

VII SITE INFORMATION

THIS IS GENERAL SITE INFORMATION THAT MAY CHANGE FOR SPECIFIC TRIALS.

Location:	Thief River Falls, MN
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Co-operator: Ken and Connie Mehrkens

	<u>West Field</u>	<u>East Field</u>
Previous crop:	Wheat	Wheat

Soil test results: (AGVISE Laboratories)

Organic matter content:	2.7 %	3.3 %
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Macronutrient Levels: (0-6", 6-24")

Nitrogen - 0-6 inches	11 lb/ac	26 lb/ac
0-24 inches	47 lb/ac	62 lb/ac
Phosphorus - 0-6 inches	20 lb/ac	20 lb/ac
Potassium - 0-6 inches	292 lb/ac	384 lb/ac
Sulphur - 0-6 inches	18 lb/ac	16 lb/ac
0-24 inches	40 lb/ac	38 lb/ac

Micronutrient Levels: (0-6")

Calcium -	4000 ppm	4300 ppm
Magnesium -	870 ppm	1150 ppm
Boron -	0.6 ppm	0.6 ppm
Zinc -	0.7 ppm	0.6 ppm
Manganese -	1.1 ppm	1.3 ppm
Copper -	0.4 ppm	0.5 ppm
Iron -	19.6 ppm	14.5 ppm

Target yield:	2200 lb/ac	2200 lb/ac
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Fertilizer applied:

Nitrogen -	103 lb/ac	105 lb/ac
Phosphorous -	35 lb/ac	35 lb/ac
Potassium -	30 lb/ac	30 lb/ac
Sulfur -	15 lb/ac	20 lb/ac

Soil association/zone:	Clearwater clay	Clearwater clay
	Clearwater loam	Clearwater loam
	Espelie fine sandy loam	

Soil texture:	Black clay	Black clay
	Black loam	Black loam
	Black fine sandy loam	

Soil pH:	8.0	8.1
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Salinity: (slightly saline)	0.4 mmho	0.3 mmho
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Tillage operations: The seed treatment and pushing trials had fertilizer applied and incorporated once with a chisel plow in fall of 2000. The remainder of the west field had fertilizer and trifluralin (Trust @ 2 pt/ac) applied in spring. It was then cultivated twice to incorporate the trifluralin, the second time with coil packing. The east field had 80 units (N lb/ac) of anhydrous applied in the spring followed by a single cultivation with coil packing after the remainder of the fertilizer was applied.

Seeding method: Seeded with a John Deere 9350 double disk press drill
Date: May 14 to May 17 and June 5, 2001
Depth: _ to 1" deep
Rate: 5.0 lb/ac - with the following exceptions:
4.0 lb/ac - InVigor 2573 and InVigor 2663
4.5 lb/ac - 46A76, DS Roughrider, SW BadgeRR
5.5 lb/ac - 44A89 in the Fungicide trial

Herbicides applied:

- A) Conventional varieties in system trial - Assure II (7 oz/ac), non-ionic surfactant (32 oz/100 gal), Stinger (5 oz/ac), Muster (0.40 oz/ac)
- B) Liberty Link varieties in systems trial and Canopy trial - Liberty (34 oz/ac), ammonium sulfate (3.0 lb/ac)
- C) Roundup Ready varieties - Roundup Ultra Max (13 oz/ac), ammonium sulfate (1 lb/ac)
- D) Clearfield variety - Raptor (4 oz/ac), non-ionic surfactant (3.5 oz/ac), ammonium sulfate (2.5 lb/ac)
- E) Seed priming, conventional variety trial, sclerotinia and fungicide trial - Assure II (7 oz/ac), non-ionic surfactant (32 oz/100 gal), Stinger (5 oz/ac), Muster (0.35 oz/ac)

Insecticides applied: Capture (1.4 oz/ac) was applied on July 11 to control an outbreak of diamondback moth larvae. The seed treatment trial was not sprayed.

Fungicides applied: Ronilan (12 oz/ac) on July 4 at 20 to 40% bloom

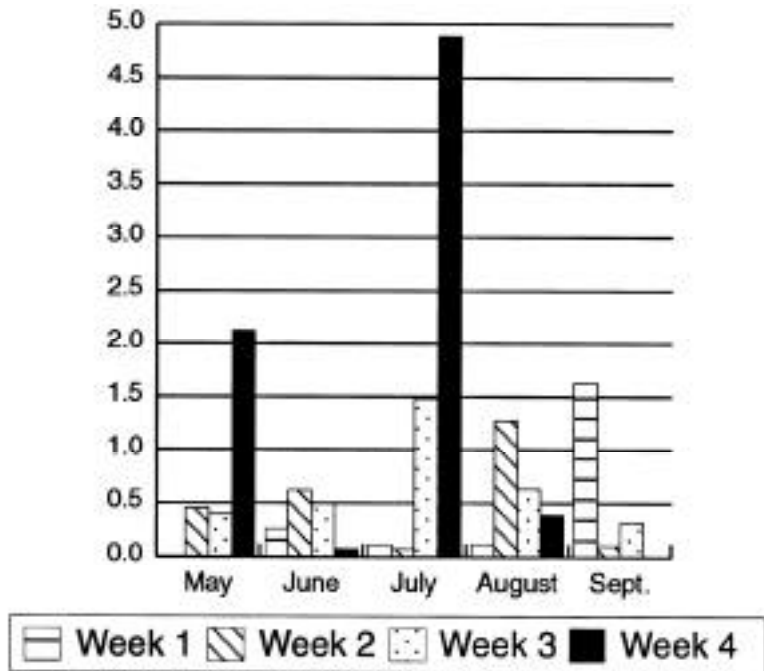
Swathing: Started: August 6 Finished: August 29

Combining: Started: August 24 Finished: September 18

Comments: All trials were located on the west field with the exception of the system comparison trial, which was located on the east field. Frequent light showers during seeding provided excellent moisture conditions for quick emergence. A hot, dry period during late June and early July caused a short bloom period, which may have reduced yields slightly. The hot, dry period also provided a good environment for the increasing diamondback moth population. Weekly trap counts were over 400 in late June and early July. Visual evidence of crop damage from larvae (up to five per plant) in parts of the field required an application of Capture. The seed treatment trial was not sprayed to continue

evaluation of late season insect control from seed treatments. Hot conditions during swathing caused the crop to change seed colour very rapidly. However, improved moisture conditions from the end of flowering to harvest allowed proper curing of swaths. Most of the plots were swathed in a four day period. A thunderstorm on August 17 dropped pea size hail causing 5 to 15 % losses across the site. Most of the damage was done to the system comparison trial and to the first replicate of the other trials. The canopy manipulation trial was on the far end of the field and had minimal hail damage.

Rainfall



Total accumulated moisture = 15.4 inches (391.7 mm)