Winter Triticale

Winter triticale (× *Triticosecale*) is a man-made hybrid of wheat and rye, often grown for forage. It can also be grown for grain and can exceed winter wheat's yield potential in Minnesota. Winter triticale is less winter-hardy than winter rye but similar to winter wheat. Winter triticale performs best in sandy loam, well-drained soils rather than in fine-textured soils with poor internal drainage.

Results of the University of Minnesota's variety performance evaluations are summarized in Tables 1 and 2. Winter triticale performance trials were grown near Lamberton, LeCenter, Becker, Crookston, and Roseau in 2026. Table 1 summarizes agronomic characteristics and grain quality. Very little to no winterkill or lodging was observed this past winter. Consequently, no differences are reported between older and first-year entries in the trials. All agronomic traits have been converted to a 1-9 scale for easier interpretation. Differences in days to heading, plant height, and straw strength are generally smaller in the northern half of the state. In the southern half of Minnesota, differences among varieties for these characteristics are greater because the vegetative period is generally longer, especially with early, mild springs. Therefore, averages of the actual data can be misleading. Winter triticale test weight is generally lower than that of winter wheat or winter rye. Choose varieties with lodging scores greater than 6 cautiously, as lodging can reduce harvestability, yield, and quality. This is especially important in highly fertile soils.

For comparison, Table 2 presents the 3-year average relative grain yield of the tested varieties. Winter triticale test weight is generally lower than that of winter wheat or winter rye. The official grade requirement for US No. 1 triticale is 48 lbs/bu, compared with 56 lbs/bu for winter rye and 60 lbs/bu for winter wheat. To convert grain yield, we used a test weight of 48 lbs/bu. The average yield across the five testing locations was 111 bu/acre in 2026. This compares with an average of 116 bu/acre in 2023 and a three-year average of 109 bu/acre.

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Table 1 - Origin and agronomic characteristics of winter rye varieties in Minnesota in multiple-year comparisons (2024-2026).

Cultivar	Agent or Breeder[1]	Year of Release	Legal Status[1]	Seed Color	Primary Use	Winter Hardiness	Days to Heading[2]	Plant Height[2]	Straw Strength	Test Weight[2]	Grain Protein[2]
						(1-9)	(1-9)	(1-9)	(1-9)	(1-9)	(1-9)
NT Pronto[3]	Husker Genetics	2025	PVP(pending)?	Amber	Dual Purpose	-	1	6	-	1	1
NT21436[3]	Husker Genetics	-	-	Amber	Dual Purpose	-	5	9	-	2	2
SU Favonius	NordSaat Saatzucht	2022	-	Amber	Grain	2	9	1	8	4	9
SU Hubertus	NordSaat Saatzucht	2024	-	Amber	Grain	-	2	5	-	6	7
SU Klaus	NordSaat Saatzucht	2022	-	Amber	Grain	2	8	1	2	9	9
Tulus	NordSaat Saatzucht	2008	-	Amber	Grain	3	5	4	1	7	7
LSD(0.1)						**1**	**1**	**1**	**1**	**2**	**1**

[1] Status under the Plant Variety Protection Act

[2] 1=best and 9=worst

[3] Agronomic ratings for first-year entries are a statistical prediction based on one year's data

Table 2 - Relative grain yield of winter rye varieties in five Minnesota locations in single -year (2026) and multiple-year comparisons (2024-2026).

Cultivar	Lamberton		LeCenter		Becker (Irrigated)		Crookston		Roseau		State	
	2026	3 yr	2026	2 yr[1]	2026	2 yr[1]	2026	2 yr[1]	2026	3 yr	2026	3 yr
	---- % ----	---- % ----	---- % ----	---- % ----	---- % ----	---- % ----	---- % ----	---- % ----	---- % ----	---- % ----	---- % ----	---- % ----
NT Pronto[2]	95	95	111	108	80	82	87	91	97	97	91	93
NT21436[2]	96	94	122	117	79	81	99	100	101	101	94	95
SU Favonius	100	100	92	101	133	122	90	84	96	102	107	106
SU Hubertus[2]	102	105	85	85	104	103	121	116	94	92	103	99
SU Klaus	105	107	97	94	115	113	88	92	105	104	102	105
Tulus	103	100	92	93	89	99	116	117	107	104	103	103
Mean (bu/acre)	**135**	**111**	**98**	**111**	**73**	**88**	**77**	**102**	**162**	**160**	**107**	**109**
LSD(0.1)	**NS**	**NS**	**16**	**11**	**12**	**8**	**14**	**13**	**NS**	**7**	**7**	**7**

[1] Data from 2024 and 2026

[2] Multi-year means are a statistical prediction based on single-year data