick, Montana SWCS Chapter President*

Ten participants from around Montana and Canada took part in the Comprehensive Nutrient Management Plan (CNMP) development workshop in Billings April 26-28 hosted by the Montana chapter. The three-day session focused on the six components that NRCS uses when developing a nutrient management plan based on utilizing animal wastes. The comprehensive approach addresses all aspect of manure generation, storage, handling, and nutrient utilization to include record keeping and application rates. Find out more for yourself about CNMPs at <http://www.mt.nrcs.usda.gov/technical/ecs/agronomy/nutrient/cnmp.html>.

Richard Fasching, NRCS State Agronomist, did most of the instruction. He was assisted in covering nutrient cycles, soil

sampling, and fertilizer application rates by Dr. Clain Jones, Associate Research Professor and Soil Fertility Specialist. Merlin Nelson, retired NRCS engineer, provided an overview of manure handling systems. Joe Carleton, NRCS Agronomist in Great Falls, also assisted and provided his expertise to the effort. Ed Spotts, a soil scientist and private consultant in Bozeman, provided an overview of composting and described his experiences in commercially composting dairy manure in the Bozeman area. Long time SWCS chapter member, Neil Fehringer, Agronomist and Crop Consultant from Billings, provided a description of his experiences in developing and working with CNMPs.

Bonnie Lovelace from the Montana Department of Environmental Quality (DEQ) updated us on the current Montana regulations addressing animal wastes and Concentrated Animal Feeding Operations. Bonnie also provided the context for CNMP development. Under DEQ's recently adopted rules, all CAFOs must have a nutrient management plan developed and in place by July 31, 2007.

A big thanks goes out to all those who gave of their time and expertise to conduct this workshop. The course evaluations seemed to indicate that everyone benefited from this effort.

Following the course work, once the participant successfully completes and submits a sample CNMP to NRCS for approval, they will be eligible to be registered in the CNMP – Nutrient Management and Land Application Categories as a Technical Service Provider (TSP) in Montana. Registered TSPs may be selected by USDA program participants (eg. EQIP, WHIP, etc.) to carry out technical services in lieu of NRCS staff such as for conservation practice design, construction oversight, and completion checkout when pre-approved by NRCS and included in the program contract for services. To find out more about becoming or finding a TSP, visit <http://techreg.usda.gov> or <http://www.mt.nrcs.usda.gov/partnerships/tsp.html>.

## Let's have a Rocky Mountain Rendezvous in July!

*Heidi Brewer, Montana SWCS Chapter Past President*

The 2006 annual conference will be held at the Keystone Resort in Keystone, Colorado, July 22-26. Areas of special emphasis for this year's conference include:

- Water use and management – learning to live with limits
- The science of targeting – getting the right practices implemented in the right places and at the right time, and;
- Conservation and the 2007 farm bill – presentations high-lighting key issues and recommendations for reform regarding the conservation provisions of the U.S. farm bill.
- Two plenary sessions are planned for the 2006 annual conference. This is a time for all attendees to join together and be inspired by the speakers of the day.
- In scarcity the opportunity for community: Water management and conservation in the 21st Century will be the first plenary session which will be delivered by the Honorable Gregory J. Hobbs, Colorado Supreme Court Justice.
- The second plenary, Conservation in the 2007 farm bill: Issues, opportunities, and challenges features a panel discussion of the upcoming farm bill, led by the U.S.
- Department of Agriculture Natural Resources Conservation Service (NRCS) Chief Bruce Knight.

A multitude of concurrent sessions will be held throughout the rest of the conference focusing on issues relating to the 2007 farm bill, best management practices, climate change and water management issues. The conference will conclude with technical tours of the nearby area.

All SWCS members are encouraged to attend the national conference. It is a great way to gain a broader concept of natural resource issues as well as network with conservation professionals from all across the US and Canada. If you would like additional information or to access a preliminary program, logon to the Montana SWCS website at <http://www.mtswcs.org> and click on the National SWCS website. The link is titled "SWCS International Conferences."

Early registration must be received by June 15 to receive registration discounts.

## Chapter Membership Update

*Stacy Denny Eneboe, Montana SWCS Chapter Northern Area Director*

The Montana Chapter has traditionally had a strong membership over the years. Right now, there are 92 total members. Historically the membership has been made up of primarily NRCS employees. Below are the membership totals from 2005.

3 Conservation Districts (3%)	11 Consultants (12%)
2 BLM Employees (2%)	1 FSA Employee (1%)
12 from the University System (13%)	1 Non-Profit Org (1%)
42 NRCS(46%)	2 ARS Employees (2%)
3 MT DNRC (3%)	3 Other - mostly retired folks (3%)
11 Producers (12%)	1 Farm Credit (1%)

Do you think the Montana Chapter has a diverse membership? If not, how can we change our numbers? The Montana Chapter membership committee is in the process of developing a membership work plan and survey. The committee welcomes input and new ideas. If you have an action item or a question you would like to see on the work plan or the survey please contact Matt Crampton, Tasha Gibby, or Stacy Denny Eneboe. Membership is responsibility of all the MT SWCS members. Help out the Montana Chapter today and encourage one person to join.

## Montana SWCS 2007 Annual Technical Conference

*Ann Fisher, Montana SWCS Chapter Incoming President*

It seems like a long time before the next annual conference, but it will be here in a flash. Planning the annual conference actually began on the last day of the 2006 annual conference. We asked for ideas and were rewarded with many. They seemed to continue to come down to one common thread and that's what we've been working on for the 2007 annual conference.

The 2007 Annual Technical Conference will be held.... (drum roll)..... January 31 and February 1, 2007, in Bozeman. Information on the accommodations will be forthcoming. The title of the conference "Advocating Conservation-Share the Passion" carries with it this mission statement:

We all understand the importance of conservation practices to our natural resources, but what about the human element of conservation? What about communicating the passion for conservation - has the skill been lost?

The 2007 annual meeting of the Montana Chapter of the Soil & Water Conservation Society will focus on furnishing conservationists with the knowledge and the skills to effectively communicate the changing face of conservation. Whether you are young or old, native or new to Montana, bureaucrat or consultant, farmer or rancher, you will come away from this conference with the skills that will help you do business and exchange ideas effectively in today's evolving conservation environment.

The planning committee currently consists of Tom Pick, Heidi Brewer, Tasha Gibby, Carla Lawrence, Dave Kascht and Ann Fischer. If anyone would like to be a part of the planning committee or offer ideas or suggestions on this topic, we would welcome your involvement. Just contact one of the above mentioned members.

## Producer Record Book Nears Completion

*Emily Guldborg, Montana SWCS Chapter Secretary*

As of you have read about in past chapter newsletters, a record book intended for Montana's farmers and ranchers is currently in the process of being created. We have completed the final version of it and are exploring funding opportunities for publication. To date, we have received a \$500 grant from the Montana Grazing Lands Conservation Initiative to use towards the creation of the record book in an electronic CD format for distribution around Montana. Other grant opportunities and partnerships for publication will be pursued in the near future. If you have any ideas or know of grants which might pertain to the project, please contact Emily Guldborg at (406) 557-2740 x 102 or via email at [emily.guldborg@mt.usda.gov](mailto:emily.guldborg@mt.usda.gov).

## I'm Intimidated by the Word "Aperture" Too

*Tasha Gibby, Montana SWCS Chapter Newsletter Editor*

Let's face it, while there may be a few among us who are "real" photographers and actually know what aperture is and what it has to do with photography, most of us don't. But does that mean we can't take good digital pictures? Of course not!

We just need to take the time to read the manual that came with our camera. Believe it or not, most cameras today have several options built in that make it easier to take good pictures in a variety of settings. A few to actually read about include the shooting mode, white balance, and flash. Shooting mode generally refers to the type of photo you are taking, such as portraits, action, and landscapes. Setting the white balance for the situation you are in (sunny, overcast, indoors) helps to make sure the colors you see are the colors that the camera captures. There may be settings to take panoramic shots or really close shots. I know this seems like a lot of work, but becoming familiar with just a few of the settings that you will need on a regular basis will help you get more pictures that are actually keepers.

Do you know that you can change the amount of memory that one photo uses? The higher the resolution, the more memory one photo will use. Does that mean you want to set your camera at the lowest resolution possible in order to be able to take the maximum number of pictures? Probably not. A mid-range digital camera can range from about 2288 x 1712 pixels per picture to about 640 x 480 pixels per picture. Basically, this means that you will get really great 5" x 7" pictures or really great 1" x 2" pictures. In most cases, the automatic resolution setting will give you good 4" x 6" pictures. However, if you want to be able to get a larger print, you may need to bump up the resolution.

Finally, to get great pictures, we need to actually bring our cameras along and snap lots of shots. Remember that you can delete pictures as you go. This way, you have more quality photos to choose from at the end of the day.

Be sure to keep this information in mind while you are going about your day-to-day business. You might see a spectacular shot that could win this year's SWCS photo contest...that is if you send it in.

Submit photos all year long by emailing me at [tasha.gibby@mt.usda.gov](mailto:tasha.gibby@mt.usda.gov).