Western Crop Innovations

T326

Spring triticale

- Dual-purpose spring triticale with reduced awns, short stature & improved standability
- Produces high dry matter yield, 116% and 118% of Pronghorn & Taza respectively plus grain yields 106% of Brevis and Pronghorn
- Larger seed size than all check cultivars

Description

T326 is a reduced-awn, dual-purpose spring triticale line well suited for both feed and forage production. It out-yielded the check cultivars Pronghorn and Brevis by 106%. T326 offers an excellent agronomic package, characterized by outstanding standability, higher test weight than Pronghorn, and a larger seed size than all check cultivars (Table 1).

T326 is resistant to leaf, stem, and yellow rusts, as well as common bunt, and shows high resistance to ergot (Tables 2 and 3). Fusarium head blight (FHB) evaluations conducted at Morden and Carman indicate moderately resistant for visual rating index and intermediate deoxynivalenol (DON) accumulation (Table 4).

For forage production, T326 delivers higher dry matter yields than Pronghorn and Taza, along with improved digestibility and increased total digestible nutrients, starch content, and relative feed value (Table 5).

Evaluated in yield trials (Y1–Y3) across multiple locations in Western Canada from 2020 to 2022, both grain yield and forage quality for T326 were assessed. Based on its strong and consistent performance, T326 was advanced to the Western Spring Triticale Cooperative Test in 2023. Breeder seed is expected to be available in fall 2026.

Strengths of T326

- High grain yield: Produces 106% of Pronghorn and Brevis, comparable to T318.
- Good standability: Shorter than Pronghorn and Brevis, resulting in improved lodging resistance.
- Enhanced forage quality: Low ADF and NDF and high relative feed value
- Disease resistance: Highly resistant to ergot, bunt, and rusts, with moderate resistance to FHB.
- Large kernel size: Larger than all check varieties.
- High dry matter yield: Produces 116% and 118% of Pronghorn and Taza, respectively.

Neutral Traits

- Maturity: Similar to Pronghorn and T318; one day later than Brevis.
- Test weight: Within the range of triticale check varieties.

Breeder Seed will be available for T326 in 2027.

Table 1. Grain yield and agronomic traits performance of T326 compared to check cultivars based on the Western Triticale Coop Tests, 2023-2025.

	Yield (kg/ha^{-1})						Agronomic Data					
Entry	2023	2024	2025	Mean	Brevis (%)	T318 (%)	Heading (days)	Maturity (days)	Height (cm)	TestWt (kg/hl^{-1})	KernWt (g/1000)	Lodg (1-9)
PRONGHORN	6689	5444	6533	6222	99	94	52	99	102	71.0	44.6	3.6
BREVIS	6487	5534	6749	6257	100	94	51	98	89	75.1	43.1	1.5
T318	6829	6093	7007	6643	106	100	51	99	85	73.2	45.5	2.2
AC ANDREW	6486	5868	6974	6443	103	97	54	97	82	77.8	37.6	2.1
T326	**6836**	**5841**	**7150**	**6609**	**106**	**99**	**52**	**99**	**86**	**73.4**	**45.8**	**1.2**
Mean	6662	5776	6980	6473			52	98	89	73.5	43.8	2.0
CV%	8.4	8.6	7.1	5.7			0.9	0.8	2.8	2.2	6.0	27.6
$LSD_{0.05}$	278	224	269	105			0.2	0.3	0.8	0.5	0.9	0.3
Station Years	10	12	9	31			21	26	28	25	25	7

KernWt = thousand kernel weight, Lodg. = lodging, 9 being up to 100% lodged.

Table 2. Bunt, leaf, stem, and stripe rust reactions of T326 compared to check cultivars based on the Western Triticale Coop Tests 2023-2025.

	Bunt			Leaf Rust			Stem Rust			Stripe Rust		
Entry	2023	2024	2025	2023	2024	2025	2023	2024	2025	2023	2024	2025
PRONGHORN	R	R	R	R	R	R	S	R	MR	R	R	R
BREVIS	R	R	R	R	R	R	R	R	R	R	R	R
T318	R	R	R	R	R	R	R	R	R	R	R	R
AC ANDREW	R	I	MR	MS	MS	MR	MR	MR	R	MR	MR	I
T326	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**

S – susceptible, MS – moderately susceptible, I – intermediate, MR – moderately resistant, R – resistant

Table 3. Ergot reactions of T326 compared to check cultivars based on the Western Triticale Coop Tests 2023-2025.

	Ergot (%)			
Entry	**2023**	**2024**	**2025**	**Mean**
PRONGHORN	0.30	0.09	0.16	0.18
BREVIS	0.14	0.03	0.15	0.11
T318	0.26	0.07	0.19	0.17
AC ANDREW	0.02	0.00	0.00	0.01
T326	**0.10**	**0.06**	**0.07**	**0.07**

Table 4. FHB reactions of T326 compared to check cultivars based on the Western Triticale Coop Tests 2023-2025.

	Visual Rating Index						DON Rating				
	2023		2024		2025		2023		2024		2025
Entry	**Carman**	**Morden**	**Carman**	**Morden**	**Carman**	**Morden**	**Carman**	**Morden**	**Carman**	**Morden**	**Morden**
PRONGHORN	R	MR	R/MR	I/MR	R	MR	I	I	MS/I	I	I
BREVIS	MR	I	I	MS/I	MR	MR	MS	I	S/I	I	I
T318	MR	I	MS	MS	I	MR	MS	I	S	S	I
AC ANDREW	I	MS	MR	S	I	S	S	S	MS/I	S	I
T326	**R**	**I**	**I**	**MS**	**MR**	**MR**	**I**	**I**	**MS**	**MS**	**MS**

S – susceptible, MS – moderately susceptible, I – intermediate, MR – moderately resistant, R – resistant. DON = deoxynivalenol.

Table 5. Dry matter yield and forage quality data of T326 compared to check cultivars based on Spring Triticale Forage Coop Tests 2023-2025.

	DMY (kg/ha^{-1})						Forage Quality Data						
					Pronghorn	Taza	ADF	NDF	TDN	PROT	STRC	LIGN	RFV
Entry	2023	2024	2025	Mean	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
PRONGHORN	8690	8690	8336	8572	100	102	26.2	46.1	68.1	12.6	11.3	3.7	147
BUNKER	12939	9333	8330	10201	119	121	28.5	47.7	66.8	11.9	10.1	4.0	138
TAZA	na	8104	8708	8406	98	100	26.2	45.8	67.8	12.6	14.6	3.7	142
T318	13610	8977	7745	10111	118	120	26.0	45.4	68.8	11.8	13.4	3.5	153
AC ANDREW	12988	7848	7583	9473	111	113	27.4	47.2	68.4	11.8	13.6	3.2	136
T326	**11992**	**9960**	**7850**	**9934**	**116**	**118**	**26.2**	**45.0**	**68.5**	**12.0**	**13.0**	**3.7**	**158**
Mean	12529	8862	7984	9620			26.6	46.1	68.3	12.0	12.8	3.6	146
CV%	9.8	12.0	7.2										
$LSD_{0.05}$	2430	1724	673										
Station Years	2	1	2	5			5	5	5	5	5	5	5

DMY = Dry Matter Yield, ADF= Acid Detergent Fiber, NDF= Neutral Detergent Fiber, TDN= Total Digestible Nutrients, PROT= Crude Protein content, STRC= Starch content, LIGN = Lignin Content, RFV = Relative Feed Value