Welcome to our virtual meeting



Pest Management Virtual Meeting 2020

Max Newbert & Rebecca Stilton









*Rate: 50 mls/ha. If needed and following best practice.









Syngenta aphid BYDV incidence 2019 data



Achieving control early for primary and secondary infection for early sown crops

12th May Virus discolouration % control



cv Einstein. Drilled 16/09/05 Source: Glenn Wilkinson - Syngenta

GB04OU2012006 LSD: 9.41 Follow-on sprays applied at 5 + 13 weeks after drilling



Achieving control early for primary and secondary infection for early sown crops



cv Einstein. Drilled 16/09/05 Source: Glenn Wilkinson - Syngenta

GB04OU2012006 LSD: 0.57 Follow-on sprays applied at 5 + 13 weeks after drilling



Rougham establishment of winter barley (Spring 2020)



November drilling

October drilling



VIBRANCE

BOOST YOUR ROOTING POWER

Improved establishment in delayed drilling for winter wheat





Shipston on Stour, Warwickshire, Heavy soil, drilled 29th October 2017

Improved establishment and rooting of winter barley Co-application of VIBRANCE Duo with Rancona 15ME



Berwick, SY KINGSBARN winter barley drilled 12th September 2019, medium soil. Plant counts assessed 7th November 2019 and rooting assessments 19th March 2020. VIBRANCE Duo + Rancona 69% increase in rooting and 65% increase in foliage over Raxil Star



Data generation this autumn





syngenta

www.syngenta.co.uk/BYDV-assist



BYDV Assist



06:30 🖻 🔌 … 🧐 🕏 🛧 79% 🗎	06:26 🗟 🎽 🐃 …	📲 🧐 🛧 79% 🛢	06:27 🔤 🚳 🖻 … 🛛 👋 📽 🕤 🛧 79% 🔒	06:26 🖾 🖾 📂 ··· 👋 📽 🖘 🛧 79% 🖹
BYDV Assist :	← Add Field	0	← Analysis	← Analysis
Fulbourn Farm Fulbourn, Cambridge CB21 5XE, UK	Field Details		Aphid Spread Calculation	Aphid Spread Calculation
Image: Sep 13 Image: Sep 15 Estimated 145° Estimated 170°	Field Name *		180	180
	Field Location *	Q	160	160
	Drill Date *	Ē	120	120
	Emergence Date *	Ē	80	80
	Last Treatment (optional)	Ē	40 20	40 20
			16 Aug 1 Sep 8 Sep 15 Sep	0 12 Aug 16 Aug 20 Aug 25 Aug
	CREATE FIELD		Accumulated Forecasted •• Trend	Accumulated Forecasted Trend
			• • •	
			Sep 13Sep 15Estimated 145°Estimated 170°	Image: Aug 23Image: Aug 25Estimated 145°Estimated 170°
•			Analysis Spray Guide	Analysis Spray Guide
	III O	<	III O <	



BYDV Assist









BYDV Assist – New features 2020



Sign-in to allow retrieval of fields, better user feedback along with editable fields



Primary infection





Secondary infection

This is the type of infection is what BYDV Assist is predicting based on UK work, occurring at 170 Day Degrees of accumulative temperature (daily average) above 3°C.



Efficacy of pyrethroids against resistant cereal aphids



Source: Dewar, Alan M *et, al.* (2014) "Alternative insecticides to control cereal aphids, *Sitobion avenae,* that are resistant to pyrethroids." Crop Protection in Northern Britain, pp. 131-136.

Hallmark Zeon syngenta

Efficacy of HALLMARK vs Generic Lambda in winter cereals against aphids (Elveden)



LSD= 16.01%



Source: Dewar Crop Protection 2016

Do generics perform differently?



Aphids inoculated on 19th October. Application on 22nd October 2018

Dewar Crop Protection - Elveden: 25th October 2018 - 3 DAA



Importance of timing and formulation

BYDV discolouration % control



Source: Dewar Crop Protection 2017



BYDV risk assessment

Time of crop emergence	BYDV history	BYDV risk	
September	Regular problem	High, HALLMARK Zeon essential	
	Infrequent problem	High/Moderate (esp. with low seed rates)	
October	Regular problem	Moderate/High	
	Infrequent problem	Moderate/Low	
November	Regular problem	Low/Moderate depends on weather/aphids	
	Infrequent problem	Low, depends on weather/ aphids	

Best time to use HALLMARK Zeon (50 ml/ha)

Barley and oats are more susceptible to BYDV than wheat









*Rate: 50-75 mls/ha. If needed and following best practice.



CSFB caught in all Syngenta UK site's yellow water traps 2016-2019





6.5 **1X HALLMARK Zeon sprays** provide a 0.8 tonne increase = £273 6 Yield (tonnes/ha) margin over HALLMARK Zeon – 39X ROI. 5.5 5 4.5 4 Full Syngenta programme No CSFB control Generic Lambda in full programme Full Syngenta Programme: App1: HALLMARK Zeon App2: HALLMARK Zeon App3: Pymetrozine 20thSept GS12 27th Oct GS15 Early Sept

Yields of 2016/17 Warwick OSR Plots

Variety: Charger



Field trial results (in a low resistance area)

Untreated



1st application: 17/10 HALLMARK Zeon 75 mls/ha



Double application 17/10: HALLMARK Zeon 75 mls/ha 02/11:HALLMARK Zeon 75 mls/ha



Second application advised if efficacy is seen and/or a new migration occurs, otherwise **STOP**



Notching events for day vs night spraying



Syngenta application trial 2017







2019 average level of the population resistant = 60%

Source:

Rothamsted (Caitlin Willis and Samantha Cook)

Cultivation key to establishment







Two site, two year average t/ha for WOSR between different establishment techniques in the Syngenta Conservation Ag and Sustainable Farming Project





When to spray CSFB? Target plant populations are important to maintain



1-2 leaf stage 25% leaf area damage 3-4 leaf stage 50% leaf area damage

CSFB are more active at night, this suggests that night spraying may be beneficial

*Add non-ionic wetter that is not an organosilicone, eg. Activator 90



Importance of Titanium





Product – not all formulations are the same





Post mixing



2020 Generic comparisons 1 Year Storage HALLMARK Generics Storage in direct sunlight Zeon 1 week **Generic 1 Generic 2** HALLMARK Zeon



2020 Generic comparisons Leaf Fastness





Similar but not the same...

Size of microencapsulation – better distribution of AI, better adhesion to the insect

UV stability – enhanced persistency

Microencapsulation construction – rapid Al release on drying

Suspension agent – uniform distribution of AI in the can

Quality of formulation – no nozzle/ filter blockage, no crop scorch

Consistency of formulation – every can is the same high quality

HALLMARK Zeon vs Generic







