

Results from Practical Farmers of Iowa Cooperators' Program 2008 Work

(Feb. 5, 2009)

More than 40 farm families are conducting on-farm research and demonstration this year as part of PFI's Cooperators' Program. Available results are briefly below; ask contact person listed for more complete information. As they become available, more results will be announced in the PFI newsletter and posted on the PFI website:

www.practicalfarmers.org

Chicken Feed

Cindy Madsen is exploring a natural methionine source to help ensure poultry development and good weight gain. She did two feeding trials that compared husband Vic's conventional corn to a high-methionine corn. In both trials no synthetic methionine was fed. In the second trial, soybean meal was decreased 5%. **RESULTS: First feeding trial: poultry responded the same to both corns. Second feeding trial: poultry gained significantly more weight when fed high-methionine corn and less soybean meal, but 20% of birds died from heart attacks. Need to ensure ration is more balanced.** (Contact: Sarah Carlson)

Breeding Non-GMO Corn

In 2008, **Ron Brunk** and **Earl Hafner** cultivated and maintained a trial investigating the yield of potential corn breeding stock, such as varieties bred for higher protein and higher carotene. Ron and **Dan Specht** continue to select and replant open-pollinated corn that is well adapted to their environment. **John Gilbert** and **Francis Blake** tested high-methionine corn on-farm, and **Craig** and **LaVon Griffieon** opened their farm to produce a hybrid cross from improved lines. **RESULTS: Lines crossed with Cuba 117 and 164 are yielding higher than conventional hybrids. Corn selected for higher protein is yielding comparable to conventional hybrids. Protein content will be measured. A Summary Publication of the project and 2008 results is available.** (Contact: Sarah Carlson)

Cover Crops

Jerry Peckumn is investigating the ability to establish a cover crop ('wheeler' rye) in a corn-on-corn system. **Devan Green**, **Jim Funcke** and **Whiterock Conservancy** planted cover crops in Fall 2008 and will plant a cover crop in the same plots every year for the next 5 years. They will examine: What is the cover crop's effect on the following year's crop yield? Is there time to plant a cover crop at fall harvest? In the spring, how do we manage the cover crop? Can it be grazed, killed mechanically or with an herbicide? **RESULTS: Preliminary data to be collected in Spring 2009.** (Contact: Sarah Carlson)

Cover Crop Statewide Project

PFI members are filling out a simple observation sheet to gather data about establishing and managing different cover crops. This will help answer farmers' many questions and create more fool-proof ways to manage cover crops. In addition, more than 12,000 cover

crop postcards were distributed to farmers taking the pesticide applicator training this spring (PFI and non-PFI members). **RESULTS: 295 cards have been returned from 38 Iowa counties, and PFI is analyzing the data.** (Contact: Sarah Carlson)

Water Quality Monitoring

PFI members are participating as water monitoring cooperators through IOWATER, the state's volunteer water monitoring program. The members include: **Brian Hayward**, **Bruce** and **Derek Carney**, **Autumn** and **Laramie Ogden**, **Mike** and **Laura DeCook**, and **Greg** and **Kayla Koether**. In addition, **Jerry Peckumn** had automatic samplers installed on two tile lines to compare water quality on a primarily row-crop area and his mixed row-crop and pasture. All measured nitrogen and phosphorus levels, especially following rainfall events. Jerry also measured chemicals. **RESULTS: Water quality is affected greatly by type of farming system. One farmer, Bruce Carney, has begun changing the area below his feedlot to decrease phosphorus loss to a nearby creek.** (Contact Sarah Carlson)

Niche Pork Tours

Tom and **Irene Frantzen**, **Dan** and **Lorna Wilson**, **John** and **Bernie Kenyon**, **Tim** and **Deleana Roseland**, **Steve** and **Christy Howe**, **Martin** and **Barb Kramer**, **Ron Mardeson**, and **Lyle Rossiter** of the ISU Allee Farm worked with PFI and ISUE staff to develop eight virtual farm tours. **RESULTS: These tours are being shown over the web on Tuesdays from Jan. 20-March 10.** (Contact: Gary Huber)

Retrofitting Facilities for Niche Pork

Larry Miller, **Tom Miller**, and **Mark** and **Valerie Olson** opened their farms last summer to field days that explored how to retrofit pork facilities for niche production. (Contact: Gary Huber)

Productivity and Costs of Niche Pork Farms

Forty-one farms provided 2006 data and 27 farms provided 2007 data to help understand the productivity and costs of niche pork farms. Work is underway to collect data for 2008. **RESULTS: Data from 2007 was analyzed and a report was produced. The results, when compared to 2006 data, demonstrated the impacts of rising feed costs on profits.** (Contact: Gary Huber)

Educating Farmers on Niche Pork Production

Training materials on three niche pork production topics were developed. These materials were used during 11 on-line discussion groups. Over 60 farmers from across the U.S. participated in the sessions. **RESULTS: Participant comment: "This format was extremely good in getting top level experts in touch with on-the-ground producers from all around the country."** (Contact: Gary Huber)

Tomato Support Systems

Jan Libbey and **Tim Landgraf**, **Jill Beebout** and **Sean Skeehan**, and **Rob** and **Tammy Faux** all took data in an attempt to find the best tomato training structures for keeping disease pressure at a minimum in heirloom tomatoes. **RESULTS: Each farm generated different results, thus no system was deemed best for minimizing disease.** (Contact: Sally Worley)

Season Extension

PFI Cooperators will conduct seven season extension projects in 2009, ranging from published records of revenue from crops grown in the high tunnel vs. not, to documenting storage life of crops planted for storage vs. consumption in the main season. The cooperators involved are: **Jill Beebout** and **Sean Skeehan**, **Ann Franzenburg**, **Dean** and **Judy Henry**, **Chris Blanchard**, **Rick** and **Stacy Hartmann**, **Bill** and **Kathleen Eggers**, and **Mark Quee**. (Contact: Sally Worley)

Oat Crown Rust

Verlan Van Wyk, **Dan Wilson**, and **Mike Natvig** planted four different treatments and collected yields on oat varieties that have different resistance to crown rust of oat. **RESULTS: For the last three years, the mixture of the three varieties has resisted rust better than the individual varieties by themselves, and it usually yielded better even when rust wasn't a factor.** (Contact: Rick Exner)

Organic Seed Treatments

Testing in the lab has shown that certain plant-derived oils can inhibit seed-pathogenic fungi. **Susan Jutz** and **Norm McCoy** compared peas treated with and without essential oils treatments. Susan also included in her trial seed treated with the commercial product Natural II. **Ron Dunphy** and **Ken Choquette** compared soybeans treated with and without the essential oils. **RESULTS: Among the results in the first year, essential oils seed treatment at Susan Jutz's farm significantly increased pea seedling emergence, and Natural II resulted in significantly greater emergence than either the control or the essential oils treatment.** (Contact: Rick Exner)

Grazing Production Data

Tom German, **Torray Wilson**, **Bruce Carney**, and **Karl Dallefeld** compiled their grazing records this fall, including animal weights and stock days per acre, as well as "the story" of the production systems, such as animal moves, stock density, species type, rainfall, and supplemental feeding. **RESULTS: Project to help graziers identify best record-keeping methods (no research component).** (Contact: Teresa Opheim)

Grassland Bird Habitat

Ron Dunphy is implementing a plan to improve quail habitat on his farm. In addition, **Ryan Marquardt** has developed plans to improve grassland bird habitat on his farm and also the farms of **Bill** and **Betty Kimble**, **Mike** and **Laura DeCook**, **John Sellers**, and **Francis Thicke**. These Cooperators will begin implementing their plans in 2009. (Contact: Teresa Opheim)

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