NPM Field Notes

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Wisconsin Nutrient and Pest Management Program Update

NPM Launches "Whole-Farm" Systems Approach To Demonstrations

The competitive USDA/EPA grants program, ACE (Agriculture in Concert with the Environment), will be funding a two year Wisconsin study proposed by NPM. Three dairy farm families will join with CALS researchers and NPM Extension Specialists in a project designed to develop and evaluate a whole-farm systems approach to sustainable nutrient and pest management.

Farmers participating in the 1990 and 1991 corn demonstrations have questioned how "best management practices" can practically and profitably be applied to more acres. NPM Co-Director Jeff Wyman believes that the ACE program's priorities of education, technical assistance, and management demonstrations are a logical progression for NPM's on-farm demonstration projects. "With farmer participation, the ACE project provides a great opportunity to examine current recommendations and develop a systems approach which maximizes the use of on-farm resources while protecting soil, surface water, and groundwater resources," said Wyman.

The three dairy farms that will work with NPM Regional Specialists vary in size, soil and water protection concerns. Mike and Ralph Thull of the William Thull Farms, near Kewaskum in Washington County, farm 750 acres, rent an additional 500 acres and have a 200 cow dairy herd. The Thulls will work with Richard Proost, NPM Southeast Regional Specialist, as will John and Annette Guttmann. The Guttmanns farm 96 acres with 30 dairy cows near Grafton in Ozaukee County. Lee and Tammy Montgomery near Argyle in Lafayette County work a 300 acre farm and tend an 85 cow dairy herd. The farm has about 80 fields in 7 contour strip systems - quite a challenge for the Montgomerys and SW Regional Specialist, Karen Talarczyk, when it comes to testing a whole farm nutrient budget.

An interdisciplinary team of CALS faculty and staff will also participate in the ACE project. Project Coordinator, Jeff Wyman, will consult with Larry Binning, Fred Madison, and Larry Bundy on weed control, resource protection, and soil fertility strategies.

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Farm Progress Days '91 Recap

The 1991 Farm Progress Days Show held July 9 - 11 allowed for plenty of interaction between farmers, NPM staff and cooperators. This year's show at the Gordon Berg farm in Dodge County featured a NPM field demonstration and a booth in the Pavilion Tent. Both received a fair amount of attention from the large number of people attending the show.

The demonstration features nutrient and weed management practices for field corn. The site, located east of Tent City, demonstrates nutrient crediting from manure applications, preplant soil nitrate testing, and reduced herbicide rates---all very important practices for protecting both surface and ground water quality in this locale with shallow soils over fractured bedrock.

Thanks to all who visited us at this year's show. See you next fall in Eau Claire County!

Above: *Karen Talarzek, NPM Southwest regional specialist, and Don Peterson, former Associate Dean of UW CALS, seen outside the Pavillion Tent .* ***At right:*** *the Berg Farm demonstration plot attracks some attention from a visitor at Farm Progress Days site.*

NPM Profile: Cooperating Farm Family Eugene and Betty Abraham

Eugene and Betty Abraham join the expanded ranks of NPM cooperating farm families this year. The Abrahams purchased their 460 acre farm in Green County near Monroe in 1987. Four years later they've been named "Outstanding Young Farmers" by the Monroe Jaycees.

Both Eugene and Betty are somewhat new to farming. Eugene grew up in Chicago, while Betty came from a beef cattle farm near Browntown, Wisconsin. The couple now manage 100 milk cows with 100 youngstock and have about 350 tillable acres of corn, alfalfa, wheat and sudax. "The first day we walked on the farm we knew very little about crops," said Eugene.

NPM cooperating farmer Eugene Abraham

The Abrahams NPM demonstration plot focuses on nitrogen crediting of manures and use of the preplant soil nitrate test. From their dairy operation the Abrahams have about 2,700 tons of manure in a year. "In the past we really haven't used nitrogen crediting from manure," said Eugene. "Sure we cut back our nitrogen purchases but not has much as we could," he added. Working with NPM Southwest Regional Specialist Karen Talarczyk, Eugene and Betty discovered that they could take 135 pounds in nitrogen credits from manure applications on their demonstration plot and found after using the preplant soil nitrate test the field had 44 pounds per acre of residual nitrogen---that meant the no commercial nitrogen except for a small amount of starter this spring. In his operation Eugene spreads dairy manure on about 60 acres of corn ground.

"This is the real reason we began working with Karen (Talarczyk) and Green County Extension Ag Agent Mark Mayer. With my background growing up in Chicago and Betty's experience on a beef farm, it's important that we ask questions and learn as much as we can from Karen and Mark."

The field day on the Abraham Farm is September 5th, from 1:00pm to 3:00pm. ❖

Why Do Farmers Like Eugene and Betty Abraham Use Nitrogen Crediting?

For the typical dairy farm in Wisconsin there's value to be gained from every shovel full of manure. The value has to do with increasing your margin of profit between what you get in the price per bushel of corn and the cost of fertilizer per acre. State-wide, dairy cows and heifers alone provide 40 million dollars worth of fertilizer-equivalent nitrogen (N) each year. For a typical Wisconsin dairy farm with 50 milking cows plus replacement stock, that's about $1,100 of nitrogen available for crop use every year!

NPM has worked with farmers in several locations throughout the state and found that most farmers see some nitrogen value in manure, but aren't convinced just how much nitrogen is available or how to tell how much manure is equal to a certain amount of nitrogen fertilizer. In the Narrows Creek-Middle Baraboo River Watershed of Sauk County over a third (36%) of the farmers spread enough manure on their most productive corn field to supply all the nitrogen needs of that field.

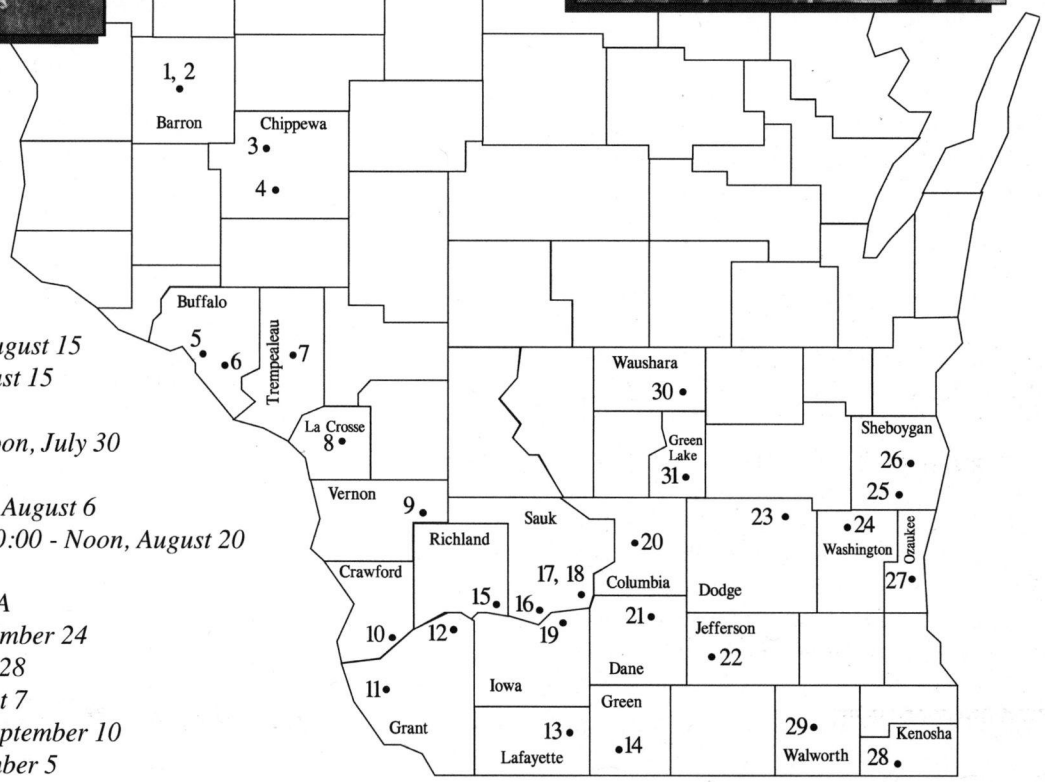
On average, a ton of dairy manure spread on a field supplies about three pounds of nitrogen for a crop's use during the first growing season after application, one pound of nitrogen during the second growing season and an additional half-pound during the third. The term "nitrogen crediting from manure" means reducing the rate of commercial fertilizer applied due to the nitrogen in the manure---thus you're giving credit to the manure for providing nitrogen.

Perhaps the biggest challenge to manure crediting is the trust that it takes on the part of the farmer to believe that manure-nitrogen is the same as purchased nitrogen. Clearly, dairy farmers have enough manure that commercial fertilizer rates should reflect manure applications. Not every farmer has enough livestock manure to replace commercial fertilizer, but it can serve to supplement purchased nitrogen (and phosphorus), and the result is more profit. On average, for farmers in the Narrows Creek Middle Baraboo River Watershed of Sauk County crediting of nitrogen from manure could increase their profits by more than $8.00 an acre on their most productive corn field.

Environmentally, manure nitrogen, like any nitrogen applied to a field, will be converted in warm, well-drained soils to nitrate through bacterial action in the soil. That means manure will increase the amount of nitrate in the soil, which if not taken up by the crop, could find its way into the groundwater.

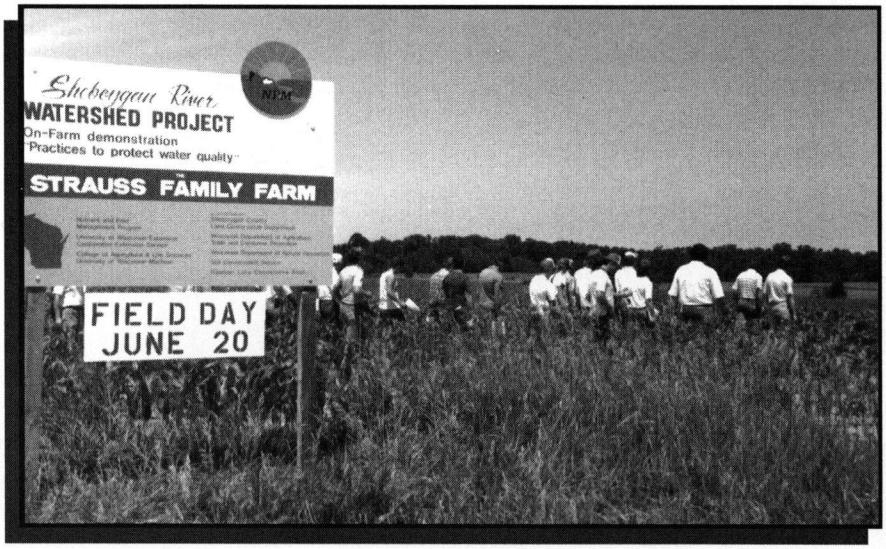
If you would like more information on nutrient crediting from manure contact a county extension agent or write to NPM for a free publication "Nitrogen Credits for Manure Applications, (A3537)". ❖

1991 NPM On-farm Demonstration Locations and Field Day Dates



1 Krahenbuhl, *10:00 - Noon, August 15*
2 Severson, *10:00 - Noon, August 15*
3 Zwiefelhofer, *held July 11*
4 Chippewa County, *10:00 - Noon, July 30*
5 Danzinger, *held July 2*
6 Sendelbach, *7:30 - 9:00 p.m., August 6*
7 Trempealeau County Farm, *10:00 - Noon, August 20*
8 Schomberg, *held July 17*
9 Wirts, *September 19, time TBA*
10 Folbrecht, *11:30 - 4:00, September 24*
11 Mergen, *Noon - 3:00, August 28*
12 Studnicka, *1:00 - 3:00, August 7*
13 Montgomery, *Noon - 3:00, September 10*
14 Abraham, *1:00 - 3:00, September 5*
15 Greenheck, *TBA*
16 River Valley High School, *TBA*
17 Wyttenbach, *held July 2*
18 Weiss, *held July 2*
19 Swenson, *TBA*
20 Franz, *held June 26*
21 American Breeders Service, *held June 28*
22 Topel, *TBA*
23 Berg, *held July 9-11*
24 Thull, *Noon - 3:00, September 5*
25 Merkel, *Noon - 3:00, July 26*
26 Strauss, *held June 20*
27 Guttmann, *Noon - 3:00, August 14*
28 Meier, *10:00 - Noon, September 4*
29 Lakeland Farm, *TBA*
30 Krentz, *1:00 - 3:00, August 8*
31 Affeldt, *10:30 - 2:00, August 15*

TBA - to be announced



A Special Thank You To Those Who Joined Our Cause

For the past several months our budget has been tied up while Wisconsin lawmakers attempt to set new priorities in spending. A broad coalition of agricultural and environmental groups has worked diligently to restore NPM and CIAS funding to the state budget at the level requested by the University.

Many farmer cooperators and members of the Advisory Committees responded to requests for phone calls or letters to their legislators. Thanks to all the farm families and supporters who have helped the coalition in this effort! Also thanks to a number of other coalition organizations who endorsed the NPM and CIAS budget request:

Citizens for a Better Environment
League of Women Voters of Wisconsin
Michael Fields Agricultural Institute
National Farmers Organization
Sierra Club (John Muir Chapter)
Wisconsin Agri-Business Council, Inc.
Wisconsin Association of Lake Districts
Wisconsin Association of Professional Agricultural Consultants
Wisconsin Conference of Churches (Impact Policy Review Board)
Wisconsin's Environmental Decade
Wisconsin Farm Bureau Federation
Wisconsin Farmers Union
Wisconsin Federation of Cooperatives
Wisconsin Land Conservation Association
Wisconsin Potato and Vegetable Growers
Wisconsin Rural Development Center
Wisconsin Women for Agriculture

Whole Farm Approach *(continued from page 1)*

Pete Nowak and Robin Shepard will evaluate the project's success in promoting adoption of sustainable practices and assist in designing information delivery methods. Rick Klemme and Kathleen Duffy will complete the economic analysis of the whole farm plans. Laura Ward Good and Kit Schmidt will develop educational materials and coordinate the project.

Although the two-year funding doesn't come to Wisconsin until October 1, the farmers and University teams will begin meeting in August. All are committed to making the most of these federal dollars for the sustainability of Wisconsin family farms and natural resources. ❖

Wisconsin Nutrient and Pest Management (NPM) program provides educational and informational opportunities for Wisconsin farmers, farm supply businesses, and agchemical dealers. NPM is administered through:

University of Wisconsin-Extension
Cooperative Extension Service

College of Agricultural and Life Sciences
University of Wisconsin-Madison

Farming the Prairie for Ducks and Butter

"Farming the Prairie for Ducks and Butter" a twilight meeting cosponsored by NPM, Madison Audubon Society, Arlington Experimental Research Station, WDNR and Columbia County Extension, is scheduled for August 29.

Topics will include: Restoring Native Prairie on CRP ground; Learning to Protect Water Quality in Rural areas; Creating more Wildlife on The Farm; and Learning the Economic, Environmental and Social Benefits of a More Diversified Farming System.

Meet at Goose Pond, (Madison Audubon's Wildlife Sanctuary) located on Goose Pond Road near Arlington. A cook-out is planned from 4:30-6:00 pm with the twilight meeting following from 6:00 to 9:00 pm. There will be a wagon ride from Goose Pond to Arlington and back. Children and families are welcome. Call the NPM office by August 10 to reserve a spot. ❖

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