



100% creation

100% INNOVATION
made by RAGT



WARRIOR

Winter Wheat - Parentage: CM8228 x Robigus

- New for 2010, an outstanding nabim Group 3 biscuit wheat offering valuable premium-earning opportunities
- The best foliar disease resistance package on the RL – with ratings of 7+ for every important foliar disease plus OWBM resistance

Yield

Warrior has a treated yield equivalent to Robigus and has much to offer growers seeking extra security without any significant yield penalty. At the levels of treated yield on the 2010/11 RL, there is little to choose between most modern varieties within each nabim group in terms of their actual commercial yield potential.

Disease Resistance

Warrior is the only variety on the 2010/11 RL with a specific recommendation for disease resistance and has the best foliar disease resistance package of any Recommended variety, with ratings of 7+ for every foliar disease. Combining this exceptional disease resistance with resistance to OWBM gives the greatest possible flexibility with spray timings.

	Warrior	Scout	Invicta	Robigus
Mildew	7	6	6	6
Yellow Rust	9	9	8	2
Brown Rust	9	9	7	6
<i>Septoria tritici</i>	7	6	6	6
<i>Septoria nodorum</i>	(7)	(8)	(7)	7
Eyespot	6	8	5	5
OWBM	✓	✓	✗	✓

Warrior possesses a relatively novel source of yellow rust resistance based on a number of different genes, that has proven its strength even in the face of the new 'Oakley' race of yellow rust.

Genetic resistance to OWBM means that treatment with an insecticide during ear emergence is unlikely to be required, giving a clear cost, time and environmental benefit.

	Treated Yield (%)	Untreated Yield (%)	Difference
Warrior	100	91	- 9%
Scout	99	85	- 14%
Invicta	103	85	- 17%
Claire	97	75	- 22%
Zebedee	101	75	- 25%
Robigus	100	74	- 26%

In the absence of fungicide treatment Warrior loses just 9% of its RL yield on average across seasons. It stands head and shoulders above any other variety for disease security. Even Timber, previously recommended specifically for its disease resistance, lost 11% untreated, whilst the next best Group 3 loses 14% and Robigus loses a massive 26%!

Lodging Resistance

As the shortest of the Group 3 varieties on the 2010 RL, Warrior shows a particularly high inherent standing power as well as good lodging resistance with PGR treatment giving greater flexibility in spray timing.

Chlorotoluron Tolerance

Warrior is CTU tolerant (data from 5 years of in-house testing)

Sowing Date

Development speed is in the middle range, so Warrior is suitable for sowing from mid-September onwards. Although it has a disease resistance profile to suit earlier drilling, it doesn't have the slow development speed of a variety such as Claire.

At the other end of the sowing window, Warrior's vernalisation requirement is similar to Robigus, so is suitable for drilling up to the end of February.

Tillering

Warrior has very good tillering capacity, somewhere between Oakley and Robigus. Warrior has a relatively broad leaf and prostrate early growth habit. It appears to have an ability to grow away rapidly in the late winter/early spring to achieve good ground cover. From our own observations and some third party work, this has a clear benefit in relation to suppression of grass weeds.

Maturity

Ripening at a convenient mid-season timing, Warrior provides the perfect harvest workload replacement for Robigus and Oakley.

	Warrior	Scout	Invicta	Robigus	Oakley
Ripening (days +/- Solstice)	+1	+2	+3	+1	+1

On the RL table Warrior appears from the rounded data to have the same maturity timing as Robigus. However from side by side field comparisons Warrior is clearly a whole day earlier to ripen than Robigus and Scout, making it closer to Claire.

Rotational Position

Warrior yields similarly (100%) as a 1st or 2nd wheat, compared to the marked drop off in yield seen with Robigus (101 to 98%). Whilst trials data would suggest that Warrior is not as suited to the 2nd wheat position as some other varieties its yield performance is clearly maintained by a better disease resistance profile including eyespot at 6.

Growers who plan to grow Warrior in the 2nd wheat position should consider a specialist Take-all seed treatment such as Latitude (silthiofam) or Jockey/Galmano (Fluquinconazole). Delaying the drilling date to October, increasing the seed rate and higher rates of early nitrogen will also help get the best yields and performance from Warrior as a 2nd wheat.

Marketability

Warrior is an outstanding new nabim Group 3 biscuit wheat which offers valuable premium-earning opportunities. It offers the best combination of yield and security, representing a real opportunity for growers to introduce risk management into their wheat production, increasing their agronomic flexibility at no cost to commercial performance.

Biscuits

Warrior has been approved by NABIM as a Group 3 biscuit wheat. It has shown remarkable consistency throughout the three years of testing by UK millers, meeting the rheology requirements in terms of both resistance and extensibility.

Distilling

Warrior is rated as 'poor' for distilling and its inclusion in loads delivered to distillers could lead to processing problems and low distillery efficiency.

Export

Warrior is currently under evaluation by several companies who are investigating its suitability for the various export markets.

Risk Management

The outstanding feature of Warrior is its combination of resistance and agronomic characteristics, leading to increased yield security. This provides growers with a range of significant opportunities to introduce a risk management strategy into their wheat production plans. There is flexibility in both spray rates and timings – the latter may be imposed by adverse weather conditions, logistical constraints, reliance on contractors or simply the need to prioritise other varieties which have a greater disease risk. Ultimately, there may be the opportunity to remove or stretch treatments or the potential to reduce fungicide rates.

When looking at the resistance profile of Warrior relative to the main disease threats and spray timings, it is possible to see a number of clear opportunities.

The spray at T0 is in most cases unnecessary, the T1 and T2 both give opportunities for both reducing rates and also great flexibility of timing. Whilst the T3 remains important for control of ear disease, there is usually no need for the added complication of a separate spray for OWBM.

For more information and testimonials go to www.warrior-wheat.com