## Agriculture and P2 - Find it On-line

peakstoprairies.org/p2bande/agprojects/

Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming have more than 220 million acres in farmland and derive a sizeable portion of their income from farm-related activities. Each state also has a Department of Agriculture focusing on the industry plus various branches of the U.S. Department of Agriculture and the Environmental Protection Agency. There are also many smaller entities working on agricultural issues including active producer groups. At the end of May, Peaks to Prairies launched a new database of research and demonstration projects to show what the agricultural sector is doing to prevent pollution.

The goals of the database are to 1) demonstrate the link between agricultural practices, pollution prevention and regulatory compliance; 2) identify information and success stories from a variety of sources; and 3) offer potential partners for future work. An on-line form is provided to submit new projects.

Because clean air, water and productive soil support a healthy agricultural industry, stewardship of the land has always been an important issue. Many producers and researchers put much time and effort into it. The new searchable database brings together a variety of projects from around the region, and offers a brief description, plus contact and funding information about each.

In the "P2 Network News from State Programs" section of this issue of our newsletter, you will find articles about some of the projects in the database. We expect the collection to grow in the months ahead. Please call and tell us about a project you think should be included.

State	Percent of Work Force in Farm and Farm Related Jobs (2000)	Total Farmland (millions of acres) (1997)	Percent Farmland of Total Land Area in State (1997)
Colorado	15%	32.63	49.2%
Montana	20.9%	58.61	63%
North Dakota	a 23.4%	39.36	89.1%
South Dakot	a 22.2%	44.35	91.3%
Utah	14.3%	12.02	22.9%
Wyoming	17.9%	34.09	54.9%
	Statistics f	rom the USDA Economic	Research Service

The programs of the MSU Extension Service are available to all people regardless of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, LeRoy Luft, Vice Provost and Director, Extension Service, Montana State University, Bozeman, MT 59717. The Montana State University Extension Service is an ADA/EO/AA/Veteran's Preference Employer and educational outreach provider.

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*South Dakota:* Forestry BMPs

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## Providing P2 Information and a Network for Technical Assistance

Services from P2Rx:

#### P2 Programs Directory:

Find assistance programs around the region or around the country

#### P2 Libraries:

*Peaks to Prairies Web Library* - Regional publications available on the web

*P2InfoHouse* - Publications from around the U.S.

P2 Help Desk Rapid response to P2 questions with the advantage of network expertise

P2 News and Events: Current P2-related news and events

#### Homes Across America

Showcase of resource efficient homes and technical assistance

#### Request for Proposals Clearinghouse:

Information on current and pending RFPs related to pollution prevention

#### Mercury Reduction Programs Database:

State, local, and federal mercury reduction activities and information

You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete. —*R. Buckminster Fuller* 

## **Green Meeting Resources**

Developed by the Oceans Blue Foundation, the BlueGreen Meetings Website (<u>www.bluegreenmeetings.org</u>) provides tips for planning and supplying environmentally responsible meetings.

## Web Trends Reports

	Page Views	Visits	Hits/Day
Nov	10,695	4,452	474
Dec	8,912	3,562	371
Jan	9,172	3,578	377
Feb	9,806	4,862	438
Mar	16,866	7,485	666
Apr	16,259	8,350	648

## Service Highlight: In the News

Now it's even easier to stay on top of current pollution prevention and compliance assistance news with the Peaks to Prairies "Regional P2 News Digest." The News digest is now generated by a database that is updated daily with stories impacting EPA Region 8 states in areas such as Agriculture, Community Growth, Energy, and Outdoor Recreation. News stories for the past week appear on the news page and past stories are stored in the searchable archive. Members of the Region8 P2 List Serve also receive a "Weekly Highlights" email with a summary of the stories appearing that week.

But this news is not only available at the Peaks to Prairies site. The database is published in conformance with a simple online news syndication standard known as "RSS" (really simple syndication). RSS allows news content to be shared easily between sites and without the expense of maintaining it locally. For instance, My.Yahoo customizable pages offer users the option of including various RSS news feeds and, through Peaks to Prairies, Region 8 P2 News is now one of the choices. More information about RSS and syndicating news on the web can be found at the Peaks to Prairies web site news page. If your site is not yet capable of accepting an RSS news feed, we will also be offering a drop-in headline box that anyone can use in the near future.

To make the news more comprehensive and easier to collect, Peaks to Prairies is looking for organizations that would like to publish their own news in RSS. We will provide technical assistance to get you started and within a day you can publish your own news on your site and make it available for others to syndicate. Call us for more information.

> Find links to all of these services at the Peaks to Prairies web site peakstoprairies.org.

## New Partnerships in Residential Construction

The Peaks to Prairies Center has developed several new partnerships that are poised to improve services and expand our resources network. The Center is now a member of the Northwest Partnership for Environmental Technology Education (NW PETE) and is serving on the National Association of Home Builders (NAHB) review board for proposed green building guidelines. PETE addresses environmental, safety, and health training needs of the Northwest, and Peaks to Prairies and PETE are cooperating to bring sustainable residential construction education into technical school curricula. Students with a background in sustainable building and knowledge of the latest building techniques and technologies stand to be more competitive in the workforce.

Based on review and recommendations by a workgroup of educators, the Center is adapting the Residential Construction topic hub to make it more useful to school construction programs. An interesting side note is that students of two of the teachers in the workgroup, Earl Torgerson of Bismarck State College and Pat Ballentine of Lansing Community College, were involved with designing and building homes profiled on the Homes Across America website. We intend to give added attention to student built green homes as a way to generate more educational excitement.

The Center is also onboard to review the latest draft of the National Association of Home Builders "Model Green Building Guidelines." This new stakeholder's group was created to establish a set of model green home building guidelines. The guidelines will help everyone concerned with homebuilding better understand the benefits of green home building and ways to accomplish them. Recent research by NAHB shows that in most cases, "building green" adds less than 5% to the total cost of a home, costs which are recovered in a relatively short period of time through lower operating and maintenance costs, as well as greater comfort.

## 2004 Pollution Prevention Roundtable

The Region 8 state pollution prevention programs will hold their annual roundtable in Denver, Colorado, on September 8-10, 2004. EPA Region 8 will host the meeting at EPA headquarters giving participants ready access to EPA programs and personnel.

The kick-off for the conference will be a field tour of several NREL facilities in Golden Colorado: the National Center for Photovoltaics, the National BioEnergy Center, and the National Wind Technology Center. September 9-10 will be devoted to regional P2 business including federal, state and local reports plus informative sessions about topics of regional interest including lean manufacturing, the new national P2 and compliance assistance news network, the Resource Conservation Challenge and more.

State and local assistance providers are invited to attend the roundtable but must preregister. More information, including an agenda, will be on the Peaks to Prairies web site soon. (Click on "Network" and "Roundtable.") In the meantime, if you have questions, contact Laura Estes at the Peaks to Prairies Center, 406/994-6948.

### Homes Across America

To date, the Homes Across America (HAA) website has published twenty-three home profiles. From these profiles, the Center has made contacts with builders who creatively and competently commit to the principles of green building and third party certification of their work. Although techniques vary from climate to climate, builders showcasing homes use the "whole house approach," where all systems of the house work together to provide resource efficiency, health, and comfort. As one Energy Star builder said, "You wouldn't buy a new car or computer with 30 year old technology. Why would you buy a new house that way?"

New and upcoming profiles involve a variety of interested partners. They include the National Association of Home Builders, the Nebraska Energy Office, the Arkansas Energy Office, Habitat for Humanity, Bismarck State College, the Texas Department of Environmental Quality, the University of Southeast Alaska and the Cold Climate Research Center, Green Home Building, Green Built Home and Louisiana State University. Many of these partners have linked to Homes Across America from their web sites.

Special thanks goes to Michelle Gaither of the Pacific Northwest Pollution Prevention Center. Michelle supplied a variety of leads that generated profiles in Washington, Oregon, Idaho, and Alaska.

## **Topic Hubs Reviewed and Improved**

Peaks to Prairies would like to thank the following technical reviewers for their time and coments in reviewing topic hubs since last November:

#### Agricultural Teaching Labs:

• Thomas M. Bass, Educational Program Specialist, Biological and Agricultural Engineering, University of Georgia

#### Auto Body:

- Mick Jost, Vehicle Maintenance / Transportation Industry Assistance, Minnesota Technical Assistance Program (MnTAP), University of Minnesota
- Ed Becker, Auto Refinishing Instructor, MSU-Billings, College of Technology

#### **Clean Snowmobiles:**

 Howard Haines, Pollution Prevention Bureau, Montana DEQ

#### Youth Education:

• John Usher, Burns Telecom Center

## The acknowledgements page for each hub is now available with information about authors, reviewers, and recent updates.

#### Community Growth:

- Michael Pawlukiewicz, Director of Environment & Policy Education for the Urban Land Institute
- Martin Harris, Director of the Joint Center for Sustainable Communities

#### **Residential Construction**

- Cyane Dandridge, Executive Director Strategic Energy Innovations - Energy Smart Schools
- Rick Mejia, California Department of Education Secondary Adult Leadership Division
- Earl Torgerson, Assistant Professor, Bismarck State College

## Construction Compliance Workgroup Update

As a workgroup member, Peaks to Prairies has contributed to the OECA publication entitled: Managing Your Environmental Requirements - A Planning Guide for Construction and Development. The document is in final review. The guide has grown into a comprehensive document after input from the workgroup, as well as various government, industry and legal reviewers. Reformatted to include environmental pre-bid, pre-construction, and construction issues, including awareness of required permits and ways to include environmental costs in bids, this document will be essential for owners and contractors involved in construction projects throughout the country.

Tangentially, new work is also being done by the OECA workgroup and the CICA Center on stormwater pollution prevention plans (SWPPPs) as a principal requirement of obtaining stormwater permits. New federal regulations came into effect March 2003.

The CICA Center web site (<u>www.cicacenter.org</u>) is an excellent source for federal and state stormwater and SWPPP information. Its many links will take site users to some of the best information and examples available. The case studies on the site are being enhanced with more information and supporting materials. New case studies will be added. In addition, the Office of Water is in the process of writing a new stormwater guidance manual.



## New Digs for P2 Kids' Club

In preparation for a new school year, the P2 EnviroRangers web club has an easier address: envirorangers.montana.edu. Additionally, the site sports improved, streamlined site navigation for better focus and ease of use. The club's online P2 activities are simple to use and to incorporate into existing educational programs. Concise youth leader information accentuates existing online group and individual activities. Whether your goal is as simple as finding a new Earth Day activity, or as complicated as offering your kids realistic conservation options in a world that often seems beyond their control, the EnviroRangers web club has what you need.

#### Region 8 State P2 Programs and Center Advisory Committee

#### Colorado

Jill Cooper & Kirk Mills, CDPHE email: jill.cooper@state.co.us email: <u>kirk.mills@state.co.us</u>

#### Montana

Mike Vogel, MSU Extension email: <u>mvogel@montana.edu</u>

Lou Moore & Brian Spangler, DEQ email: <u>Imoore@state.mt.us</u> email: <u>bspangler@state.mt.us</u>

*North Dakota* Kent Belland, NDDH email: <u>kbelland@state.nd.us</u>

South Dakota Barry McLaury, DENR email: <u>barry.mclaury@state.sd.us</u>

*Utah* Sonja Wallace, DEQ email: <u>swallace@deg.state.ut.us</u>

Wyoming Steve Roseberry, DEQ email: <u>sroseb@state.wy.us</u> Please help us keep our mailing list up-to-date by marking any corrections on the above label and returning it.

## About the Peaks to Prairies Center

The Center is operated by the Montana State University Extension Service and serves EPA Region 8 states--Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming. As part of a nonregulatory, educational entity, the Center draws on resources of the land-grant system. The Center's goal is to protect the environment through pollution prevention. Its major function is to serve as a networking tool for state and local governmental agencies, trade associations, educational institutions, consultants, and non-governmental organizations who serve small businesses. Executive Director: Michael Vogel <u>mvogel@montana.edu</u>

Program Coordinator: Laura Estes <u>laurae@montana.edu</u>

Sector Specialist: Steve Guettermann sguettermann@montana.edu

Resources/EnviroRangers: Joanne Wilke <u>ewilke@montana.edu</u>

http://peakstoprairies.org phone: 406/994-3451 fax: 406/994-5417



Peaks to Prairies is a member of the Pollution Prevention Resource Exchange (P2Rx), a national network of pollution prevention information centers representing all ten EPA regions. Through P2Rx, centers bring regional networking to a national level, exchange information and build on each others' ideas. Support for Peaks to Prairies is provided by the U.S. Environmental Protection Agency and the state programs listed on the left.

#### **EPA Region 8**



## P2 Network News Agricultural P2

## Colorado: Innovative EMS Permit Program

The Colorado Department of Public Health and Environment (CDPHE) wants to achieve greater public health and environmental benefits while easing regulatory burdens. To accomplish this, it has embarked on a pilot program using a performance-based environmental management system (EMS) that doubles as a facility's environmental permit.

The potential benefits include: built-in continuous improvement, less frequent inspections and increased permit flexibility for high performers, better cross-media consideration of impacts, and greater focus on pollution prevention practices to name a few. CHPHE also expects it will improve companies' interactions within their communities and with stakeholders.

Agricultural operations were considered good candidates for this program because of the new water quality permits to be in place by 2006. Four pilot facilities have been selected and two are ag-related - one a 1600 cow dairy operation and the other a 20,000 head feed yard. Both are developing a new EMS with the assistance of CDPHE this summer and hope to incorporate permit features by the end of the year. Late in 2005, internal auditing will be compared with an agency review of progress.

Additional assistance in meeting the new regulations has been a factor in encouraging participation. CDPHE has also encountered some hesitancy from operators who wonder if their operations will become more transparent. They would prefer not to reveal competitive advantages.

CDPHE foresees a need for something simpler than a full-flown EMS for smaller operations. In addition to the pilot program, they will also be looking at alternatives for self-certification systems in the coming months. For more information contact Phyllis Woodford at 303/692-3477.

## Montana:

## Integrated Pest Management Advice—21st Century Style

In the not-so-distant past, producers who encountered insect pests or plant diseases faced time-consuming research to find management recommendations. Now, that same information is accessible, searchable and downloadable at <u>http://HighPlainsIPM.org</u>.

The site is a partnership of Montana State University, the University of Nebraska, University of Wyoming and Colorado State University. MSU's Will Lanier, an Extension Entomologist, took the reins for converting the previous source of data—a large three-ring binder full of integrated pest management (IPM) information—into a web site.

The on-line material can be updated continuously, unlike the binder, which required mailing out each new insert. And, says Lanier, the site includes chemical, cultural and biological information. For instance, a producer looking for how much insecticide to spray on army cutworms, can also get advice on monitoring for cutworms and alternative cultural controls as well as a list of which crop cultivars, if any, are resistant.

Although the number of agricultural web users is increasing rapidly, the site is innovatively designed to accommodate producers without computers. A "shopping cart" or "checkbox" feature allows paper-copy information to be sent via regular mail. So, a consultant or Extension agent can request that a specific fact sheet be mailed to a producer who doesn't have easy Internet access.

The site design also considers the *most* technical: people who want to download information into handheld computers for use in the field. Thus, different file types and images are available, but optional, in order to decrease the need for bandwidth. The site also serves as an archive for specialists who want easy access to update their written documents.

The site has been on-line and under continuous development since 2000. Contributing authors from MSU include, Extension specialists Sue Blodgett, Greg Johnson, Jack Riesselman, Martha Mikkelson and Barry Jacobsen. For more information visit the web site or contact Will Lanier at 406/994-5690.

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## North Dakota: Biomass for Fuel

Northern Sun-ADM in Enderlin, North Dakota crushes oilseed crops and refines them into vegetable oil. They employ about one hundred people in this small community. Energy and waste disposal are major operating costs of running the plant. Originally a sunflower seed crushing plant, the hulls produced as a byproduct were a combustible waste that the landfill didn't want. So the company invested in a biomass burning, steam-producing boiler to convert this waste into power. Sunflower hulls are an efficient biomass fuel producing around 8,000 BTU/pound. At the height of sunflower seed production in North Dakota (late 1980s), the boiler at times produced more energy than needed to run the plant. Consequently electricity was generated with the excess steam.

As sunflower seed production declined, the plant began processing other oilseeds with no energy-producing byproducts and Northern Sun started searching for other sources of fuel. Working in partnership with the North Dakota Department of Health it started testing distressed grains, screenings, agricultural field waste, and scrap wood salvaged from the landfill. Each source requires testing and adjustment of the boiler process to maximize efficiency and minimize emissions. Regular monitoring of particulates is a part of the process. Biomass fuels are generally considered a cleaner source of energy than fossil fuels because they are relatively "carbon neutral" (absorb carbon as growing plants in proportion to CO<sub>2</sub> produced when burned).

The search for waste biomass to use as fuel for the boiler continues. Northern Sun is currently generating at least two-thirds of its process steam from waste biomass. With natural gas prices quadrupling in the last 15 years, using biomass fuels has gone beyond a clean and beneficial use of a waste product to insuring economic viability of the operation. For more information about Northern Sun's innovations, contact Richard Irish at 701/437-3000.

In utilizing and conserving the natural resources of the nation, the one characteristic more essential than any other is foresight. —Theodore Roosevelt

# *South Dakota:* Forestry Best Management Practices

The Black Hills of South Dakota (and a tip of Wyoming) is the arid home to ponderosa pine and much of the state's forest industry. It is also the recharge watershed for several large regional aquifers. Properly applied best management practices in timber harvesting limit non-point source pollution. The South Dakota Department of Environment and Natural Resources (DENR) has partnered with the Black Hills Forest Resource Association, a regional trade association of forest products companies, to evaluate BMP practices here and train operators in techniques that may be unfamiliar to them.

Their plan is straight forward: identify forestry best management practices, train operators to use them, audit operations to see how processes are being applied and if they are effective, revise practices based on the results-a process of continuous improvement. In June of 2001 the first audit of selected timber harvest areas was completed. The final report issued later that year provided a wealth of information for the next cycle. The report including field data and links to a photo diary of the audit process are available from the DENR web site at: www.state.sd.us/denr/DFTA/ watershedprotection/P2/P2.htm (click on "pollution prevention projects" and scroll down to "Silviculture BMPs").

Commitment to BMPs is part of Black Hills timber companies' proactive approach to sustainable forestry. The two largest timber companies in the state are in the process of becoming certified in the American Forest and Paper Association's Sustainable Forestry Initiative (SFI) Program. SFI is a standardized system that combines "the perpetual growing and harvesting of trees with the protection of wildlife, plants, soil and water quality." Timber and products made from timber harvested in this manner can carry the SFIlabel. While market recognition is growing, companies who are willing to take this step before it is widely recognized are to be commended. More information about the Sustainable Forestry Initiative can be found at: www.afandpa.org/ (under "Environment and Recycling" and "SFI").

The South Dakota Department of Agriculture recently published a revised manual of Forestry Best Management Practices. Hard copies can be obtained by contacting Greg Josten at 605-394-6122. The Black Hills Forest Resource Association will offer the next round of BMP training for operators June 24-25 in Spearfish and Custer. For more information, contact Aaron Everett at 605/341-0875 or visit their web site at: <u>www.bhfra.org/</u>.

## Utah: Organic Agriculture

The intent of organic production is to "... foster the cycling of resources, promote ecological balance, and conserve bio-diversity." Organic farming has shown steady growth in the United States. USDA's Economic Research Service shows that acreage used in organic production more than doubled between 1997 and 2001 nationwide, adding more than a million acres of certified organic land. Studies also show that retail sales have grown by 20% or more per year during the past decade. Five years ago, the Utah Department of Agriculture became a certifying agency for Utah grown organic products and when USDA crafted the National Organic Standards (NOP) in October 2002, the Utah program was accredited in the first round.

Since that time they have certified 40 producers, 10 processors and 7 livestock operations with new producers applying each year. The most recent additions are five organic lamb farms that raise their lambs on BLM and Forest Service land. Producers interested in becoming certified submit an application and are inspected by the agency. This is done on a fee-for-service, cost-recovery-only basis since the program does not receive external funding. On average, it costs about \$500 to become certified to the national standard. Producers wanting to market their products to European Union countries must get additional certification.

The Department also assists in market development. Two years ago they ran a trial selling organic lamb but no one seemed interested in buying. Due in part to that early exposure, it has recently gotten more requests for organic lamb, and has encouraged lamb producers to go the extra step for certification. Another example is the current pending applications from two dairies. One obstacle the dairies face is finding enough organic feed for their cows. The Department is in a position to see both the need and a possible solution. They have suggested that the organic wheat producers to go their acres to feed grain.

They have also organized several trade conferences. In 2003, they sponsored a conference focusing on promoting organic products to wholesalers. An upcoming conference, scheduled for September 2004 in Salt Lake City, will explore direct marketing options for organic goods like farmers markets and community supported agriculture (CSAs). They also promote the local "Utah's Own" market recognition campaign. Certified organic producers earn the right to label their products "Utah's Own Organic."

More information about the upcoming conference and Utah's organic program can be found at <u>www.ag.state.ut.us/plantind/organic.html</u> or by contacting Seth Winterton at 801/538-7141.

#### Wyoming: Animal Feeding Operations Program

In 1996 EPA started asking for more information about animal feeding operations and the Wyoming Association of Conservation Districts (WACD) took positive steps to educate producers about conditions affecting livestock operations. In partnership with livestock producers and producer associations, local districts, and the Natural Resource Conservation Service (NRCS) with funding from Wyoming DEQ/US EPA's 319 program, they started a successful information and education campaign to reach producers with over 100 head of livestock.

Their efforts included general education, funding for demonstration sites and technical assistance provided by the NRCS. For education purposes, they created a widely distributed, 14-page color brochure describing laws and liabilities and showing examples of good management practices. The brochure also included a self-assessment tool so producers could evaluate whether their operations posed a threat to water quality. Press releases about water quality concerns were also distributed to publications throughout the state.

One of the most successful aspects of the program was face-to-face training for producers. Local districts sponsored sixtyeight trainings offered in two rounds. The first round was attended by more than 1300 producers and outlined proposed federal rule changes then being considered. Upon request of attendees, the second round of trainings covered the final rule.

Information packets for attendees were created with educational materials and a description of the funding for demonstration projects. Trainings were held at demonstration sites so producers could see a practical application of the practices being suggested.

Producers filled out a simple two to three page application to apply for demonstration site funding. With technical assistance provided by NRCS, approximately 30 producers received grants to design and implement a variety of practices to address regulatory and water quality issues. And many more producers implemented what they learned on their own.

WACD is wrapping up this initial phase of the program. A final report on collective efforts expected soon. They are encouraging local districts to use the resources created and continue with demonstration site funding in their 319 programs. The 1997-2001 report, the brochure and the self-assessment tool can be found on their web site at: <u>www.conservewy.com/wacd/water\_resources/</u> <u>index.html</u>. For more information, contact

Bobbie Frank at 307/632-5716.