



Wheatland Conservation Area Inc.

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Durum Varieties Demonstration

This project was set up to demonstrate to producers a side by side comparison of commonly seeded and newly developed durum varieties comparing plant physiology, protein, and yield. Demonstration strip plots of five durum varieties were seeded on a non-replicated plot basis designed for use as an extension tool for field days and tours throughout the growing season. Navigator was used as an older reference variety and compared to Enterprise, Verona, Strongfield, and Transcend. Assessments were made on establishment, plant height, standability, and seed testing information for disease levels, protein, and grade.

In the side by side plot comparisons (Chart 1) we found there was little difference visually between varieties except for the Transcend and Verona were taller in height. All varieties had excellent emergence, very good lodging ratings, and similar yields. However, significant differences were found when analyzing for protein and determining grade. Overall Strongfield was rated a No. 1 AD and recorded the highest protein of all the durum varieties. Navigator did well in terms of yield but had the lowest protein of all the varieties and was also downgraded to a No. 4 AD because of high ergot levels. Verona was downgraded to a No. 2 AD due to seed shrinkage from either heat or frost. According to CWB (Chart 2) protein premiums are paid on No 1AD and No 2AD. As a result Enterprise, Strongfield, and Transcend would receive the highest premium followed by Verona with Navigator receiving no premium. The results from this season may not be replicated under different conditions.

Variety	Avg Yield	Avg Protein	Avg Height (cm)	Lodging	Emergence	*Ergot	Grading Factor	**Avg Grade
Enterprise	33.0	13.0	66.0	VG	VG	0.000	none	1AD
Navigator	35.1	12.5	66.0	VG	VG	0.045	none	4AD
Strongfield	34.0	14.0	68.6	VG	VG	0.003	none	1AD
Transcend	32.8	13.7	75.8	VG	VG	0.000	none	1AD
Verona	33.7	13.6	72.0	VG	VG	0.005	heat/frost dmg	2AD

Chart 1. Durum Variety Data.

* Ergot levels higher than 0.01% will be downgraded

** Grades and ergot levels at South West Terminal to CGC standards.

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