

# **Current Research Priorities**

Priority will be given to research proposals related to:

### **Spring Wheat Variety Development**

- Public breeding program support in Minnesota, North Dakota, and South Dakota
- Increasing the capacity of the University of Minnesota's breeding program
- Increasing the efficiency of regional breeding programs

#### **Spring Wheat Production**

- Fertility management
  - o N management to economically maximize yield and protein content
  - o P, K, S and other nutrient management strategies
- Seeding rates
- Variety selection
- Crop rotation
- Crop protection
  - Disease management, with priority given to the management of Fusarium head blight and bacterial leaf streak
  - o Pest management
- Site specific management
  - O Tailoring the above production practices to specific soil types or environments within a field
- Residue management and reduced tillage practices

#### **MN Wheat Disease Survey**

Continuing the annual wheat disease survey throughout MN in collaboration with NDSU

## **Environmental Quality and Soil Health**

- Incorporating cover crops into spring wheat production using current production systems
- Understanding the role of spring wheat for improving soil health
- Incorporating conservation tillage into systems including spring wheat
- Protecting or improving soil water quality in spring wheat rotations
- Reducing nutrient and water runoff in spring wheat rotations
- Reducing soil erosion in spring wheat rotations

#### **Cereal Chemistry**

- Spring wheat protein and baking quality
- Herbicide residues in harvested grain

The MWRPC may also consider multi-year projects that have a systems-wide perspective that analyze how production practices in one year can affect other crops in the rotation. With the low wheat prices in recent years and many farmers finding it difficult to make a profit growing wheat from a strictly cash-sale perspective, proposals that investigate potentially profitable impacts of wheat on other aspects of the operation will be considered, such as distributing seasonal workflow, weed control in subsequent crops, straw value, cover crop value, etc. Multi-year proposals that include multiple crops in a rotation will need to include wheat in each year of the project rotation. We also would prefer to see additional funding supplied by other organizations or commodity groups for multi-crop research proposals.

Please contact Melissa Carlson at mcarlson@mnwheat.com or by phone at 952-738-2000 if you have additional questions.