MFRP Distributes a Record $20,849 to Forage Research

The MFA's board of directors distributed a record $20,849 to forage-related research projects through the Midwest Forage Research Program (MFRP), honoring its continued commitment to devote more funding to research when available. This was thanks in large part to a $10,000 contribution from Monsanto and a $1,000 contribution from BASF. The MFRP was initiated in 2007 in response to a member survey which revealed that forage-related research was the number one priority among members. Now entering its sixth year, the MFRP continues to address those issues deemed by its members as research priorities. Since its inception, MFRP has distributed over $73,000 to research projects across Minnesota, North Dakota, and Wisconsin.

MFA's 2012 request for proposals attracted a total of 17 proposals totaling more than $52,000 demonstrating the need for additional MFRP funding. Projects were evaluated by the board of directors and funded based upon a number of factors including industry need, cost effectiveness, and partnership. Funding was awarded to eight proposals:

- **On-Farm Evaluation of Five Cool Season Grasses and Alfalfa-Grass Mixtures ($3,873)**
  Jim Paulson, Doug Holen, Greg Cuomo, Jim Salfer, Dave Nicolai, Dan Martens, Nathan Winter, Betsy Wieland, University of Minnesota
- **Fall Harvest Management of Alfalfa Cultivars with Different Fall Dormancy ($2,460)**
  Marisol Berti, North Dakota State University
- **Evaluating Twin-Row Corn Silage Production ($2,304)**
  Kevin Jarek, Joe Lauer, University of Wisconsin
- **Wisconsin Alfalfa Yield and Persistence Project ($3,000)**
  Mike Rankin, University of Wisconsin
- **Investigating the Effects of Foliar Fungicide Applications on Alfalfa Production and Fungicide Resistance ($3,936)**
  Deb Samac, USDA-ARS; Bill Halfman, Bryan Jensen, Dan Undersander, University of Wisconsin; Fritz Breitenbach, Lisa Behnken, University of Minnesota
- **Potassium Fertilization Requirements for Intensively Managed Modern Alfalfa Varieties ($1,680)**
  Craig Sheaffer, John Lamb, University of Minnesota
- **Effects of Foliar Fungicides on Corn Silage During the V5 Stage of Development ($512)**
  Amanda Gevens, Bill Halfman, Steve Huntzicker, Bryan Jensen, University of Wisconsin; Fritz Breitenbach, Lisa Behnken, University of Minnesota
- **Effects of Timing of Weed Management in Establishing Roundup Ready vs. Conventional Alfalfa Systems ($3,084)**
  Mark Renz, University of Wisconsin

MFA funds distributed to these projects represent either full funding or partial funding in cases where the researcher was able to leverage other matching funds to complete the project. Congratulations go to these researchers for their awards and participation.

Full reports of MFRP projects can be found by clicking the Research/Articles tab in the "Member's Only" section of the MFA website (www.midwestforage.org/membersOnly.php). The following summaries are abbreviated versions of three 2011 MFRP projects.

Wisconsin Alfalfa Yield and Persistence Project
Mike Rankin, University of Wisconsin-Extension

Objectives:
1. To verify the yield and quality of alfalfa harvested from production fields over the life of the stand beginning with the first production year (year after seeding).
2. To quantify decreases in stand productivity of alfalfa fields as they age.

Summary: The Wisconsin Alfalfa Yield and Persistence Program is designed to provide forage growers and agricultural professionals a unique look at what is happening at the farm level. As more fields are entered and years pass, the reliability of information will increase. It's important to keep in mind that only five years of data have been collected. Environmental conditions have a profound influence on both yield and quality and during the course of the past five years there have been no two exactly alike. Nevertheless, the information can be contrasted and there certainly is enough information to begin to formulate possible trends and topics for discussion.

Does the Use of a Foliar Fungicide Improve Alfalfa Forage Production?
Paul Esker, University of Wisconsin

Objective:
To investigate the yield and quality response of alfalfa to Headline® fungicide and Headline® with a tank mixed insecticide.

Summary: Results from the two Wisconsin trials in 2011 indicated there was no consistent pattern for the observed responses to foliar fungicides across second and third crop alfalfa. While there was evidence of reductions in disease severity and defoliation in some of the alfalfa cuttings, overall, there was no strong evidence of differences in terms of yield. Based on this year's trial, additional trial data are needed before recommendations can be made regarding foliar fungicide use in alfalfa.

On-Farm Evaluation of Alfalfa/Grass Mixtures In Minnesota – Year 4
Paul Peterson, Jim Paulson, Doug Holen, Dan Martens, Nathan Winter, Phil Glogoza, Betsy Wieland, Dave Nicolai, Jim Salfer, Craig Roerick, University of Minnesota-Extension

Objectives:
1. Determine the mid-to long-term agronomic performance, advantages and disadvantages, of nine different grass species in mixtures with alfalfa on three Minnesota farms.
2. Determine the nutritional value of selected alfalfa/grass mixtures compared to alfalfa alone.
3. Demonstrate the forage potential and value of modern varieties of grasses when well-managed on Minnesota farms.

Summary:
- Alfalfa and grass content varied widely across locations despite identical seeding rates and methods, making it difficult to project herbage alfalfa/grass proportions based on seeding rates. Contrasting environmental/climatic conditions across the three locations during the critical seedling establishment phase likely affected this.
- Some alfalfa/grass mixtures consistently yielded more forage DM than alfalfa alone. Tall fescue was the grass most commonly associated with greater mixture yield. Orchardgrass ranked second. Mixtures never yielded less than alfalfa alone. However, all treatments received 100 lbs N/acre each production year.
- Of nine grasses tested, orchardgrass was consistently the most abundant in mixtures. Different seeding rates may have produced different results.
- The 4 lbs/acre seeding rate for timothy resulted in excess competition with alfalfa and suppressed yields in early production years at Underwood. By the third production year, however, this mixture 'recovered' and was among the greatest in milk per acre.
- Mixtures with tall fescue or orchardgrass produced the most digestible-fiber and the most milk-production potential per acre, significantly more than alfalfa alone. Though RFV of these mixtures was often among the least, RFQ was unaffected by mixture treatment at all three locations.
- Red clover and birdsfoot trefoil were good legume alternatives for mixtures at a marginal, sandy site where alfalfa did poorly. Kura clover failed to establish at that site.
- Alfalfa and grass content were visually estimated. Post-harvest observations of stubble suggested that grass content may have been underestimated.
- Long-term mixture herbage composition seemed to be set by the end of the seedling establishment phase; reed canarygrass was the most visible exception to this, increasing at all three locations from establishment through 2011.
- Only binary mixtures were considered in order to keep the experiment of manageable size. More complex mixtures may be advantageous when complementary species are selected.