

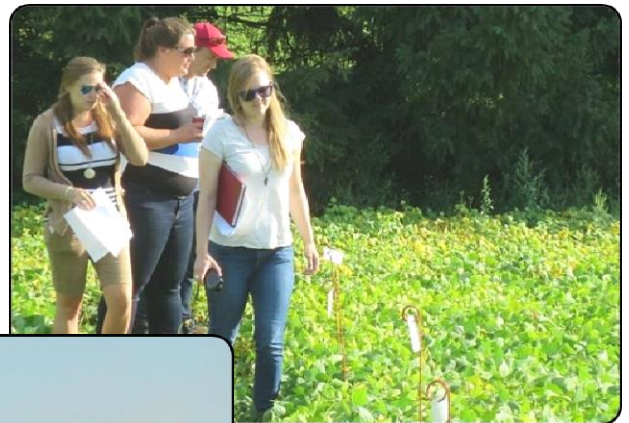
2019 Report

Ontario Dry Bean Variety Trials

prepared by the Ontario Pulse Crop Committee

Data collected 2014 - 2018

<http://www.gobeans.ca>



*Current as of
January 30, 2019*

This Infosheet contains the most recent variety information for registered dry edible bean varieties planted and harvested in 2018. Experimental and non-registered varieties may also be included in the trials, but data is not presented. Contact one of the individuals listed below, for information on other varieties or to comment on the trials. The information is prepared annually by the Ontario Pulse Crop Committee (OPCC).

REFERENCES:

For more information contact:

Dr. K. Peter Pauls
Professor, Genomics and Dry Bean Breeding
Department of Plant Agriculture
University of Guelph
Crop Science Bldg., Room 325
Guelph, ON N1G 2W1
E-mail: ppauls@uoguelph.ca
Phone: 519-824-4120 x54136

Tom Smith
Technician, Secretary of the OPCC and Co-ordinator of the White Bean Variety Performance Trial
Department of Plant Agriculture
University of Guelph
Crop Science Bldg., Room 112
Guelph, ON N1G 2W1
E-mail: thsmith@uoguelph.ca
Phone: 519-824-4120 x58339

Jamie Larsen
Dry Bean Breeder, Co-ordinator of the Coloured Bean Variety Performance Trial
Agriculture and Agri-Food Canada
Harrow, ON N0R 1G0
E-mail: jamie.larsen@canada.ca
Phone: 519-738-1216

Chris Gillard
Associate Professor, Dry Bean Agronomy & Pest Management, Chair of the OPCC Variety Subcommittee
Department of Plant Agriculture
University of Guelph, Ridgetown Campus
Ridgetown, ON N0P 2C0
E-mail: cgillard@uoguelph.ca
Phone: 519-674-1500 x63632

Frédéric Marsolais
Research Scientist
Agriculture and Agri-Food Canada
1391 Sandford St.
London, ON N5V 4T3
Email: frederic.marsolais@canada.ca
Phone: 519-953-6718

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Table 1a - 2014-2018 White Bean Variety Performance Trial, Long Season Area

Variety	Days to Maturity ²	Yield (lbs/ac) ¹												
		Long Season All Locations				St Thomas			Exeter	Woodstock				
		5 Year	4 Year	3 Year	2 Year	3 Year	2 Year	2018	2018	5 Year	4 Year	3 Year	2 Year	2018
AAC Shock	94	2812	2838	2780	2961	2877	2801	2588	3469	2394	2467	2417	2866	3573
Bolt	94	2725	2773	2808	3082	2882	2920	2931	3178	2527	2641	2614	3196	4161
Lightning	95	2681	2646	2649	2895	2618	2591	2324	3143	2616	2641	2558	3076	4136
OAC Thunder	95	2679	2639	2574	2868	2664	2807	2397	3317	2294	2348	2184	2705	3303
Fathom	97	2850	2860	2810	3103	2985	2929	3188	3820	2375	2520	2421	2917	4107
Lighthouse	98	3171	3107	3098	3434	3482	3583	3472	3616	2713	2667	2621	3194	4177
AAC Argosy	98	3214	3151	3136	3462	3479	3629	3484	3609	2954	2904	2704	3222	3913
Nautica	98	2966	2957	3080	3394	3498	3636	3295	3152	2755	2730	2756	3272	3970
T9905	98	3132	3201	3217	3584	3623	3734	4286	3292	2988	3004	2954	3580	4459
Mist	98	3076	3025	2928	3228	3211	3137	3486	3662	2765	2694	2476	3103	3926
Rexeter	100	3113	3090	3051	3275	3326	3316	3218	3488	2759	2693	2551	3127	4042
Apex	100	3135	3072	3026	3382	3228	3231	2716	3630	2875	2871	2766	3409	4185
Blizzard	101	--	--	--	--	--	--	3851	3434	--	--	--	--	4029
Indi	101	--	--	--	--	--	--	3811	3776	--	--	--	--	4319
DS105W0	103	--	3127	3170	3638	3479	3767	3464	3425	--	2932	2863	3615	4457
Average Yield (lbs/ac) ¹		2963	2960	2948	3254	3181	3237	3234	3467	2668	2701	2607	3176	4050
LSD (0.05) ³		114	146	170	230	363	476	751	345	152	186	217	271	430

¹ To convert lbs/acre to t/ha divide by 893.

² Maturity is 3 year average. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

³ LSD (0.05) - the LSD is a measure of variability within the trial. There is a ninety five percent probability that yields that differ by an amount greater than the LSD are different. Yields that differ by an amount less or equal to the LSD should be considered the same.

Long Season Testing Locations					
St Thomas	2018	2017	2016	--	2014
Exeter	2018	--	2016	2015	--
Woodstock	2018	2017	2016	2015	2014
Highbury	--	--	--	--	2014

Table 1b - 2014-2018 White Bean Variety Performance Trial, Short Season Area

Variety	Days to Maturity ²	Yield (lbs/ac) ¹														
		Short Season All Locations				Exeter	Elora					Woodstock				
		5 Year	4 Year	3 Year	2 Year	2018	5 Year	4 Year	3 Year	2 Year	2018	5 Year	4 Year	3 Year	2 Year	2018
Bolt	97	2722	2690	2694	3038	3178	2720	2670	2693	2898	2830	2527	2641	2614	3196	4161
AAC Shock	98	2944	2900	2784	3091	3469	3049	2982	2849	3077	2909	2394	2467	2417	2866	3573
Lightning	98	2763	2685	2663	2964	3143	2803	2725	2707	2900	2909	2616	2641	2558	3076	4136
OAC Thunder	99	2699	2689	2601	2944	3317	2700	2711	2710	3078	3096	2294	2348	2184	2705	3303
Indi	99	--	--	--	--	3776	--	--	--	--	2901	--	--	--	--	4319
Fathom	100	2919	2917	2838	3105	3820	2968	2926	2883	2977	2892	2375	2520	2421	2917	4107
Lighthouse	102	3125	3003	2890	3314	3616	3276	3034	2855	3323	3194	2713	2667	2621	3194	4177
Rexeter	102	3157	3070	2993	3314	3488	3175	3069	3018	3247	3100	2759	2693	2551	3127	4042
Mist	102	3084	2997	2857	3335	3662	3131	3013	2871	3360	3247	2765	2694	2476	3103	3926
Blizzard	103	--	--	--	--	3434	--	--	--	--	2910	--	--	--	--	4029
AAC Argosy	103	3156	3053	2965	3377	3609	3298	3148	3029	3446	3223	2954	2904	2704	3222	3913
T9905	103	3060	2975	2858	3108	3292	3048	2969	2867	2954	2923	2988	3004	2954	3580	4459
Nautica	103	2974	2951	3010	3169	3152	3072	3162	3195	3064	2908	2755	2730	2756	3272	3970
Apex	104	3117	3014	2990	3392	3630	3108	2926	3096	3249	3301	2875	2871	2766	3409	4185
DS105W0	106	--	3088	3056	3300	3425	--	3086	3075	2959	2654	--	2932	2863	3615	4457
Average Yield (lbs/ac) ¹		2977	2926	2861	3188	3467	3029	2955	2911	3118	3000	2668	2701	2607	3176	4050
LSD (0.05) ³		77	90	109	137	345	151	185	229	277	347	152	186	217	271	430

¹ To convert lbs/acre to t/ha divide by 893.

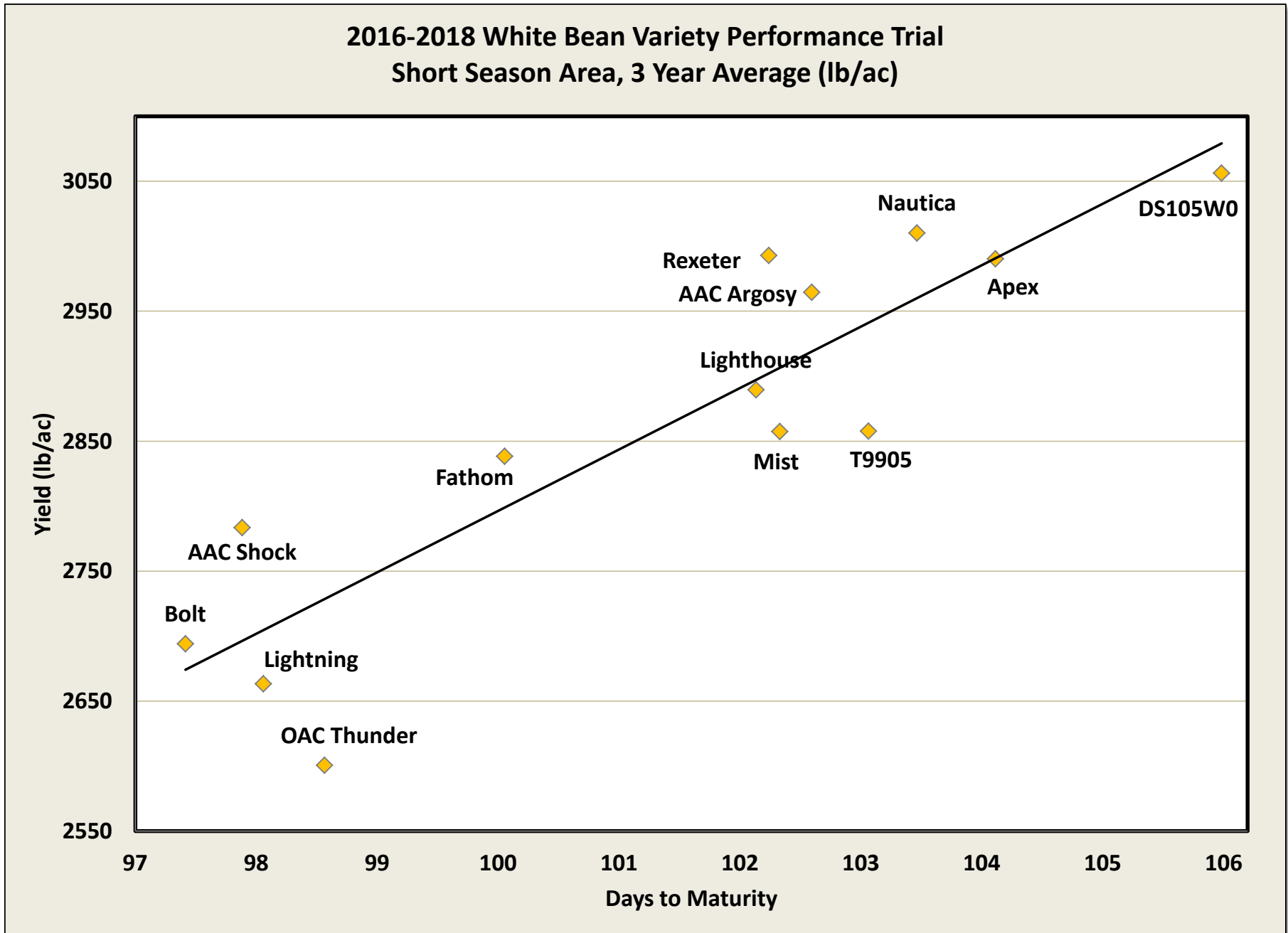
² Maturity is 3 year average. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

³ LSD (0.05) - the LSD is a measure of variability within the trial. There is a ninety five percent probability that yields that differ by an amount greater than the LSD are different.

Yields that differ by an amount less or equal to the LSD should be considered the same.

Short Season Testing Locations					
Blyth	--	2017	2016	2015	2014
Exeter	2018	--	2016	2015	--
Elora	2018	2017	2016	2015	2014
Woodstock	2018	2017	2016	2015	2014

Graph 1c: White Bean Short Season Area



Graph 1d: White Bean Long Season Area

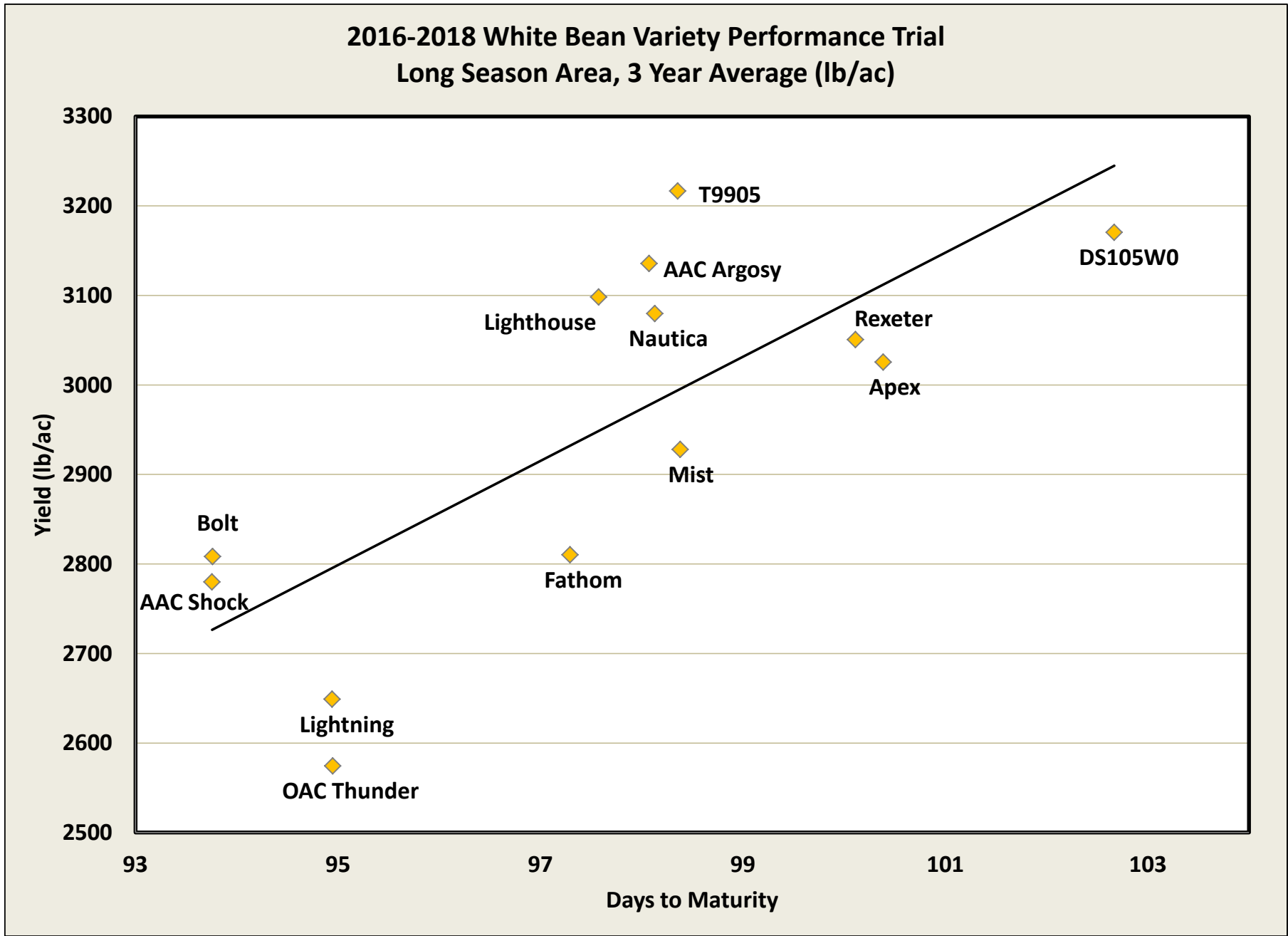


Table 2 - 2016-2018 White Bean Characteristics and Distributors

Variety	100 Seed Weight ³ (g)	Disease Reaction ¹					Common Blight	Suitability for Direct Harvest ⁴	Distributor
		Bean Common Mosaic Virus		Anthracnose ²					
		Race		Race					
		1	15	17	23	73			
Bolt	25.7	R	R	S	S	R	S	1.8	Hensall DC
AAC Shock	25.2	R	R	S	S	S	R	2.3	Hensall DC
Lightning	22.7	R	R	S	S	S	S	2.0	Hensall DC
OAC Thunder	24.2	R	R	S	S	S	S	2.4	SeCan
Indi	21.0	R	S	S	S	S		1.4	ADM Seedwest
Fathom	24.1	R	R	NA	NA	R	R	2.5	Hensall DC
AAC Argosy	25.1	R	R	S	S	S	R	2.4	Hensall DC
Lighthouse	23.6	R	R	NA	R	S	R	2.1	R.T. Bolton
Mist	23.7	R	R	S	S	S	R	1.9	Hensall DC
Nautica	21.0	R	R	S	S	S	S	2.0	SeCan
T9905	24.9	R	R	R	R	S	S	2.7	Treasure Valley
Rexeter	21.8	R	S	S	S	S	R	2.5	Hensall DC
Blizzard	22.2	NA	NA	NA	NA	S	S	2.5	ProVita, ADM Seedwest
Apex	25.3	R	R	S	R	S	R	2.2	SeCan
DS105W0	24.5	NA	NA	NA	NA	S	S	3.3	Treasure Valley

¹ R = Resistant, S = Susceptible, NA = Not Available

² Anthracnose ratings, the predominant race found now in Ontario is Race 73. Race 17 (binary system) is equivalent to the Alpha race, race 23 (binary system) is equivalent to the Delta race.

³ To convert 100 seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb

⁴ A variety's suitability of direct harvest is based on a scale of 1-5, where 1 = upright plant type, standing erect with good bottom pod height and 5 = more prostrate plant type or plants that are not erect, with poor bottom pod height.

* Resistance gene for common bacterial blight (*Xanthomonas campestris* pv. Phaseoli). Very little disease will develop on this variety.

Table 3 - 2016-2018 Coloured Bean Variety Performance and Characteristics

Variety	Market Class	Days to Maturity ²	Yield (lbs/ac) ^{1,2}	100 Seed Weight ² (g)	Disease Reaction ³					Suitability for Direct Harvest ⁵	Distributor
					Bean Common Mosaic Virus		Anthracnose ⁴				
					Race 1	Race 15	Alpha Race 17	Delta Race 23	Race 73		
Etna	Cranberry	89	2182	65	R	R	S	S	S	2.4	Public
Red Rider	Cranberry	94	2266	62	R	R	R	R	S	2.8	SeCan
Red Hawk	Dark Red Kidney	89	1933	57	R	R	R	S	R	2.8	Public
Dynasty	Dark Red Kidney	94	2339	65	R	S	R	S	R	2.8	Hensall DC
Big Red	Light Red Kidney	86	2070	61	NA	NA	NA	NA	R	2.6	ProVita
Pink Panther	Light Red Kidney	88	2089	65	R	R	R	S	R	2.9	Public
OAC Inferno	Light Red Kidney	99	2362	68	R	S	R	S	R	3.3	Hensall DC
Yeti	White Kidney	97	2128	61	R	R	NA	S	R	2.6	Hensall DC

¹ To convert lbs/acre to t/ha divide by 893.

² Yield, Days to Maturity and Seed weight are 3 year averages. Maturity rating is affected by planting date and area where variety is being grown.

Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

³ R = Resistant, S = Susceptible, NA = Not Available

⁴ Anthracnose ratings- the predominant race in Ontario is Race 73. Race 17 (binary system) is equivalent to the Alpha race, race 23 (binary system) is equivalent to the Delta race.

⁵ A variety's suitability of direct harvest is based on a scale of 1-5, where 1 = upright plant type, standing erect with good bottom pod height and 5 = more prostrate plant type or plants that are not erect, with poor bottom pod height.

Coloured Bean Testing Locations			
St Thomas	2018	2017	2016
Exeter	2018	--	2016
Elora	2018	2017	2016
Woodstock	2018	2017	2016

Table 4a - St Thomas Station Report: 2014-2018 Coloured Bean Performance Trial

Variety	Market Class	Days to Maturity St Thomas ²	100 Seed Weight ³ (g)	Yield (lbs/ac) ¹					3 Year All Locations
				St Thomas					
				5 Year	4 Year	3 Year	2 Year	2018	
Etna	Cran	84	65	2853	2934	3126	3278	3583	2182
Red Rider	Cran	92	62	2835	2825	2917	3031	3229	2266
Average (lbs/ac)				2844	2879	3021	3155	3406	2224
Red Hawk	DRK	86	57	2379	2342	2606	2499	2759	1933
Dynasty	DRK	91	65	2841	2908	3042	3194	3067	2339
Average (lbs/ac)				2610	2625	2824	2847	2913	2136
Big Red	LRK	80	61	3095	3095	3095	3311	3873	2070
Pink Panther	LRK	83	65	2571	2580	2886	2791	2966	2089
OAC Inferno	LRK	100	68	2657	2697	2928	3287	3639	2362
Average (lbs/ac)				2774	2791	2970	3130	3493	2174
Yeti	WK	95	61	2626	2615	2772	2596	2706	2128
Average (lbs/ac)				2626	2615	2772	2596	2706	2128

¹ To convert lbs/acre to t/ha divide by 893.

² Days to Maturity is 3 year average for St Thomas Station. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

³ To convert 100 Seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb

Table 4b - Elora Station Report: 2014-2018 Coloured Bean Performance Trial

Variety	Market Class	Days to Maturity Elora ²	100 Seed Weight ³ (g)	Yield (lbs/ac) ¹					3 Year All Locations
				Elora					
				5 Year	4 Year	3 Year	2 Year	2018	
Etna	Cran	90	65	1938	1767	1578	1551	1491	2182
Red Rider	Cran	96	62	2116	2003	1848	1857	1575	2266
Average (lbs/ac)				2027	1885	1713	1704	1533	2224
Red Hawk	DRK	91	57	1693	1576	1542	1540	1421	1933
Dynasty	DRK	95	65	2153	1996	1839	1944	1649	2339
Average (lbs/ac)				1923	1786	1691	1742	1535	2136
Big Red	Lrk	87	61	1498	1498	1498	1452	1154	2070
Pink Panther	Lrk	88	65	1960	1758	1698	1752	1662	2089
OAC Inferno	Lrk	102	68	2310	2157	2081	2316	2176	2362
Average (lbs/ac)				1923	1804	1759	1840	1664	2174
Yeti	Wk	99	61	1916	1730	1610	1586	1397	2128
Average (lbs/ac)				1916	1730	1610	1586	1397	2128

¹ To convert lbs/acre to t/ha divide by 893.

² Days to Maturity is 3 year average for Elora Station. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

³ To convert 100 Seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb

Table 4c - Woodstock Station Report: 2014-2018 Coloured Bean Performance Trial

Variety	Market Class	Days to Maturity Woodstock ²	100 Seed Weight ³ (g)	Yield (lbs/ac) ¹					3 Year All Locations
				Woodstock					
				5 Year	4 Year	3 Year	2 Year	2018	
Etna	Cran	89	65	2108	2111	2141	2535	3734	2182
Red Rider	Cran	90	62	2189	2291	2267	2648	4027	2266
Average (lbs/ac)				2149	2201	2204	2591	3880	2224
Red Hawk	DRK	90	57	1819	1789	1828	2085	2968	1933
Dynasty	DRK	91	65	2317	2334	2379	2703	3952	2339
Average (lbs/ac)				2068	2062	2103	2394	3460	2136
Big Red	LRK	87	61	1965	1965	1965	2279	3391	2070
Pink Panther	LRK	89	65	2013	2007	1947	2393	3577	2089
OAC Inferno	LRK	94	68	2312	2232	2247	2659	4079	2362
Average (lbs/ac)				2097	2068	2053	2444	3682	2174
Yeti	WK	93	61	2199	2265	2261	2678	4169	2128
Average (lbs/ac)				2199	2265	2261	2678	4169	2128

¹ To convert lbs/acre to t/ha divide by 893.

² Days to Maturity is 3 year average for Woodstock Station. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

³ To convert 100 Seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb

Table 5 - 2014-2018 Coloured Minor Bean Variety Performance Trial

Variety	Days to Maturity ²	Yield (lbs/ac) ¹														
		All Locations				St Thomas					Exeter				Winchester	
		5 Year	4 Year	3 Year	2 Year	5 Year	4 Year	3 Year	2 Year	2018	4 Year	3 Year	2 Year	2018	2 Year	2018
La Paz	98	--	3371	3438	3547	--	3380	3395	3410	2962	3145	3239	3430	2981	3802	3734
OAC Rosito	99	2944	3065	3240	3273	2778	3038	3363	3397	3127	3252	3448	3679	3560	2745	2057
Zorro	100	3311	3412	3539	3479	3302	3552	3796	3698	3517	3376	3507	3537	3512	3202	2710
Viper	100	--	3431	3579	3667	--	3533	3829	3900	3803	3338	3441	3689	3651	3411	3259
Zenith	102	--	3221	3358	3412	--	3299	3580	3490	3643	3069	3128	3376	3467	3370	2881
Average Yield (lbs/ac) ¹		3127	3300	3431	3476	3040	3360	3593	3579	3410	3236	3352	3542	3434	3306	2928
LSD (0.05) ³		172	189	228	271	263	328	410	509	908	231	297	386	408	503	712

¹ To convert lbs/acre to t/ha divide by 893.

² Maturity is 3 year average. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

³ LSD (0.05) - the LSD is a measure of variability within the trial. There is a ninety five percent probability that yields that differ by an amount greater than the LSD are different.

Yields that differ by an amount less or equal to the LSD should be considered the same.

Testing Locations					
St Thomas	2018	2017	2016	2015	2014
Exeter	2018	2017	2016	2015	--
Winchester	2018	2017	--	--	--

Table 6 - 2016-2018 Coloured Minor Bean Characteristics and Distributors

Variety	Market Class	100 Seed Weight ³ (g)	Disease Reaction ¹					Suitability for Direct Harvest ⁴	Distributor
			Bean Common Mosaic Virus		Anthracnose ²				
			Race		Race				
			1	15	17	23	73		
La Paz	Pinto	37.7	NA	NA	NA	NA	S	2.7	ADM Seedwest
OAC Rosito	Small Red	24.0	NA	NA	NA	NA	S	2.1	AAFC/U of G
Zorro	Black	23.3	R	R	R	R	S	1.9	Hensall DC
Viper	Small Red	31.0	NA	NA	NA	NA	S	2.5	ADM Seedwest
Zenith	Black	24.0	NA	NA	NA	NA	R	1.7	Hensall DC

¹ R = Resistant, S = Susceptible, NA = Not Available

² Anthracnose ratings, the predominant race found now in Ontario is Race 73. Race 17 (binary system) is equivalent to the Alpha race, race 23 (binary system) is equivalent to the Delta race.

³ To convert 100 seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb

⁴ A variety's suitability of direct harvest is based on a scale of 1-5, where 1 = upright plant type, standing erect with good bottom pod height and 5 = more prostrate plant type or plants that are not erect, with poor bottom pod height.

Table 7. Addresses of Distributors for Edible Bean Varieties

ADM Seedwest 4666 Faries Parkway Decatur, ID 62526 800-637-5843 x4707 www.adm.com/products-services/food/edible-beans/seedwest	Elliott Grain Ltd. 21964 Fairview Road, RR3 Thorndale, ON N0M 2P0 519-461-1545	Gen-Tec Seeds Ltd. P. O. Box 98 Woodslee, ON N0R 1V0 (519) 975-2557
Hensall District Co-op P.O. Box 219 Hensall, ON N0M 1X0 1-800-265-5190 www.hdc.on.ca	ProVita Inc. P.O. Box #628 Kuna, ID 83634 (208) 463-7624	R.T. Bolton and Sons 43234 Winthrop Road, RR#1 Dublin, ON N0K 1E0 (519) 527-0455
SeCan Association 400-300 Terry Fox Drive Kanata, ON K2K 0E3 (613) 592-8600 www.secan.com	Thompsons 2 Hyland Drive, P. O. Box 250 Blenheim, ON N0P 1A0 1-800-265-5225 www.thompsonslimited.com/food-products/	Treasure Valley Seed Co. 4633 E. River Road Freeland, MI 48623 www.tvseed.com