

**Project Title:** 2023 Winter Canola Variety Trial

**Objective:** To evaluate the agronomic performance of winter canola in northwestern Montana.

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**Summary:**

Twenty varieties were planted on 18 August 2022 and harvested on 18 August 2023. The study was rainfed, receiving 11.9 inches of rain during that period. Cultural practices can be found in table 1.

Average yield was 11.4 Bu/A with KSR4852s having the best performance (19.7 Bu/A) and KSR4981 the poorest performance (2.7 Bu/A). Average winter survival was 3.4% with KSR4767 having the highest (4.0%) and KSR4981 having the lowest (1.3%). Average bloom date was day 144 with KRS4927S having the earliest (day 142) and KSR4974S along with KSR4975S having the latest (day 146). Average date of physiological maturity was day 209 with KSR4967 having the earliest maturity date (day 206) and KSR4975S the latest (day 216). Average protein was 25.6%, with KSR4976S having the highest (27.1%) and KSR4839S having the lowest (24.3%). Average oil was 40.3% with KSR4839S having the highest (43%) and KSR4976S the lowest (39.2%).

**Table 1.** Management information

Seeding date:	8/18/2022 (230)	Field Location:	Y10
Seeding rate:	N/A	Harvest date:	8/18/2023 (230)
Previous crop:	Barley	Soil type:	Creston Silt loam
Herbicide:	Glyphosate	Tillage:	Conventional
Insecticide:	Lambda	Residual Soil Nutrient (N, P, K lb/A):	95.5, 12, 133
Fungicide:	N/A	Fertilizer Nutrient Applied (N, P, K lb/A):	60, 25, 60

**Table 2.** Agronomic Performance

ID	WINSUR (%)	FLWR (DAYS)	PM (DAYS)	H (in)	YLD (Bu/a)	OIL (%)	PRO (%)
KSR4852S	2.7	143	208	46.3	<b>19.7</b>	41.6	24.5
KSR4925	9.0	144	208	41.6	18.0	40.7	24.8
KSR4839S	3.3	144	208	41.6	14.0	<b>43.0</b>	24.3
KSR4928	5.0	144	208	42.9	13.7	40.2	25.3
KSR4837	5.3	143	212	43.1	13.3	39.8	25.9
KSR4927S	2.0	<b>142</b>	214	41.7	13.1	40.0	26.2
KSR4966S	4.7	142	213	46.1	13.0	40.3	25.7
KSR4980	3.3	143	208	44.3	12.8	39.3	25.7
KSR4976S	3.0	145	207	44.4	12.7	39.2	<b>27.1</b>
CP320WRR	3.7	143	208	34.7	12.4	40.3	26.0
KSR4977	3.3	144	208	42.9	12.1	40.2	24.7
KSR4974S	3.3	146	210	41.0	12.1	40.0	26.6
KSR4926S	2.3	143	212	40.2	11.3	41.1	24.5
KSR4854S	2.0	144	210	40.0	11.2	39.8	26.4
KSR4975S	1.7	146	216	47.1	9.5	40.2	26.1
KSR4848	2.3	144	212	45.2	8.6	40.0	25.6
KSR4767	<b>4.0</b>	144	210	42.3	6.3	40.4	25.5
CP225WRR	2.0	143	209	45.6	6.0	40.5	24.9
KSR4967	2.7	143	<b>206</b>	40.8	4.8	40.6	24.7
KSR4981	1.3	143	210	<b>47.8</b>	2.7	39.5	27.1
<b>Mean</b>	3.4	143.6	209.9	43.0	11.4	40.3	25.6
<b>CV</b>	86.0	1.1	1.7	9.7	48.8	1.8	4.1
<b>LSD</b>	ns	ns	ns	ns	7.6	1.5	ns
<b>P-value</b>	0.4145	0.2471	0.1693	0.1026	0.0904	0.0143	0.2382

**Bold**=top performer or earliest with in the column. WINSUR = winter survival, Flwr= bloom date, PM = physiological maturity, H= plant height, YLD = yield, PRO = protein.