

Discovery



- Milling wheat quality with feed wheat yield potential
- Consistent high yields across sites and years
- Tall, stiff-strawed, awnless cultivar with good standing ability
- Versatile, alternative type premium II milling and feed wheat for sowing from late April to September

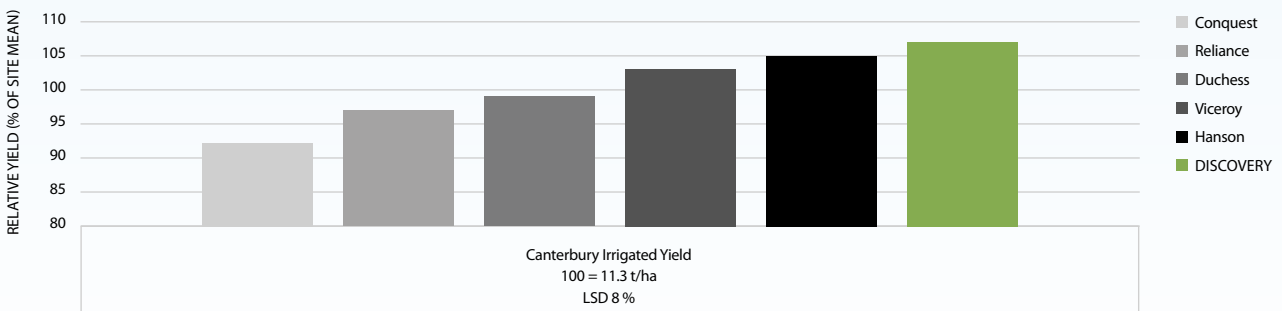
Description

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 high falling numbers.

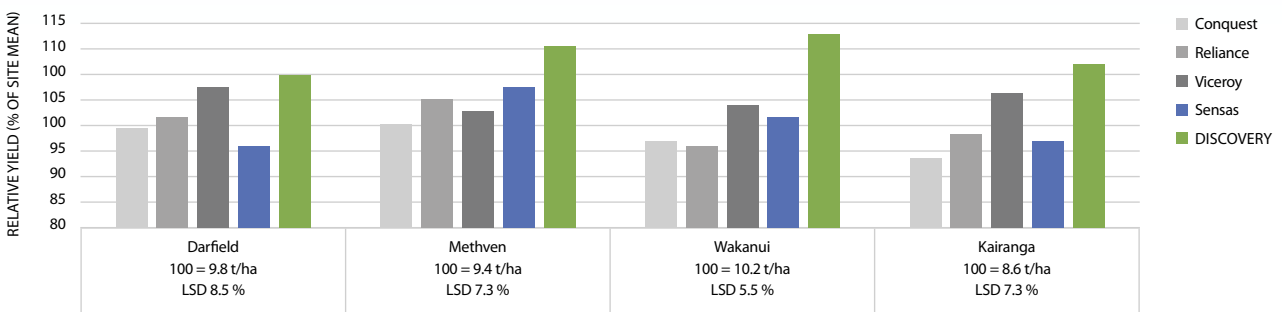
Yield

For a genuine milling quality wheat, DISCOVERY represents a breakthrough in yield potential and quality across sites and seasons. After 4 years in CPT trials, DISCOVERY has continued to top more trials than any other milling wheat cultivar. It is unrivaled in Canterbury spring trials. In autumn trials DISCOVERY's 4 year mean yield is higher than any other premium I or II milling wheat. The only milling variety with similar yield potential is Hanson, a gristing wheat.

FAR (CPT) AUTUMN SOWN TRIALS (4 YEAR MEAN)



FAR (CPT) SPRING SOWN TRIALS (4 YEAR MEAN)



CPT DISCOVERY grain quality (4 year mean)	Lower North Island (spring)	Canterbury (spring)	Canterbury (autumn)
Test weight (kg/hl)	74	75	76
Screenings (%)	1.2	0.7	0.6
Kernel weight (1000 seed weight)	47	51	55
Protein content (%) (N% x 5.7)	12.2	12.1	11.4
Falling number (sec)	320	352	342

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 the middle of May through to 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	Establishment rates for DISCOVERY (plants/m²)
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, being mostly resistant to leaf rust and powdery mildew with intermediate adult plant resistance to stripe rust and *Septoria*. 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, i.e. Galmano seed treatment followed by a T1 spray, if stripe rust pressure remains high. This approach should protect against *Septoria* 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)	CPT Autumn sown cultivar ratings
Stripe rust	6	Intermediate resistance
Leaf rust	9	Mostly resistant
<i>Septoria</i> leaf blotch	5	Moderately resistant
Powdery mildew	8	Mostly resistant
<i>Fusarium</i> head blight	6	Mostly susceptible
BYDV	5	Moderately susceptible

Straw strength and height

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