

Discovery

- Milling wheat quality with feed wheat yield potential
- Proven high yields across sites and years
- Alternative type for sowing from early May to September
- Tall, stiff-strawed, awnless cultivar with good standing ability



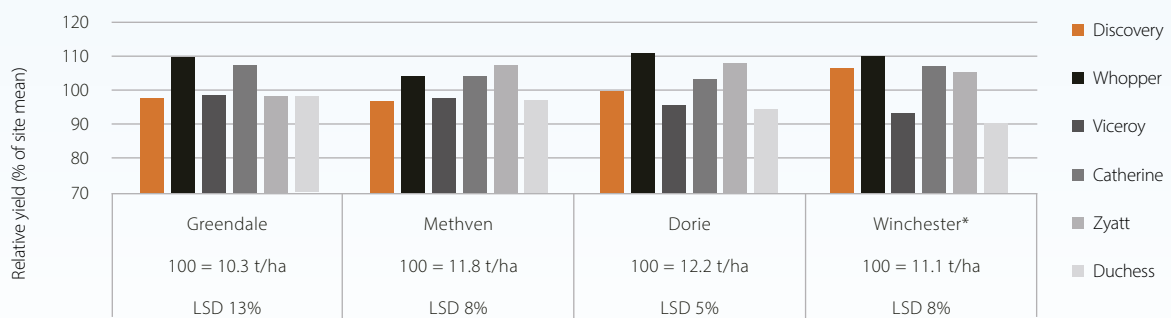
Description

DISCOVERY is a high yielding alternative (spring) wheat cultivar bred by Limagrain UK and further developed by PGG Wrightson Grain (PGW Grain) in New Zealand. It is a mid-season, tall awnless wheat with stiff straw and moderate resistance to pre-harvest sprouting. It produces large grain with low screenings, medium test weights and medium to high falling numbers.

Yield

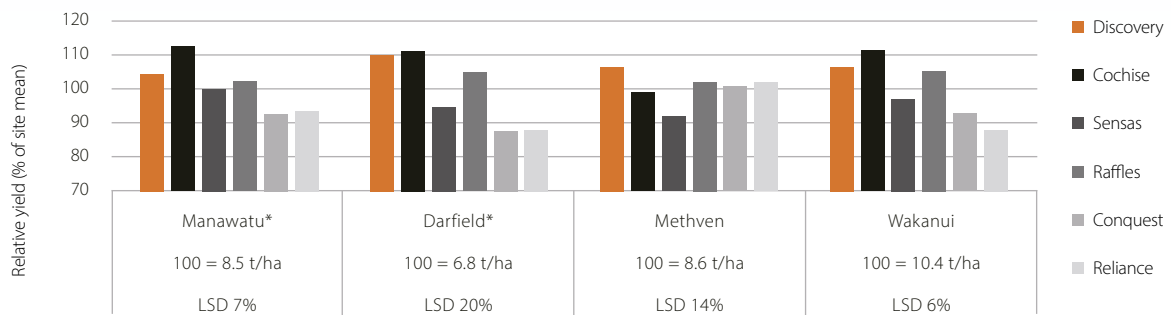
DISCOVERY is currently the highest yielding spring milling wheat option commercially available in New Zealand, performing exceptionally well in Canterbury with yields between 104% -110% of site mean. DISCOVERY also performs well under an autumn sowing window with yields similar to Catherine.

FAR (CPT) Autumn Sown Trials (4 Year Mean)



* Winchester is only a 3 year mean (no data from 2021-22)

FAR (CPT) Spring Sown Trials (4 Year Mean)



*Manawatu and Darfield are only 3 year-means (no data from 2019-20)

CPT DISCOVERY grain quality (4 year mean)	Lower North Island (Spring)	Canterbury (Autumn)	Canterbury (Spring)
Kernel weight (1000 seed weight)	55	47	49
Test Weight (kg/hl)	79	71	73
Protein content (%) (N% x 5.7)	11.6	10.8	12.3
Screenings (%)	0.3	0.5	0.8
Falling number (sec)	371	328	333

DISCOVERY is a very high yielding milling wheat. Therefore, particular attention to nitrogen management is required to ensure protein milling specifications are met.

Time of drilling

DISCOVERY is an alternative or spring wheat cultivar with a wide drilling window. Recommended drilling time is from early May through to late September.

Speed of development

Month planted	Typical heading dates for DISCOVERY in Canterbury
Late May	Mid – Late November
Late June	Late November
September	Mid December

DISCOVERY is an intermediate maturing cultivar at harvest.

Seed rate and tillering characteristics

DISCOVERY has good tillering capacity, although it is initially slow to develop. For maximum yield, autumn sowing rates should be increased according to the chart below.

Month planted	Typical plant populations for DISCOVERY in Canterbury
April	125-150
May	150-200
June & July	200
August	200-250
September	250-300

Soil type, rotation and geography

DISCOVERY has performed well across all Canterbury regions and the lower North Island. It has a free-threshing grain, so may not be the best choice at locations with extreme winds around maturity. It is not recommended as a second-year wheat.

Disease resistance

DISCOVERY has a good disease resistance profile, mostly resistant to leaf rust and powdery mildew with intermediate adult plant resistance to stripe rust and *Septoria* leaf blotch. However, it is moderately susceptible to seedling stripe rust. Considering this disease profile, fungicide programmes should be tailored to target seedling stripe rust early on if present. This approach should protect against *Septoria* leaf blotch also, especially from early plantings. Please contact your local PGW Representative for site specific recommendations.

Disease resistance results:

Disease	PGW disease nursery ratings (9 highly resistant, 1 highly susceptible)
Stripe rust	6
Leaf rust	9
<i>Septoria</i> leaf blotch	5
Powdery mildew	8
<i>Fusarium</i> head blight	6

Straw strength and height

DISCOVERY is a tall cultivar with good standing power. A robust plant growth regulator (PGR) programme is recommended for this cultivar especially for early sowings. Spring sowings of DISCOVERY will generally not require as high rates of PGRs. The actual programme is determined by a combination of sowing date, seed rate, nitrogen use, crop thickness and yield potential. As with any cultivar, do not apply if the crop is under any form of stress. Please contact your local PGW Representative for site specific recommendations.