



Minimising Flea Beetle Risks at Establishment

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While no single element of agronomy offers the consistency of neonic seed treatments in dealing with cabbage stem flea beetle, DEKALB experience shows there is much growers across the country can do to minimise the risk they pose this autumn.

“It’s crystal clear that anything that gets in the way of early crop growth can significantly increase the impact of CSFB,” said DEKALB trials manager, Richard Phillips. “So the focus has to be on key elements of agronomy we and our growers have found to be the most effective in ensuring reliable establishment and rapid autumn development. Regardless of establishment regime, these include the most appropriate seedbed management, drilling practice and early nutrition as well as variety choice.”

Grower opinion remains divided on the best time to drill. Planting in the first two weeks of August to achieve a robust canopy ahead of the main flea beetle migration has proved its worth in helping early crop survival in some cases. However, these crops tend to carry greater larval burdens than those drilled in early September to emerge after the peak of adult activity. But later drilling can, in turn, make development slower, increasing crop vulnerability.

“Whenever you drill, in our experience the most critical thing is to **drill into sufficient moisture rather than the expectation of it**,” he insisted. “For the greatest flexibility here, fast developing as well as vigorously establishing varieties give the crop the best chance of growing away from any set-backs – from slugs as well as flea beetle. They may put on too much autumn growth if sown early under good conditions. But this is easy enough to check with a timely autumn PGR.

“Our trial work – confirmed by others – also shows the fastest developing varieties in the autumn and the earliest to grow away in the spring suffer the least damage from flea beetle larvae. This seems to be due to the greater ability to compensate earlier canopy development gives them.”

Sowing into well-structured ground with any compaction removed ahead of drilling is, of course vital. As is the effective management of cereal straws to minimise slug shelter and any interference with either sowing depth or early crop growth from incorporated residues.

Field evidence suggests that drilling into longer cereal stubbles with the least soil movement is valuable in disguising the green-on-brown visual attraction of the emerging crop to adult flea beetles. And companion cropping offers another opportunity to confuse them.

“You need to have a mix that fools the beetles but isn’t too competitive with the crop,” Richard Phillips stressed. “Although mustard noticeably reduced flea beetle damage in our recent Clearfield system trials, it proved too competitive with even our fastest developing varieties. In contrast, selected varieties of buckwheat with vetch or berseem clover appear to have been giving much better all-round results on-farm.

“We do, however, see the most rapid Clearfield developers like DK **Impressario CL** having an important edge for their tolerance to ALS herbicide residues when grown in reduce tillage systems, in particular.”

Since OSR seedlings struggle to emerge from much deeper the 5cm and seed on the soil surface can be highly variable in its establishment as well as limiting residual herbicide use, DEKALB growers achieve the best results from sowing to a consistent depth of 2-3 cm.

Key DEKALB Variety Growth Habits

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	Autumn Development		Spring Development		
	Very Rapid	Rapid	Very Early	Early	Slightly Later
DK Extrovert	Very Rapid		Very Early		
DK Exalte		Rapid	Very Early		
DK Expedient	Very Rapid		Very Early		
DK Expansion		Rapid			Slightly Later
DK Exstar		Rapid		Early	
DK Exsteel	Very Rapid				Slightly Later
DK Exclaim		Rapid			Slightly Later
DK Exception		Rapid		Early	
DK Extremus		Rapid	Very Early		Slightly Later
DK Imperial CL		Rapid			
DK Impresario CL		Rapid		Early	

As well as especially vigorous establishment, all DEKALB varieties are bred for their rapid autumn development. **DK Expedient**, **DK Exsteel** and **DK Extrovert** stand out as the fastest developers in the autumn, with particular suitability for later sowing or more challenging drilling conditions. If sown early these varieties may well need an autumn PGR.

DK Expedient, DK Extrovert, **DK Exalte** and **DK Extremus** are the earliest varieties to start growing away in the spring, giving them a particular edge in dealing with damage from flea beetle larvae and pigeons.

Also relatively early into their spring regrowth are **DK Exstar**, **DK Exception** and **DK Impresario CL**, slightly ahead of **DK Expansion**, **DK Exclaim**, **DK Exsteel**, **DK Imperial CL** and **DK Impression CL**. All these varieties are very rapid to grow once they start and are best suited to cold, heavy land where the earliest developers can be stressed by poor nutrient supply.

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