

A new standard in seed treatment

Unrivalled rooting power to get your crops off to the best start.

Taking the root protection of DIVIDEND® to a new level

The most powerful solution for management of *Pythium* Root Rot, *Rhizoctonia*, smuts, bunts and seed-borne blotches

Proven significant yield advantage



syngenta®

TM

Why VIBRANCE® seed treatment?

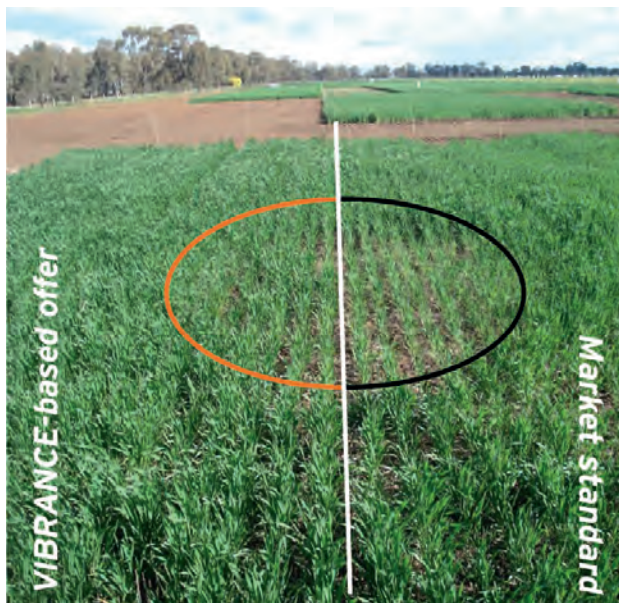
VIBRANCE's key benefit is its contribution to good root health. Some estimates suggest that up to 80 per cent of all plant problems start with soil or root problems.

Seed treatments like VIBRANCE have been proven to significantly improve seedling emergence, crop establishment and, ultimately, yields.

By protecting the fine root hairs from disease, seed treatments make it easier for the plant to access water and nutrients. Improved vigour helps plants overcome the effects of soil-borne pathogens including *Pythium* and *Rhizoctonia*.

Good root health results in stronger, healthier roots for better crop performance – right from the start.

Seed and soil-borne diseases



Rhizoctonia has become an increasing problem for growers, especially due to the adoption of minimum and zero tillage systems. The disease attacks the roots of young crops, leading to bare patches up to several metres in diameter. These patches are often surrounded by stunted plants. There are no resistant cereal varieties available to Australian farmers, so this savage root disease has the potential to dramatically decrease yield and crop quality.

Overcoming *Rhizoctonia* requires an integrated disease management approach. Effective management tools include cultivation, deep ripping, improved plant nutrition, the removal of grass or a short chemical fallow before sowing, and use of a fungicide seed treatment.

The addition of Vibrance to integrated management strategies can dramatically reduce the likelihood of *Rhizoctonia* ruining a prized crop.

Pythium is an opportunistic fungus that can attack root hairs and growing points throughout the season. *Pythium* survives in the soil and rapidly increases when root tissues are available as a food source, emerging cereal roots provide an ideal opportunity for *Pythium* root rot to develop.

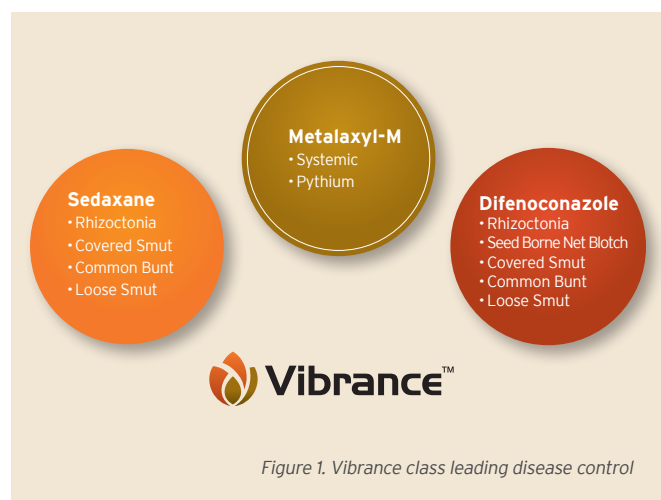
Using VIBRANCE to control *Pythium* in wheat and barley enhances crop emergence, crop development as seen with improved plant vigour. Through controlling *Pythium*, VIBRANCE reduces the loss of fine root hairs which enables the plant to access moisture and nutrients more readily – and this in turn helps the crop overcome other soil-borne pathogens like *Rhizoctonia*.

VIBRANCE is the only new seed treatment on the market to offer combined protection against *Pythium*, *Rhizoctonia*, Seed Borne Net Blotch and a range of smuts and bunts.

How it works

VIBRANCE contains three proven active ingredients - metalaxyl-M, difenconazole and sedaxane.

Metalaxyl-M is the industry benchmark for protection against *Pythium* Root Rot, while difenoconazole and sedaxane have powerful activity against *Rhizoctonia*, Seed Borne Net Blotch, smuts and bunt.



VIBRANCE is the most powerful cereal diseases solution on the market. It offers:

Spectrum - the three modes of action provide the broadest spectrum of activity available that performs under a wide range of growing conditions.

Robust *Rhizoctonia* Performance - VIBRANCE is the only product available that has multiple MOAs targeted specifically against *Rhizoctonia*. Both Sedaxane and Difenoconazole have direct activity against this disease.

***Pythium* Root Rot Control** - In addition to its two MOAs against *Rhizoctonia*, VIBRANCE has metalaxyl-m to provide protection against *Pythium* root rot. Protecting crops from *Pythium* root rot reduces the entry points for *Rhizoctonia* infection.

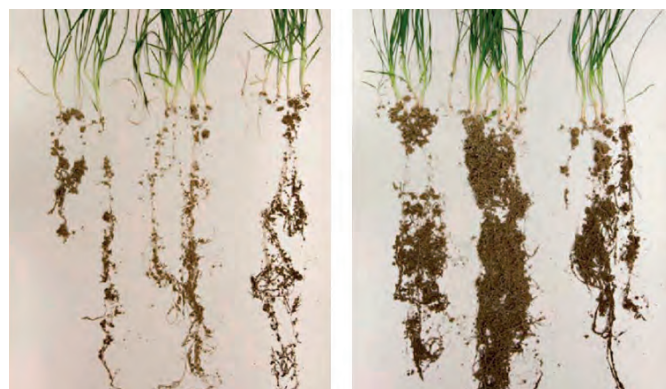
With the introduction of Sedaxane, a new and highly active SDHI fungicide, VIBRANCE has a unique ability to move into the surrounding soil, providing a protective halo around the seed and developing root systems.

Performance and yield response

VIBRANCE is the most powerful solution on the market against key cereal diseases. It equals or outperforms competitive seed treatment products in controlling smuts and bunts. In the presence of *Rhizoctonia*, VIBRANCE provides increased and more consistent yield performance compared with DIVIDEND, the leading standard.

Rhizoctonia

An extensive trial evaluated the performance of VIBRANCE compared to untreated seed in a paddock severely affected by *Rhizoctonia*. Treated trial plots had far less *Rhizoctonia* and, more importantly, a **6.4 per cent yield advantage** in barley and **6.3 per cent yield advantage** in wheat, compared to untreated seed.



Pythium

Plant survival is increased and growth rates enhanced by the application of Vibrance compared to no treatment, and increased or equivalent compared with Dividend.

VIBRANCE provides long-lasting, outstanding protection of the entire root system through critical early crop development stages, under a wide range of environmental conditions.

Compatible with other seed treatments including CRUISER Opti and EMERGE for complete management of fungal disease and insect pests

Excellent crop safety profile in relation to germination, emergence and seed storage

Registered for the control of *Pythium* and a wide range of smuts and bunts in wheat, triticale, barley and oats. Also registered for the suppression of *Rhizoctonia* in wheat, triticale, barley and oats.

Crop Spectrum/Use Rates

VIBRANCE can be used as per the following table.

Crop	Disease	Rate mL/100Kg Seed	Critical Comments
Barley	Covered Smut (<i>Ustilago segetum</i>) Loose Smut (<i>Ustilago</i> spp.) Net Blotch (<i>Pyrenophora teres</i>) - seed-borne Pythium Root Rot (<i>Pythium</i> spp.)	180	Apply diluted with water to clean / healthy seed before sowing. Thorough mixing is required to ensure complete coverage. Coverage of all seeds is essential.
	Rhizoctonia root rot (bare patch) - suppression	360	Allow seed to dry before bagging. Rhizoctonia control: Use the highest rate (360mL) to suppress this disease in paddocks where paddock history or soil testing indicates a risk of Rhizoctonia root rot and where minimum tillage is used.
Oats	Loose Smut (<i>Ustilago avenae</i>) Pythium Root Rot (<i>Pythium</i> spp.)	180	Note that management of Rhizoctonia bare patch requires a fully integrated disease management strategy.
	Rhizoctonia root rot (bare patch) - suppression	360	
Triticale, Wheat	Common Bunt (<i>Tilletia</i> spp.), Flag Smut (<i>Urocystis agropyri</i>) - seed and soil-borne Loose Smut (<i>Ustilago tritici</i>) Pythium Root Rot (<i>Pythium</i> spp.)	180	
	Rhizoctonia root rot (bare patch) - suppression	360	

For further information please call the Syngenta Technical Product Advice Line on 1800 067 108 or visit our website at www.syngenta.com.au. The information contained in this document is believed to be accurate. No responsibility is accepted in respect of this information, save those non-excludable conditions implied by any Federal or State legislation or law of a Territory. ®Registered trademark of a Syngenta Group Company. ™Trademark of a Syngenta Group Company. All products written in uppercase are registered trademarks of a Syngenta Group Company. TN12/579