Integrated pest management of cabbage stem flea beetle in oilseed rape

Project number 21120049
Start date 01 August 2016  End date 31 December 2019

The challenge
Cabbage stem flea beetle (CSFB; *Psylliodes chrysocephala*) is a primary pest of oilseed rape (OSR). It is estimated to affect 67% of the total OSR area.Losses due to CSFB in autumn 2014 were appreciable with an estimated 2.7% (18,000 ha) of the national OSR crop lost by 29 September. By 1 December total crop losses due to adult feeding were estimated at 5% of the national crop. In 2015/16, the severity of CSFB damage was less than in 2014/15 with about 1% (6,700 ha) of the national crop lost, although the pest was thought to be more widely dispersed than in the previous year. Controlling the pest is challenging due restrictions on neonicotinoid seed treatments, resistance to pyrethroids and lack of alternative control.

The project
- Review existing information on agronomic factors affecting CSFB adult feeding and larval infestation.
- Determine the effect of agronomic factors on CSFB adult feeding damage and larval infestation. Trials will also be used to assess varietal effects.
- Understand crop tolerance (including varietal tolerance) to adult feeding damage and larval infestation and use this to revise thresholds for adults and larvae.
- Assess alternative control options for CSFB including, but not limited to, trap cropping using OSR volunteers and defoliation of CSFB larvae infested crops.
- Create an IPM strategy for CSFB.
- Transfer new knowledge to farmers and agronomists.

The benefits
The ultimate beneficiaries of the work will be UK oilseed rape growers, agronomists, regulatory bodies and researchers. The proposed work will provide farmers/agronomists with practical guidance to assess the risk of crop damage from CSFB using information about environmental factors and improved action thresholds, and how to avoid and control the pest through targeted crop management and a range of control options.

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<th>AHDB Cereals &amp; Oilseeds funding</th>
<th>£150,000 (total funding £150,000)</th>
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<td>Lead partner</td>
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