

National Winter Canola Variety Performance Test, Walsh 2002  
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Purpose: To identify the best adapted, highest yielding varieties of winter canola.

Results and Discussion: The highest yielding winter canola variety in the national performance study was Ratler with 960 Lb/A. Ratler produced significantly more yield than Wichita and Casino, two well-known varieties ( $P > 0.05$ ). The *Brassica napus* species in the national performance test produced more than 2.5 times more yield than the *Brassica rapa* species in the *B. rapa* test. *B. napus* is related to rape species and *B. rapa* is related to turnips species.

Flowering dates are an important consideration because they reflect timeliness of harvest and flower sensitive freeze dates. The earlier flowering varieties are ready for harvest before the later flowering varieties. This could be important because the timing of wheat and canola harvests could clash. Remember, canola is one of the worst crops for shattering; do not delay harvest when it is ready for harvest. Varieties that flower early risk late-season frost damage. The earliness of some canola varieties may help avoid harvesting conflicts with wheat, but costly freeze damage on early flowering varieties may negate the harvest scheduling benefit.

A production comparison of canola and garbanzo beans reveals similarities in yield and income. With 12 A-in./A of irrigation, the winter canola varieties in the national performance test averaged 740 Lb/A of seed. This 740 Lb/A canola yield is similar to the yield obtained with garbanzo beans, 755 Lb/A, also given 12 A-in./A of irrigation. Currently, garbanzo beans are priced up to \$3.50/cwt more than canola; however, the high seed cost of garbanzo beans compensates for the lower price and N fertilizer expense of canola. Garbanzo beans are price according to seed size and quality. If the beans are of high quality and large size then garbanzo bean is more profitable than canola. On the other hand, if the beans are small, then canola is more profitable than garbanzo beans.

Materials and Methods: We planted 67 winter canola varieties (56 *Brassica napus* species and 11 *Brassica rapa* species) on September 13, 2001 at 5 Lb Seed/A with a 12 in. row-spaced drill to a depth of 1.5 inches in dry soil. For stand establishment, we furrow irrigated the site with about 7 A-in./A of water. In early spring, we furrow irrigated with about 5 A-in./A of water because winter and spring precipitation was lacking. We fertilized the site with 75 Lb N/A using a sweep plow prior to planting. No other fertilizers were applied. The site was weed free at planting and weeds were only a problem even though we applied no herbicides. There was a moderate infestation of pea aphid, but we did not attempt to control them. We harvested the 5 ft. X 30 ft. plots on June 28 and 29 with a self-propelled combine equipped with a small grain platform and weighed them in a digital scale. The plots were straight combined and not swathed before harvest.

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Entry	50% Flowering	Winter Survival	50% Pod Maturity	Plant Height	Seed Yield
	date	%	date	inches	lb/acre
Ratler	1-May	92	28-Jun	33	960
Celsius	4-May	90	28-Jun	34	930
ARC91004	30-Apr	97	27-Jun	34	880
Musette	2-May	83	30-Jun	32	880
KS7436	29-Apr	97	27-Jun	33	860
Plainsman	6-May	93	29-Jun	35	850
VSX-1	1-May	87	26-Jun	31	840
Banjo	30-Apr	77	27-Jun	32	810
Explorer	4-May	82	27-Jun	29	790
KS8227 40g	30-Apr	95	27-Jun	35	790
KS8367 40g	24-Apr	93	26-Jun	33	790
KSM3-1-124	30-Apr	85	27-Jun	31	770
Kventett	4-May	77	28-Jun	33	770
Pastell	3-May	80	28-Jun	34	760
Acropolis	4-May	90	28-Jun	29	740
Jetton	1-May	90	27-Jun	29	740
KS7730	4-May	92	26-Jun	31	740
Ericka	29-Apr	87	26-Jun	31	730
ARC91022-59L-4	29-Apr	88	26-Jun	35	710
Arctic	4-May	90	28-Jun	34	710
ARC91016-41L-2	29-Apr	92	27-Jun	35	700
KS7740 40g	4-May	88	28-Jun	35	700
ARC91016-41-E5	30-Apr	95	26-Jun	33	690
Wichita	30-Apr	95	27-Jun	30	690
Casino	2-May	92	28-Jun	34	680
KS8200 40g	29-Apr	95	26-Jun	30	670
ARC91023-63L-5	30-Apr	88	27-Jun	35	650
KS-SU-W05-S	24-Apr	92	26-Jun	30	640
ARC91017-44E-5	29-Apr	98	25-Jun	34	620
KS1701	8-May	95	28-Jun	33	620
Ceres	7-May	75	28-Jun	32	580
Winfield	3-May	88	25-Jun	28	580
KS3579	23-Apr	97	26-Jun	30	510
Mean	1-May	90	27-Jun	32	740
LSD 0.05		8.5			267

Planted: September 13, 2001; Harvested: June 28 and 29, 2002.