

North Dakota's 2003 P2 Round Table Report

North Dakota P2/ Nutrient Management Efforts

North Dakota's P2 nutrient management program was directed at providing the agricultural community information regarding the value of livestock waste materials and helping individual livestock companies develop nutrient management plans.

In one case, assistants provided by the North Dakota Department of Health (NDDH) to the owner of a Minot livestock sales facility resulted in a very positive outcome. The NDDH placed the owner of the facility in contact with contractors working upon reclamation projects in the area. The cooperative effort between the facility and the contractors provided the facility an economically attractive means of removing manure and saved the contractors money typically spent upon shipping and the purchasing of comparable soil amendments. Their cooperative efforts also beneficially used the nitrogen and phosphorous found in the estimated 29,900 tons of manure. Each ton of manure contained approximately 1.1 pounds of phosphorous/ton and 0.8 pounds of nitrogen/ton. In total 32,890 total pounds of phosphorous and 23,920 total pounds of nitrogen were utilized. The market value of these plant nutrients was estimated to be almost \$240,000.

The Department's efforts with another livestock sales facility revealed elevated phosphorous concentrations in the soil caused by repeated applications of manure. With the Department's help, the owner was able to identify manure application rates that would meet the growth requirements of the planned crop and new areas where manure could be safely be applied without contaminating ground and surface waters.

The Department also worked directly with 6 additional livestock sales facilities, initiating nutrient management systems that identified manure as a resource and not a disposal problem. These facilities appeared to be handling their wastes appropriately, but they were primarily applying their manure to cropland acres based upon tradition and instinct. These facilities now recognize the value of the nutrients in the manure, they have plans that will help them use their waste materials appropriately, and their future waste management efforts should have a minimal impact upon water quality.

Livestock Waste Regulatory and Nutrient Management Workshops were held at thirteen locations throughout North Dakota. The workshops addressed animal confinement regulations and manure management planning considerations. The workshops were a collaborative effort between NDDH, North Dakota State University Extension Service, North Dakota Soil Conservation Districts, U. S.D.A.'s Natural Resources and Conservation Service, North Dakota Department of Agriculture, and the North Dakota Stockmen's Association. A total of two hundred and seventeen livestock operators attended the workshops. The workshops were held during the winter to give livestock producers time to set up agricultural management plans and the opportunity to implement the plans. Statistics associated with the manure management planning efforts are currently being collected.

The Department set-up displays at two large farm shows in an attempt to reach out to livestock producers. The displays focused upon the use of livestock manure as a resource and emphasized the use of nutrient management plans as a means of preventing water quality problems. It was estimated that sixty four thousand people attended the two farm shows and viewed the P2 display. Of those that attended the farm shows, one hundred and ninety two individuals stopped by the display to obtain nutrient management information.

The same display was also set up at the National Environmental Health Association (NEHA) District Health Unit Meetings. The one hundred forty two NEHA employees attending the meeting had an opportunity to ask questions about the NDDH P2 program and the twenty three dairy and farmland inspectors in attendance were provided nutrient management informational packets.

North Dakota's P2 Community Out-Reach Efforts.

North Dakota's 2002- 2003 P2 program provided information to North Dakota communities in an effort to help them reduce/reuse their yard waste. Two newly developed brochures "**Grasscycling**" and "**Composting in Your Backyard**" were developed and mailed to two hundred and sixty three communities and fifty two county extension offices. News releases announcing the availability of the brochures were sent to the news media and posted on the NDDH web site. In response 12 newspapers printed the news releases, three radio broadcasts associated with "**Grasscycling**" and "**Composting in Your Backyard**" were aired, and twenty communities made requests for additional copies of the brochures.

Related P2 Accomplishments

Aware that an ADM oilseed processing plant was interested in wood as alternative fuel source, the Department placed the company in contact with the City of Fargo, North Dakota. Fargo is now sending 8,000 tons/year of wood waste to ADM. The Department also helped ADM develop a similar business relationship with a business located in Wahpeton, North Dakota.

In 2002, the Department assisted the Alchem ethanol plant in the Grafton, North Dakota determine the volume of wood waste available in northeastern North Dakota. The ethanol plant plans to use wood waste as a bio-energy fuel source and communities within a sixty mile radius of the plant are currently sending wood waste to the plant. The plant intends to start utilizing the wood to heat its boilers sometime this year.

The NDDH sponsored a 4th grade poster contest. The theme for the poster was "Pollution Prevention...for Our Future". A total of two thousand one hundred and twenty four 4th graders from six hundred and sixty eight schools designed posters for the contest. The theme of the winning poster was later displayed upon a billboard located in the designer's home area.

The state set-up displays at two major conservation events to show 4th and 5th graders how their decisions impact the volume of waste they generate and how their choices can conserve energy. Approximately 920 students attended the two events.

North Dakota Fiscal Year 2004 PPIS Plans

- 1.) Host an Environmental Management System (EMS) training program to advance the National Parks Service/ EPA Partnership Project objectives while providing regulatory agencies and industrial groups exposure to EMS planning.
- 2.) Assist agricultural processing companies and livestock sales facilities with developing nutrient management plans and help with locating entities capable of beneficial utilizing their waste streams.
- 3.) Develop an electronically assessable Material Exchange Program that will provide businesses an avenue for locating and contacting entities that can use or extend the life of their unwanted items and/or waste streams.
- 4.) Conduct Project Safe Send for the purpose of informing individuals of the dangerous impact outdated, unknown, and persistent, bio-accumulative, and toxic (PBT) farm chemicals can have upon their working environment. The project will also collect the unwanted farm chemicals so they can be safely eliminated.
- 5.) Promote the use of P2 Best Management Practices (BMP) by North Dakota State DOT, Fleet Maintenance, and County Highway Departments by providing The Pollution Prevention Toolkit, Best Environmental Practices for Fleet Maintenance packets to state and county fleet maintenance entities.
- 6.) Assist the City of Jamestown with developing a means for capturing methane gas from the city's wastewater treatment plant for use as an energy supply for the near by potato processing plant.
- 7.) Promote the construction of an anaerobic digestion demonstration project as a sustainable energy source for dairy farms located within the state.