

New seed treatment option for barley shown to boost root growth and yield

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A new fungicide seed treatment option for barley that not only controls a number of key seed-borne diseases but which has also been shown to boost crop establishment, root growth and yield is being launched for use starting this autumn.

Vibrance Duo, from Syngenta, has been available for use on winter wheat seed since 2017.

In winter wheat it has become well-recognised for not only fulfilling the traditional role of a fungicide seed treatment, of controlling key diseases that threaten crop emergence, but also for other important advantages, says Syngenta seedcare marketing manager, Gillian Colman.

Among these are improved rooting, more vigorous establishment, especially in more challenging growing conditions, and improved yield.

“From this autumn onwards, Vibrance Duo will also now be available as a seed treatment for winter and spring barley,” confirms Mrs Colman.

“Better root structures provide a key foundation for yield and are associated with improved access to water and nutrients and improved crop resilience.

“Importantly, as well as seeing benefits in trials from Vibrance Duo in conventional barley, we have also seen benefits in hybrid barley, which is already known to be a vigorous crop.”

Syngenta field technical manager Dr Jonathan Ronksley, who has been evaluating Vibrance Duo in barley, says independent results have shown a 32% improvement in the growth of primary roots in treated winter barley seed compared with untreated seed, as well as clear improvements in the number and length of lateral roots.

“Improved rooting becomes all the more important in difficult growing conditions,” says Dr Ronksley. “Surprisingly these include wet soils, because roots become lazy as they don’t have to grow far to reach moisture.

“In plot trials looking at establishment of hybrid barley in last year’s wet autumn, Vibrance Duo boosted plant stand to 246 plants per metre squared compared with 216 plants per metre squared from a standard seed treatment. It also boosted early ground cover from 8.5% to 11%. Glasshouse tests have also shown better barley establishment with Vibrance Duo in normal and drought conditions.

“We have also seen clear improvements in spring barley establishment, and spring barley yield across 24 sites over three seasons was boosted by an average of 0.11 t/ha compared with a standard seed treatment.”

Dr Ronksley says clearly the core reason for using a fungicide seed treatment is disease control. In barley, he says some of the key yield-reducing diseases that need to be targeted include leaf stripe; seedling blights such as *Microdochium nivale*, which cause poor establishment especially in poor seedbeds and with late drilling; and covered smut.

“Vibrance Duo has label approval against all these diseases. However, whenever it is used on barley seed we are recommending that it is always co-applied with the seed treatment ipconazole, not least for added control of the disease loose smut, which is an increasing problem.

“Many of our trials have focused on this Vibrance Duo + ipconazole combination. It is highly cost-effective, has given excellent control of loose smut and, importantly, still maintains the other benefits of Vibrance Duo, including rooting and yield,” Dr Ronksley explains.

The active ingredients in Vibrance Duo include the specialist SDHI, sedaxane, and fludioxonil, which is also contained in the well-known fungicide seed treatment, Beret Gold.

Crops that Vibrance Duo can now be used in include winter wheat, winter triticale, winter rye, spring oats and winter and spring barley.

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