

Minnesota Wheat Research and Promotion Council

FOR ADMINISTRATIVE USE

Program Area Code Proposal Code

RESEARCH PROPOSAL GRANT APPLICATION

1. NAME AND ADDRESS OF ORGANIZATION TO WHICH AWARD SHOULD BE MADE

Name: Regents of the University of Minnesota
Address: Sponsored Projects Administration
 454 McNamara Alumni Center, 200 Oak Street SE
 Minneapolis, MN 55455-2070

2. TITLE OF PROPOSAL

Magnusson Research Farm General Support of the Wheat Breeding and Evaluation Program, Roseau, MN

3. PRINCIPAL INVESTIGATOR(S)

Nancy Jo Ehlike

PI# 2 Name:

PI# 3 Name:

4. PI #1 BUSINESS ADDRESS

Department of Agronomy and Plant Genetics
 411 Borlaug Hall
 1991 Upper Buford Circle
 St. Paul, MN 55108-6026

5. PROPOSED PROJECT DATES (calendar years)

1/1/2012 – 12/31/2012

Note: Research Reports are Due November 15th of Each Year

6. TOTAL PROJECT COST

\$7,500

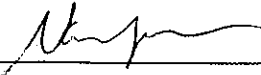
7. PI #1 PHONE NO.

612-625-1791

8. RESEARCH OBJECTIVES: (List objectives to be accomplished by research grant)

1. To provide research support to the University of Minnesota wheat breeding program by conducting small plot wheat research in Roseau, MN on the CFANS Magnusson Research Farm.

Attach a 2-page detailed discussion of importance of the proposal to wheat profitability; how study complements previous research in area; procedures to be used; and competency of the research group in achieving research objectives. (Please keep the proposal concise, only 2 pages will be provided reviewers).

	Date 12-20-12	Phone Number 612-625-1791
Signature Of Authorized Representative	Title Kevin McKoskey Senior Associate Director	Date 12/28/12
Address Of Authorized Representative Kevin McKoskey, Branch Mgr., McNamara Bldg. Suite 450, 200 Oak St Minneapolis MN 55455-2070		Phone Number 612/624-5599

Minnesota Wheat Research and Promotion Council
RESEARCH PROJECT PROPOSAL
(2-pages maximum)

Project Title: Magnusson Research Farm General Support of the Wheat Breeding and Evaluation Program, Roseau, MN

Importance: The CFANS Magnusson Research Farm (located 6 miles northwest of Roseau, MN) is a 40 acre site that was gifted to the University of Minnesota to conduct research that will have a positive impact on crops produced in the area with an emphasis on grass seed production. The Magnusson Research Farm is the northern most research site in Minnesota with unique environmental conditions that make this an attractive location for evaluating wheat cultivars and advanced breeding materials. The disease pressures and the climatic conditions are significantly different from locations in the Red River Valley supplying unique information to the wheat breeding program.

Background: There is a long history of conducting winter and spring wheat cultivar evaluation trials at Roseau, MN. The CFANS Magnusson Research Farm provides a unique environment that contributes yield and agronomic data on wheat cultivars and advanced breeding materials. Recently, with the expansion of the wheat breeding program, the work load for the CFANS Magnusson Research Farm has increased substantially.

There is a long and productive history of supporting the plant breeding programs through variety evaluation trials of the major Minnesota crops in Roseau, MN. Initially these trials were managed by a Graduate Research Assistant receiving additional salary support. With the erosion of state funding to the University of Minnesota over the past twenty years, these state-funded Graduate Research Assistantships have disappeared completely. In addition, there was never permanent funding available to have staff located at the farm to manage these types of research plots. The wheat research is primarily conducted by Mr. Donn Vellekson, Research Plot Coordinator for the Turf and Forage Breeding, Genetics, and Seed Production Research Project, Department of Agronomy and Plant Genetics, University of Minnesota and manager of the CFANS Magnusson Research Farm and Dr. Dave Grafstrom, Northland College, Minnesota Turf Seed Council, and CFANS Magnusson Research Farm. All wheat research is done in close collaboration with Dr. Jim Anderson and Dr. Jochum Wiersma.

Relationship To Past Projects: This is our first request for funding to support the expanded wheat breeding activities conducted on the CFANS Magnusson Research Farm located in Roseau, MN.

Procedures: In 2012, it is anticipated there will be 470 spring wheat research plots at the CFANS Magnusson Research Farm. This includes both intensively and traditionally managed plots. All research is conducted according to the protocols provided by Dr. Jim Anderson and Dr. Jochum Wiersma. There is currently a winter wheat variety trial planted with 66 small plots to collect data on yield, maturity, disease pressures, and agronomic traits.

The Magnusson Research Farm has field scale equipment and limited plot scale equipment for conducting this research. The research required the following activities:

- Soil testing, soil preparation and tillage, and plot layout
- Seeding
- Herbicide applications
- Fungicide applications in intensively managed trial
- Heading notes, plant heights, and other notes of interest
- Making harvest tags, harvesting plots and drying samples
- Transporting wheat samples to St. Paul for quality evaluations

Research Group:

Dr. Nancy Jo Ehke – Dept. of Agronomy and Plant Genetics, University of Minnesota

Dr. Dave Grafstrom - Northland College, Roseau, MN and CFANS Magnusson Research Farm, Roseau, MN

Mr. Donn Vellekson – Research Plot coordinator, Dept. of Agronomy and Plant Genetics, University of Minnesota and Farm Manager, CFANS Magnusson Research Farm, Roseau, MN

Dr. James Anderson – Dept. of Agronomy and Plant Genetics, University of Minnesota

Dr. Jochum Wiersma – Northwest Research and Outreach Center and the Dept. of Agronomy and Plant Genetics, University of Minnesota

Regional Linkages To Other Research Activities: This research is in support of the enhanced wheat breeding activities from Dr. Jim Anderson's and Dr. Jochum Wiersma's research programs.

Additional Sources of Funding: The CFANS Magnusson Research Farm receives limited funding from the college to perform its research and education mission. Approximately 40% of Donn Vellekson's salary is covered by Minnesota Agricultural Experiment Station funds.

References: Not applicable

RESEARCH PROJECT PROPOSAL BUDGET

RESEARCH PROJECT TITLE Magnusson Research Farm General Support of the Wheat Breeding and Evaluation Program, Roseau, MN			
Principal Investigator(s) / Project Directors(s) Nancy J. Ehlike	Funds Requested For		
	Year 1 (2012)	Year 2 (2013)	Year 3 (2014)
A. Salaries and Wages	\$	\$	\$
1. Co-principal Investigator(s)			
2. Senior Associates			
3. Research Associates - Post Doctorate			
4. Other Professionals			
5. Graduate Students			
6. Prebaccalaureate Students			
7. Secretarial - Clerical			
8. Technical, Shop and Other	\$ 3,892		
B. Fringe Benefits	\$1,608		
C. Nonexpendable Equipment (Planting & harvesting equipment use)			
D. Materials and Supplies			
E. Travel	\$2,000		
F. Publication Costs			
G. Computer Costs			
H. All Other Direct Costs (Attach supporting data) See Attached			
I. TOTAL AMOUNT OF THIS REQUEST (per year)	\$ 7,500	\$	\$