

History is created – BYDV tolerance is built in



KWS FEERIS

6-Row Winter Barley - Feed
(Amistar x KWS Kosmos)



- Excellent yields with BYDV tolerance built-in
- Ultimate risk management tool for those looking to drill early
- Stiff strawed with good specific weight and low screenings

KWS Feeris is a conventional 6-row feed barley that brings BYDV tolerance to the UK market in a good barley package. Like other 6-row barleys, KWS Feeris has excellent yield potential (102%) and really stands out in the BYDV hotspot of the West, where it regularly achieves its highest yield potential.

The variety has a good all-round disease package, including impressive 6's for *Rhynchosporium* and net blotch coupled with all-important BaYMV1 resistance and BYDV tolerance. It is a reasonably tall variety, which will aid blackgrass control, but it is stiff-strawed, which will benefit growers on heavier land. KWS Feeris has a similar maturity to KWS

Orwell and at harvest will deliver heaps of quality grain with a specific weight of 69.2kg/hl and very low screenings (1.4% through a 2.25mm sieve and 5.6% through a 2.5mm sieve) for a BYDV tolerant 6-row.

In short, KWS Feeris is a great variety in its own right but coupled with the added benefit of BYDV tolerance, it is the only solution for those looking to grow barley in high BYDV hotspots or for those looking to push drilling as early as possible.

So, for growers looking to reduce inputs and produce a more sustainable winter barley crop this season, KWS Feeris is the only barley they need to put in the drill.

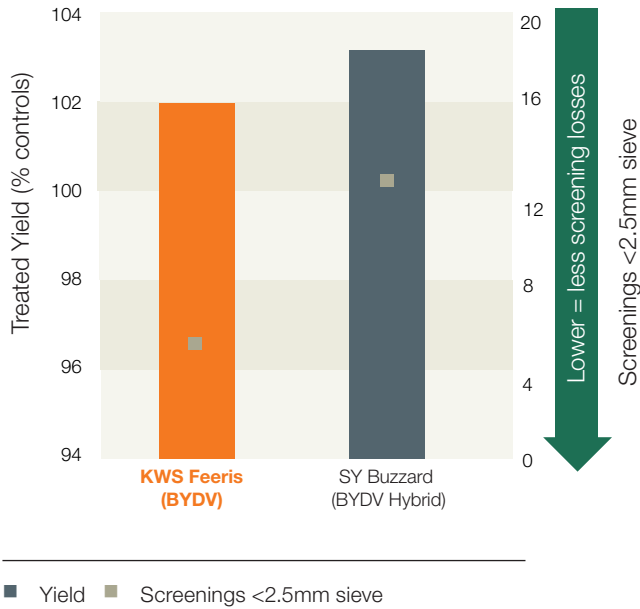


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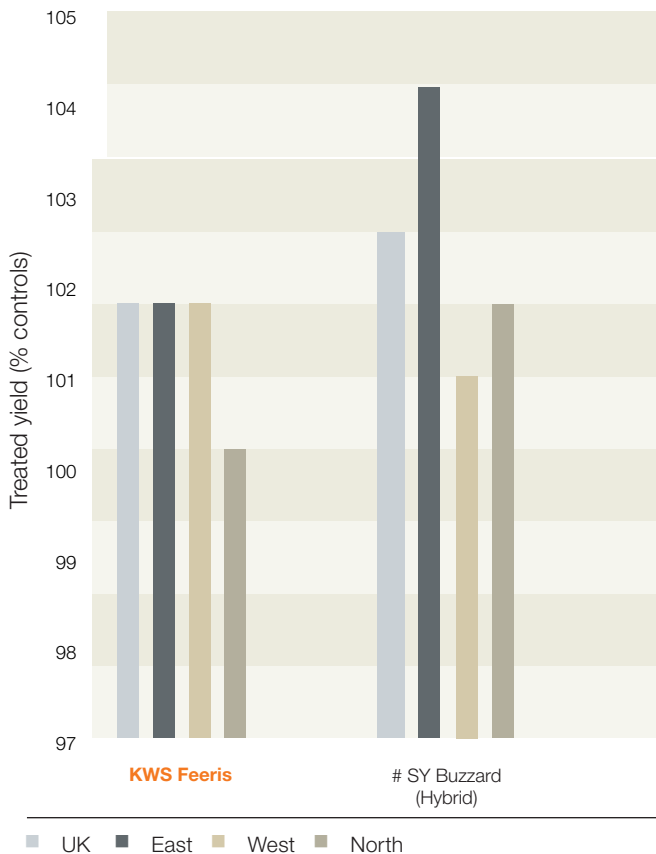


What makes KWS FEERIS the feed barley variety for you?

KWS Feeris has a strong combination of yields and low screenings in the 6-row market.

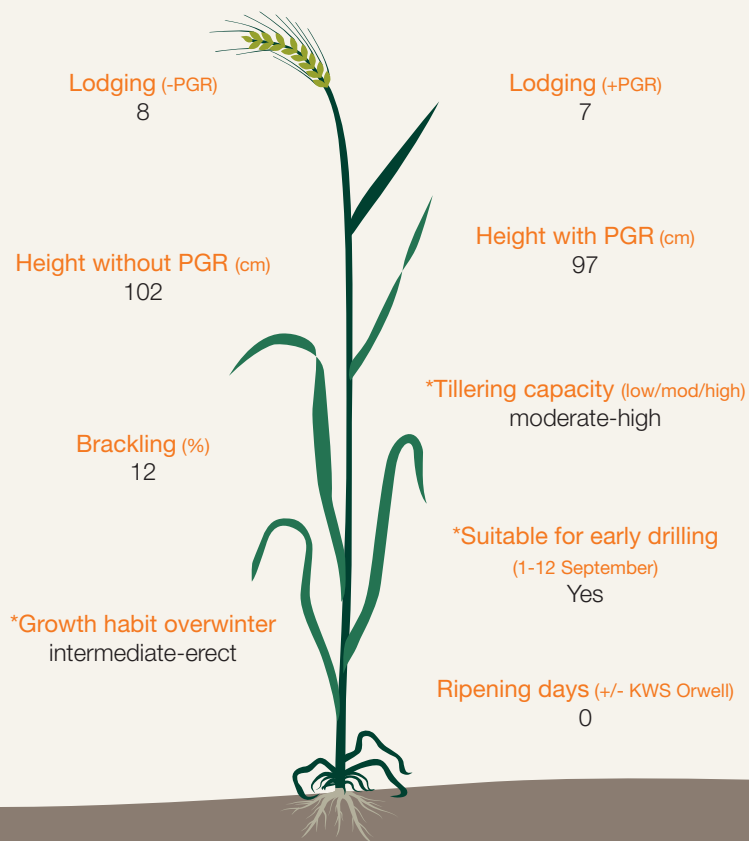
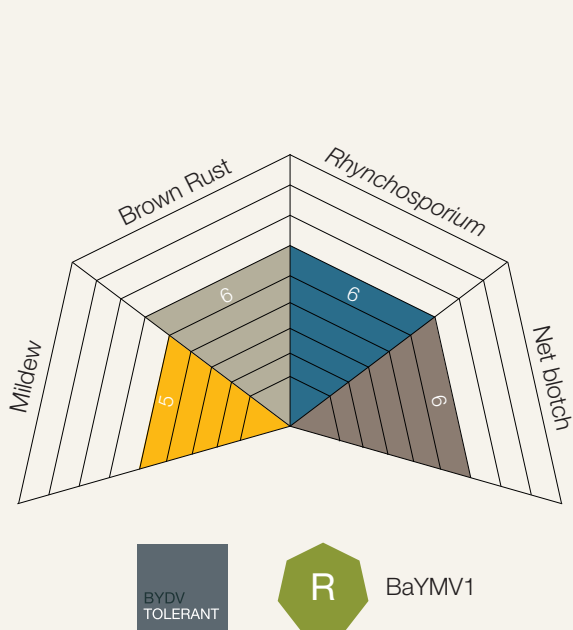


KWS FEERIS yield performance



Yield	% treated controls
UK	102
East	102
West	102
North	100
Untreated	84
Light	101
Heavy	102

Disease resistance and agronomy of KWS FEERIS



*Data source: KWS UK dataset

KWS FEERIS grain quality

All KWS varieties are bred to deliver the best combination of high specific weight with low screenings to easily fulfil the requirements of the domestic and export feed barley markets. KWS Feeris consistently delivers high specific weights with extremely low screenings.



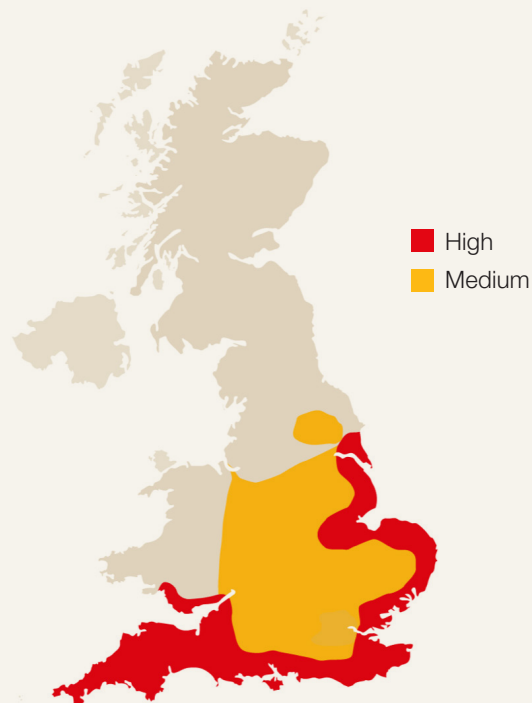
KWS Feeris	
Grain Quality	
Specific weight (kg/hl)	69.2
Screenings (% through 2.25mm)	1.4
Screenings (% through 2.5mm)	5.6

BYDV - the problem in the UK today and how KWS FEERIS can be the solution

Traditionally, high-risk BYDV regions of the UK are the coastal areas of the South, South East and South West. However, when autumn-early winters are mild and following the ban on neonicotinoid seed treatments, any area of the UK can be decimated by this virus.

- Traditional high-risk BYDV regions of the UK are coastal areas of the South, South East and South West.
- However, when autumn-early winters are mild, almost any part of the UK can suffer damaging infections.
- 2019 was the first season barley was drilled without seed treatments to control BYDV.
- Rain during key drilling timings will have delayed or inhibited planting, reducing the risk of BYDV this growing season.
- We may see high-pressure seasons in the future if growers push to drill as early as possible.

Data source: KWS own data and feedback from Agronomists around the UK



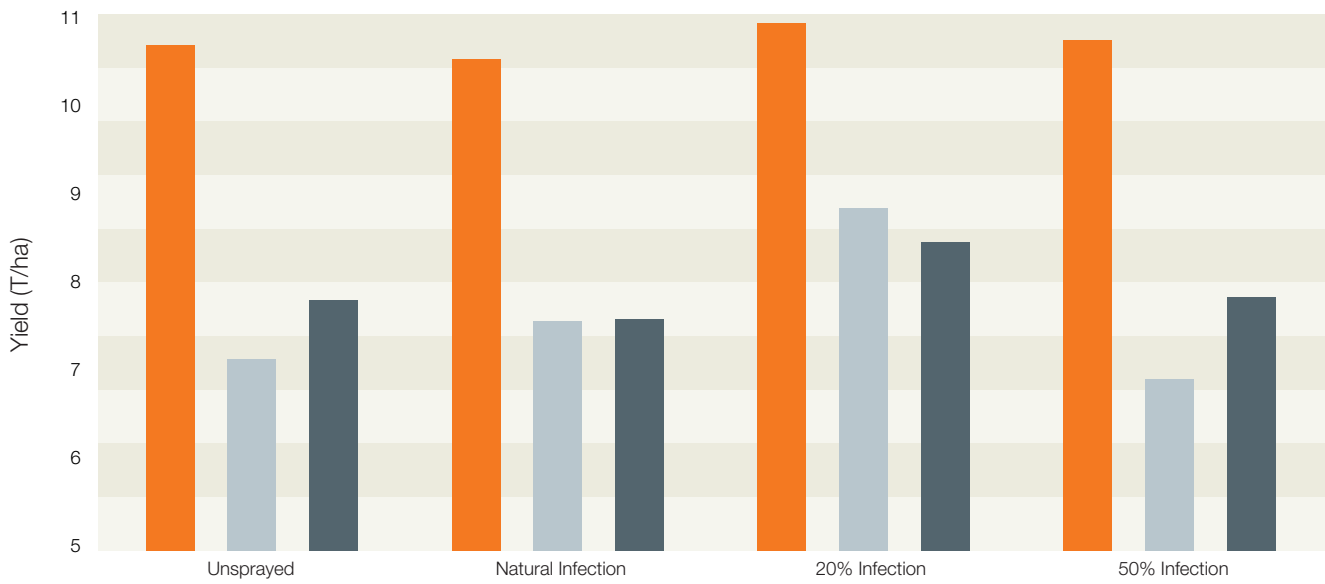
Tolerance vs Resistance – what can plant breeding offer UK growers?

Genetic tolerance or resistance to BYDV will offer growers an invaluable risk reduction tool for those in aphid prone areas. It'll also be essential for those looking to drill their winter barley early and be a key part of an IPM strategy.



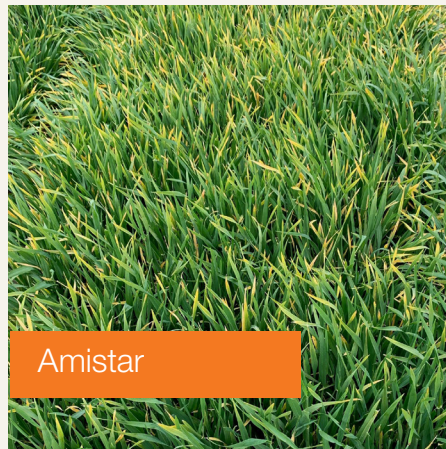
Tolerance	Resistance
Infected plants show little to no symptoms	A resistant crop can't be infected, so there is no yield loss
No yield loss in crop with low-mild infection. Slight yield loss in a crop with high levels of infection (~5%; internal data)	Resistance can be against the aphid (vector) or the virus
Virus is still present in the crop	
The best known tolerant gene in Barley is called "ryd2"	

BYDV tolerance in high pressure situations



■ KWS Feeris ■ Funky ■ KWS Orwell

Data source: KWS Trials



Data source: KWS Trials

Winter Barley at KWS

With a wealth of rotational benefits on offer, the UK area of winter barley has remained broadly stable over previous seasons, to today's acreage of around 400,000 hectares. But in the post-neonicotinoid world, as many growers struggle to establish oilseed crops and the introduction of high-yielding barleys performing better than traditional wheat in the second cereal slot, winter barley is moving up the agenda in many growers' minds.



So, take a closer look at KWS' winter barleys and see how they could benefit your rotation this season:

- Variable costs are approximately 75% of wheat.
- Delivers better yields than wheat under similar nitrogen regimes in the second cereal slot.
- Fungicide timings are often a week earlier than those in wheat, helping to spread the sprayers' workload.
- It's often the first crop to be harvested, helping spread workloads on the farm during the busy summer months.
- Barley straw often commands a good price.



Here at KWS, we are constantly striving to bring you the best feed barley for your farm.

Our investment in barley breeding is such that we can offer 2-row barleys with yields on a par to that of 6-row types; good grain packages, stiff straw and excellent disease resistance, including tolerance to BYDV, tailored to your region.