



ND GARDNER RYE

Characteristics

Yield	Low
Straw Strength	Strong
Maturity	Very Early
Height	Tall
Winter Hardiness	Very Good



ND GARDNER Rye

ND Gardner was developed at the NDSU Carrington Research Extension Center from 2007-2018. ND Gardner originated from DR02 starting in 2007. DR02 is an open pollinated selection released as ND Dylan in 2016.

ND Gardner is intended to be used mainly for the cover crop/forage market. It is intended to replace Aroostook. Aroostook is used extensively for cover crop applications. Tall, very early, early season vigor, and winter hardy are the main traits that make ND Gardner desirable for cover crop use. ND Gardner is also a candidate for forage use and could be a replacement for Wheeler rye.

ND Gardner is a very early, tall variety with very good winter hardiness and good early season vigor. These attributes make it a good candidate for the rapidly growing cover crop market. ND Gardner is superior to Aroostook for the above mentioned traits. It is ~1 day earlier to heading, has better winter hardiness, early season vigor is greater, along with greater biomass production. Seed yields are higher than Aroostook along with better straw strength making ND Gardner a desirable replacement.

STRENGTHS

- Very Early Maturity
- High Winter Survival Rate



Table 1. Agronomic performance of winter rye varieties across REC's 2015-2018 (site years)

Variety	Winter Survival	Vigor	Ground Cover	Early Plant Height	Day of Heading
	% (14)	1 - 10 (7)	% (3)	inches (6)	(19)
Hancock	88	4.4	92	13.6	148.6
Spooner	80	2.8	80	14.1	148.5
Ryman	95	7.4	94	12.6	150.3
ND Dylan	97	8.4	97	12.3	150.2
Dacold	94	6.6	94	12.3	153.6
Aroostok	88	4.9	85	16.3	144.7
Wheeler	86	5.0	60	11.6	152.4
ND Gardner	98	9.4	97	16.5	144.2

Variety (cont.)	Plant Height	Plant Lodge	1000 KWT	Test Weight	Seed Yield
	inches (19)	0 - 9 (16)	gms (9)	lbs/bu (19)	bu/ac (19)
Hancock	45.6	1.5	29.9	54.0	55.3
Spooner	45.8	1.4	29.5	54.0	49.8
Ryman	43.0	1.2	31.5	54.6	61.4
ND Dylan	46.0	2.0	27.2	53.6	61.6
Dacold	45.1	1.9	26.5	52.4	57.6
Aroostok	45.9	2.5	23.9	53.4	38.6
Wheeler	47.6	0.8	34.5	51.5	28.8
ND Gardner	45.8	1.9	25.5	53.6	49.5

Table 2. Forage biomass of winter rye varieties at the CREC, 2017-2019

Variety	Harvest Date	Winter Survival	Vigor	Day of Heading	Plant Height	Forage DM Yield
		%	1 - 10		inches	ton/ac
Ryman	11-Jun	94	7.3	157.0	38.0	2.01
ND Dylan	11-Jun	96	8.7	156.3	41.2	2.25
Dacold	14-Jun	91	5.7	160.7	43.9	2.14
Aroostok	4-Jun	87	6.0	151.2	35.7	1.55
Wheeler	14-Jun	87	4.8	160.3	44.1	1.90
ND Gardner	4-Jun	97	9.5	149.8	38.6	1.91