

Effective Control of Loose Smut in Barley

Loose smut has continued to appear in barley crops throughout Australia in 2015. The varieties of Hindmarsh and La Trobe have been most affected with some crops of Scope also showing high infection levels. Infection levels in these varieties has ranged from 2-25%, which has also resulted in a yield loss of 2-25%.

In most cases, a seed treatment registered for the control of loose smut was applied to the seed prior to sowing. Seed treatment tests conducted by SARDI have shown that products containing just triadimenol provide only about 50% control of loose smut in Hindmarsh. Other products containing flutriafol and tebuconazole have also let some infection through at labelled rates. **SARDI trail work has shown that effective control is provided** by products containing **Carboxin (Vitaflo C)** and the new SDHI fungicides (so long as the SDHI products are used at their maximum labelled rates).



Issues driving increased prevalence

- Increased areas of susceptible varieties (Hindmarsh/La Trobe). Increased inoculum in the environment elevating pressure on other varieties leading to higher level in Scope this season
- Seasonal conditions in 2014 and 2015 both at sowing and flowering. Loose smut infection is carried in the seed so if loose smut was present in 2015 then the seed from the 2014 harvest was already infected
- Poor coverage of the seed by seed treatments. Loose smut will NOT be effectively controlled. Even highly effective seed treatments (such as those containing Carboxin) will be less effective if seed coverage is poor.
- Using seed with high infections of loose smut. Seed with infection levels above 4-5% should be rejected as seed treatments will struggle to effectively control the diseases above this infection level. Continually growing highly infected seed and just
- Not applying a seed treatment every year. Seed MUST be treated every year to effectively control loose smut.

Increased amount of non-treated seed being sown. No seed treatment on the seed means 0% control of loose smut, as it can only be controlled at germination. Products such as Carboxin will effectively control the disease. However the new rhizoctonia based products (Rancona Dimension, plus others) should be used at the higher rhizoctonia labeled rate to effectively control loose smut.

Using lower than registered rates of seed treatments. Due to loose smut infection being internal in the seed, control requires a seed treatment that effectively penetrates the seed at germination. This requires that labelled rate for a seed treatment is adhered to.

Reliance on in-furrow products for root and foliar diseases which DO NOT control loose smut or other smut diseases.

Only using products that have a lower activity on loose smut such as triadimenol seed treatment.



Poorly treated seed allowing loose smut to proliferate.

Effective Control of Loose Smut of Barley

How to effectively control Loose smut in barley?

Avoid sowing susceptible barley varieties such as Hindmarsh and La Trobe.

- If these must be sown treat the seed with a product such as Vitaflo C at 2.5L/t or if rhizoctonia is an issue with Rancona Dimension a 3.2L/T.
- If powdery mildew is an issue use Foliarflo C at 1.5l/T in addition to Vitaflo C.

If loose smut was present this season get the seed tested. If **loose smut is above 5% discard the seed.**

- If you must use the seed treat with the highest labeled rate possible. Such as Vitaflo C at 2.5l/T.

Always use a seed treatment.

Always **use the labeled rate** of the seed treatment.

Ensure all seeds are **adequately treated and covered.**

- Use a professional to treat your seed such as a **Hannaford Franchisee.**

If using a **triadimenol based product** combine it with a products such as **Vitaflo C.**

If using **in-furrow fungicide** products you **MUST apply a seed treatment** such as Vitaflo C.

If using any **rhizoctonia based seed treatment** use the **highest labeled rate** for the product.

Source information: Hannaford, Arysta LifeScience and the SARDI Cereal Seed Treatments 2016

