

Decision Support System: Grey field slug

FACTSHEET

The grey field slug can cause serious damage in oilseed rape

Grey field slug (*Deroceras reticulatum*) is the most important slug pest in oilseed rape, potentially causing over 95% of most slug damage. The most damage to oilseed rape occurs during the establishment phase (between sowing and the four true leaf stage), with leaf shredding more common than seed hollowing. They thrive in humid conditions with large quantities of food. In most cases, they reside in the soil up to 10 cm deep and are 3 to 5 cm in length. Due to its limited food reserve, this slug feeds more frequently under a variety of conditions. The slug can feed and reproduce year-round, regardless of whether it is below or above ground. Seedbeds with clods and plants that are direct drilled or minimally cultivated are likely to be damaged by slugs. Farming activities such as ploughing also fail to affect them as they move back to the soil surface to cause damage.



Control with help of DSS on platform.ipmdecisions.net

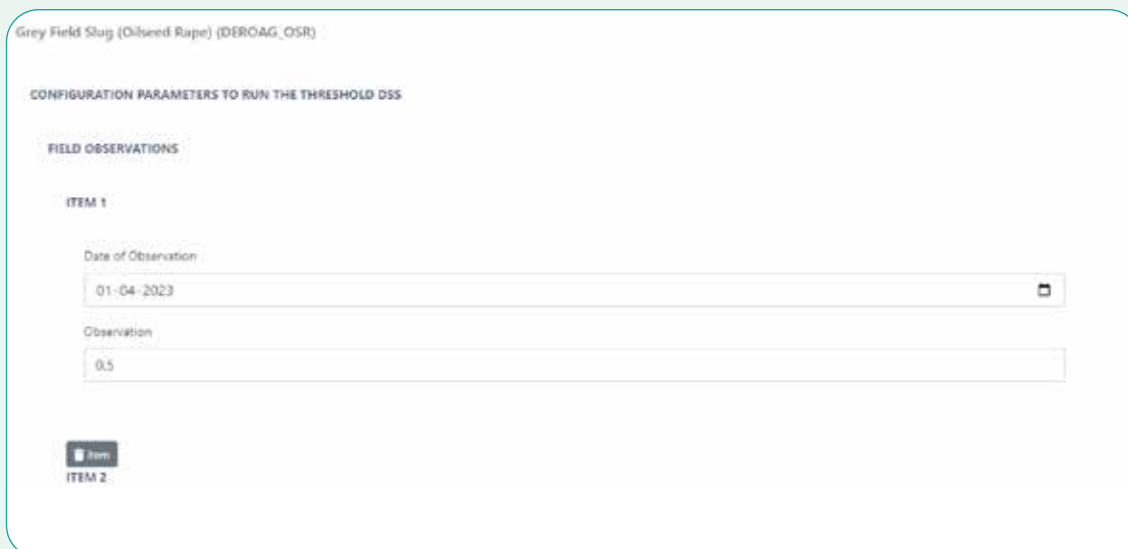
If, on average, there are one or more slugs per trap; the risk of slug populations over threshold is high and management action is needed. In vulnerable crops, continue to monitor slug abundance and consider treatment options where crops require additional protection.

Traps should be placed in standing crops or in stubble over a one-night period from May to October when weather conditions such as temperatures between 5 -25 degrees and moist soil surfaces occur. Slugs should be counted before temperatures rise and they leave refuge traps. The trapping should continue until the vulnerable stage of the crop has passed.


Crops are considered to be at risk of economic damage where an average of one or more slugs are found per refuge trap. Set up a minimum of nine refuge traps per 20 ha (13 in fields larger than 20 ha) in a "W" pattern. Refuge traps can be made from an upturned saucer, baited with chicken layers mash. The threshold is assessed based on the overall average number of slugs found per trap 24hrs after setting them. Assessment is most effective where periods of slug activity are correctly identified; e.g. after period of wet or humid weather. Tracking slug abundance over time is recommended, rather than single assessments. REFERENCE: Glen 2005; Glen et al. 2006

DSS parameters

The number of slugs in the traps needs to be monitored. Number of slugs per trap are to be included in the DSS under 'Parameters'. Threshold is on average, one slug per trap.



The screenshot displays the configuration parameters for the DSS model. The title is "Grey Field Slug (Oilseed Rape) (DEROAG_OSR)". Below the title, it says "CONFIGURATION PARAMETERS TO RUN THE THRESHOLD DSS". Under the heading "FIELD OBSERVATIONS", there is a section for "ITEM 1". The "Date of Observation" is set to "01-04-2023" and the "Observation" value is "0.5". There is a small "Item" button and a label for "ITEM 2" below the first item.

 Figure 1. Parameter to customize DSS output

DSS output

The DSS shows information about the risk of infection for the oilseed rape crop



Fig. 2. The 'Risk status' for damage caused by grey field slugs.

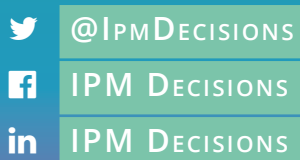
Where can DSS be used

The DSS is developed by ADAS, England. For other countries it is important to first test in practice before using the DSS for decision support in the control of grey field slugs.

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