



Irrigation Demonstration Projects 2008

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Saskatchewan
Ministry of
Agriculture

ICDC Projects 2008

Outline

- Wheat Demonstrations
- Dry Bean Demonstrations and Plot Tour
- Trickle Workshop
- Sour Cherry Mulch Demo
- Variety Disease Ratings

Irrigated Wheat Demonstrations

- Three sites with Folicur check strips
 - Kevin Plummer – AC Crystal CPS
 - Ron Mathies – AC Andrew Soft White Spring
 - Roy King – Strongfield Durum

Irrigated Wheat Demonstration Plummer Site – Moon Lake



Irrigated Wheat Demonstrations

Plummer Site – Moon Lake

Table 2: Agronomic management at Plummer demonstration site.

Nutrients	N	P
Soil Residual	54 lb./ac	28 lb./ac
Applied	100 lb./ac	50 lb./ac
Variety	AC Crystal CPS Red Wheat	
Seeding	May 22 at 120 lb./ac, 2 inches deep	
Herbicide	0.3 L/ac Glyphosate Puma Super, Refine Extra, MCPA	
Fungicide / Insecticide	Folicur, Lorsban	
Available Moisture		
Irrigation	165 mm (6.5 inches)	
Irrigation, Rain, Soil	365 mm (14.5 inches)	

Irrigated Wheat Demonstrations

Plummer Site – Moon Lake

Table 3: Averaged yield from Folicur treated and untreated strips.

Folicur Application	Treated	Untreated
Yield	71 bu./acre	63 bu./acre
Grade	Feed	Feed
FDK	None	None
Fusarium infected seeds	2%	2%

\$1 in fungicide returned \$2.80 in crop yield

Irrigated Wheat Demonstrations

Mathies Site – Herbert



Irrigated Wheat Demonstrations

Mathies Site – Herbert

Table 2: Agronomic management of Mathies demonstration site.

Nutrients	N	P	K
Soil Residual	80 lb./ac	41 lb./ac	>1180 lb./ac
Applied	65 lb./ac	25 lb./ac	0 lb./ac
Variety	AC Andrew Soft White Spring Wheat		
Seeding	May 4 at 115 lb./ac, 2 inches deep		
Herbicide	Pre-seeding glyphosate (0.5 L/ac) Horizon, Target		
Fungicide	Folicur applied July 14		
Available Moisture			
Irrigation & Rain	409 mm (16.1 in.)		
Harvest	Swathed Sept. 5; Combined on Sept. 16		

Irrigated Wheat Demonstrations

Mathies Site – Herbert

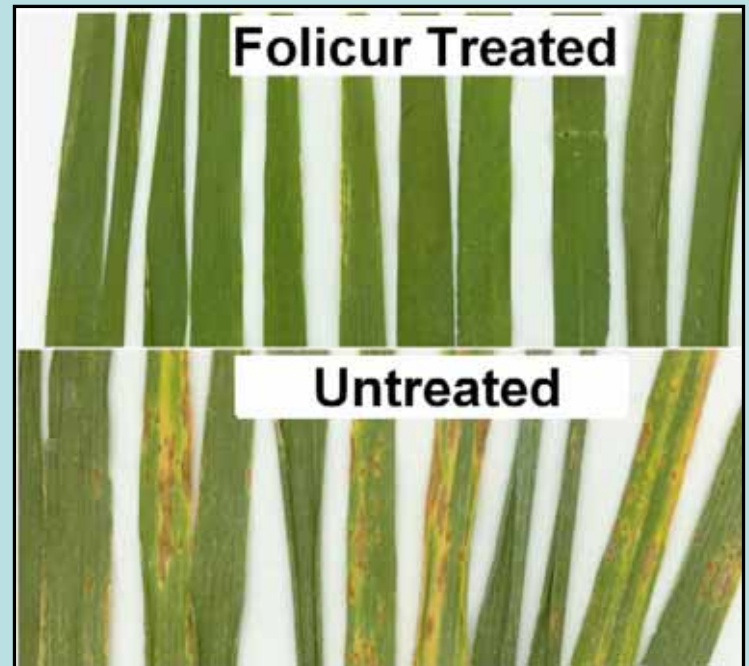
Table 3: Harvest results for Folicur evaluation.

Folicur	Treated	Untreated
Yield	74.9 bu./ac	67.3 bu./ac
Grade	2 SWS	2 SWS
FDK	None	None
Fusarium infected seeds	1.5	5

\$1 in fungicide returned \$1.30 in crop yield (at \$4/bu)

Irrigated Wheat Demonstrations

King Site - Birsay



Irrigated Wheat Demonstrations

King Site - Birsay

Table 2: Agronomic management of King demonstration site.

Nutrients	N	P
Soil Residual	62 lb./ac	58 lb./ac
Applied	125 lb./ac	28 lb./ac
Variety	Strongfield Durum	
Seeding	May 15 at 120 lb/ac, 2 inches deep	
Herbicide	0.75 L/ac glyphosate Dyvel and Horizon	
Fungicide / Insecticide	Folicur and Lorsban – July 16th	
Available Moisture		
Irrigation	200 mm (8 inches)	
Irrigation and Rain	330 mm (13 inches)	
Harvest	Sept. 20 straight cut	

Irrigated Wheat Demonstrations

King Site - Birsay

Table 3: Harvest results for Folicur evaluation.

Fungicide	Folicur Treated	Untreated Check
Yield	95 bu./ac	86 bu./ac
Grade	#2 Durum	#3 Durum
FDK	0.4%	1.3%
Fusarium infected seeds	16.5%	11.0%

**\$1 in fungicide returned
\$4.80 in crop yield**

Bean Variety Demonstration

Hamel Site

Table 2: Agronomic management of Hamel demonstration site.

Nutrients	N	P	K
Soil Residual	45 lb./ac	36 lb./ac	430 lb./ac
Applied	70 lb./ac	25 lb./ac	
Variety	Winchester and White Mountain pinto beans		
Seeding	May 29, 22-inch Row Crop Planter, 100,000 plants/acre		
Herbicide	Edge, Basagran, Assure		
Fungicide	Lance		
Available Moisture			
Irrigation	103 mm (4.1 inches)		
Total Available	270 mm (10.6 inches)		
Harvest	Undercut and windrowed with Pickett One-Step Sept 14; Combined with Pickett machine: White Mountain Sept 30, Winchester Oct 2.		

Bean Variety Demonstration

Hamel Site

Table 3: Harvest results for variety evaluation.

Bean Variety	Winchester	White Mountain
Yield Components – Estimate Aug 28		
Pods per Plant	12.9	9.6
Seeds per Pod	5.6	4.4
Seeds per Plant	73	42
Cleaned Yield	2740 lb./ac	2875 lb./ac
Estimated Harvest Loss	14%	3%



Bean Fertility Demonstration

Kent Site - Riverhurst

Table 2: Agronomic management of Kent demonstration site.

Nutrients

Soil Residual	20 lb./ac N	24 lb./ac P	1060 lb./ac K
Applied	30, 60, 90 lb./ac N	25 lb./ac P	

Variety

AC Polaris Great Northern / Resolute Great Northern

Seeding

Row crop planter, 30 inch row spacing, 100,000 plants/acre

Inoculation/Seed Trt

Self-stick peat-based inoculant, Streptomycin

Herbicide

Edge 18 lb./ac spring applied
Basagran 0.91 L/ac applied June 27

Fungicide / Insecticide

Lance applied at 156 g/ac, row-crop sprayer, July 27

Available Moisture

Irrigation	180 mm (7 inches)
Total Available	370 mm (14 inches)

Bean Fertility Demonstration

Kent Site - Riverhurst

Table 3: Harvest results for variety evaluation.

Variety	Fertility	Seeds per plant	Yield lb./ac
Polaris	30 lb./ac N	108	2750
	60 lb./ac N	107	2670
	90 lb./ac N	91	2710
Resolute	60 lb/ac	60	2630



Bean Plot Tour



Trickle Irrigation Workshop Tour

June 26, 27



Agroforestry Irrigation Scheduling Demonstration



Agroforestry Irrigation Scheduling

- Monitoring water application and tree water use
- Tensiometer, Watermark TM sensors, TDR probes

October 2008





Cherry Mulch Demonstration - Imperial



Disease Ratings of Irrigated Wheat Variety Trials

Acknowledgements

- Producer Co-operators
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