## Winter Wheat Test at New Liskeard Agricultural Research Station

John Rowsell and John Kobler

We invited sponsors, distributors and breeders to enter up to 3 lines each into a winter wheat comparison test at New Liskeard. We seeded 19 winter wheats and 1 spring wheat on September 16, 2006 (more on the rationale for including a spring wheat will follow). Some of the entries have not yet been registered and are not for sale. These were placed in the test so that their potential under our climatic conditions could be assessed. No herbicide was used on this test since the wheat had very good ground cover before the spring annual weeds could get established. We fertilized with 70kgN/ha very early in the spring.

All of the entries except one winter wheat and the spring wheat (AC Taho) had survival in excess of 50%. Of these 18 remaining varieties, yield was not correlated with winter survival scores based on

visual ratings (0-100%;  $r^2$ =0.13, P>F=0.14) or spring vigor ratings (1-9, 1 being lowest vigor;  $r^2$ =0.05, P>F=0.38).

Yields were respectable with an average of 6147kg/ha (2.5t/ac) and the coefficient of variability (c.v.) of the test was very good (7.75%). It is a measure of how much variability there is in yields that is not caused by the varieties. Varieties must differ in this test by at least 676 kg/ha to be truly different at the 5% error level(LSD 0.05%). The test weights were also good, averaging 78.6 kg/hl (61.6lb/bu).

We included one spring wheat in the test to see if it would survive the winter. There has been some speculation that it might, and this is the subject the graduate work of one University of Guelph Ph.D. candidate.

Winter wheat yields are normally great-

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er that those of spring wheat. This is not surprising since the winter wheat varieties in this test matured 316 days on average after planting whereas spring

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Variety	Yield (kg/ha)	1000 Seed Weight (g)	Test Wt. (kg/hl)	Lodging (1-9)	Height (cm)	Heading Date	Mature Date	Yield Index	% Survival	Vigor (1-9)
25R47	7006	40.6	78.1	2.0	63	8-Jun-07	27-Jul-07	114	88	8
Harvard	6773	45.9	77.8	1.3	73	12-Jun-07	29-Jul-07	110	75	8
AC Zorro	6559	50.6	79.5	2.0	93	15-Jun-07	29-Jul-07	107	80	7
Warthhog	6474	43.1	79.3	1.0	75	12-Jun-07	26-Jul-07	105	75	7
CDC Raptor	6360	36.8	79.7	1.3	72	14-Jun-07	28-Jul-07	103	70	5
IL0113,830	6345	40.4	80.6	2.0	75	16-Jun-07	29-Jul-07	103	73	7
CM708	6275	40.8	76.2	1.0	69	23-Jun-07	30-Jul-07	102	60	4
VA03W409	6204	40.8	75.2	1.5	57	13-Jun-07	29-Jul-07	101	38	3
CDC Falcon	6191	37.3	79.6	2.0	59	12-Jun-07	27-Jul-07	101	63	4
Emmit	6145	42.5	79.0	2.0	69	14-Jun-07	27-Jul-07	100	73	7
IL001665	6145	40.7	78.9	2.0	60	12-Jun-07	26-Jul-07	100	68	6
IL972422	6128	37.7	77.6	2.0	68	14-Jun-07	31-Jul-07	100	65	6
Platinum	6022	46.9	79.7	2.0	86	14-Jun-07	30-Jul-07	98	75	7
95-056-187	5977	47.7	77.8	1.8	86	13-Jun-07	28-Jul-07	97	83	8
CDC Buteo	5827	39.6	80.5	2.8	80	16-Jun-07	1-Aug-07	95	78	7
95-094-197	5690	42.9	78.5	2.0	85	14-Jun-07	31-Jul-07	93	73	8
FT Wonder	5348	44.5	78.8	2.0	71	12-Jun-07	29-Jul-07	87	65	7
Huntley	5170	43.8	78.6	2.5	69	12-Jun-07	26-Jul-07	84	58	4
Average	6147	42.4	78.6	1.8	73	14-Jun-07	28-Jul-07			
LSD (0.05)	676.1		†		1			†	†	<u> </u>
C.V.	7.75%	1		<del> </del>	1		1	1	†	1

## Verner Research Test Site Features Fertilizer BMP Trials

John Rowsell of the NLARS described the various research projects at the Verner site to more than 60 participants during the Northeastern Ontario Summer Tour in West Nipissing. Two of the major projects are part of the OSCIA fertilizer BMP trials. One deals with sulphur requirements for canola.

There has been speculation that decreasing atmospheric deposition of sulphur, due to pollution mitigation, has led to a need to apply S fertilizer to canola. This project will test this thesis with controlled replicated samples. The other project deals with the maximum safe rates of N placed with the seed of canola. Currently most of the nitrogen is surface applied. The thesis is that if the N can be placed in close proximity to the seed it will maximize N use and reduce losses through volatilization of ammonia and surface run off. Other research involves flax and cereal crops.



John Rowsell describes the Verner Test Site plots (located south of Verner on Hwy 64) during the NEOSCIA summer tour.

The tour also visited the farm of Steven Roberge to look at white beans and winter wheat. This is the second year that Steven has grown white beans and he is pleased with the results. Jean Guy Seguin is the West Nipissing participant in the 'canola production system trials' (see article elsewhere in Breaking Ground). Jean Guy showed the group the plots and outlined his costs. The final stop on the tour was at the farm of Gerald Beaudry where Bill Hagborg of the Lake Nipissing Stewardship Council talked about river bank stabilization and the proposed tree planting program for West Nipissing. Bill pointed out the difference from the one side of the river to the other. The one had been grazed right to the river while the other side was not. Natural groundcover and brush protected the riverbank on the one side while the other was barren.... a stark contrast. Gerald Beaudry, a Seed Grower, showed the group his field of red clover which he is harvesting for seed. A local dairy farmer took off the first cut and the second cut is being left to set seed for harvest in October.



Bill Hagborg of the Lake Nipissing Stewardship Council discusses how to control erosion of riverbanks.



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wheat normally matures in less than 120 days from planting.

There was very little disease in the test. The conditions at anthesis were near optimal for the onset of fusarium; however, only a few infected heads were noted in each plot.

For more information on winter wheat varieties, including the names of the distributors of these varities, please visit the new web site for the Ontario Cereal Crops Committee www.gocereals.ca (John Rowsell is the secretary of OCCC).



