

Give your cereals the best S.T.A.R.T.

Product Update
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Want the best establishment for your cereal crops this autumn? Thinking ahead can help you make decisions to reduce risk and enhance initial crop development. Get the best **START** for your crop by considering the five areas below.

STEP 1: Seed and soil-borne diseases

There's a whole range of seed and soil-borne fungal diseases that can attack and hold back cereal establishment and severely impact yield and quality – many of which worsen with later sowing.

For years, these diseases have been kept at bay because fungicide seed treatments have been routinely used. Neonicotinoid seed treatments (no longer available) were also routinely applied with a fungicide seed treatment. It is important not to let this control slip.

Start by re-familiarising yourself with the various seed and soil borne pathogens and their potential impact (see tables).

Even if planting 'clean' tested seed, remember that several of these diseases can also attack from the soil.

STEP 2: Target even establishment

Having understood the wide range of diseases, you then need to have a clear picture of your crop establishment objectives – normally **fast, even emergence, a good plant stand, good tillering and excellent rooting and vigour** – and the steps you need to take to achieve them. For example:

- Produce a good seedbed
- Achieve effective control of seed and soil-borne diseases
- Achieve effective management of pests and weeds

This may all sound obvious, but strong crop establishment has taken on added significance with the loss of neonicotinoid seed treatments. Delayed drilling practices are already routinely used for grass weed management. Now, they also offer a good cultural option to help avoid aphid transmission of BYDV.

Effective establishment may also help crops to better tolerate slug damage (whenever they are planted) and produce a crop more able to withstand stressful weather conditions throughout winter and beyond.

STEP 3: Agronomic risk factors - assess them

Next, assess the agronomic risks that could affect establishment in your particular fields.

As well as weed problems that can compete with crop establishment, consider such things as:

- **Previous cropping** – this can have a big impact on disease, for example growing wheat after maize increases Fusarium risk. Similarly, although not an establishment disease, second cereals have an increased risk of Take-all.
- **Soil type** – some soils pose additional challenges for establishment. For example:
 - Light land – more drought-prone
 - Heavy land – more difficult to cultivate for an optimum seedbed

Although nothing can be done about soil type, choosing a seed treatment that can help rooting in order to scavenge for moisture, or that can help establishment over a wide range of conditions, is certainly something to consider.

- **Drilling date** – not only affects establishment speed (with later-drilled crops having less time to develop decent root structures and tiller numbers before the winter), but also impacts on disease, pest and weed pressures. Knowing your intended drilling date is therefore a key factor in seed treatment decisions. For example, although later drilling reduces BYDV and black-grass pressures, it increases risks from Microdochium and Bunt (see tables above).
- **Weather** – the big unknown factor after drilling is how kind or otherwise the weather will be to crop growth. Colder, wetter soils make plants more susceptible to seedling losses, so it is important to compensate for these as much as you can.

STEP 4: Remember best practice

Before making seed treatment decisions, remember best practice in handling them – in order to protect not just your crops, but the environment and yourself.

Seed treatments are a highly targeted way of delivering small amounts of active ingredient precisely where it's needed (some diseases, for example, cannot be controlled by foliar sprays). However they must be used properly.

- **Always read and follow the label** – adhere to requirements such as drilling depth and safety advice, and always wear the correct personal protective equipment.
- **Reduce dust risks** – for example avoid filling hoppers too quickly or from a height, and avoid shaking seed bags as they empty. Also, avoid breathing in dust and ensure all equipment is cleaned after use.
- **Keep drilling on target** – make sure no seed is released in transit to the field, and ensure that drill vents are in the soil and the drill is moving forward before seed is released. Check also that all treated seed is buried (including on difficult parts of fields such as corners) to protect wildlife.
- **Manage spill risks** – fill the drill in an area where any spills can be cleaned up properly. Always carry a spill kit containing a spade and seed bag when drilling, and dispose of spills safely.

STEP 5: Treatment - choose the right product

As a first fungicide, a single purpose dressing (SPD) is a highly cost-effective input that can:

- Protect against seed-borne diseases
- Reduce certain soil-borne pathogens
- Help achieve effective, speedy crop establishment
- Provide a foundation to maximise yield

The single purpose dressing BERET® GOLD is a proven standard for protection against seedling diseases and improving crop establishment. It is especially strong on Fusarium and Microdochium seedling blight.

Alternatively, for winter wheat seed, new-generation seed treatment VIBRANCE® DUO combines the proven active ingredient in BERET® GOLD with a new-generation specialist SDHI fungicide seed treatment - to provide additional disease activity and added rooting benefits. It can optimise establishment to help provide flexibility in different drilling situations.

Example seed treatments for winter wheat

Product benefits in wheat	BERET® GOLD	VIBRANCE® DUO	prothioconazole + tebuconazole
Control of seed borne <i>Microdochium nivale</i>	**(*)	***	**
Control of seed borne <i>Septoria nodorum</i>	***	***	***
Control of seed borne <i>Fusarium culmorum</i>	***	***	**
Control of seed borne <i>Fusarium graminearum</i>	** #	**	Not claimed
Control of common Bunt, <i>Tilletia caries</i>	***	***	***
Control of loose smut, <i>Ustilago tritici</i>	Not claimed	***	***
Control of ergot, <i>Claviceps purpurea</i>	** #	** #	**
Control of blue mould, <i>Penicillium spp</i>	** #	** #	**

Good crop establishment even where delayed drilling is needed for agronomic reasons such as grassweed and BYDV management	**	***	*
Root enhancement and improved drought tolerance	*	***	*
Suitability for use with silthiofam in second wheats	**	***	*
Uplift in yield vs untreated and SPD seed treatments	**	***	*
Combined crop establishment and disease control benefits	**	***	*(*)

Source: Based on Syngenta technical expertise

= No label claim - trials have shown disease control

VIBRANCE® DUO - The story of last season

The 'Beast from the East' brought an exceptionally cold and wet late winter/early spring, which gave way to a very hot and dry summer. VIBRANCE® DUO treated plants were better equipped to tolerate these extremes of weather.

- Faster establishment versus SPD (single purpose dressing)
- 15% average increase in plant numbers versus SPD
- 13% average increase in tillering versus SPD
- 29% average increase in root mass versus SPD

*Based on 51 trials from season 2017-2018

Situations to consider using VIBRANCE® DUO

Delayed drilling

Whether you're delaying drilling to avoid aphids or to allow for early grassweed management, fast emergence and improved establishment are essential when crop growing conditions deteriorate later. VIBRANCE® DUO gave an average 0.34 t/ha extra yield over an SPD on 34 sites when drilled after the first week of October. This increased to a 0.57 t/ha yield benefit across 11 heavy land sites.

Light land

Establishing an improved root structure for better access to moisture can provide a key foundation against drought. VIBRANCE® DUO gave an average 0.38 t/ha yield increase over an SPD on 17 light land sites last year.

Second wheat

The yield penalty that comes in second wheat can be partially mitigated with a seed treatment that offers establishment and rooting benefits. VIBRANCE® Duo gave a 0.51 t/ha average increase in yield over an SPD on 13 second wheat sites last year.

(Note: VIBRANCE® DUO does not control Take-all so needs to be co-applied with silthiofam seed treatment to target this disease.)

Seed treatment in barley

In low loose smut risk situations, BERET® GOLD performs very well in winter barley. In situations where Loose smut is a concern, ensure where possible a seed treatment containing an active ingredient that is effective against the disease (e.g. a triazole) is applied.

Tags:

Cereals

Seed treatment

VIBRANCE DUO

Wheat

Barley

Products:

VIBRANCE DUO