

Flea beetle trials look to integrated tools

Agronomy Issues

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New ADAS trials will give iOSR growers new guidance on techniques to tackle the highly damaging issues of cabbage stem flea beetle

Cabbage stem flea beetle (CSFB) are reportedly on the move, at a time when oilseed rape crops are emerging and highly susceptible to feeding damage.

Warm early autumn weather conditions have been conducive to adult beetles breaking out of their summer diapause, and migrating back into crops.

This season, a new series of Integrated Crop Management trials by ADAS and Syngenta is set to investigate a range of options to help assure autumn crop establishment, and to minimise the impact of egg laying and subsequent larval damage.



Following results from the Syngenta iOSR Focus Site in Suffolk last year, this season's trials, at ADAS Boxworth in Cambridgeshire, will look at multiple factors including drilling date, companion cropping with buckwheat and the use of organic manures to throw beetles off the scent.

With replicated trials being sown in the first and third weeks of September, ADAS lead research entomologist, Dr Sacha White, claimed there's no one silver bullet for control of CSFB, but there are a range of tactics he believes could make it a manageable pest.

"Sowing date appears to be hugely influential," he advised.

"There is a vast data set that indicates later sowing, with crops emerging after peak CSFB egg laying, will minimise resulting larvae numbers."

Furthermore, Syngenta trials with companion cropping have previously demonstrated buckwheat could reduce larvae numbers by as much as a third, without impinging on crop yield in the same way as other companion crops, reported the company's technical manager, Dr Max Newbert (below).



“It was also found that crops could establish well under a straw mulch, even at lower seed rates,” he commented.

“These new trials will further evaluate the potential of both techniques, as well as assessing the implications of slug feeding and crop vigour.”

The ADAS research will also investigate if top dressing germinating OSR with animal slurry could repel CSFB activity, along with the moisture retention and nutrient boost that may also trigger autumn vigour for crops to grow away from damage.

“Soil moisture will be monitored during drilling and establishment, to better understand its role in the resilience of an OSR crop to CSFB infestation,” added Dr Newbert. Flea beetle numbers will also be monitored throughout the trial, including the effects of Hallmark Zeon treatments on adult damage and larval load in the spring.

The dynamics of the CSFB populations are certainly changing with climatic conditions, with hugely increased pest pressure impacting on yields over recent seasons, reported Dr White.

“Despite a perfect storm of conditions that led to very high populations over the past season, it doesn’t necessarily follow that it will be another epidemic year,” he pointed out.

Historically studies had shown little difference in larvae numbers in plants between late autumn and spring. More recently, however, Dr White’s research has shown larvae populations have continued increase through the New Year, to be significantly higher in the spring; in some trials larvae numbers more than doubled between autumn and spring assessments, he added.

[**Find out more about growers' experiences in managing CSFB.**](#)



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