



Gocha – controlling cereal aphids reduces feeding damage & sooty mould growth on ears

All cereals are potentially at risk from **damage caused by aphids feeding in the ear**, with crops previously impacted by other stress factors likely to suffer the most. Honeydew secreted by feeding aphids provides a favourable medium for sooty moulds to grow on cereal ears before harvest.

Trials investigating the yield effects of grain aphids (*Sitobion avenae*) feeding on cereal ears showed that an **insecticide applied at the beginning of flowering** when there were 5 or more aphids per ear (and numbers rising) gave an **increase in grain yield c.12.5%**.

When sprays were applied at later growth stages or where aphid levels were below 5 per ear, much lower yield responses were recorded.

- Apply **Gocha 200 ml/ha** if aphids are present in winter cereals at threshold levels.
 - ✓ Reduction in aphid feeding damage and fewer shrivelled grains at harvest
 - ✓ Excellent persistence
 - ✓ Slow UV breakdown
 - ✓ Lower toxicity to beneficial insects such as ladybirds, ground beetles and lacewings

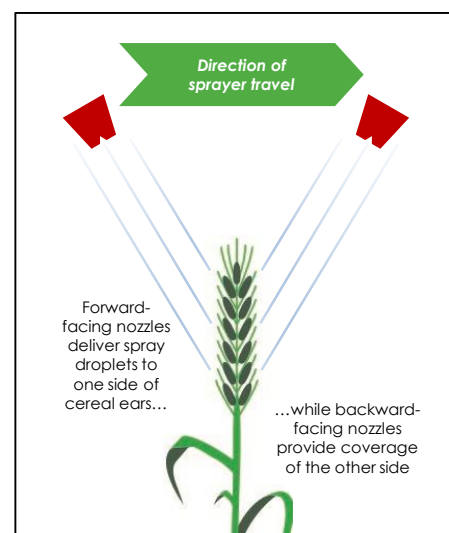
Treatment thresholds

The **risk period** is from the **start of flowering until the grain milky-ripe stage**.

A variety of thresholds may be used to indicate high risk of damage to cereals caused by grain aphids (*Sitobion avenae*) and rose-grain aphids (*Metopolophium dirhodum*).

In situations where one or more of the following thresholds are met, treatment with Gocha should be considered to preserve yield and grain quality.

- **5 or more aphids per ear from BBCH 61** (beginning of flowering, first anthers visible)
- or 50% tillers infested before BBCH 61
- or 66% tillers infested between BBCH 61 and two weeks prior to the end of grain-filling



Application tips & resistance management

Aphid populations may show signs of resistance to pyrethroid insecticides. To maintain best possible control:

- Use Gocha at **full rate and ensure good coverage** to deliver maximum effective dose to the target.
- Using **angled nozzles** (or low-drift nozzles in angled caps) alternating forwards and backwards along the boom, may **improve deposition** on vertical and complex targets (e.g. cereal ears) to maximise contact with aphids.
- Apply Gocha to at-risk crops **only when aphids exceed threshold levels**.
- Importantly – **monitor insecticide performance** and if control has been poor, do not reapply any pyrethroids. Use products with an alternative mode of action if necessary.



Gocha – efficacy & environmental benefits

Added-value benefits

- **Low UV degradation:** esfenvalerate is inherently less susceptible to breaking down through exposure to sunlight.
- Combined with **strong binding to leaf wax** makes Gocha most persistent on target plants.
- Greater proportion of the applied dose is available for uptake by target pests for longer after spraying.

Rates & timings	
Application rate for summer cereal aphids on crop ears	200 ml/ha (winter wheat & barley)
Maximum number of applications	1 per crop (winter wheat & barley)
Latest timing: - winter wheat - winter barley	BBCH 77 (late milky ripe) BBCH 73 (early milky ripe)
Buffer zones: - LERAP category - Non-target arthropods	A 5m to non-crop land

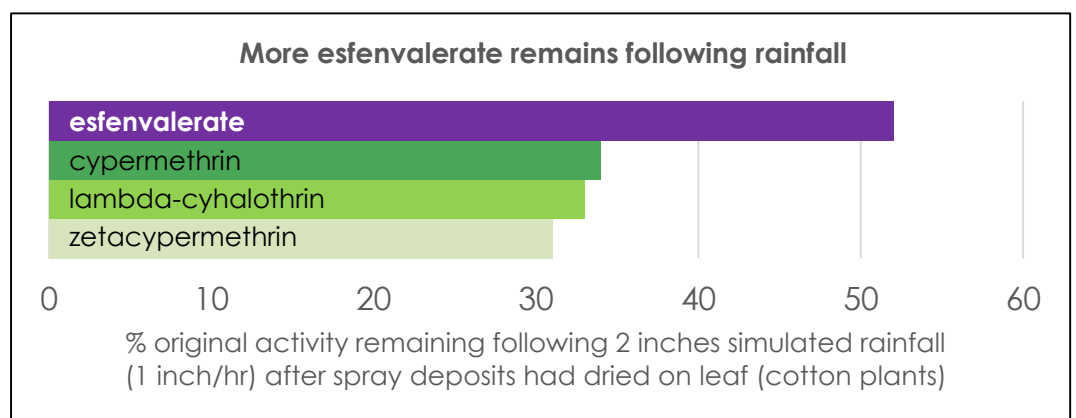
Pollinator safety

Avoid making applications containing pyrethroid insecticides to crops attractive to pollinators at times when sensitive species (e.g. bees) are visiting and foraging.

Rainfastness comparison

Spray droplets may have dried on the leaf but that does not necessarily mean the application is rainfast!

The higher amount of applied esfenvalerate remaining after simulated rainfall is a function of **Gocha's superior absorption and retention efficiency** (both into and onto the leaf surface).



FURTHER INFORMATION

Nufarm Technical updates are eligible for 1 BASIS CPT/year Ref: CP/81650/1920/g. Email claim to linda@basis-reg.co.uk

Gocha contains 25 g/l esfenvalerate.

Gocha is a trademark of Sumitomo Chemical Agro Europe SAS.

Details of application rates and timings are given in Nufarm labels and product literature, both of which can be accessed from our website www.nufarm.com/uk. Alternatively, ring the Nufarm helpline on 01274 694714, Monday to Friday 9.00 - 17.00

Use plant protection products safely. Always read the label and product information before use. For label and safety information, refer to the Nufarm website www.nufarm.com/uk. Nufarm UK Ltd, Wyke Lane, Wyke, Bradford, BD12 9EJ.