

TECHNOTE

INTAKE COMBI SAPPHIRE TARGET BARLEY LEAF RUST

Nufarm continues to expand its unique Intake in-furrow registrations with barley leaf rust now added to the diverse range of fungal pathogens targeted.

Barley leaf rust (*Puccinia hordei*) is the most common rust that attacks barley, especially prevalent in susceptible varieties grown in high rainfall regions. It is a fungal disease specific to barley, and has the potential to reduce yield potential by 45%*.

BARLEY LEAF RUST CHARACTERISTICS

Leaf rust pustules are small and circular to oval, producing a mass of orange-brown powdery spores on the upper leaf surfaces (also on the back of the leaf in rare cases) and on leaf sheaths.

The pustules darken over time, producing black spores embedded in the leaf tissue which results in the leaves withering and dying back from the leaf tip. Leaf damage from leaf rust reduces the plants' photosynthetic capacity, reducing tillering ability and resulting yield potential. It also adversely affects the plants' ability to fill grain, resulting in shrivelled grain in severe cases.

CONDITIONS FAVOURING THE DISEASE

Volunteer barley plants surviving over summer create a green bridge, enabling the fungus to survive into the next season and infect new crops the following autumn. It is therefore crucial to control volunteer barley and other host plants such as the "Star of Bethlehem" (*Ornithogalum umbellatum*) weed over the fallow months. Utilising heavy grazing and/or appropriate knockdown and residual herbicides are effective fallow management strategies.

Leaf rust can occur throughout the growing season, thriving in warm (15 - 20°C), moist (rain or dew) weather conditions. Regular paddock inspections are therefore imperative to constantly monitor the barley crop for barley leaf rust infestation.

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For more information on Intake Combi Sapphire, contact your local Nufarm Territory Manager.

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* Source: www.agric.wa.gov.au/mycrop/diagnosing-barley-leaf-rust

MANAGEMENT STRATEGIES

Adopting an integrated management approach greatly assists with combating leaf rust, including:

1. Control host weeds during fallow periods. Avoiding a "green bridge" can reduce the risk of early season leaf rust outbreaks.
2. Varietal selection (avoiding susceptible varieties).
3. Applying Intake either as direct injection or to solid fertiliser at planting.

BENEFITS OF INTAKE

Intake is the only flutriafol in-furrow fungicide registered for control of barley leaf rust in barley, providing up to 8 weeks control at 300-400 mL/ha, and up to 16 weeks suppression at 400 mL/ha.

Reduced reliance on early season in-crop fungicide applications, encountering adverse weather conditions for spraying or difficulties with trafficability.

Intake allows for greater flexibility with respect to both foliar fungicide selection and application timings.

Protection immediately from planting- peace of mind, and protection from barley leaf rust and other fungal pathogens assists with achieving maximum yield potential.

The most developed flutriafol offering in barley with registrations unique to the Intake brand, including:

- Barley scald - up to 120 days protection
- Powdery mildew - up to 120 days protection
- Net form net blotch - suppression for up to 110 days



Photo 1: Barley leaf rust. Image source DAFWA