NPM Field Notes

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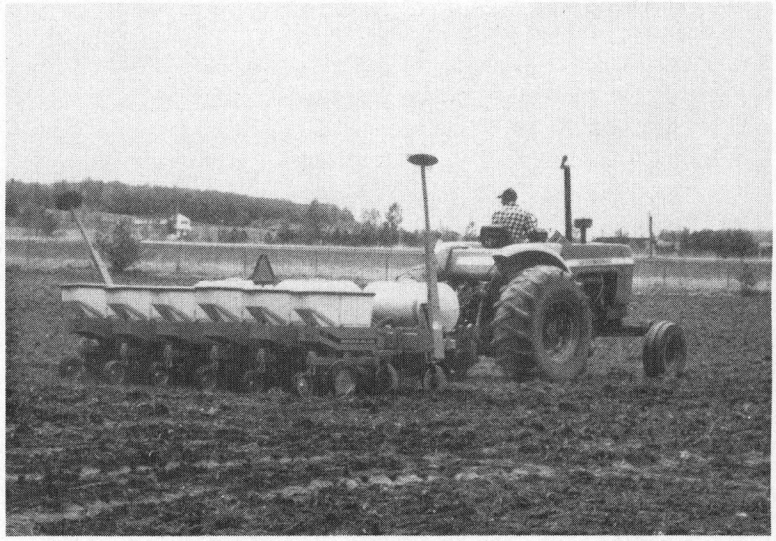
Wisconsin Nutrient and Pest Management Program Update

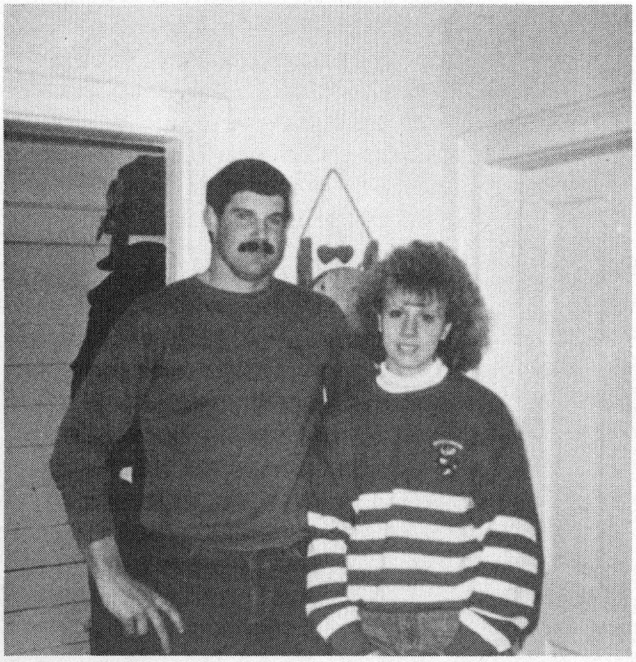
We're Breaking Ground

That's right, another growing season has begun and NPM has planned even more on-farm demonstrations for the 1991 crop year. As the snow melted away, the ice broke-up and the fields thawed, our cooperating farmers began spring planting. Over the winter the NPM regional specialists spent months planning, reviewing the results from last year, and adding new sites. In 1991, our plans call for 35 NPM demonstrations throughout the state. Most will focus on corn production, highlighting practices such as nitrogen management, reduced herbicide rates and atrazine alternatives. We try to make it easy for farmers to find out what's happening with a plot. Each farmer will conduct an on-farm field day, where he or she will share thoughts, opinions and experiences with other farmers. University research specialists and NPM staff members will also join in the special presentations.

The plots themselves have brochures for self-guided tours, making it easy to find out for yourself what the demonstration is all about. So we hope you'll be keeping your eyes open for our bright yellow and red NPM road signs marking a demonstration plot near you.



Spring field work begins in the northwest region. NPM is working with local farmers, other state and local agencies to organize 35 on-farm demonstrations in 1991.



Lee and Tammy Montgomery of Argyle join the ranks of NPM cooperating farmers again in 1991.

NPM Demonstrations Trim Costs, Not Profits

During 1990, the four NPM regional specialists worked in partnership with UWEX-county agents and field staff of other state and local agencies to coordinate large-scale, farmer-managed demonstrations on corn production practices. NPM demonstrations focused on corn production because it is a major Wisconsin crop and is assumed to be a major contributor of nitrates and pesticides detected in recent well water surveys.

All on-farm demonstrations featured side-by-side comparisons of customary practices and best management practices. Nutrient management practices included legume and manure crediting, routine soil testing and preplant soil nitrate testing. Weed management practices included atrazine alternatives, reduced herbicide rates-broadcast, reduced herbicide rates-banded and mechanical weed control strategies. Some plot comparisons featured only nutrient management practices or weed control practices, while others featured a mixture of both. Whatever the demonstration focus, three-fourths of the 19 on-farm demonstration sites were able to achieve comparable yields and/or maintain or increase farm profits using reduced inputs.

Most farmers had room to reduce their chemical inputs and maintain their current profit margins. Lee and Tammy Montgomery of Argyle, for example, were able to cut their herbicide and

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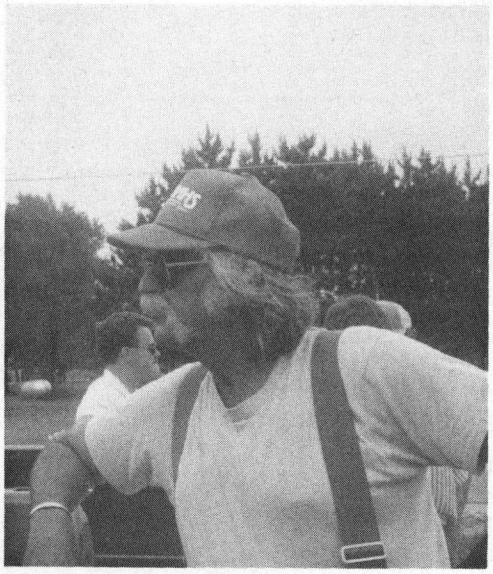
NPM Profile: Fred Madison

This profile probably is unnecessary, since just about all of our readers know Fred Madison, or at least have heard of him. Often referred to as NPM's "third co-director," he has provided the environmental voice to guide the program's efforts in the interests of ground and surface water quality. He has been a source of technical information, inspiration, and some good stories. He even let NPM use his lawn for a pig roast.

Fred is an associate professor of soil science at the UW-Madison and Wisconsin Geological and Natural History Survey, and is one of the State's leading authorities on soils and geology. Although most of his career has been focused on Wisconsin resources, his background includes a stint in Washington as legislative assistant to Senator Gaylord Nelson. While there he played a key role in the writing the nation's Wild and Scenic Rivers Act. He also served as director of the Peace Corps Office in Agriculture.



Soil Scientist, Dr. Fred Madison, NPM Lower Wisconsin River Coordinator.

Fred is the NPM link to groundwater research. He is currently guiding the program's activities in the lower Wisconsin River Valley, and offers his expertise on groundwater systems throughout the NPM Regions.

Fred's vast working knowledge of Wisconsin resources, together with a keen eye and sharp wit, provides NPM with just the right approach to promoting farm profitability and maintaining water quality. "It's a mistake to think that farmers don't care about clean water. They do care, and if you show them that there is something they can reasonably do to protect water quality---they'll do it," said Fred.

Fred and his wife Tracy, along with two daughters live near Lodi on the farm once owned by Fred's grandparents.

Profits: *(continued from page 1)*

nitrogen applications on corn to zero by using cultivation and crediting nitrogen from manure generated on their farm. Comparable yields were maintained while production costs per bushel were reduced by 44 cents.

In 1991 the NPM demonstration on the Montgomery farm will focus on nutrient and herbicide management. Lee Montgomery became interested in conducting a demonstration because he wanted to see for himself if he could use fewer inputs and maintain his profits. Montgomery said, "We don't need to put on all the fertilizer we thought we did," noting that by crediting the nitrogen provided by manure he was able to spread less commercial nitrogen fertilizer.

The economic analysis of the NPM on-farm demonstrations center on enterprise budgets developed by PEPS (University of Wisconsin-Agronomy Department Profits through Efficient Production Systems). The cost per bushel figures were calculated using the producer's measured, verified yields and production costs obtained from PEPS program record forms. If you'd like to know more details or a break-down of the economics plot-by-plot, we've put together a complete booklet of fact sheets featuring all of the data. Just give NPM Economist, Kathleen Duffy, a call at (608) 262-5383 for your copy.

Road Rally Plans

You'll find us NPM staff members difficult to reach on Thursdays during June. The staff and Directors will be on the road visiting 1991 demonstration sites to meet cooperating farmers and farm families and preview the plots. We've invited the NPM Technical Advisory committee, CALS faculty members, and the CIAS Advisory Council along. We hope cooperating Extension agents and County Conservationists can join us as well.

Although it won't be possible to visit all the farm sites, the Regional Specialists are charting a picturesque course from the Thull's farm near Kewaskum to the Sendelbach's near Waumandee in Buffalo County. The Road Rally dates are as follows:

June 6: Southeast, starting in Washington County.

June 13: Southcentral, starting in Sauk County.

June 20: Southwest, starting in Green County.

June 27: Northwest, starting in Chippewa County.

At each stop we'll be pulling soil samples, discussing groundwater risk, considering economics and walking the field. Call Kit Schmidt or Scott Sturgul for more information including an itinerary at (608) 262-4326.

The Northwest Region: by Paul Kivlin

The 1991 growing season brings the Northwest Region ten NPM demonstrations at eight locations. Adding to the demonstrations from last season in Buffalo County, Dave and Melvin Danzinger and John Sendelbach are the lastest to join the list of NPM cooperating farmers. John will compare moldboard and chisel plowing and also illustrate proper residual nitrate and manure nitrogen crediting. Dave and Melvin will demonstrate the capabilities of a no-till cultivator with different weed control strategies.

Tim Krahenbuhl and Jerry Severson are again hosting demonstrations in Barron County as a part of the Yellow River Priority Watershed. Tim will examine nitrogen credits from residual nitrate and alfalfa as well as explore some current alternatives to atrazine for quackgrass control in corn. Jerry's demonstration will focus on proper manure and legume crediting.

The Chippewa County Farm will contain two demonstrations looking at nutrient crediting, reduced herbicide rates, and the proper use of current soil test recommendations. On Friday, May 31st, the Chippewa County Farm will also host a field demonstration of various rotary hoes and cultivators. Contact me or Chippewa County UWEX Agent, Flint Thompson, for more information.

A third demonstration in Chippewa County will be held on the Mike Zwiefelhofer farm. Mike's demonstration will illustrate proper manure and legume crediting, and reduced herbicide rates.

Two demonstrations will be located on the Trempealeau County Farm. A number of weed control options will be explored in a field that will compare broadcasting full and half herbicide rates, banding full and half herbicide rates, and mechanical weed control. A nutrient plot will demonstrate proper nitrogen crediting from manure and legumes.

Rodger Schomberg will be participating for a second year with his demonstration located on the LaCrosse County Farm in West Salem. Along with a comparison of preplant and sidedress nitrogen applications, Rodger will illustrate the effectiveness of full and half rate herbicide applications and mechanical weed control.

Be watching for field day dates and times in one of my future Northwest Region updates.

The Southwest Region: by Karen Talarczyk

Farmer cooperators in the Southwest area of the state are focusing on manure management for spring 1991. Following a winter and spring with adequate-to-above-average precipitation, the potential for high residual nitrogen amounts in corn plots that received reduced nitrogen inputs in 1990 is low. However, the potential for nutrient crediting of manure is high. The six cooperators for 1991 all have livestock on their farms. Manure quantity estimations using the number and size of animals confined for specific periods of time gave manure fertilizer values ranging from $3,000 to $10,000, and a range in nitrogen credits of 100 to 150 pounds of nitrogen per acre.

Talks around the kitchen tables addressed water quality concerns. Some areas of southwest Wisconsin show extremely high levels of nitrates in private drinking water supplies. For example, in the Whiteside Creek subwatershed in Lower East Branch Pecatonica Watershed in Lafayette County, 52% of the drinking water samples from private wells exceed the drinking water standard for nitrates. In the Muscoda area, field groundwater monitoring wells have shown elevated nitrate readings from samples taken in a period from April 1990 to February 1991.

New demonstrations that have been added throughout the Southwest Region. In Grant County, two field corn demonstrations will add a crop scouting emphasis that includes the services of New Horizons Supply Cooperative in Fennimore. Ken Jahnke, Agronomy Supervisor at the Co-op has agreed to participate in increased crop scouting activities in order to emphasize the service area of the Co-op.

Closer attention to nitrogen management as well as choosing the best weed control program to match weed pressure as well as weed type, more communication with Co-ops as farmers better express concerns and needs, and overall better communication among the agricultural community give the potential for a very successful 1991 growing season.

The Southcentral Region: by Pam Porter

With the new Wisconsin Atrazine Rule in place for 1991, I've been receiving a number of questions about rates, application dates, record keeping and irrigation scheduling.

To answer some questions about irrigation scheduling, Bill Hutter of Golden Harvest seeds hosted a workshop on irrigation scheduling at the Country Hearth Restaurant in Spring Green on April 18. Dr. Dave Curwen, from Hancock Agricultural Research Station, spoke to a group of about 20 growers on irrigation scheduling and about the program he developed called WISP (Wisconsin Irrigation Scheduling Program). This program has been widely adopted in the Central Sands region of the state, but to this point remains untested in the Lower Wisconsin River Valley. Tom Kriegl shared updates on the Atrazine Rule and the allowable depletion values for most of the irrigated soil types found in the valley.

To follow up on irrigation scheduling, I will be working with four farms this summer, comparing their current irrigation management to WISP, the UW irrigation scheduling program. For example on the Hutter farm in Spring Green, Bill Hutter and his son Willy will keep track of rainfall, irrigation inches and date and time of irrigation. I will keep track of the remainder of the values needed to run the WISP. As the season progresses, we will try to compare the profitability and feasibility of current farm practices to WISP.

Two more demonstrations have been added to the South Central Region for 1991. American Breeders Service: Dale Gretebeck, farm supervisor in Dane County, and Jerry and Brad Franz, Columbia County have joined the list of NPM farmer

Continued page 4

The Southcentral Region (continued from page 3)

cooperators. Both demonstrations will focus on herbicide reduction and non-atrazine options for weed control in corn. Agriculture Agent Lee Gross and Natural Resource Agent Mindy Habecker from Dane County and Agriculture Agent Ray Saxby from Columbia County will be the major cooperators with NPM on these new demonstrations.

The Southeast Region: by Richard Proost

I would personally like to welcome the five new farmer cooperators to the NPM Southeast Region's demonstration family. These new cooperators are Gordon Berge, Doug and Linda Bloch of Dodge County(1991 Farm Progress Days); Steve and Wanda Burmeister of Fond du Lac County; Alan Wood of The Lakeland Farm(county farm) of Walworth County; and Ed Strauss of Sheboygan County. These new demonstration sites will help expand the effort to provide crop management practices that are economically and environmentally sound to a larger portion of the southeast region. Welcome!!

These new demonstrations feature one or more of the following crop management practices: conservation tillage, improved fertility recommendations through proper legume and manure crediting, the preplant soil nitrate test, alternatives to atrazine, reduced herbicide rates with mechanical cultivations, mechanical weed control strategies, and crop scouting. All of these practices are invaluable to a sound crop production system.

To date there are three field days scheduled; June 20 at the Ed Strauss Farm in Sheboygan Falls; July 26 at the Gerald Merkel Farm near Random Lake; and September 5 at the William Thull Farm near Kewaskum. All of these field days start at 12 noon and finish up at 3:00 pm. This year's demonstration field days will feature hands on activities such as proper crop scouting procedures and row cultivator adjustments for weed control. These are excellent opportunities for you to gain more knowledge that you can apply to your farm operation. Plan to attend!!

The 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

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