

Data and Information Package for Knox Tall Fescue

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Entered in 2010 CTBT Trial. Data are available at: <http://ctbt-us.info/>

Table 1. Brief description of Knox tall fescue.

Description	Selected for dark, fine leaves; high seed yield
Endophyte Content	88%

Table 2. 2022 mean turf quality and brown patch ratings for entries in a tall fescue turf trial seeded fall of 2021 near Rolesville, NC and maintained at a 2.0" mowing height.

Entry	Turf Quality through June	Brown Patch			
		07/11	07/20	08/01	Mean
Tar Heel II	3.8 ¹	8.5	8.3	7.8	8.2
Tall Boy	5.9	8.5	8.8	6.3	7.8
Moondance GLX	5.0	8.8	8.3	6.5	7.8
Lifeguard	5.6	8.5	8.3	6.8	7.8
Gro-Pro	4.9	7.8	8.0	7.3	7.7
Extravaganza	5.0	8.0 ²	7.8	7.0	7.6
Saltillo	5.0	7.5	7.3	8.0	7.6
Easy Green	4.7	8.8	7.5	6.5	7.6
Cumberland	4.8	7.8	8.3	6.5	7.5
GLX Revive	5.3	7.5	7.3	7.0	7.3
GLX Aced	5.1	8.3	7.8	6.0	7.3
Meridian	5.5	7.8	7.3	6.5	7.2
Firecracker SLS	5.7	8.0	7.8	5.8	7.2
Hellcat GLR	4.4	7.8	7.5	6.0	7.1
Paramount	5.6	8.5	7.3	5.5	7.1
Monument	5.1	8.0	7.3	5.8	7.0
Traverse 2 SRP	5.5	8.5	7.3	5.3	7.0
Knox	5.5	8.3	7.5	5.0	6.9
Oriole	5.8	8.0	7.3	5.5	6.9
Titan Ultra	3.0	7.8	7.8	5.0	6.8
Rendition	5.6	7.8	7.3	4.5	6.5
Pro Gold	4.6	7.3	6.5	4.8	6.2
GLX Star	5.8	6.8	6.5	4.8	6.0
Safeguard	5.3	7.8	6.5	3.8	6.0
Gazelle II	4.6	8.0	6.3	3.8	6.0
Wolfpack III	5.4	7.0	6.5	4.0	5.8
RainDance	4.6	7.5	6.0	4.0	5.8
Picabú	3.1	6.5	5.8	4.3	5.5
Fury	4.6	6.0	5.5	4.5	5.3
Summer	4.8	5.5	5.5	3.3	4.8
Sun Fire	5.5	5.5	4.5	3.5	4.5
Forlane	3.2	5.8	4.3	1.8	3.9
Macumba	3.2	5.5	3.8	1.8	3.7
Kentucky 31	2.1	3.8	2.8	2.0	2.8
Bachata	3.1	4.3	2.3	1.3	2.6
LSD (0.05)	0.8	1.9	2.1	2.5	1.8
CV (%)	12.4	18.1	22.7	35.1	20.5

¹9 = ideal; ²9 = no disease

4 lb N/1000 ft² applied in 2022; irrigated to prevent drought stress

Table 3. 2017 mean turf performance ratings for entries in a tall fescue turf trial seeded fall of 2016 near Rolesville, NC.

Entry	Turf Quality/ Gray Leaf Spot Oct 2016	Turf Quality through June	Brown Patch 11 July	Gray Leaf Spot/ Brown Patch July-Aug	Turf Quality through Oct
Embrace	6.0 ¹	6.5 ¹	7.0 ²	3.1 ²	6.0 ¹
Meridian	6.2	6.2	8.0	4.8	5.8
Gazelle II	5.7	6.0	6.3	4.4	5.6
Lifeguard	5.7	5.9	8.0	4.2	5.5
Saltillo	5.8	5.7	7.3	5.7	5.4
Cumberland	5.8	5.4	8.0	6.0	5.2
Rhambler SRP	5.0	5.6	6.7	2.2	5.1
Coronado TDH	5.2	5.1	8.0	6.1	4.9
Inspiration	5.3	5.1	7.0	5.3	4.9
RainDance	4.8	4.9	8.0	5.5	4.8
Knox	5.0	5.0	8.7	4.7	4.7
Mustang 4	2.8	4.6	4.7	1.7	4.3
3 rd Millennium	3.8	4.4	6.7	3.9	4.2
Bullseye	3.0	4.4	5.0	1.9	4.1
Tar Heel II	4.3	4.0	7.3	6.4	3.9
Kentucky 31	2.7	2.1	6.7	4.0	2.1
LSD (0.05)	1.5	0.9	2.3	2.4	0.9
CV (%)	18.7	11.1	20.5	34.2	10.8

¹9 = ideal; ²9 = no disease

Table 4. 2015 mean turf performance ratings for entries in a tall fescue turf trial seeded fall of 2014 near Rolesville, NC.

Entry	Brown Patch 21 July	Brown Patch + Gray Leaf Spot 27 July	Turf Quality (through Aug)
Meridian	7.7 ¹	7.3 ¹	6.2 ²
Cumberland	4.7	3.7	5.9
Bullseye	2.7	2.3	5.8
Dynamic II	3.7	3.0	5.8
Endeavor II	4.3	3.7	5.8
Inspiration	4.7	4.3	5.8
Rhambler SRP	4.7	3.0	5.8
Wolfpack II	3.7	2.7	5.7
Mustang 4	4.3	3.3	5.6
RainDance	5.0	4.7	5.6
Rebel XLR	3.7	3.3	5.6
Grande 3	3.0	2.0	5.5
Swagger	5.3	4.7	5.4
Knox	6.0	5.3	5.3
Penn RK4	3.7	3.0	5.3
Saltillo	4.3	5.0	5.3
Virtue II	6.3	5.3	5.3
Gazelle II	5.3	4.7	5.1
Raptor II	4.0	3.0	5.1
Titanium LS	3.3	2.3	5.1
3 rd Millennium	4.3	4.3	5.0
Coronado TDH	6.0	5.0	5.0
Grande II	4.0	3.7	5.0
Traverse SRP	3.7	3.0	4.9
Tarnation GT	3.7	3.0	4.6
Tar Heel II	4.7	4.3	4.4
Tulsa Time	5.3	4.3	4.4
Firecracker LS	3.3	2.0	3.2
LSD (0.05)	1.6	1.6	0.9
CV (%)	22.5	25.4	10.3

¹9 = no disease; ²9 = ideal

Table 5. 2014-15 mean brown patch and turf quality ratings for entries in a tall fescue turf trial seeded fall of 2013 near Rolesville, NC.

Entry	Brown Patch	Turf Quality
Meridian	5.5 ¹	6.3 ²
Saltillo	7.4	5.9
RainDance	5.3	5.7
Embrace	5.5	5.4
Swagger	5.5	5.1
Cumberland	5.1	5.0
Tar Heel II	6.2	5.0
Tulsa Time	5.2	4.9
Inspiration	5.8	4.7
Virtue II	4.9	4.7
Gazelle II	4.7	4.6
Rebel XL	5.4	4.6
Knox	5.3	4.5
Coronado TDH	5.7	4.5
Dynamic II	3.9	4.5
Speedway	4.7	4.4
Grande II	4.6	4.3
Raptor II	4.8	4.2
Coyote II	4.3	4.1
Firecracker LS	4.6	3.7
Fat Cat	4.3	3.4
Crossfire 3	5.3	3.1
Kentucky 31	4.8	2.6
LSD (0.05)	1.2	0.8
CV (%)	13.4	10.6

¹9 = no disease; ²9 = ideal

Table 6. 2013 mean brown patch and turf quality ratings for entries in a tall fescue turf trial seeded fall of 2012 near Rolesville, NC and maintained at a 2.0" mowing height.

Entry	Brown Patch	Summer Turf Quality	Turf Quality
Cumberland	6.8 ¹	6.0 ²	6.1 ²
Saltillo	5.9	5.5	5.2
Raptor II	6.2	5.1	4.8
Rebel XL	5.7	5.5	4.8
Bullseye	6.0	5.3	4.7
Coronado TDH	6.0	4.8	4.7
Faith	7.2	5.8	4.7
Matador GT	6.3	4.9	4.7
Tar Heel II	6.7	5.0	4.7
Endeavor II	5.7	5.0	4.5
Penn RK4	5.4	5.1	4.5
Speedway	5.1	4.9	4.5
Virtue II	6.9	4.8	4.5
Wolfpack II	6.2	5.1	4.4
Fat Cat	4.4	4.8	4.3
Inspiration	6.4	5.0	4.3
Knox	5.7	5.0	4.2
RainDance	5.0	4.5	4.2
Shenandoah Sport	5.2	4.8	4.2
Titanium LS	5.4	4.5	4.2
Tulsa Time	5.8	4.8	4.2
Grande 3	5.9	5.1	4.1
Grande II	3.9	4.3	4.0
Tarnation GT	5.0	4.6	3.9
Gazelle II	4.8	4.1	3.8
Innovator	5.4	4.4	3.8
Wolfpack	6.3	4.0	3.8
Finelawn Xpress	5.0	4.2	3.7
Falcon V	6.1	4.7	3.6
Mustang 4	5.3	4.6	3.6
Shenandoah Elite	6.6	4.2	3.6
Firecracker LS	5.0	4.3	3.5
Silverstar	5.6	3.8	3.5
Crossfire 3	4.0	3.5	3.3
Kentucky 31	3.0	2.0	2.0
LSD (0.05)	1.7	0.9	0.9
CV (%)	18.9	11.0	12.7

¹9 = no disease; ²9 = ideal

Table 7. 2012 mean turf performance ratings for entries in a tall fescue turf trial seeded fall of 2010 near Rolesville, NC and subjected to wear treatments.

Entry	Turf Quality 04/20	% Green Cover* Before Wear 04/21	Wear Damage 50 passes 05/25	% Green Cover* 92 passes 06/18
Endeavor II	4.7 ¹	90.3	6.0 ²	86.2
Southern Gold	5.0	91.7	4.7	84.2
Inspiration	4.7	91.5	5.3	84.0
Virtue II	4.3	89.4	4.3	82.6
Gazelle II	5.7	91.0	5.3	82.4
Coronado TDH	4.3	92.4	4.3	82.3
Faith	6.7	91.9	5.7	82.1
RainDance	5.7	89.4	4.7	81.4
Wolfpack II	5.7	89.6	5.3	81.3
Tarnation GT	3.7	87.1	5.0	80.7
Knox	6.7	88.7	5.7	79.4
Coyote II	4.3	93.7	3.7	79.0
Tar Heel II	4.7	90.9	5.7	78.9
Cumberland	6.3	91.6	6.7	78.8
Dynamic II	5.3	92.1	4.7	77.7
Kentucky 31	2.0	91.3	4.3	76.6
Grande II	4.0	92.9	3.7	73.9
LSD (0.05)	1.6	4.7	1.8	8.0
CV (%)	19.2	3.2	21.8	6.1

¹9 = ideal; *evaluated using digital image analysis

²9 = no damage; wear applied with Rutgers Wear Simulator; 10 passes applied on each date: 21 Apr, 1 May, 11 May, 18 May, 24 May, 4 June, 8 June, 11 June; 12 passes applied on 15 June

Table 8. 2009 mean percent green cover ratings for entries in a tall fescue turf trial seeded fall of 2008 in a rain-out shelter near Rolesville, NC, maintained at a 2.0" mowing height and evaluated using digital image analysis after irrigation was withheld beginning 29 July.

Entry	0 wk	4 wk	5 wk	6 wk	7 wk
2 nd Millennium	93.4	74.9	53.1	41.3	30.1
Knox	92.8	66.4	44.2	38.4	26.8
Coronado TDH	91.7	63.3	38.7	29.9	20.2
Dynamic II	93.8	57.8	37.1	27.7	18.7
Tar Heel II	89.8	52.2	28.7	22.4	18.1
Kentucky 31	90.6	49.6	29.4	23.3	17.0
Endeavor II	93.1	57.1	29.9	21.4	16.8
Virtue II	91.6	36.4	16.5	16.4	11.2
LSD (0.05)	2.2	20.9	19.1	15.8	14.1
CV (%)	1.4	21.9	33.2	34.4	44.2

4 lb N/1000 ft² applied during 2009; fungicides applied preventatively

Table 9. 2022 mean turf quality ratings for entries in a tall fescue turf trial seeded fall of 2021 (Blk 10) near Hubbard, OR.

Entry	Mean
Paramount	7.4 ¹
Lifeguard	7.1
Safeguard	7.1
Tall Boy	7.1
Gazelle II	6.9
Pro Gold	6.9
Traverse 2 SRP	6.9
Oriole	6.8
Firecracker SLS	6.7
GLX Aced	6.7
GLX Revive	6.7
Sun Fire	6.7
Extravaganza	6.6
GLX Star	6.6
Relentless	6.6
Wolfpack III	6.6
Knox	6.5
Gro-Pro	6.5
Hellcat GLR	6.5
Monument	6.5
Rendition	6.5
Saltillo	6.5
Meridian	6.4
Moondance GLX	6.4
RainDance	6.4
Cumberland	6.3
Fury	6.0
Easy Green	5.9
Summer	5.8
Tar Heel II	5.7
Coronado TDH	5.4
Macumba	5.4
RGT Nuance	5.4
Bachata	5.2
Forlane	5.2
Titan Ultra	4.3
Kentucky 31	3.3
LSD (0.05)	0.7
CV (%)	6.9

¹9 = ideal

5 lb N/1000 ft² applied in 2022; irrigated to prevent drought stress

Table 10. Mean winter color and turf quality ratings for entries in a tall fescue turf trial seeded fall of 2018 (Blk 6) near Hubbard, OR and maintained at a 1" mowing height.

Entry	Winter Color 25 Jan 21	Turf Quality			
		2019	2020	2021	Mean
GLX Aced	6.7 ¹	6.2 ²	6.8	7.2	6.7
GLX Revive	6.7	5.6	6.8	7.0	6.5
Pro Gold	6.3	6.3	6.1	6.7	6.4
Extravaganza	6.0	6.3	6.4	6.6	6.4
Traverse 2	7.0	5.6	6.8	6.9	6.4
4 th Millennium	6.7	6.1	6.5	6.3	6.3
Lifeguard	6.7	5.9	6.3	6.8	6.3
Meridian	6.7	6.7	5.9	6.2	6.3
Monument	7.0	6.1	6.1	6.6	6.3
Safeguard	5.3	5.9	6.3	6.7	6.3
Moondance GLX	5.3	6.5	6.0	6.2	6.2
Oriole	5.7	5.9	6.2	6.3	6.2
Embrace	5.7	5.9	6.2	6.1	6.1
Gro-Pro	6.0	6.4	5.8	6.0	6.1
Sun Fire	5.3	6.5	5.8	6.0	6.1
Feshova	5.0	6.4	5.9	5.8	6.0
Hellcat GLR	6.0	5.8	6.3	6.0	6.0
Rebel V	6.7	5.9	5.8	6.2	6.0
Rebel Xtreme	5.0	6.1	6.4	5.6	6.0
Knox	5.0	5.8	5.4	6.2	5.9
Dynamic II	6.0	5.8	5.8	6.1	5.9
Easy Green	6.0	5.7	5.8	5.9	5.8
Cumberland	5.3	5.0	5.7	6.0	5.6
Endeavor II	6.3	5.4	5.8	5.8	5.6
RainDance	6.0	5.3	5.6	5.7	5.5
Saltillo	5.7	5.3	5.3	6.1	5.5
Tar Heel II	5.3	5.2	5.4	5.7	5.4
Titan Rx	5.0	5.1	5.1	5.3	5.2
Kentucky 31	4.0	2.9	3.8	3.7	3.5
LSD (0.05)	1.3	0.8	0.7	0.9	0.6
CV (%)	14.2	8.1	6.7	9.4	6.2

¹9 = dark green; ²9 = ideal

Table 11. 2019 mean drought stress ratings for entries in a tall fescue turf trial seeded fall of 2018 (Blk 6) near Hubbard, OR, maintained at a 1" mowing height and evaluated using digital image analysis.

Entry	% Green Cover							
	18 July	30 July	02 Aug	08 Aug	12 Aug	16 Aug	19 Aug	27 Aug
Saltillo	96.4	78.9	79.1	65.6	67.8	48.6	51.6	79.2
RainDance	96.7	75.1	76.4	59.6	62.4	43.3	45.1	76.6
Sun Fire	97.3	74.1	74.0	57.4	61.3	42.5	44.6	77.5
Cumberland	96.7	74.4	75.4	57.1	57.9	42.6	41.8	78.6
Knox	96.0	69.1	71.8	55.0	54.7	35.4	39.1	70.1
Moondance GLX	97.6	71.7	71.0	53.7	56.1	37.5	36.9	76.5
4 th Millennium	97.3	71.3	67.0	52.0	50.0	32.9	36.6	68.0
Meridian	94.6	54.0	58.1	44.3	35.7	21.9	36.1	68.5
GLX Aced	97.6	68.8	68.4	49.3	50.6	32.0	30.1	74.6
Lifeguard	96.5	52.1	53.2	42.1	43.8	28.6	29.8	65.2
Rebel V	95.3	60.3	60.9	43.7	43.3	24.3	28.5	62.5
Traverse 2	94.9	55.1	56.1	40.1	34.1	20.4	27.7	64.9
Embrace	95.6	53.8	53.6	38.0	40.7	25.0	25.3	56.1
Rebel Xtreme	96.1	55.5	58.3	40.2	40.9	24.4	23.9	59.2
Dynamic II	95.4	54.2	56.1	44.3	39.9	23.7	23.9	64.7
Pro Gold	96.2	60.0	61.5	38.0	43.2	21.8	23.8	70.7
Kentucky 31	92.6	38.6	42.6	29.9	29.4	18.8	23.4	57.8
Tar Heel II	95.1	48.1	48.5	34.7	38.1	18.3	22.4	55.7
Titan Rx	95.7	53.7	53.3	35.7	39.4	22.6	21.3	67.5
Endeavor II	91.3	31.5	36.6	21.2	22.5	11.1	14.0	46.3
LSD (0.05)	3.0	17.4	17.7	19.8	17.6	14.7	18.7	14.2
CV (%)	1.9	18.2	18.0	27.7	24.1	32.1	39.1	13.2

2 lb N/1000 ft² applied spring 2019; 0.3" precipitation in July-Aug; 2" irrigation applied 22 Aug

Table 12. Mean turf quality ratings for entries in a tall fescue turf trial seeded fall of 2016 (Blk 10) near Hubbard, OR and maintained at a 1" mowing height.

Entry	2017	2018	Mean
Lifeguard	6.9 ¹	5.7	6.3
Knox	6.5	5.6	6.1
Moondance GLX	6.2	5.9	6.1
Pro Gold	6.5	5.5	6.0
Amarello	6.1	5.7	5.9
Bearcat	6.3	5.3	5.8
Inspiration	6.2	5.4	5.8
Saltillo	6.5	5.1	5.8
RainDance	6.2	5.1	5.7
Swagger	6.2	5.1	5.7
Cumberland	6.3	5.0	5.6
Tar Heel II	5.8	5.5	5.6
Dynamic II	5.6	5.4	5.5
Picabú	5.6	5.3	5.5
Endeavor II	5.7	5.1	5.4
Gazelle II	6.1	4.7	5.4
2 nd Millennium	5.2	5.3	5.3
Embrace	5.6	4.9	5.3
Tarnation GT	6.1	4.5	5.3
Duration	6.0	4.3	5.1
Fury	4.8	5.0	4.9
Endure	4.0	4.3	4.2
Kentucky 31	3.2	2.5	2.9
LSD (0.05)	0.8	1.0	0.7
CV (%)	8.0	11.0	7.7

¹9 = ideal

Table 13. 2016 mean drought stress ratings for entries in a tall fescue turf trial seeded fall of 2013 (Blk 6) near Hubbard, OR and evaluated using digital image analysis.

Entry	% Green Cover				
	29 June	06 July	13 July	25 July	29 July
Inspiration	88.7	74.1	71.9	42.3	23.1
Raptor II	86.7	72.0	68.4	41.9	19.2
Coyote II	83.2	65.3	65.3	34.8	19.1
Crossfire 3	86.3	73.0	69.1	37.7	18.4
Gazelle II	87.0	70.5	64.7	34.1	18.3
Fat Cat	87.3	67.5	68.3	36.8	17.7
Kentucky 31	77.8	57.7	54.8	33.7	17.4
Cumberland	88.0	71.6	68.9	36.8	17.1
Virtue II	86.7	71.0	70.6	37.2	16.9
Knox	88.3	69.8	67.3	36.9	16.6
Swagger	87.4	66.8	67.1	34.6	15.9
Tulsa Time	84.6	63.7	64.0	34.2	15.1
Tarnation GT	86.0	70.0	66.2	35.1	14.8
Innovator	84.2	65.2	62.8	32.5	14.3
Embrace	88.9	68.1	67.0	31.2	14.2
Faith	85.9	64.9	63.9	30.4	14.2
Speedway	82.1	61.9	64.2	30.3	14.2
Mustang 4	84.7	66.7	66.9	33.2	14.1
Endeavor II	83.3	62.4	59.1	28.8	13.9
RainDance	84.3	64.2	63.0	30.7	13.6
Titanium	85.5	64.1	64.8	29.2	13.3
Meridian	88.5	63.8	61.9	27.7	12.9
2 nd Millennium	81.4	50.7	54.4	26.6	12.8
Coronado TDH	78.9	55.6	51.1	27.3	11.3
Tar Heel II	81.9	57.3	57.7	26.8	10.8
Saltillo	86.2	64.7	62.4	27.4	10.1
Firecracker	85.0	53.5	54.8	22.2	9.6
Dynamic II	84.8	57.3	52.3	19.4	5.6
LSD (0.05)	5.3	15.4	13.2	10.9	7.1
CV (%)	3.8	14.8	13.0	21.6	31.6

Table 14. 2016 mean traffic stress ratings for entries in a tall fescue turf trial seeded fall of 2013 (Blk 6) near Hubbard, OR and evaluated using digital image analysis.

Entry	% Green Cover		
	Before traffic	29 June	15 July
Embrace	88.9	70.5	33.7
Inspiration	88.7	67.3	32.1
Virtue II	86.7	59.3	31.5
Raptor II	86.7	61.4	29.8
Swagger	87.4	64.6	29.6
RainDance	84.3	63.9	27.7
Fat Cat	87.3	62.5	27.5
Kentucky 31	77.8	53.2	27.3
Cumberland	88.0	58.3	26.3
Coyote II	83.2	53.7	26.1
Tarnation GT	86.0	59.2	25.8
Speedway	82.1	55.7	25.1
Knox	88.3	56.3	24.7
Saltillo	86.2	57.7	24.4
Tulsa Time	84.6	51.0	24.4
Meridian	88.5	63.0	23.6
Crossfire 3	86.3	53.4	23.3
Gazelle II	87.0	57.4	23.2
Mustang 4	84.7	55.1	23.2
Innovator	84.2	52.6	22.4
Faith	85.9	59.5	22.0
Dynamic II	84.8	59.4	21.9
Endeavor II	83.3	50.1	20.8
Tar Heel II	81.9	43.5	20.5
Titanium	85.5	45.2	20.5
Firecracker	85.0	57.9	20.1
2 nd Millennium	81.4	44.2	18.5
Coronado TDH	78.9	48.4	18.5
LSD (0.05)	5.3	11.4	7.8
CV (%)	3.8	12.4	19.4

Table 15. 2012 percent green cover ratings for entries in a tall fescue turf trial seeded fall of 2011 (Blk 10) near Hubbard, OR, maintained at a 1.25" mowing height and evaluated using digital image analysis.

Entry	% Green Cover									
	02 Aug 19 days (3.05" ET)	14 Aug 28 days (5.33" ET)	27 Aug 44 days (7.27" ET)	03 Sep 51 days (8.24" ET)	10 Sep 58 days (9.15" ET)	14 Sep 62 days (9.64" ET)	21 Sep 69 days (10.38" ET)	28 Sep 76 days (11.05" ET)	08 Oct 88 days (12.17" ET)	12 Oct 90 days (12.26" ET)
Deputy	98.2	95.4	85.0	78.2	68.9	61.5	48.8	46.1	42.5	31.7
Shenandoah Elite	98.1	95.4	84.8	82.2	74.8	71.4	56.7	58.4	54.9	45.0
Firecracker LS	97.6	94.6	74.0	65.1	61.6	43.8	46.1	38.6	37.3	28.2
Raptor II	97.8	95.1	83.4	74.6	68.1	59.1	54.5	52.2	48.6	41.5
Titanium LS	98.3	96.3	82.1	71.3	66.7	54.7	57.1	51.4	48.8	32.4
Dynamic II	98.0	94.3	74.9	64.4	50.2	37.1	34.7	37.0	34.0	25.6
Falcon V	98.0	92.6	74.9	65.9	59.6	49.2	45.2	40.0	42.8	29.8
Fat Cat	97.7	95.1	75.6	69.2	64.7	60.0	48.5	45.2	37.3	33.1
Mustang 4	97.9	95.0	82.5	72.8	62.5	56.2	46.4	45.4	42.2	33.9
Knox	97.8	94.7	80.9	67.3	57.4	45.7	39.7	41.2	37.0	23.8
Crossfire 3	97.1	92.4	66.1	61.9	53.6	45.0	38.2	41.2	33.8	26.6
Matador	97.5	94.0	83.2	80.1	75.5	67.4	65.9	61.1	57.7	44.7
Wolfpack II	97.7	95.5	82.7	76.3	70.3	65.4	53.9	55.1	49.2	39.5
Gazelle II	98.4	95.9	81.4	74.1	63.6	50.9	46.9	42.1	40.6	30.9
Tarnation GT	97.6	95.7	84.6	77.8	69.3	62.5	51.2	50.8	44.3	35.1
Innovator	97.5	91.8	68.8	58.4	52.2	38.5	34.8	32.3	29.0	22.1
RainDance	98.3	95.8	82.6	80.5	72.4	65.4	51.3	54.3	47.3	38.6
Tulsa Time	97.4	94.3	76.8	70.8	73.6	61.4	63.5	59.6	53.4	36.6
Endeavor II	92.6	88.5	64.7	63.3	48.8	31.0	39.3	33.6	34.3	26.2
Saltillo	98.2	96.5	84.8	82.5	78.2	66.0	61.4	60.8	55.7	43.0
Inspiration	95.8	90.1	64.5	59.1	51.4	39.5	39.3	35.4	31.6	24.1
Silverstar	97.1	93.6	73.8	63.1	56.5	47.6	41.1	41.2	37.2	32.1
Apache III	96.4	93.0	77.8	75.9	72.7	60.6	57.8	50.1	49.9	40.9
Coyote II	97.7	93.5	75.5	68.8	60.3	35.1	49.0	46.6	41.3	34.3
Cumberland	98.4	95.5	86.6	81.6	72.8	59.1	57.9	50.4	47.5	36.3
Speedway	97.7	95.1	75.9	74.4	71.3	55.8	52.7	61.4	55.5	41.0
Shenandoah Sport	95.3	88.0	73.3	58.9	59.7	36.7	44.8	35.8	38.4	26.6
Virtue II	97.4	91.1	71.4	63.4	58.7	54.0	43.7	44.9	40.0	33.8
Fury	96.8	91.5	78.0	72.5	67.0	55.0	53.4	53.1	48.9	39.4
Tar Heel II	96.9	92.5	75.4	68.8	58.6	46.1	47.1	43.1	36.0	26.7
Coronado TDH	97.3	94.1	81.8	83.2	76.6	70.9	62.6	61.7	61.0	52.6
Coronado Gold	96.8	93.3	83.1	78.8	75.7	71.1	65.4	64.0	62.0	55.7
Kentucky 31	97.2	93.9	81.6	72.0	60.8	56.4	50.8	48.7	47.7	34.1
LSD (0.05)	1.6	3.5	10.4	12.1	15.3	18.6	16.1	16.6	15.6	12.7
CV (%)	1.0	2.3	8.0	10.2	14.5	20.7	19.8	21.0	21.5	22.4

3 lb N/1000 ft² applied in 2012; 0.17" total precipitation 4 July – 11 Oct; Irrigation applied: 2" on 1 June and 2" on 14 July

Table 16. 2013 mean drought ratings for entries in a tall fescue turf trial seeded fall of 2010 (Blk 10) near Hubbard, OR and evaluated using digital image analysis.

Entry	% Green Cover										
	27 June	12 July	19 July	26 July	29 July	01 Aug	12 Aug	16 Aug	23 Aug	30 Aug	04 Sep
Tarnation GT	99.3	96.5	96.4	92.5	83.1	79.8	47.9	44.9	38.8	58.6	54.3
Kentucky 31	99.5	97.2	96.9	94.3	85.9	83.6	61.2	59.6	48.8	70.1	51.7
Cumberland	99.7	92.4	85.9	73.7	62.9	60.5	35.0	32.9	27.7	44.6	40.8
Damzelle	99.5	96.7	96.6	91.1	77.2	72.4	36.7	38.7	30.7	40.1	40.7
Debussey	99.5	96.9	96.9	93.2	81.0	75.6	46.3	44.8	37.4	49.0	40.3
Coronado Gold	99.5	95.9	92.4	84.5	62.6	54.8	36.7	30.5	26.8	41.5	38.1
Matador	99.1	94.3	88.5	70.7	56.9	53.6	31.6	28.8	23.2	34.8	33.7
Wolfpack	99.5	97.2	94.7	83.3	59.5	48.0	24.1	20.6	16.8	26.2	24.9
Endeavor	99.4	93.7	87.2	68.4	51.8	45.1	23.4	22.5	15.2	22.1	24.6
Endeavor II	99.6	94.9	83.8	67.3	56.1	47.0	28.8	24.1	16.0	26.6	23.9
Shenandoah Elite	99.5	97.0	94.5	80.9	55.0	49.7	19.6	17.3	13.0	20.5	23.4
Gazelle II	99.5	96.7	88.7	69.8	46.6	43.7	17.0	16.7	11.8	19.7	21.4
Shenandoah Sport	99.5	96.8	94.5	79.5	54.8	45.1	12.6	14.2	11.2	18.5	18.8
Tar Heel	99.3	90.0	77.9	57.8	38.5	28.4	13.5	14.5	10.7	20.5	18.2
Knox	99.4	90.6	76.5	63.5	40.8	36.8	22.5	19.5	13.4	24.8	18.0
Justice	99.5	95.5	88.4	73.5	41.7	36.6	12.3	12.7	9.8	17.0	18.0
Silverstar	99.4	92.0	79.1	60.7	42.9	37.2	20.1	14.6	11.9	18.2	17.5
Dynamic II	99.6	95.8	87.8	63.1	38.7	34.4	11.3	10.2	7.3	15.7	17.0
Apache III	99.5	95.8	88.1	73.6	48.2	37.5	12.4	14.0	10.1	17.1	16.8
Coyote II	99.3	95.0	88.2	69.5	43.4	33.2	12.5	9.9	8.6	15.4	14.8
Matador GT	99.5	95.7	94.0	78.6	58.7	42.2	12.6	9.7	7.9	16.2	13.5
Finelawn Xpress	99.5	94.9	85.0	60.9	37.3	28.7	6.3	6.9	5.6	11.8	12.8
Faith	99.5	96.5	89.2	64.4	35.5	26.6	6.5	8.2	6.1	9.5	11.7
Olympic Gold	99.5	96.4	90.8	71.7	49.9	36.7	12.1	11.1	8.0	15.7	11.0
Silverado II	99.4	95.6	90.6	74.3	47.5	41.1	12.4	9.7	6.7	8.9	10.9
Virtue II	99.6	96.5	91.1	73.6	49.5	39.8	13.4	8.7	6.0	11.7	10.6
Wolfpack II	99.5	94.9	78.4	52.6	29.6	23.4	7.0	5.8	5.6	8.4	10.5
Pedigree	99.5	96.1	90.2	68.3	38.1	28.5	7.2	6.4	5.4	7.6	8.9
Coronado TDH	99.3	94.0	86.1	67.4	36.2	30.7	9.0	6.9	4.0	8.4	8.8
Tomahawk	99.4	92.9	73.6	54.0	23.7	19.5	5.3	5.5	4.1	7.7	8.4
Greenkeeper WAF	99.4	95.8	87.5	60.8	30.8	25.4	6.0	5.8	3.6	7.8	7.9
Falcon V	99.5	96.7	84.8	60.5	32.6	24.7	5.6	3.1	2.5	5.9	7.0
Rebel Advance	99.3	95.6	88.1	68.9	28.4	19.9	8.0	5.7	3.1	6.0	6.1
Tar Heel II	99.4	94.2	75.5	44.5	24.0	8.3	4.0	3.4	2.9	4.9	6.1
Innovator	99.4	96.7	88.8	56.8	37.2	20.7	3.5	4.2	2.5	4.5	6.0
LSD (0.05)	0.2	4.0	11.9	21.8	29.6	27.3	22.2	20.8	17.9	23.4	21.3
CV (%)	0.1	2.6	8.1	17.4	32.6	33.6	51.8	54.9	59.1	48.5	47.3

Table 17. 2012 mean drought stress ratings for entries in a tall fescue turf trial seeded fall of 2010 (Blk 10) near Hubbard, OR, maintained at a 1.25" mowing height and evaluated using digital image analysis.

Entry	% Green Cover												Recovery
	1 wk	2 wk	3 wk	4 wk	5 wk	6 wk	7.5 wk	8 wk	9 wk	9.5 wk	9.75 wk	10.5 wk	11 wk
Debussey	96.0	95.5	94.1	96.0	94.1	87.7	51.4	46.0	46.0	47.4	43.0	32.1	57.3
Saltillo	97.9	95.4	92.9	95.9	94.1	82.9	54.2	49.0	39.0	40.2	38.1	27.4	56.8
Silverstar	97.4	96.4	92.5	94.8	87.2	80.2	51.2	40.6	33.1	27.0	33.5	25.5	45.5
RainDance	97.6	95.4	93.1	96.5	94.1	87.3	48.6	43.8	49.8	45.3	42.6	23.4	70.5
Kentucky 31	97.0	95.0	92.9	94.7	87.1	76.2	40.9	32.7	34.4	27.4	26.0	21.0	54.2
Endeavor	97.2	96.3	93.8	95.5	91.0	79.4	46.7	37.4	40.0	29.8	29.0	20.2	52.8
Olympic Gold	97.0	95.3	91.9	94.1	85.3	73.1	39.7	35.1	32.9	25.8	23.2	18.9	44.4
Coronado TDH	97.6	95.9	93.8	94.9	89.7	73.6	42.9	35.8	29.6	27.2	22.5	17.5	44.2
Damzelle	96.8	94.9	93.1	95.1	91.2	78.5	41.2	32.0	34.2	24.9	19.3	14.9	45.6
Tarnation GT	93.8	91.5	87.1	93.6	86.3	78.1	46.9	29.6	31.3	33.3	28.3	14.7	55.7
Endeavor II	97.4	95.0	89.9	94.0	84.4	75.3	39.9	29.2	28.8	23.2	20.4	14.5	40.7
Coronado Gold	93.6	93.8	82.5	90.8	78.0	58.3	36.7	29.9	29.1	24.0	20.5	13.7	38.1
Matador	94.6	93.1	82.2	82.1	86.5	66.7	26.4	24.4	25.8	16.4	18.6	13.5	33.6
Wolfpack	97.4	96.4	94.0	94.8	85.8	79.2	42.7	36.6	25.5	22.1	20.4	13.3	40.6
Coyote II	97.8	96.4	92.7	96.5	89.0	72.9	37.9	28.5	29.3	19.6	17.5	12.9	43.5
Knox	97.1	95.1	82.8	92.7	84.7	81.0	43.7	33.6	32.8	27.6	18.5	12.5	39.9
Cumberland	95.4	92.4	79.0	89.4	88.4	69.3	39.4	23.8	25.1	20.4	18.8	12.1	44.2
Tar Heel	96.5	94.8	85.1	88.1	79.3	53.8	24.9	17.6	19.8	14.6	14.3	11.2	35.2
Shenandoah Sport	97.1	95.1	90.5	94.0	82.7	65.6	28.7	21.5	20.6	15.6	13.2	10.5	35.1
Virtue II	96.9	96.0	94.7	95.8	87.3	61.5	25.6	21.1	19.8	14.1	19.1	9.6	36.7
Silverado II	95.4	95.2	90.7	91.5	75.1	57.6	23.9	20.0	21.0	8.2	9.1	9.6	32.4
Inspiration	97.1	95.4	90.1	94.3	82.8	66.6	33.1	21.0	22.5	17.0	16.5	8.9	38.1
Apache III	97.4	95.7	90.2	93.0	76.4	61.9	25.1	22.0	22.1	15.7	13.7	8.9	29.4
Pedigree	97.1	96.5	92.8	94.1	82.8	66.8	27.1	21.9	19.7	13.6	12.2	8.6	32.2
Innovator	97.5	95.9	93.2	94.3	87.3	61.1	28.5	21.2	19.9	15.0	12.2	8.0	26.5
Wolfpack II	97.4	96.5	93.8	94.3	84.6	66.0	23.1	18.2	17.2	14.1	13.4	7.9	28.8
Tar Heel II	97.3	95.6	87.8	94.5	79.5	59.6	23.8	17.5	18.1	12.6	13.2	7.5	33.1
Dynamic II	97.7	95.9	87.2	95.0	80.9	72.7	33.2	27.9	29.3	19.8	13.8	7.3	41.8
Matador GT	97.3	95.7	91.8	93.0	81.7	58.6	20.6	14.7	16.7	10.7	10.1	7.0	30.3
Greenkeeper WAF	96.7	96.6	92.5	95.4	70.1	56.2	21.7	17.8	16.8	11.8	12.3	6.7	30.5
Justice	96.4	95.3	86.9	90.0	72.9	56.2	17.5	19.3	17.8	11.1	13.1	6.3	27.1
Tomahawk	97.1	95.2	89.1	91.6	77.2	52.7	18.7	13.6	17.2	9.0	10.1	5.6	26.8
Gazelle II	98.2	95.1	86.7	90.0	72.3	56.1	27.5	19.6	20.0	12.5	11.8	5.2	21.8
Shenandoah Elite	98.1	96.8	89.9	89.4	79.9	54.8	21.7	15.9	14.1	9.0	7.5	4.2	15.6
Finelawn Xpress	97.2	94.8	90.3	91.8	70.2	39.8	16.2	10.0	11.0	8.6	6.9	4.1	20.0
Rebel Advance	96.9	96.0	94.3	95.1	82.8	62.2	17.6	18.6	15.6	13.7	9.8	3.6	20.4
Faith	97.8	97.0	92.3	89.3	59.5	33.5	7.8	5.9	4.4	3.0	3.1	2.3	10.9
Falcon V	97.8	96.5	94.5	93.0	67.7	39.5	9.7	6.2	7.3	3.1	3.5	2.0	12.1
LSD (0.05)	1.8	2.5	10.7	7.1	15.6	23.1	20.2	18.0	16.3	16.5	14.2	12.6	19.8
CV (%)	1.2	1.6	7.3	4.6	11.3	20.1	33.5	37.4	34.4	43.0	39.7	52.2	27.8

3.18 lb N/1000ft² applied during 2012; drought stress initiated 3 July 2012; 2" irrigation applied after 10.5 wk, on 14 Sep

Table 18. 2010 mean turf performance ratings for entries in a tall fescue turf trial seeded fall of 2009 (Blk 10) near Hubbard, OR and maintained at a 2.0" mowing height.

Entry	% Green Cover*								Turf Quality	
	23 July	30 July	06 Aug	13 Aug	18 Aug	23 Aug	30 Aug	09 Sep	14 Sep	Mean
BarRobusto	98.6	98.1	96.8	94.2	82.7	73.8	65.2	91.0	95.5	5.4 ¹
Knox	98.6	98.3	97.8	94.8	81.9	74.5	61.3	90.2	94.6	6.1
Wolfpack	98.2	97.3	94.8	90.5	73.4	65.0	61.1	88.1	91.9	4.7
Silverado II	98.2	97.4	96.5	91.0	75.1	67.7	61.0	85.5	91.2	5.0
Olympic Gold	98.5	96.7	94.2	87.8	72.8	66.7	60.6	86.0	91.9	5.0
Coronado TDH	98.2	97.3	95.5	91.4	77.8	69.8	60.2	89.6	92.5	6.2
Coronado Gold	98.1	97.3	95.1	90.1	73.6	66.9	57.8	87.1	91.2	5.2
Deputy	98.1	96.7	94.7	89.6	73.0	63.2	55.0	87.1	93.6	5.4
Coronado	98.4	97.7	95.9	92.3	71.5	66.2	54.6	88.4	94.1	5.6
Rebel Advance	98.4	96.4	94.7	90.6	73.6	64.0	53.5	87.0	92.5	5.8
Gazelle II	99.0	96.8	93.3	88.2	70.3	62.1	52.6	88.7	95.4	6.2
Virtue II	98.4	96.9	94.6	89.1	75.1	68.7	51.9	86.0	92.1	5.4
Coyote II	98.1	96.9	94.5	89.6	68.8	58.9	50.4	85.2	94.1	5.0
Debussey	98.1	96.2	93.6	87.8	65.3	57.4	50.4	84.0	90.5	4.7
Apache III	98.1	96.5	92.2	86.1	66.5	57.3	50.2	84.1	90.4	5.6
Kentucky 31	95.9	91.2	83.7	81.4	67.7	58.0	50.2	85.9	92.1	3.0
Wolfpack II	98.3	97.1	93.3	88.4	69.1	63.9	49.0	84.0	89.6	5.5
Masterpiece	98.5	96.8	94.3	86.8	66.7	57.2	49.0	84.2	92.0	5.3
Endeavor II	98.7	97.7	95.8	92.1	69.0	60.7	48.8	88.6	92.8	5.7
Pedigree	98.0	95.1	90.4	82.2	60.2	53.6	46.0	79.3	86.0	5.1
Tar Heel	98.7	96.9	93.8	87.3	66.2	54.9	45.6	87.7	93.3	5.4
Greenkeeper WAF	98.2	95.6	90.7	84.3	61.4	54.0	45.2	83.5	92.0	5.3
Faith	98.4	96.5	93.4	86.1	64.1	53.4	44.8	81.4	89.0	6.2
Tar Heel II	97.8	95.7	91.9	85.2	60.8	48.0	42.7	83.9	91.3	5.1
Matador GT	98.1	96.5	92.4	84.9	62.7	52.0	42.4	82.2	90.4	5.6
Endure	98.5	96.8	93.7	87.4	60.4	53.3	41.9	82.3	87.1	4.9
Silverstar	98.3	96.5	93.7	84.3	60.1	47.2	39.1	85.2	92.5	5.8
Innovator	98.3	95.0	91.0	82.5	57.9	48.2	37.2	84.7	93.2	5.2
Brockton	97.5	94.7	89.6	78.6	52.8	43.9	37.0	79.7	87.9	5.5
Falcon V	98.4	95.3	91.0	83.0	56.5	42.6	32.7	81.7	91.2	5.7
Tomahawk	97.9	94.7	91.0	79.8	51.4	45.6	32.4	75.5	85.5	5.0
Dynamic II	98.9	97.2	94.0	86.8	54.7	40.7	28.0	87.8	94.6	6.1
LSD (0.05)	0.8	2.7	5.9	9.1	18.3	22.5	22.2	7.2	4.8	0.8
CV (%)	0.5	1.7	3.8	6.3	16.2	22.8	26.6	5.1	3.2	8.7

*evaluated using digital image analysis

2.5 lb N/1000 ft² applied in 2010

Precipitation and irrigation amounts: 2.50" on 9 July; 0.06" total in Aug; 3.00" on 1 Sep; 0.10" on 7 Sep

Table 19. 2011 mean percent green cover ratings for entries in a tall fescue turf trial seeded fall of 2008 (Blk 4) near Hubbard, OR, subjected to traffic treatments using a Cady Traffic Simulator, and maintained at a 2.5" mowing height.

Entry	14 June	11 July	14 July	22 July	27 July	29 July	24 Aug
Knox	97.3¹	83.9²	70.0³	74.3⁴	68.2⁴	63.9⁵	80.6⁵
Coronado TDH	96.4	79.1	69.7	75.1	71.3	61.4	78.7
Endeavor II	96.6	77.2	62.6	68.9	63.6	59.1	76.9
Tar Heel II	97.4	76.0	64.2	68.0	61.3	56.1	76.8
Dynamic II	97.3	76.7	68.9	71.4	61.7	53.6	75.3
Gazelle II	96.6	74.6	66.0	69.5	61.9	54.1	73.7
Deputy	97.5	76.1	63.7	69.3	57.5	49.8	73.6
Innovator	96.3	73.6	58.9	65.4	58.0	48.8	70.6
Wolfpack II	95.9	75.6	64.6	70.3	62.9	54.9	70.3
Faith	97.2	77.4	60.1	65.3	58.6	49.6	66.6
Silverstar	95.9	68.7	56.0	61.5	53.1	46.9	64.7
Kentucky 31	95.6	63.7	56.1	53.2	45.5	47.5	63.7
LSD (0.05)	1.9	14.6	17.5	19.7	21.2	20.8	20.3
CV (%)	1.2	11.8	17.1	18.0	22.2	24.6	17.5

¹no traffic applied

²16 total passes of traffic applied

³24 total passes of traffic applied

⁴28 total passes of traffic applied

⁵36 total passes of traffic applied

1 pass simulates traffic of 1.5 games

4 lb N/1000 ft² applied during 2011; Irrigated to prevent drought stress

Table 20. Mean initial heading dates for entries in a tall fescue seed yield trial seeded fall of 2021 (Blk 9) near Hubbard, OR.

Entry	2022	2023
Safeguard	05 May	10 May
Knox	02 May	09 May
Bachata	04 May	08 May
Forlane	03 May	08 May
GLX Aced	02 May	08 May
Wolfpack III	03 May	08 May
Kiowa	04 May	07 May
Meridian	04 May	07 May
Tall Boy	29 Apr	06 May
GLX Star	27 Apr	05 May
Lifeguard	01 May	05 May
Macumba	01 May	05 May
Moondance GLX	29 Apr	05 May
Saltillo	29 Apr	05 May
Aprilia	30 Apr	04 May
Extravaganza	29 Apr	04 May
Tar Heel II	29 Apr	04 May
RainDance	01 May	03 May
Relentless	27 Apr	03 May
GLX Revive	27 Apr	02 May
RGT Nuance	26 Apr	02 May
Cowgirl	23 Apr	01 May
Hellcat GLR	25 Apr	01 May
Kentucky 31	22 Apr	28 Apr
LSD (0.05)	4 days	3 days
CV (%)	1.8	1.3

Table 21. Mean initial heading dates for entries in a tall fescue seed yield trial seeded fall of 2019 (Blk 5) near Hubbard, OR.

Entry	2020	2022
Safeguard	28 Apr	05 May
GLX Aced	26 Apr	04 May
Gro-Pro	25 Apr	04 May
Gazelle II	26 Apr	02 May
Moondance GLX	24 Apr	02 May
Extravaganza	24 Apr	02 May
Tall Boy	24 Apr	02 May
Knox	29 Apr	01 May
Saltillo	23 Apr	01 May
GLX Star	23 Apr	30 Apr
Oriole	24 Apr	30 Apr
GLX Revive	23 Apr	30 Apr
Relentless	23 Apr	30 Apr
Lifeguard	25 Apr	29 Apr
RainDance	24 Apr	29 Apr
Pro Gold	21 Apr	28 Apr
Kentucky 31	21 Apr	26 Apr
Tar Heel II	23 Apr	26 Apr
Monument	21 Apr	25 Apr
Hellcat GLR	20 Apr	25 Apr
Easy Green	23 Apr	25 Apr
LSD (0.05)	2 days	3 days
CV (%)	1.1	1.5

Table 22. 2020 mean stem rust ratings for entries in a tall fescue seed yield trial seeded fall of 2019 (Blk 5) near Hubbard, OR.

Entry	Mean
Gro-Pro	8.0 ¹
Pro Gold	8.0
GLX Star	7.7
Extravaganza	7.7
GLX Revive	7.7
Lifeguard	7.7
Monument	7.7
Easy Green	7.3
Hellcat GLR	7.0
Oriole	6.7
Safeguard	6.3
Knox	6.0
Relentless	6.0
Tall Boy	6.0
Moondance GLX	6.0
GLX Aced	5.7
Tar Heel II	5.7
Saltillo	5.7
Kentucky 31	4.3
RainDance	4.3
Gazelle II	2.3
LSD (0.05)	1.5
CV (%)	14.2

¹9 = no disease

Table 23. Mean stem rust ratings for entries in a tall fescue seed yield trial seeded fall of 2015 (Blk 9) near Hubbard, OR.

Entry	2016	2017
Kentucky 31	6.0 ¹	8.0
Saltillo	7.0	7.7
Dynamic II	6.0	7.3
Cumberland	5.7	7.0
Embrace	6.7	7.0
Gazelle II	6.0	7.0
Tarnation GT	5.3	7.0
Knox	7.0	6.7
Coronado TDH	6.3	6.7
Duration	5.7	6.7
Endeavor II	6.3	6.7
RainDance	5.7	6.7
Swagger	6.0	6.7
Virtue II	5.3	6.7
Picabú	3.7	6.3
Tar Heel II	5.7	6.3
Endure	4.7	5.7
LSD (0.05)	1.2	1.6
CV (%)	13.1	14.2

¹9 = no disease

Table 24. Mean stem rust ratings for entries in a tall fescue seed yield trial seeded fall of 2011 (Blk 8) near Hubbard, OR.

Entry	2012	2013	Mean
Cumberland	7.0 ¹	8.0	7.5
Knox	7.0	7.7	7.3
Tar Heel II	6.0	7.7	6.8
Virtue II	5.7	8.0	6.8
Inspiration	6.7	6.7	6.7
Dynamic II	5.0	7.7	6.3
Endeavor II	6.7	6.0	6.3
RainDance	5.7	6.7	6.2
Kentucky 31	5.0	6.7	5.8
Tarnation GT	5.3	6.3	5.8
Gazelle II	5.0	6.3	5.7
Coronado TDH	4.3	5.3	4.8
Apache III	3.7	4.3	4.0
LSD (0.05)	1.5	1.6	1.2
CV (%)	15.7	14.8	11.5

¹9 = no disease

Table 25. Mean stem rust ratings for entries in a tall fescue seed yield trial seeded fall of 2008 (Blk 6) near Hubbard, OR.

Entry	2009	2010
Matador GT	6.3 ¹	6.7
Virtue II	7.7	6.0
Knox	7.3	5.7
Coronado TDH	6.7	5.7
Dynamic II	6.7	5.7
Endeavor II	7.0	5.7
Kentucky 31	6.3	5.7
Endure	7.0	5.3
Innovator	6.7	5.3
Apache III	6.7	5.0
Gazelle	6.3	5.0
Jaguar 3	5.0	4.7
Wolfpack II	6.3	4.7
Endeavor	6.0	4.3
Tar Heel II	7.0	4.0
Faith	5.3	3.3
LSD (0.05)	1.2	1.3
CV (%)	11.2	15.3

¹9 = no disease

Table 26. 2022 mean seed yields for entries in a tall fescue seed yield trial seeded fall of 2021 (Blk 9) near Hubbard, OR.

Entry	Mean (lb/A)
Tall Boy	2581.1
Moondance GLX	2532.1
Relentless	2502.6
Tar Heel II	2489.8
Extravaganza	2429.6
Saltillo	2367.3
GLX Revive	2360.3
Lifeguard	2286.7
GLX Star	2270.3
Knox	2201.0
Safeguard	2188.1
GLX Aced	2183.4
Wolfpack III	2138.4
RainDance	2112.6
Hellcat GLR	1965.0
Meridian	1923.4
Bachata	1667.7
RGT Nuance	1547.1
Cowgirl	1504.1
Forlane	1459.1
Macumba	1270.9
Aprilia	1048.5
Aprilia AR 584	932.9
Kiowa	878.9
LSD (0.05)	714.9
CV (%)	22.0

Table 27. Mean seed yields for entries in a tall fescue seed yield trial seeded fall of 2015 (Blk 9) near Hubbard, OR.

Entry	2016 (lb/A)	2017 (lb/A)	Mean (lb/A)
Knox	1998.3	1516.3	1757.3
Endeavor II	1427.7	2076.6	1752.2
Swagger	1706.0	1770.3	1738.2
Coronado TDH	1107.7	2166.5	1637.1
Tar Heel II	1379.2	1805.4	1592.3
Picabú	1369.2	1755.6	1562.4
Endure	1024.0	2098.5	1561.3
Gazelle II	1516.7	1539.7	1528.2
Embrace	1336.7	1572.6	1454.6
Tarnation GT	1061.6	1841.3	1451.4
Dynamic II	1335.3	1543.4	1439.4
Cumberland	1413.4	1461.0	1437.2
Duration	1314.0	1536.6	1425.3
Saltillo	1240.1	1609.4	1424.8
Kentucky 31	829.1	1904.1	1366.6
RainDance	1098.2	1602.3	1350.2
Virtue II	1235.1	1464.1	1349.6
PST-5Y8	1237.7	1420.6	1329.2
LSD (0.05)	360.7	561.1	339.6
CV (%)	16.4	20.3	13.7

Table 28. Mean seed yields for entries in a tall fescue seed yield trial seeded fall of 2012 (Blk 8) near Hubbard, OR.

Entry	2013 (lb/A)	2014 (lb/A)	2015 (lb/A)	Mean (lb/A)
Swagger	2413.6	2665.8	2370.6	2483.3
Knox	2301.8	3196.2	1856.5	2451.5
Saltillo	2146.4	2728.6	2091.7	2322.2
Cumberland	1982.4	2954.6	2281.0	2300.3
Duration	1567.0	3003.0	2008.8	2193.0
RainDance	1759.2	2656.5	2082.1	2165.9
Tarnation GT	1829.0	2413.0	1852.6	2031.5
Tar Heel II	1569.3	2442.6	2009.9	2007.3
Virtue II	1901.4	2467.5	1599.8	1989.6
Endeavor II	1946.6	2426.9	1566.4	1979.9
Meridian	1325.3	2427.7	1778.1	1843.7
Coronado TDH	1523.7	2494.4	1432.3	1816.8
Dynamic II	1894.7	2259.2	1100.0	1751.3
Gazelle II	1623.0	1971.7	1332.2	1642.3
Inspiration	1717.6	2046.6	1086.4	1616.9
Kentucky 31	1039.7	1913.6	1086.1	1346.5
LSD (0.05)	578.0	485.1	386.4	346.9
CV (%)	19.7	12.0	14.0	10.6

Table 29. Mean seed yields for entries in a tall fescue seed yield trial seeded fall of 2011 (Blk 8) near Hubbard, OR.

Entry	2012 (lb/A)	2013 (lb/A)	2014 (lb/A)
Knox	2137.8	3080.5	2517.0
Virtue II	2073.0	2889.8	2312.3
Tarnation GT	1587.2	2333.9	2136.0
Gazelle II	1210.6	2131.7	2076.2
Cumberland	1778.9	2405.8	2067.5
Tar Heel II	1386.4	2091.7	2058.2
Apache III	1615.8	2351.2	2024.8
Endeavor II	1589.9	2102.7	2004.0
Coronado TDH	1111.5	2646.1	1978.6
Dynamic II	1273.9	2619.5	1911.2
LSD (0.05)	539.2	498.2	577.9
CV (%)	20.0	12.8	16.2

Table 30. Mean seed yields for entries in a tall fescue seed yield trial seeded fall of 2008 (Blk 6) near Hubbard, OR.

Entry	2009 (lb/A)	2010 (lb/A)
Knox	2389.6	2459.5
Gazelle II	1710.1	2157.3
Coronado TDH	1802.1	2086.4
Endeavor II	1955.8	1915.7
Virtue II	2287.7	1845.8
Tar Heel II	1871.7	1807.4
Apache III	2410.1	1623.2
Dynamic II	1647.0	1595.0
Endure	1874.6	1569.3
Innovator	1893.1	1552.2
Wolfpack II	1775.5	1508.6
Jaguar 3	2070.1	1389.4
Endeavor	1821.8	1198.6
Kentucky 31	1654.1	962.2
Faith	1708.0	916.0
Maximize	1515.2	767.7
LSD (0.05)	592.1	562.7
CV (%)	18.5	21.1