

2004 REPORT

Ontario Soybean Variety Trials

for 2001-2003

by the
Ontario Oil & Protein
Seed Crop Committee

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CROP COMMITTEE

Research conducted and reported by

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Agri-Food Canada

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Ontario Ministry of Agriculture & Food

*This publication was made possible by a grant
from the Ontario Soybean Growers*

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Ontario Oil & Protein Seed Crop Committee (OOPSCC)

This organization is made up of representatives of Agriculture & Agri-Food Canada, the University of Guelph, the Ontario Seed Growers Association, the Canadian Seed Trade Association, the Ontario Soybean Growers, OMAF and the Oilseed Crushers. Tests are conducted each year by AAFC research stations at Ottawa and Harrow and the University of Guelph and its regional Colleges at Kemptville and Ridgeway. Information in this brochure as well as additional variety information can be found on the web at www.oopsc.org.

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INTERPRETATION OF TABLE 1

Notes:

Varieties with resistance genes for races of the Phytophthora root rot organism in Ontario:

1a,1c,1k, 6: Resistance genes for Phytophthora root rot in Ontario which provide resistance to the pathogen. Rps 1a does not provide protection to most races of the pathogen in Ontario

SCN: Resistant to some races of Soybean Cyst Nematode (SCN) in Ontario.

HP: Varieties with above average protein index (%). See Protein & Oil Index section below.

Herbicide Reaction

MS: Metribuzin herbicide should not be used on these varieties

RR: Roundup Ready™ (Trademark of Monsanto Company)

STS: Sulfonylurea Tolerant Soybean to Reliance (STS & Reliance are trademarks of E.I. duPont de Nemours & Co.)

Heat Unit Grouping

Using the same crop heat unit system as for corn, each variety is given a heat unit rating based on the relative maturity of that variety in the most recent 2 years of test results. The varieties are placed into groups of 50 heat units. The varieties are sorted in early to late order within the 50 heat unit group. In choosing a variety you should select those varieties approximately equal to or less than the heat units available on your farm.

Hilum Colour

Each soybean seed has a hilum which is the point where it was attached to the pod. Varieties differ in hilum colour and can be either Yellow (Y), Imperfect Yellow (IY), Gray (GR), Buff (BF), Brown (BR), Black (BL), or Imperfect Black (IBL). Hilum colour may also be Light (L). Yellow hilum soybeans are usually the only type accepted for the export market. In certain years discolouration of the hilum of IY varieties can occur and as a result the soybeans may not be acceptable for export markets.

Seeds per Kilogram

This is an estimate of the relative number of seeds of a particular variety in a kilogram of seed based on a 2-year average of data from all locations where a variety was tested. Since seed size can vary from year to year and from seed lot to seed lot these figures should be used as a rough guide only. The actual seed size reported on each seed lot should be used to calculate seeding rate.

Phytophthora Root Rot % Plant Loss

Three year average in a field heavily infested with Phytophthora. Not all races of Phytophthora root rot are found at these sites. The relative ranking of varieties for plant loss may differ in fields that have other races present.

Disease Testing Information

Phytophthora root rot testing is carried out on clay soils infested with common races of Phytophthora at Woodslee and Ottawa. SCN tests are done in collaboration with variety sponsors and the SCN Resistant Variety Development project at GPCRC, Agriculture & Agri-Food Canada, Harrow, ON NOR 1G0. For further information contact the SCN Coordinator at this address. White Mold variety ratings are available for several heat unit areas on the web at www.oopsc.org.

Protein & Oil Index

Protein Index (%) and Oil (%) is obtainable on the web at www.oopsc.org.

Table 1. Soybean Variety Performance List and Descriptions

Variety	Notes	Herbicide Reaction	Heat Unit Grouping	Hilum Colour	Seeds per Kg	Phytophthora		Seed Supply	Distributor
						Root Rot %	Plant loss		
Gentleman			2400	BR	6100	3			Semican Inc.
Accord			2450	IY	6600	4			Advantage Seed Grow&Proc
DKB005-51		RR		IY	5400	2			DEKALB
S00-J4	1c	RR		IY	6900	6			Syngenta Seeds Canada Inc
90A07				Y	6000	6			Pioneer Hi-Bred Ltd.
AC Proteina		HP	2500	BR	6900	14			Semican Inc.
Albinos				IY	5800	7			Semican Inc.
Emerson				BR	6300	3			Hyland Seeds
OlexRR		RR		BR	5800	9			Cooperative Federee Quebec
PRO 25-53				IY	5100	10			PRO Seeds of Canada
Primo RR		RR		BL	5800	3			PRO Seeds of Canada
PS 36				Y	5600	8			Pride Seeds
25-02R	1a 6	RR		BL	6100	4			First Line Seeds Ltd.
AC Orford			2550	IY	5000	3			Semican Inc.
Carlton		MS		Y	6500	19			Hyland Seeds
DKB00-65					6000	24			DEKALB
DKB00-99		RR		BR	6200	6			DEKALB
OAC Atwood				Y	6300	8			Advantage Seed Grow&Proc
OAC Clinton				IY	6200	7			PRO Seeds of Canada
OAC Walton				DBR	5300	15			Rosebank Seed Farms Ltd
PRO 26-03				IY	5700	5			PRO Seeds of Canada
Quincy				IY	5700	8			Hyland Seeds
RR Regency		RR		GR	5700	12			Hyland Seeds
Supra	1c			BR	5000	13			Advantage Seed Grow&Proc
25-03R	1k	RR		BL	5400	10			First Line Seeds Ltd.
AC Glengarry			2600	IY	5500	3	LS		SeCan Members
ADV Accrue				BR	6000	2			Advantage Seed Grow&Proc
PS 46 RR		RR		BL	5400	4			Pride Seeds
S 02-G2	1c	RR		BR	6200	1			Syngenta Seeds Canada Inc
Schwarzenegger				IY	5200	8			Mike Snobelen Farms Ltd
Syrus RR		HP		BR	5500	5	LS		Advantage Seed Grow&Proc
S00-A6				Y	5800	8			Syngenta Seeds Canada Inc
2601R	1c	RR		BR	5800	6			First Line Seeds Ltd.
26-02R	1k	RR		BL	5700	9			First Line Seeds Ltd.
90B11		RR		BR	6500	8			Pioneer Hi-Bred Ltd.
Merlo RR	1c	RR	2650	GR	5700	5			PRO Seeds of Canada
OAC Bayfield				BR	5400	10			SeCan Members
OAC Champion				IY	5300	6			PRO Seeds of Canada
S03-W4	1c			IY	5400	4			Syngenta Seeds Canada Inc
Venus		HP		IY	4900	4			PRO Seeds of Canada
Arctic	1a 6	RR	2700	Y	6500	4	LS		First Line Seeds Ltd.
B0501	1k			IY	6800	5			Dow AgroSciences Canada Ltd
Casino				Y	6800	4			Hyland Seeds
Castle		MS		Y	5600	3			Hyland Seeds
CF0703	1c			IY	5100	7			country farm seeds Ltd
Delta	1c			IY	5200	8			Advantage Seed Grow&Proc
DKB06-52	1k	RR		BL	5500	12			DEKALB
PRO 275				IY	5300	2			PRO Seeds of Canada
PS 50				BR	5500	3			Pride Seeds
S06-L6	1k	RR		IY	6000	6			Syngenta Seeds Canada Inc
2702R		RR		BL	6000	12			First Line Seeds Ltd.
5B060RR	1k	RR		Y	6700	7			Dow AgroSciences Canada Ltd
90B73		MS RR		BR	5600	10			Pioneer Hi-Bred Ltd.
9071	1c			Y	6600	6			Pioneer Hi-Bred Ltd.

Notes:

HP - High Protein
SCN - SCN resistant

MS - Metribuzin Sensitive
RR - Roundup Ready
STS - Sulfonylurea Tolerant

LS - Limited Supply
NA - Not Available

Table 1. Continued

Variety	Notes	Herbicide Reaction	Heat Unit Grouping	Hilum Colour	Seeds per Kg	Phytophthora Root Rot % Plant loss	Seed Supply	Distributor
ADV Heartbeat			2750	Y	5600	8		Advantage Seed Grow&Proc
Chester				Y	6500	11		Hyland Seeds
Dundas				LBR	5800	9		SeCan Members
Enterprise				IY	5500	6		Hyland Seeds
Fiesta				BR	5500	6		PRO Seeds of Canada
Jutra				IY	5000	6	LS	PRO Seeds of Canada
Monarch				BR	5200	8		PRO Seeds of Canada
OAC Oxford				IY	5300	10		SeCan Members
OAC Wallace				BR	5500	7	LS	SeCan Members
PRO 270				BR	5800	4		PRO Seeds of Canada
PS 56 RR		RR		BR	6500	9		Pride Seeds
PS 59				BR	5700	8		Pride Seeds
RR Razor		RR		BR	5500	3		Hyland Seeds
S09-Y9	1c	RR		GR	5800	10		Syngenta Seeds Canada Inc
Turbo				IY	5200	9		Mike Snobelen Farms Ltd
57151		HP		BL	5300	5		Advantage Seed Grow&Proc
9063				GR	5700	4		Pioneer Hi-Bred Ltd.
AP1394	1c		2800	GR	5900	9		Advantage Seed Grow&Proc
Majesta				IY	5300	9		Prograin
OAC Exeter				Y	5000	1		First Line Seeds Ltd.
OAC Quinte				IY	5900	11	LS	Advantage Seed Grow&Proc
PRO 2790R		RR		BR	5500	4		PRO Seeds of Canada
PRO 28-53				IY	5200	4		PRO Seeds of Canada
S 08-80	1c			IY	5000	5		Syngenta Seeds Canada Inc
S10-T1	1k	RR		GR	6600	2		Syngenta Seeds Canada Inc
S12-C2	1c			IY	5200	7		Syngenta Seeds Canada Inc
2802R	1k	RR		BL	5900	4		First Line Seeds Ltd.
DKB13-51	1a	RR	2850	BL	6000	8		DEKALB
National				BL	5100	13		C&M Seeds
PS 73				LBF	5300	0		Pride Seeds
PS 76 RR		RR		BR	4900	6		Pride Seeds
RCAT Bobcat				IY	5100	4		SeCan Members
RR Rawling		RR		BL	6900	12		Hyland Seeds
S12-A5	1c			BR	5100	2		Syngenta Seeds Canada Inc
S14-P6	1c			Y	4300	4		Syngenta Seeds Canada Inc
S16-E8	1k	RR		DBR	5200	4		Syngenta Seeds Canada Inc
Arva			2900	IY	5500	4		Advantage Seed Grow&Proc
Crystal				Y	5700	5		Hyland Seeds
PRO 295				BL	5800	4		PRO Seeds of Canada
S15-B1		RR		BR	6300	8		Syngenta Seeds Canada Inc
29-02R	1k	RR		BR	6000	4		First Line Seeds Ltd.
5140RR	1k	RR		BR	5700	4		Dow AgroSciences Canada Ltd
91B12		RR		BL	5800	5		Pioneer Hi-Bred Ltd.
91B33	1k	RR		BR	6100	9		Pioneer Hi-Bred Ltd.
AG1901	1k	RR	2950	BL	6900	2		First Line Seeds Ltd.
Crown				Y	6000	4		Hyland Seeds
D601R	1k	RR		BL	6900	4		Direct Seeds
PRO 3090R		RR		IBL	6500	4		PRO Seeds of Canada
PRO 30-02				IY	5800	6		PRO Seeds of Canada
RCAT Wildcat				BL	5400	3		Advantage Seed Grow&Proc
RiotRR		RR		DBR	6400	1		Cooperative Federee Quebec
RS1498				BR	5900	7		country farm seeds Ltd
91B53				BR	5900	10		Pioneer Hi-Bred Ltd.
91B64	1c	RR		BL	6300	7		Pioneer Hi-Bred Ltd.
92B05	1k	RR		BR	6800	1		Pioneer Hi-Bred Ltd.

Notes:

HP - High Protein
SCN - SCN resistant

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RR - Roundup Ready
STS - Sulfonylurea Tolerant

LS - Limited Supply
NA - Not Available

Table 1. Continued

Variety	Notes	Herbicide Reaction	Heat Unit Grouping	Hilum Colour	Seeds per Kg	Phytophthora Root Rot % Plant loss	Seed Supply	Distributor
ISG2500			3000	IY	6800	4		Inwood Seed & Grain Ltd
Ivory				Y	6200	2		First Line Seeds Ltd.
PRO 292				IBL	5800	14		PRO Seeds of Canada
PS 78	1c			Y	5500	18		Pride Seeds
RS199RR	1k	RR		BL	6800	1		country farm seeds Ltd
S 19-90	1c			GR	5600	4		Syngenta Seeds Canada Inc
SG1911NRR	SCN	RR		IBL	6400	7		Pride Seeds
S20-F8	1c			Y	6000	0		Syngenta Seeds Canada Inc
S20-Z5		RR		DBR	6400	4		Syngenta Seeds Canada Inc
Westag 97				BF	6000	3		SeCan Members
30-04R	SCN 1k	RR		BL	7400	3		First Line Seeds Ltd.
92M10	1c			Y	6600	4		Pioneer Hi-Bred Ltd.
CK-01			3050	Y	6100	14		Shanks Seeds Ltd
Crescent				Y	5700	6		Hyland Seeds
DKB20-10	1k	RR		BL	6000	4		DEKALB
OAC Kent				Y	5000	3		SeCan Members
RCAT Legacy				Y	5300	5		SeCan Members
RS2297C	SCN 1k			IBL	6000	3		country farm seeds Ltd
Sinclair	SCN			BL	5500	5		Hyland Seeds
S23-Q3	1c	RR		GR	6500	2		Syngenta Seeds Canada Inc
Chatham			3100	Y	6200	11		Hyland Seeds
RCAT Appin				BL	6600	2	LS	SeCan Members
RCAT 22R1		RR		BL	6500	4	LS	SeCan Members
RR Oxygen		RR		BL	6900	2		Maizex Seeds Inc
RR Rodney		RR		BL	6800	3		Hyland Seeds
S24-K4		RR		BR	6800	5		Syngenta Seeds Canada Inc
S25-D3	1c			IY	5200	2		Syngenta Seeds Canada Inc
92B38		RR		BR	6400	3		Pioneer Hi-Bred Ltd.
PS 95			3150	BL	7000	7		Pride Seeds
RCAT Dover				BL	7300	3		SeCan Members
RR Renwick		RR		BL	6600	4		Hyland Seeds
RS2595	1k			BL	6200	2		country farm seeds Ltd
Starburst				Y	6600	2		Hyland Seeds
S26-H2	SCN 1k	RR		BL	7500	3		Syngenta Seeds Canada Inc
31-03R	1k	RR		BL	6700	3		First Line Seeds Ltd.
92B61	1k			BL	6300	4		Pioneer Hi-Bred Ltd.
ADV Rocket RR		RR	3200	BR	7300	5	LS	Advantage Seed Grow&Proc
AV2261				BF	6300	12		Agventure of Ontario
Breeze		RR		Y	7800	15	LS	First Line Seeds Ltd.
ISG2686				IY	6200	5		Inwood Seed & Grain Ltd
Loda	SCN			GR	5700	5		SeCan Members
RCAT Columbus				BL	6400	6		Ferguson Seeds
RCAT Staples	1c			BR	5700	9		SeCan Members
RR Raleigh		RR		IBL	6500	5		Hyland Seeds
92B62	SCN	RR		BL	8400	3		Pioneer Hi-Bred Ltd.
AV1289			3250	BR	6500	5		Agventure of Ontario
DKB26-52	SCN 1a	RR		IBL	7100	5		DEKALB
PS 96 NRR	SCN	RR		IBL	6500	11		Pride Seeds
S29-C9		RR		BR	6900	6		Syngenta Seeds Canada Inc
26R	SCN 1k	RR		BL	6700	4		First Line Seeds Ltd.
3201R		RR		BR	7700	3		First Line Seeds Ltd.
32-03R	SCN 1c	RR		BL	8000	3		First Line Seeds Ltd.
9305	1k			Y	5900	2		Pioneer Hi-Bred Ltd.
93B09	1k	RR	3300	BL	6300	7		Pioneer Hi-Bred Ltd.

Notes:

HP - High Protein
SCN - SCN resistant

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INTERPRETATION OF RESULTS - TABLES 2 TO 6

Days from Planting to Maturity

Maturity is affected by planting date and the area where a variety is being grown. Varieties are rated as being mature when 95% of the pods on the plants are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

Yield Index

Varieties can only be compared within each test area. Yield index of a variety indicates its performance as a percentage of the average yield of all varieties grown in a test area. Small index differences may not be meaningful. The yield index for each location and for the average of all locations is based on 2-3 years of testing. Yield index averaged over locations and years will be a more reliable indicator of yield potential than performance from one single location.

Plant Height

An indicator of the amount of plant growth, it is measured at maturity as the length of the stem from the base of the plant to its tip.

Lodging

A visual estimate at maturity of the standability of the crop. A value of 1 is equivalent to a crop standing completely upright while a 5 represents a crop entirely flat. Within a test area, varieties with lower values are less prone to lodging.

Testing Methods

In each trial, varieties were replicated in a suitable experimental design and received equal fertility, weed control and management. All trials were planted and harvested by machine. Tests were separated into conventional herbicide and glyphosate herbicide treated plots in 2003. Prior to harvest, plant height and lodging scores were obtained. The grain harvested from each plot was weighed and the yield of soybeans was calculated in tonnes/hectare at 14% moisture.

Agronomic data in Tables 2 to 4 represent 1-3 year averages of individual locations as well as a 2-year and a 3-year average of all locations. Agronomic data in Tables 5 & 6 have been split on a soil type basis; data from 1-3 years of testing are provided for each location.

****New** Roundup Ready (glyphosate) herbicide management system was applied to a separate test of glyphosate tolerant varieties for the first time in 2003 at label recommended timing and rates. New tables of RR Variety Test are listed below the conventional herbicide treated varieties. Data in the RR Variety Test tables is combined with 2002 and 2001 tests treated with conventional herbicides. Only the 2003 tests were treated with glyphosate. The conversion to table summaries based entirely on glyphosate treated plots will require 2 more years.**

TABLE 2.1 AGRONOMIC DATA AT 2300-2500 HEAT UNIT AREAS (CONVENTIONAL VARIETY TEST)

Variety	Days to Mature	Yield index (%)						Plant Height (cm)	Lodging 1=Standing 5=flat	
		Dundalk		New Liskeard	Renfrew		Average			
		2yr	3yr	*2yr*	2yr	3yr	2yr	3yr		
DKB005-51	109	84	84	77	92	87	88	83	72	2.2
Accord	112	102	92	87	92	87	96	89	82	2.6
AC Orford	113	108	103	95	92	95	101	98	71	1.5
OAC Walton	113	107	110	98	96	97	100	102	76	2.3
Carlton	115	104	106	96	102	101	102	102	77	2.4
Emerson	115	92	100	112	104	104	97	105	66	1.5
PRO 25-53	115	101	105	108	105	110	103	108	77	2.5
25-02R	115	111	103	100	100	96	105	100	83	2.4
90A07	115	107	105	99	101	95	104	100	70	1.8
PRO 26-03	116	103	105	109	97	101	102	105	70	1.9
AC Glengarry	117	109	106	106	105	105	108	106	72	2.0
Quincy	117	89	97	98	91	99	91	98	66	1.9
S00-A6	118	99	96	111	107	106	104	103	71	2.0
DKB00-99	119	88	89	101	108	107	98	98	76	1.8
Supra	120	99	100	104	106	111	101	104	71	1.8
Average yield (T/ha)		3.43	3.07	3.14	2.57	2.57	2.96	2.90		
(bu/ac)		51.0	45.7	46.7	38.2	38.2	44.0	43.1		

TABLE 2.2 AGRONOMIC DATA AT 2300-2500 HEAT UNIT AREAS (RR VARIETY TEST)

DKB005-51	109	82	88	84	88	87	86	87	73	2.5
Primo RR	113	101	102	96	99	105	100	102	74	2.0
S00-J4	114	103	--	--	95	--	99	--	70	1.9
25-02R	115	103	104	109	103	102	103	105	84	2.5
90B11	118	105	106	101	101	95	103	101	81	2.8
OlexRR	119	100	--	--	102	--	99	--	78	2.4
RR Regency	119	113	--	--	105	--	109	--	77	2.2
DKB00-99	120	94	100	110	107	111	101	106	81	2.2
Average yield (T/ha)		3.59	2.97	2.88	2.49	2.41	2.97	2.74		
(bu/ac)		53.4	44.2	42.8	37.0	35.8	44.2	40.7		

New Liskeard 2yr includes data from 2001 and 2002

RR Check varieties included in conventional herbicide variety test with yield comparison as follows:

Avg. yield in Conv. Test (T/ha)	3.23	2.82	--	2.58	2.48	2.87	2.71
(bu/ac)	47.9	41.8	--	38.2	36.7	42.6	40.2
Avg. yield in RR Test (T/ha)	3.33	2.88	--	2.48	2.41	2.87	2.71
(bu/ac)	49.3	42.8	--	36.8	35.8	42.6	40.2

Testing areas: Table 2

Dundalk	2001	2002	2003
New Liskeard	2001	2002	--
Renfrew	2001	2002	2003

TABLE 3.1 AGRONOMIC DATA AT 2500-2800 HEAT UNIT AREAS (CONVENTIONAL VARIETY TEST)

Variety	Days to Mature	Yield index (%)								Plant Height (cm)	Lodging 1=Standing 5=flat
		Brussels *2yr*	Elora		Ottawa		Winchester	Average			
			2yr	3yr	2yr	3yr	2yr	2yr	3yr		
90A07	106	81	96	83	93	91	91	93	87	69	1.3
PS 36	109	87	97	90	102	103	92	96	93	84	1.7
DKB00-99	110	89	73	78	87	87	93	85	87	78	1.6
OAC Atwood	110	91	99	96	91	92	87	93	91	72	1.9
ADV Accrue	111	93	98	94	98	98	98	98	96	84	2.0
OAC Clinton	111	95	98	96	100	103	104	100	100	81	1.7
B0501	112	103	101	97	113	110	106	105	104	83	1.7
Venus	112	100	107	104	99	96	105	103	101	82	1.6
S03-W4	113	106	103	104	109	109	109	107	107	81	1.3
2601R	113	92	86	90	96	95	88	90	91	82	1.7
Casino	114	93	99	96	107	104	102	102	99	79	1.8
Castle	114	95	96	91	92	93	95	95	93	84	2.2
Delta ***	114	--	104	--	105	--	110	105	--	77	1.3
OAC Champion	114	104	105	110	102	103	110	105	107	83	2.0
PS 50	114	101	100	99	94	93	93	97	96	87	2.3
Schwarzenegger	114	102	92	93	92	95	94	94	95	73	2.3
Turbo	114	103	109	104	99	100	107	105	103	76	2.1
9071	114	99	105	98	111	109	105	106	103	79	1.9
ADV Heartbeat	115	111	105	104	106	107	100	104	105	81	1.6
CF0703	115	112	109	111	109	109	106	109	109	86	1.8
Dundas	115	107	123	120	102	100	110	111	110	81	1.8
OAC Bayfield	115	106	102	109	101	100	102	103	104	80	2.0
PRO 275	115	103	87	95	91	89	99	93	96	73	1.8
9063	115	106	110	111	97	97	98	102	103	76	1.6
Enterprise	116	103	103	100	103	101	101	102	101	76	1.8
2702R	116	101	89	97	87	90	87	88	93	79	1.6
DKB06-52	117	--	89	--	93	--	92	91	--	76	1.3
Monarch	117	108	102	104	101	105	99	101	103	83	1.3
OAC Wallace	117	113	112	120	117	116	116	113	116	83	1.5
PRO 270	117	98	103	103	103	106	103	102	103	78	1.8
Average yield (T/ha)		2.72	3.15	2.65	2.88	2.53	3.63	3.22	2.83		
(bu/ac)		40.4	46.8	39.4	42.8	37.6	54.0	47.9	42.1		

TABLE 3.2 AGRONOMIC DATA AT 2500-2800 HEAT UNIT AREAS (RR VARIETY TEST)

RR Regency	109	--	101	--	102	--	94	99	--	72	1.1
90B11	109	96	92	87	78	79	90	89	87	70	1.6
DKB00-99	110	93	84	85	76	83	101	89	90	72	1.2
Arctic	111	93	99	103	102	105	101	100	101	77	1.5
Merlo RR	111	--	103	--	109	--	91	99	--	82	1.1
26-02R	111	--	103	--	91	--	100	100	--	75	1.3
PS 46 RR	112	101	101	109	100	99	107	103	104	69	1.1
2601R	112	98	92	93	88	93	98	95	95	75	1.5
S06-L6	113	--	100	--	108	--	100	103	--	72	1.3
S09-Y9	114	104	103	104	102	104	104	103	104	71	1.1
5B060RR	114	104	102	98	119	118	98	104	104	84	1.8
PRO 2790R	115	95	111	104	104	110	105	105	104	74	1.2
2702R	115	105	98	103	96	101	100	99	102	77	1.4
DKB06-52	116	--	95	--	96	--	100	98	--	71	1.2
PS 56 RR	116	108	108	109	98	101	104	104	105	81	1.4
90B73	117	102	103	106	104	106	101	102	104	77	2.0
RiotRR	123	--	103	--	127	--	106	109	--	84	1.4
Average yield (T/ha)		2.66	3.04	2.64	2.44	2.13	3.66	3.05	2.70		
(bu/ac)		39.6	45.2	39.3	36.3	31.7	54.4	45.4	40.1		

Brussels 2yr includes data from 2001 and 2003

RR check varieties included in conventional herbicide variety test with yield comparison as follows:

Avg. yield in Conv. Test (T/ha)	2.60	2.65	2.44	2.62	2.37	3.27	2.86	2.63
(bu/ac)	38.6	39.4	36.1	38.8	35.1	48.4	42.4	39.0
Avg. yield in RR Test (T/ha)	2.70	2.81	2.55	2.17	2.04	3.65	2.91	2.66
(bu/ac)	40.0	41.6	37.8	32.2	30.2	54.2	43.1	39.5

*** Delta added to table 3.1 on Dec 15, 2003

Testing areas: Table 3

Brussels	2001	--	2003
Elora	2001	2002	2003
Ottawa	2001	2002	2003
Winchester	--	2002	2003

TABLE 4.1 AGRONOMIC DATA AT 2700-2900 HEAT UNIT AREAS (CONVENTIONAL VARIETY TEST)

Variety	Days to Mature	Yield index (%)								Plant Height (cm)	Lodging 1=Standing 5=flat
		Exeter		St. Pauls *2yr*	Winchester	Woodstock		Average			
		2yr	3yr		2yr	2yr	3yr	2yr	3yr		
OAC Bayfield	110	101	100	95	92	90	91	95	95	74	1.4
ADV Heartbeat	111	98	98	96	91	94	94	94	95	77	1.2
Dundas	111	103	--	--	101	98	--	101	--	73	1.2
Chester	112	94	92	97	88	99	97	94	94	81	1.7
Jutra	112	102	103	100	99	99	98	100	100	72	1.2
90B73	112	94	94	87	81	87	84	87	87	76	1.3
OAC Wallace	113	105	108	101	100	98	100	100	103	78	1.4
PS 59	113	106	106	102	103	101	101	103	103	78	1.1
S 08-80	113	99	94	102	100	96	93	99	97	79	1.2
Majesta	114	97	--	--	112	106	--	105	--	91	1.3
Monarch	114	97	99	95	101	98	97	98	98	79	1.2
OAC Oxford	114	98	98	99	102	101	100	101	100	87	1.2
OAC Quinte	114	99	98	99	100	104	101	100	100	88	1.8
RCAT Bobcat	114	104	103	99	100	102	102	101	102	82	1.2
2802R	114	101	97	91	97	100	99	99	97	83	1.2
PRO 28-53	115	100	99	98	103	103	103	102	101	90	1.3
S12-C2	115	109	105	99	106	100	98	105	102	74	1.1
Arva	116	99	97	102	75	84	89	88	90	77	1.4
DKB13-51	116	95	97	100	93	98	98	97	97	79	1.2
National	116	99	99	99	113	105	107	105	105	83	1.4
PS 73	116	100	102	100	108	102	100	103	103	81	1.3
Crown	118	102	103	109	99	106	107	103	104	89	1.5
Crystal	118	99	101	101	97	99	103	98	101	80	1.3
RS1498	118	102	104	107	108	109	110	105	108	79	1.3
S16-E8	118	98	99	100	92	97	97	95	97	76	1.3
91B53	118	98	101	108	109	107	109	106	107	79	1.3
PRO 292	119	98	101	96	114	110	113	107	107	86	1.5
PRO 295	119	96	98	107	99	99	101	98	101	93	1.5
PS 78	119	99	97	99	101	97	97	99	99	100	1.4
S12-A5	119	109	--	--	110	102	--	107	--	78	1.4
RCAT Wildcat	121	102	105	112	105	110	111	106	108	83	1.4
Average yield (T/ha)		3.17	2.98	2.91	3.91	3.85	3.25	3.69	3.23		
(bu/ac)		47.1	44.3	43.3	58.1	57.2	48.3	54.9	48.0		

TABLE 4.2 AGRONOMIC DATA AT 2700-2900 HEAT UNIT AREAS (RR VARIETY TEST)

2802R	113	105	100	100	96	101	102	101	100	85	1.3
RR Razor	114	102	103	102	111	102	103	105	105	78	1.3
S10-T1	114	104	101	94	88	96	95	95	95	77	1.3
90B73	114	98	98	93	90	91	90	93	93	79	1.5
91B12	114	89	91	87	98	94	93	94	92	71	1.2
91B33	114	103	106	104	103	105	103	104	104	75	1.3
DKB13-51	115	99	100	103	101	99	101	100	101	79	1.5
5140RR	116	103	101	114	114	105	107	107	108	78	1.3
S16-E8	117	103	102	104	96	101	103	100	102	76	1.5
29-02R	117	99	98	103	111	104	103	105	104	82	1.4
PS 76 RR	118	96	96	91	90	100	100	95	95	84	1.5
RR Rawling	118	96	--	--	108	100	--	101	--	82	1.3
91B64	118	101	103	103	98	97	99	99	101	84	1.3
S15-B1	120	101	--	--	96	105	--	100	--	85	1.5
Average yield (T/ha)		3.10	2.93	2.81	3.66	3.84	3.17	3.59	3.12		
(bu/ac)		46.1	43.6	41.8	54.4	57.1	47.1	53.4	46.4		

St. Pauls 2yr includes data from 2001 and 2003

RR Check varieties included in conventional herbicide variety test with yield comparison as follows:

Avg. yield in Conv. Test (T/ha)	3.07	2.89	2.75	3.54	3.68	3.08	3.48	3.05
(bu/ac)	45.5	42.8	40.8	52.6	54.6	45.7	51.7	45.2
Avg. yield in RR Test (T/ha)	3.15	2.94	2.81	3.51	3.77	3.14	3.54	3.09
(bu/ac)	46.7	43.6	41.6	52.0	55.9	46.5	52.4	45.8

Testing areas: Table 4

Exeter	2001	2002	2003
St. Pauls	2001	--	2003
Winchester	--	2002	2003
Woodstock	2001	2002	2003

TABLE 5.1 AGRONOMIC DATA AT 2900-3300 HEAT UNIT AREAS (CONVENTIONAL VARIETY TEST)

Variety	Days to Mature	Yield index (%)									Plant Height (cm)	Lodging 1=Standing 5=flat
		Clay				Loam						
		Dutton 2yr	Inwood 2yr	3yr	Clay Average	Ridgetown 2yr	3yr	Talbotville 2yr	3yr	Loam Average		
Crown	104	106	101	96	100	100	99	105	105	101	73	1.2
ISG2500	106	95	100	--	--	107	--	111	--	--	69	1.1
PRO 30-02	106	103	100	94	98	95	94	94	94	94	69	1.1
Crescent	107	94	98	100	98	102	100	100	102	101	70	1.2
Ivory	107	102	107	104	103	102	102	104	105	103	64	1.0
RCAT Legacy	107	105	102	104	104	100	100	94	96	98	63	1.3
Westag 97	107	109	102	105	107	103	105	102	106	105	69	1.2
AG1901	108	95	103	102	99	98	97	101	101	99	81	1.4
CK-01	108	102	97	--	--	98	--	95	--	--	69	1.1
S20-Z5	108	97	95	96	96	97	95	89	92	94	66	1.0
Chatham	109	95	99	96	96	100	102	101	102	102	68	1.2
OAC Kent	109	109	105	104	106	102	105	102	103	104	78	1.2
RS2297C	109	101	101	104	103	99	101	95	98	100	67	1.3
92M10	109	101	97	98	99	99	102	99	100	101	77	1.3
RCAT Appin	110	96	93	96	96	101	100	104	105	102	71	1.2
RCAT Dover	110	102	107	--	--	104	--	110	--	--	76	1.2
RR Rodney	110	95	99	101	99	100	101	103	102	102	74	1.2
Sinclair	110	93	105	103	99	96	95	98	100	97	76	1.3
92B38	110	101	94	97	99	104	102	89	92	98	76	1.1
RS2595	111	97	97	97	97	102	105	100	94	101	72	1.3
92B61	112	102	96	102	102	91	96	104	102	98	76	1.8
Average yield (T/ha)		2.38	2.26	2.32	2.35	4.23	4.18	2.88	2.63	3.40		
(bu/ac)		35.4	33.6	34.5	34.9	62.9	62.2	42.8	39.1	50.6		

TABLE 5.2 AGRONOMIC DATA AT 2900-3300 HEAT UNIT AREAS (RR VARIETY TEST)

PRO 3090R	106	89	103	101	96	95	93	105	100	96	77	1.2
SG1911NRR	106	99	96	--	--	99	--	83	--	--	78	1.2
92B05	106	100	106	103	102	97	97	93	98	97	69	1.0
AG1901	107	98	106	102	101	94	96	106	104	99	82	1.3
RS199RR	108	103	103	103	103	105	99	103	97	98	70	1.0
S20-Z5	108	103	97	96	99	100	99	95	95	97	69	1.0
30-04R	108	105	94	--	--	100	--	98	--	--	67	1.1
DKB20-10	109	105	99	98	101	98	95	102	102	98	72	1.1
RR Rodney	110	97	99	100	99	103	105	109	106	105	74	1.0
S23-Q3	110	99	98	99	99	99	102	98	95	99	75	1.3
92B38	110	102	99	99	100	104	104	97	97	102	77	1.1
RR Oxygen	111	100	97	98	99	102	106	103	98	103	72	1.1
S24-K4	111	100	103	101	101	105	104	107	108	106	78	1.3
Average yield (T/ha)		2.41	2.11	2.24	2.31	4.21	4.11	2.87	2.64	3.38		
(bu/ac)		35.8	31.4	33.3	34.3	62.6	61.1	42.7	39.3	50.3		

RR Check varieties included in conventional herbicide variety test with yield comparison as follows:

Avg. yield in Conv. Test (T/ha)	2.31	2.22	2.30	2.30	4.21	4.14	2.75	2.54	3.34
(bu/ac)	34.2	32.9	34.1	34.1	62.5	61.5	40.9	37.7	49.6
Avg. yield in RR Test (T/ha)	2.41	2.11	2.23	2.30	4.22	4.15	2.92	2.65	3.40
(bu/ac)	35.8	31.3	33.1	34.2	62.7	61.6	43.3	39.3	50.5

Testing areas: Table 5

Dutton	--	2002	2003
Inwood	2001	2002	2003
Ridgetown	2001	2002	2003
Talbotville	2001	2002	2003

TABLE 6.1 AGRONOMIC DATA AT 3300-3500 HEAT UNIT AREAS (CONVENTIONAL VARIETY TEST)

Variety	Days to Mature	Yield index (%)										Plant Height (cm)	Lodging 1=Standing 5=flat
		Clay					Loam						
		Tilbury 2yr	Tilbury 3yr	Woodslee 2yr	Woodslee 3yr	Clay Average	Chatham 2yr	Chatham 3yr	Malden 2yr	Malden 3yr	Loam Average		
RCAT Legacy	108	97	97	103	102	100	98	100	101	101	100	62	1.2
Chatham	109	101	98	94	95	96	97	90	94	96	93	71	1.0
OAC Kent	110	98	95	105	103	100	101	102	110	105	104	79	1.2
RCAT Appin	110	94	93	93	98	96	91	92	100	99	96	74	1.1
RCAT Dover	111	97	99	103	104	102	103	103	98	100	102	78	1.1
Starburst	112	97	96	103	100	98	101	99	97	96	98	77	1.1
ISG2686	113	93	92	95	95	94	100	97	99	98	98	70	1.1
92B61	113	102	106	102	96	100	100	101	97	103	102	80	1.4
PS 95	114	108	109	104	107	108	108	110	99	100	105	77	1.2
AV2261	115	105	107	105	106	107	99	99	106	105	102	79	1.2
RCAT Staples	115	108	105	93	98	101	100	101	101	102	102	85	1.2
9305	115	91	95	97	96	96	94	92	93	96	94	79	1.1
AV1289	116	91	96	98	99	98	99	97	100	98	98	72	1.1
Breeze	116	100	99	98	97	98	100	102	107	103	103	80	1.2
S29-C9	117	105	107	103	102	104	105	105	99	99	102	87	1.3
93B09	119	112	106	104	100	102	103	108	96	99	103	75	1.0
Average yield (T/ha)		2.36	2.22	3.00	2.84	2.53	3.59	3.21	3.75	3.80	3.50		
(bu/ac)		35.1	33.0	44.6	42.2	37.6	53.4	47.7	55.8	56.5	52.0		

TABLE 6.2 AGRONOMIC DATA AT 3300-3500 HEAT UNIT AREAS (RR VARIETY TEST)

92B38	109	100	97	106	101	100	102	104	103	102	103	79	1.1
RCAT 22R1	110	100	101	103	98	99	103	101	94	93	97	73	1.0
S24-K4	110	110	104	110	103	104	106	107	107	103	105	81	1.4
S26-H2	111	90	--	96	--	--	94	--	96	--	--	86	1.3
DKB26-52	112	100	93	105	102	98	98	98	105	102	100	87	1.4
RR Renwick	112	113	109	104	106	107	100	100	107	104	102	78	1.2
92B62	112	89	90	95	95	92	96	94	91	92	93	76	1.2
Breeze	113	101	99	105	103	101	102	101	102	99	100	80	1.1
PS 96 NRR	113	92	91	107	102	97	98	94	102	100	97	76	1.0
RR Raleigh	113	109	108	98	100	104	101	100	102	105	102	87	1.4
26R	113	94	100	94	97	98	95	95	97	99	97	74	1.0
ADV Rocket RR	114	97	--	91	--	--	100	--	102	--	--	81	1.0
3201R	114	92	93	86	90	91	97	96	93	94	95	86	1.2
32-03R	114	92	--	91	--	--	97	--	92	--	--	86	1.1
S29-C9	115	111	110	105	105	107	103	102	105	103	102	89	1.4
93B09	116	112	105	104	100	102	107	108	102	104	106	75	1.1
Average yield (T/ha)		2.27	2.18	2.96	2.81	2.49	3.47	3.22	3.70	3.77	3.49		
(bu/ac)		33.8	32.4	44.0	41.8	37.0	51.6	47.9	55.0	56.1	51.9		

RR Check varieties included in conventional herbicide variety test with yield comparison as follows:

Avg. yield in Conv. Test (T/ha)	2.49	2.31	3.05	2.84	2.57	3.68	3.37	3.77	3.82	3.60
(bu/ac)	36.9	34.2	45.2	42.1	38.2	54.6	50.1	56.0	56.6	53.3
Avg. yield in RR Test (T/ha)	2.45	2.28	3.10	2.87	2.58	3.62	3.33	3.81	3.84	3.59
(bu/ac)	36.3	33.8	46.0	42.6	38.2	53.7	49.4	56.5	56.9	53.2

Testing areas: Table 6

Tilbury	2001	2002	2003
Woodslee	2001	2002	2003
Chatham	2001	2002	2003
Malden	2001	2002	2003

**TABLE 7. RESISTANT VARIETY
PERFORMANCE IN SCN INFESTED FIELDS**

<i>Variety</i>	Average of 6 Tests (2001-2003)		Average of 4 Tests (2002-2003)	
	<i>Days to Maturity</i>	<i>Yield Index (%)</i>	<i>Days to Maturity</i>	<i>Yield Index (%)</i>
SG1911NRR	--	--	111	110
RS2297C	112	120	114	113
Sinclair	113	138	115	134
DKB26-52	116	138	117	134
S26-H2	--	--	118	121
92B62	115	131	118	124
26R	118	130	120	121
32-03R	--	--	122	130
PS 96 NRR	--	--	122	132

*Susceptible Yield Index is: 100% 100%
 Susceptible Yield: 2.14 T/ha or 31.8 bu/ac 2.56 T/ha or 37.97 bu/ac

* Susceptible Yield Index is based on 3 high yielding susceptible varieties.
 Test locations had moderate to very high (5,000 to >8,000 eggs/100g of soil) SCN infestations.
 Resistance source is PI88788 for all varieties.

Test Locations & Soil Types - 2003 Trials

Location	Table	Heat Unit Rating	Soil Type	Row Width (cm)	Seeding Rate (plant/ac)
Dundalk	2	2400	clay	35	200,000
New Liskeard	2	2400	clay	18	200,000
Renfrew	2	2500	clay	20	200,000
Ottawa	3	2650	clay loam	40	200,000
Brussels	3	2650	loam	38	200,000
Elora	3	2550	silt loam	35	200,000
Winchester	3 & 4	2825	clay loam	35	200,000
St. Paul's	4	2750	clay loam	35	200,000
Woodstock	4	2700	clay loam	35	200,000
Exeter	4	2900	clay loam	38	200,000
Talbotville	5	2900	clay loam	35	200,000
Ridgetown	5	3250	clay loam	43	160,000
Inwood	5	3050	clay	43	200,000
Palmyra	5	3100	clay	43	200,000
Tilbury	6	3350	clay	43	200,000
Woodslee	6	3400	clay	45	200,000
Chatham	6	3300	clay loam	43	160,000
Malden	6	3400	clay loam	45	185,000

SOYBEAN VARIETY DISTRIBUTORS

If you do not know who your local supplier is for a soybean variety listed in Table 1, then contact the distributor for information.

Advantage Seed Growers & Processors Inc.

323 Havelock St., Box 29, Lucknow, ON N0G 2H0
Tel: 1-800-651-7333 Fax: 519-528-3518
Email: wanda@advantageseeds.com

Agventure of Ontario

1245 County Rd. 46, Woodslee, Ontario, N0R 1V0
Tel: 519-723-4476 Fax: 519-723-2146

C&M Seeds

6180 5th Line Minto, Palmerston, ON, N0G 2P0
Tel: 519-343-2126 Fax: 519-343-3792

Cooperative federee de Quebec

2405 de la Province, Longueuil (Quebec) J4G 1G3
Tel: 450-670-2231 Fax: 450-670-3900
Email: centre-distribution@sympatico.ca

Country Farm Seeds Ltd.

P.O. Box 1226, Chatham, ON N7M 5L8
Tel. 1-519-351-5101; Fax 1-519-354-8603
www.countryfarmseeds.ca

DEKALB Monsanto Canada Inc.

Research Park Centre
307-150 Research Lane, Guelph, ON N1G 4T2
Tel: 1-800-667-4944, Fax: 519-823-9733

Direct Seeds Inc.

995 Richmond St. Chatham, ON, N7M 5J5
Phone: 1-800-461-2676, Fax: 1-519-352-9559
www.directseeds.com

Dow AgroSciences Canada Inc.

Mycogen Brand Seeds, P.O. Box 490
Brant County Rd 25, Princeton, ON N0J 1V0
Tel: 1-800-668-4939

Ferguson Seeds

RR #1, Essex ON, N8M 2X5
Tel: 519-776-5779 Fax: 519-776-9319

First Line Seeds Ltd.

150 Research Lane, Suite 307
Guelph, ON N1G 4T2
Tel: 1-800-361-2326 Fax: 519-821-9755

Hyland Seeds, Div. of W.G. Thompson & Sons Ltd.

P.O. Box 130, Blenheim ON, N0P 1A0
Tel: 519-676-8146 Fax: 519-676-5674
Website: www.hylandseeds.com

Inwood Seed & Grain Ltd.

Box 130, Inwood ON, N0N 1K0
Tel: 519-844-2426

Maizex Seeds Inc

4488 Mint Line, R2, Tilbury ON CA
Tel 877-682-1720 Fax 519-682-2144
Website www.maizex.com

Pioneer Hi-Bred Ltd.

Box 730, Chatham ON, N7M 5L1
Tel: 1-800-265-9435, Fax: 519-436-6753
Website: www.Pioneer.com/Canada

Pride Seeds

P.O. Box 1088, Chatham ON, N7M 5L6
Tel: 519-354-3210 Fax: 519-354-8155
Website: www.prideseed.com

Prograin

145 Bas Rivière Nord, St-Césaire, Québec, J0L 1T0
Tel: 1-800-817-3732 Fax: 450-469-4547

PRO Seeds of Canada

RR#6, Woodstock ON, N4S 7W1
Tel: 1-888-537-5157 Fax: 519-533-0773
Email: proseeds@execulink.com

Rosebank Seed Farms Ltd.

7340 Perth Line 24, RR#2, Staffa ON, N0K 1Y0
Tel: 519-345-2697 Fax: 519-345-9930

SeCan Association

RR#5, Ingersoll, ON, N5C 3J8
Tel: 1-866-797-7874, Fax: 1-519-423-6933

Semican Inc.

366 rang 10, Plessisville QC, G6L 2Y2
Tel: 819-362-8823 Fax: 819-362-3385
Email: semican@ivic.qc.ca

Shanks Seeds Ltd.

R.R. # 1, Wheatley, ON, N0P 2P0
Tel: 519-825-4432
Email: shanks@mnsi.net

Mike Snobelen Farms Ltd.

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Go to www.oopsc.org for:

- 2004 Yield and Maturity Graphs from OSV report.
- Oil and Protein information.
- Food Grade Variety Performance Information.
- 2004 Ontario Soybean Variety Report