

AC[®] Strongfield Canada Western Amber Durum



AC[®] Strongfield is a conventional height amber durum that is well adapted to the durum growing area of Western Canada. It has displayed very high grain yield with grain protein similar to AC Avonlea along with desirable improvements in gluten strength. Maturity of AC[®] Strongfield is similar to AC Morse and one day earlier than AC Avonlea, Kyle and AC Navigator. AC[®] Strongfield has better tan spot resistance than Kyle, AC Morse and AC Navigator. In addition, AC[®] Strongfield has higher grain pigment concentration than Kyle and AC Morse which is desirable in U.S. and European markets.

Parentage: AC Avonlea X DT665 (DT 665 = Kyle X Nile)

Strengths:

- 13% higher yield than Kyle, 7% higher yield than AC Avonlea, 18% higher yield than AC Navigator
- Grain protein higher than AC Avonlea, Kyle, AC Morse, and Navigator
- Maturity one day earlier than AC Avonlea, Kyle and AC Navigator
- Higher test weight than AC Avonlea, Kyle, AC Morse and AC Navigator

- Straw height similar to AC Avonlea, 12 cm shorter than Kyle
- Strong straw with lodging resistance similar to AC Avonlea and AC Navigator
- Better leaf spot resistance than Kyle, AC Morse and AC Navigator
- Grain pigment content higher than Kyle and AC Morse

Neutral Traits:

- Resistant to leaf and stem rust
- Resistance to bunt

Weaknesses:

- Susceptible to loose smut similar to AC Morse and AC Navigator
- Susceptible to fusarium head blight similar to all other durum varieties

Breeder:

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2000 - 2002 Durum Cooperative Test Data

Entry	Yield (% Kyle)	Maturity (days)	Lodging 1 = erect 9 = flat	Height (cm)	Grain Protein (%)	Test Wt. (kg/hL)	Kernel Weight (mg)	Gluten Strength Index %
Kyle	100	106	4.5	97	14.6	78.7	41.4	---
AC Avonlea	106	106	2.7	86	14.8	78.9	42.1	25
AC Morse	107	105	2.1	81	14.3	77.9	41.0	56
AC Navigator	96	106	2.9	75	14.2	78.8	43.1	66
AC[®] Strongfield	113	105	2.9	85	14.9	79.3	41.9	62

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2006 Saskatchewan Varieties of Grain Crops - Durum Comparison

Variety	Yield as % of Kyle			Relative Maturity (Days)	Protein (%)	Lodging	Shattering	Resistance to:						
	Area 1 & 2	Area 3 & 4	Irr.					Sprouting	Stem Rust	Leaf Rust	Loose Smut	Bunt	Leaf Spot	FHB
Kyle	100	100	100	103	13.9	P	VG	F	VG	VG	P	VG	P	VP
AC Avonlea	106	109	100	-1	+0.1	F	VG	F	VG	VG	P	VG	F	VP
AC Morse	103	109	111	0	-0.1	G	VG	F	VG	VG	VP	VG	VP	VP
AC Navigator	106	98	--	0	-0.3	G	VG	F	VG	VG	VP	VG	VP	VP
AC® Strongfield	114	112	--	0	+0.3	F	VG	F	VG	VG	VP	G	F	VP

Irr.=Irrigation; FHB=Fusarium Head Blight; VG=Very Good; G=Good; F=Fair; P=Poor; VP=Very Poor

2006 Alberta Seed Guide - Durum Comparison

Variety	Yield as % of Kyle						Comp. Mat. (Days)	Test Wt. (lb/bu)	Kernel Wt. (g/1000)	Height (cm)	Resistance to:					Tolerance to:		
	Irr.	Area 1	Area 2	Area 3	Area 4	Area 5&6					Lodging	Shatter	Loose Smut	Bunt	Common Root Rot	Leaf Spot	Sprouting	FHB
Kyle	100	100	100	100	NS	NS	107	61	44	99	P	G	S	R	I	P	F	VP
AC Avonlea	110	101	100	102	NS	NS	0	62	44	89	F	G	S	R	I	P	F	VP
AC Morse	111	100	99	100	NS	NS	-1	61	44	84	G	G	S	R	I	VP	F	VP
AC Navigator	110	105	101	104	NS	NS	0	62	45	76	G	G	S	R	I	VP	F	VP
AC® Strongfield	115	116	104	101	106	106	0	61	46	89	F	VG	S	I	XX	P	VG	VP

Irr.=Irrigation; FHB=Fusarium Head Blight; VG=Very Good; G=Good; F=Fair; P=Poor; VP=Very Poor

R=Resistant; I=Intermediate; S=Susceptible

NS=variety generally not suited for area

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