Trap and map

Standard versus mini pellets

	Sluxx HP		Menorexx		
Pellet size (length/ diameter)	3mm/2mm		2mm/1.8mm		
Rate (kg/ha)	7	5	7	5	4
Baiting points (pellets/m2)	59	42	94	67	53
Source: Certis, 2020					

achieved once drilled. To aid his risk assessment, Stephen also uses

66 Nobody wants prophylactic applications of molluscicides **99** precision farming data, such as soil electroconductivity maps, to identify potential issues and to target applications of pellets straight after drilling to protect crops.

In the more moderate or low risk areas where it's easy to drop your guard and be caught out,

Stephen says he sets up slug traps to pick up any unexpected infestations and treats only where necessary.

"Nobody wants prophylactic applications of molluscicides, but the trouble we have in high risk areas is that by the time you've put traps out and counted slugs per trap, if you are a day late, an OSR crop can be gone overnight.

"I think a good policy is that where we're anticipating problems (based on the risk assessment) a dose of slug pellets straight after drilling is a sensible one, particularly where there's a lot of trash in a non-inversion system," he says.

Having switched to ferric phosphatebased pellets across the board, last season Stephen utilised a mini pellet in these early, high-risk situations to increase bait points to just above 60/m². Certis brought a new mini pellet, Menorexx, to the market last year which has the identical 100% durum pasta-based formulation as the company's standard pellet Sluxx HP.



Stephen Harrison reminds that slugs can devastate young OSR crops, especially when drilling hybrids at lower seed rates.

Technical Slug management

While oilseed rape crops are more than likely to be besieged by 'the beetle', given the right conditions slugs can be just as dangerous during establishment. *CPM* looks at balancing risk with IPM.

> By Lucy de la Pasture and Rob Jones

Researchers at Harper Adams University and in a collaboration between CHAP and the Small Robot company envisage a future where slugs are targeted by precision-applied control agents, but until their work bears fruit, bait trapping and soil mapping remain the IPM essentials.

Slugs would not have enjoyed the extremely dry spring in 2020, with unfavourable conditions seeing the pest retreat down the soil profile. Newcastle University's slug expert Gordon Port says a regular input of rain in most regions during late June and into July has seen slug activity increase again ahead of oilseed rape drilling

— a crop that is particularly vulnerable to damage early on.

"Unfortunately, slugs never go away.

If recent rainfall patterns continue, despite the dry spring I think we'll end up with a relatively 'normal' year in terms of slug pressure. However the only real test is to go out and trap," he says.

Time constraints

The biggest barrier for growers using slug traps as part of an IPM strategy is time constraints, particularly ahead of OSR where there is often little time to set and monitor numbers. But with the crop under significant threat from cabbage stem flea beetle across England, including in his Avon area, AICC agronomist Stephen Harrison says you can't afford to overlook slugs.

In his experience OSR growers broadly split into two camps when it comes to drill date, either very early in August to get plants up and away ahead of peak CSFB activity, or late August and into September to try and avoid the peak. Some evidence suggests drilling later also reduces larvae pressure later in the season, he says.

"I tend to err towards a later drilling philosophy now and we're moving back to hybrids for their quicker establishment. But if you are down at seed rates of 50 seeds/m² or less, it doesn't give you much leeway for plant loss and slug control is even more crucial," explains Stephen.

In these high-risk crops, he calculates risk based on three factors: weather, trash levels and soil type, which will have a significant bearing on the quality of seedbed

Slug management

Plan early where grain hollowing is a risk

Cereal crops could be at increased risk of seed hollowing caused by slugs this autumn due to the loss of Deter (clothiadin) seed treatment, especially if the weather turns wet, says independent gronomist for Velcourt, Ben Frost.

Even though there are fewer oilseed rape stubbles around to harbour the pest, this shouldn't lull growers into a false sense of security as cereal and bean stubbles can be just as problematic when wet, he says.

"With Deter now gone and metaldehyde on the way out, the only effective chemical option left is ferric phosphate, but there isn't a label recommendation for applying it down the spout at drilling with the seed," he explains.

"The De Sangosse ferric phosphate pellet is the only one that can be legally applied seven days prior to drilling, so slugs can still be controlled on the soil surface."

Ben highlights cultural control measures

Certis northern technical specialist Harry Raley says that while you get an adequate number of baiting points with a product like Sluxx HP, Menorexx can boost protection by providing the highest bait point density of any ferric phosphate pellet (see table). remain the key to achieving good slug control. Autumn stubble raking can reduce slug damage by exposing and desiccating slug eggs. He also believes moving seedbed cultivations closer to the drilling date is good management practice, he says.

"I don't know many fields that were rolled last autumn because of the wet weather, so they are already at a disadvantage. Consolidation of the seedbed is pivotal to preventing slugs moving in the soil profile and then hollowing the unprotected seed.

"We've used ferric phosphate effectively in the past and it gives at least the same level of control as metaldehyde, but with none of the environmental disadvantages. The only difference is you don't see any dead slugs, as they move back into the soil profile to die."

Ben believes product selection is critical because but the quality variability in the range of

This is ideal in OSR drilled late, where conditions may be damper, slug pressure higher and there's a very narrow window soon after emergence where the pest has the potential to wipe the crop out completely, he says.



Ben Frost says IPM measures remain at the heart of slug control strategies.

pellets now available is huge. "It must be possible to spread the ferric phosphate pellet accurately over 24m, so pellet ballistics is very important. Inaccurate application is a serious issue and will have an impact on the recommended number of bating points. The minimum number of pellets is 30/m² at 5kg/ha but in high pressure situations the rate should be increased to 42 pellets/m² (7kg/ha)," he says.

"It's in that critical period you need the greatest number of pellets and Menorexx fits in that spot perfectly. Slugs are random feeders and there will be more chance of them bumping into a pellet and not a cotyledon OSR plant," he explains. ■

New for APPROVED FOR 2020: POTATOES

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