My Experiences as an Intern In The NDSU Dry Bean Breeding Program



Bradley Bisek

Graduate Student
Department of Plant Sciences
North Dakota State University

San Diego January 2012



Background

- Grew up in rural Mahnomen, MN.
- Actively involved in local organizations (Sports, FFA, 4-H).
- Worked throughout high school on my uncle's dairy farm.
- Work focused on the crops.
 - Primarily alfalfa harvest.



College

- Attended North Dakota State University.
- Graduated with a B.S. degree in Crop and Weed Science in 2011.
- Decided to pursue my M.S. degree at NDSU.
- Summer 2011: Accepted into the NDSU winter wheat breeding program.

Previous Work Experience

- Worked as a crop scout for Centrol Ag Consulting in summer months.
 - Gained valuable knowledge of cropping systems.
 - Used critical thinking to make appropriate decisions.
- Northern Crops Institute.
 - Student lab help.
 - Assisted in quality and yield testing of various crops in studies.

BeanCAP Internship

- Began working as an intern for Dr. Juan Osorno in the NDSU Dry Bean Breeding Program in January 2011.
- Worked throughout the 2011 spring semester until the start of my graduate studies.
- Used this opportunity as a prelude to my future studies and research.

Dry Bean Breeding

Tasks

- Seed cleaning.
- Applying fungicide seed treatments.
- Packaging for planting.
- Planting preparation.
- Greenhouse work.







Experience

- Discovered the day-to-day responsibilities in a plant breeding program.
- Learned about the organization and structure of a breeding program.
- Discovered the importance of preparation for significant dates in the program.
 - Planting
 - Harvesting
 - Seed cleaning
- Used different tools and equipment.
 - Seed counter
 - Scales, sieves, greenhouse equipment, etc...

What I Learned

- The importance of preparation.
 - Be prepared, so you don't get overwhelmed.
- There's always something to do.
 - Important part of being prepared.
- Simple tasks can be time consuming.
 - Seed cleaning

What I Learned

- Allowed me to have a better understanding of my current breeding project.
- Allows me to be a step ahead.
- I can begin to expect what will happen next.
- Experience is the best way to learn.

Winter Wheat Breeding Program

- Dr. Francois Marais
- Program recently re-established at NDSU.
- My thesis focuses on developing a diverse pre-breeding population.
 - Ms3 male sterility
 - Recurrent selection
 - Spring by winter crosses
- My developed material will be used by Dr. Marais in his ultimate pedigree breeding program.



Thank You

Any Questions?

