



2024 South Dakota Rye Forage Variety Trial Results

Peter Sexton | SDSU Southeast Research Farm Supervisor & SDSU Extension Sustainable Cropping Systems Specialist

Brad Rops | Southeast Farm Operations Manager

Sara Bauder | SDSU Extension Forage Specialist

Joslyn Fousert | Agricultural Research Assistant

Cooperator: South Dakota State

University Southeast Research Farm

Location: Beresford (43° 02' 37.1" N, 96° 53' 47.9" W)

Soil Type: Egan Silty Clay Loam

Previous crop: soybean

Tillage: no-till

Row spacing: 8"

Seeding Rate:

- Hybrid Lines 800,000 seeds/ac

- Open Pollinated lines; 1,200,000 seeds/ac

Fertilizer:

- Fall 30 lbs/ac N + P

- Spring 40 lbs/ac N

Herbicide:

- None

Fungicide:

- Propi-Star - Aerial Application

Date seeded: 10/2/2023

Date harvested: 5/17/2024

Cooperator: South Dakota State

University Southeast Research Farm

Location: Wagner (43° 06' 46.5" N, 96° 10' 48.9" W)

Soil Type: Salmo-Napa Complex Silt Loam

Previous crop: soybean

Tillage: no-till

Row spacing: 8"

Seeding Rate:

- Hybrid Lines 800,000 seeds/ac

- Open Pollinated lines; 1,200,000 seeds/ac

Fertilizer:

- Fall 30 lbs/ac N + P

- Spring 40 lbs/ac N

Herbicide:

- None

Fungicide:

- None

Date seeded: 10/19/2023

Date harvested: 5/20/2024



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**

2024 South Dakota Rye Forage Variety Trial Results Beresford

Table 1. Rye forage variety trial results. Harvested on 5/17/2024. Significantly highest yields are shaded blue and bolded.

| Line | Type | Height (inches) | Lodging (1-5) | Feeke's Stage | Dry Matter Forage (ton/ac) | Silage Yield (ton/ac) | TDN* (%) | RFV* (%) | Crude Protein* (%) |
|-------------------|------------|-----------------|---------------|---------------|----------------------------|-----------------------|----------|----------|--------------------|
| FX 1001 | Triticale | 36.1 | 0.0 | 9.0 | 3.81 | 10.88 | 57.2 | 104 | 19.5 |
| ND Gardner | OP Rye | 48.6 | 0.5 | 10.5 | 3.22 | 9.19 | 52.7 | 89 | 15.8 |
| Hazlet | OP Rye | 38.7 | 0.3 | 10.2 | 3.19 | 9.13 | 52.7 | 90 | 16.8 |
| Aroostook | OP Rye | 39.2 | 0.0 | 10.2 | 3.16 | 9.03 | 57.4 | 107 | 18.7 |
| Aviator | Hybrid Rye | 39.4 | 0.3 | 10.2 | 3.09 | 8.83 | 51.2 | 85 | 13.3 |
| Danko | OP Rye | 39.7 | 0.0 | 10.3 | 2.96 | 8.45 | 49.7 | 78 | 11.0 |
| Progas | Hybrid Rye | 37.4 | 0.5 | 10.1 | 2.94 | 8.40 | 47.5 | 80 | 12.6 |
| H10129 | Hybrid Rye | 37.9 | 0.0 | 10.1 | 2.89 | 8.27 | 56.5 | 101 | 18.3 |
| H240 | Hybrid Rye | 36.7 | 0.3 | 10.1 | 2.89 | 8.25 | 56.8 | 102 | 20.0 |
| H238 | Hybrid Rye | 36.2 | 0.0 | 10.1 | 2.65 | 7.56 | 56.3 | 98 | 17.7 |
| MTF 1435 | Wheat | 24.0 | 0.0 | 8.8 | 1.84 | 5.26 | 64.8 | 138 | 26.7 |
| Willow Creek | Wheat | 20.4 | 1.0 | 8.0 | 1.79 | 5.11 | 63.8 | 135 | 25.4 |
| Mean | - | 36.2 | 0.2 | 9.8 | 2.87 | 8.20 | 55.6 | 101 | 18.0 |
| CV (%) | - | 5.0 | 197.2 | - | 8.0 | 8.0 | - | - | - |
| LSD (0.10) | - | 2.5 | NS | - | 0.32 | 0.90 | - | - | - |

* NIR analysis, unreplicated composite samples



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**

2024 South Dakota Rye Forage Variety Trial Results Wagner

Table 2. Rye forage variety trial results. Harvested on 5/20/2024. Significantly highest yields are shaded blue and bolded.

| Line | Type | Height (inches) | Lodging (1-5) | Feeke's Stage | Dry Matter Forage (ton/ac) | Silage Yield (ton/ac) | TDN* (%) | RFV* (%) | Crude Protein* (%) |
|-------------------|------------|-----------------|---------------|---------------|----------------------------|-----------------------|----------|----------|--------------------|
| Hazlet | OP Rye | 44.4 | 0.0 | 10.4 | 3.80 | 10.85 | 49.6 | 81 | 14.1 |
| Aviator | Hybrid Rye | 45.5 | 0.0 | 10.5 | 3.71 | 10.60 | 47.3 | 81 | 14.3 |
| Aroostook | OP Rye | 43.2 | 0.0 | 10.5 | 3.62 | 10.35 | 51.0 | 88 | 15.9 |
| H240 | Hybrid Rye | 42.5 | 0.0 | 10.4 | 3.59 | 10.26 | 52.1 | 89 | 16.0 |
| Progas | Hybrid Rye | 43.0 | 0.0 | 10.4 | 3.59 | 10.26 | 53.4 | 96 | 18.1 |
| H238 | Hybrid Rye | 43.6 | 0.0 | 10.4 | 3.58 | 10.22 | 44.4 | 74 | 12.8 |
| Danko | OP Rye | 45.6 | 0.0 | 10.5 | 3.57 | 10.20 | 47.4 | 75 | 13.5 |
| H10129 | Hybrid Rye | 43.1 | 0.0 | 10.4 | 3.40 | 9.71 | 54.0 | 99 | 19.6 |
| FX 1001 | Triticale | 38.9 | 0.0 | 9.0 | 3.29 | 9.39 | 55.0 | 101 | 18.2 |
| ND Gardner | OP Rye | 48.5 | 1.0 | 10.5 | 3.23 | 9.22 | 49.5 | 85 | 15.1 |
| MTF 1435 | Wheat | 30.0 | 0.0 | 9.0 | 2.70 | 7.70 | 53.4 | 96 | 18.6 |
| Willow Creek | Wheat | 27.6 | 0.0 | 8.3 | 2.05 | 5.87 | 54.0 | 97 | 16.6 |
| Mean | - | 41.3 | 0.1 | 10.0 | 3.34 | 9.55 | 50.9 | 89 | 16.1 |
| CV (%) | - | 7.7 | - | - | 5.0 | 5.0 | - | - | - |
| LSD (0.10) | - | 4.4 | - | - | 0.20 | 0.57 | - | - | - |

* NIR analysis, unreplicated composite samples