

Canterbury Monitor Farm

Meeting title: BYDV – understanding the disease and what options we have to control it

Date: 7 November 2019

Speakers: Dr Gia Arrodorir (Rothamsted Research)



Barley yellow dwarf virus (BYDV)

- In Autumn BYDV is transmitted by bird cherry–oat aphid, English grain aphid and rose grain aphid.
- Winged BYDV-carrying aphids flying in from elsewhere (temperature above 11°C)
- Wingless aphids from volunteers or grass (green bridge)
- Below 3°C very little aphid activity
- Aphids prefer BYDV infected plants – then switch to uninfected once they have acquired the virus
- Cereal aphids pick up the virus while phloem feeding and produce more winged aphids on infected plants
- Virus circulates in aphids and is transmitted selectively to host plants

Take-home messages to help with prevention

- Remove green bridge
- Leave 5 weeks between ploughing and sowing new crop
- Control grassy weeds and cereal volunteers
- Direct drilling will increase beneficial insects
- Use higher seed rate
- Variety selection
- Delay drilling to avoid aphids in Autumn

Further information

- [Virus management in cereals and oilseed rape](#)
- [Encyclopaedia of cereal diseases](#)
- [BYDV management tool](#)
- [AHDB Aphid News](#)
- [BYDV decision support system research project](#)

AHDB resources

- Understand your business costs with AHDB's benchmarking tool Farmbench at ahdb.org.uk/farmbench
- Monitoring tools are available at ahdb.org.uk/tools
- Sign up to market information and research newsletters at ahdb.org.uk/keeping-in-touch
- Find out what's going on at other Monitor Farms and Strategic Farms at ahdb.org.uk/farm-excellence

- All AHDB events can be found at ahdb.org.uk/events
- For guidance on how Brexit will impact your business, see ahdb.org.uk/brexit

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