

Decision Support System: Grey field slug

FACTSHEET

The grey field slug can cause serious damage in oilseed rape

Grey field slug (*Deroceras reticulatum*) are the most important slug pest in cereals where they causing over 95% of most slug damage. Slug damage are commonly seed hollowing before and during seed germination leading to patchy fields, and damage continues on seedlings and young cereal shoots up to GS21. They thrive in humid conditions with large quantities of food. In most cases, they reside in 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.

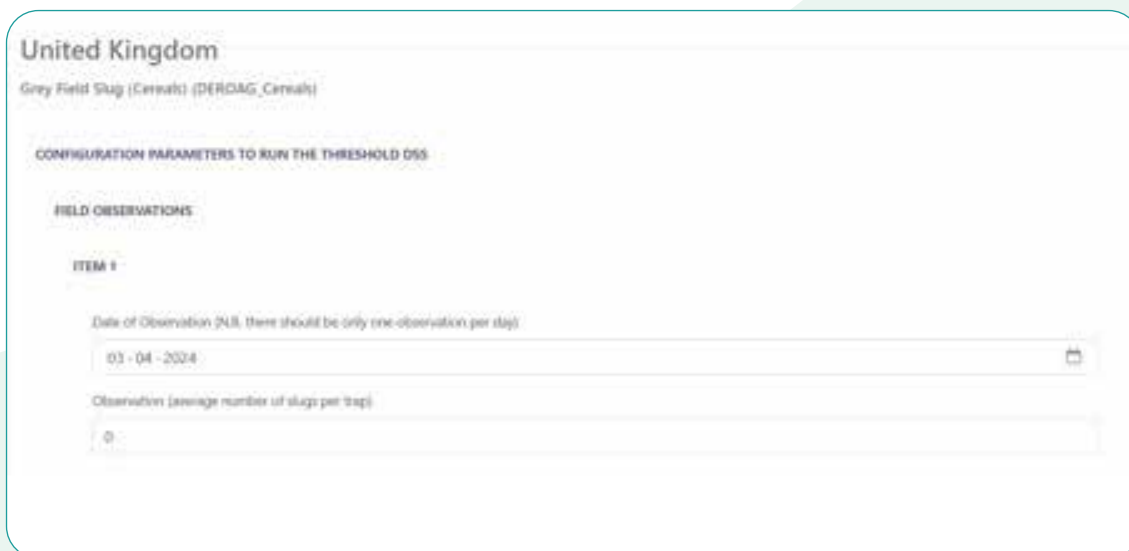


Control with help of DSS on platform.ipmdecisions.net

Slug refuge traps should be placed in standing cereal 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 four or more slugs are found per refuge trap. Assessment is most effective where periods of slug activity are correctly identified; e.g. after period of wet or humid weather. Reference: Glen 2005; Glen et al. 2006

DSS parameters

Number of slugs in the traps need to be monitored. Number of slugs per trap are to be included in the DSS under 'Parameters'. Threshold is in average, crops are considered to be at risk of economic damage where an average of four or more slugs are found per refuge trap.



The screenshot shows a web interface for configuring DSS parameters. At the top, it says "United Kingdom" and "Grey Field Slug (Cereals) (DERDAG_Cereals)". Below this is a section titled "CONFIGURATION PARAMETERS TO RUN THE THRESHOLD DSS". Underneath, there is a sub-section "FIELD OBSERVATIONS" and "ITEM 1". The form contains two input fields: "Date of Observation (N.B. there should be only one observation per day)" with the value "03 - 04 - 2024" and a calendar icon, and "Observation (average number of slugs per trap)" with the value "0".

Figure 1. Parameter to customize DSS output

DSS output

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

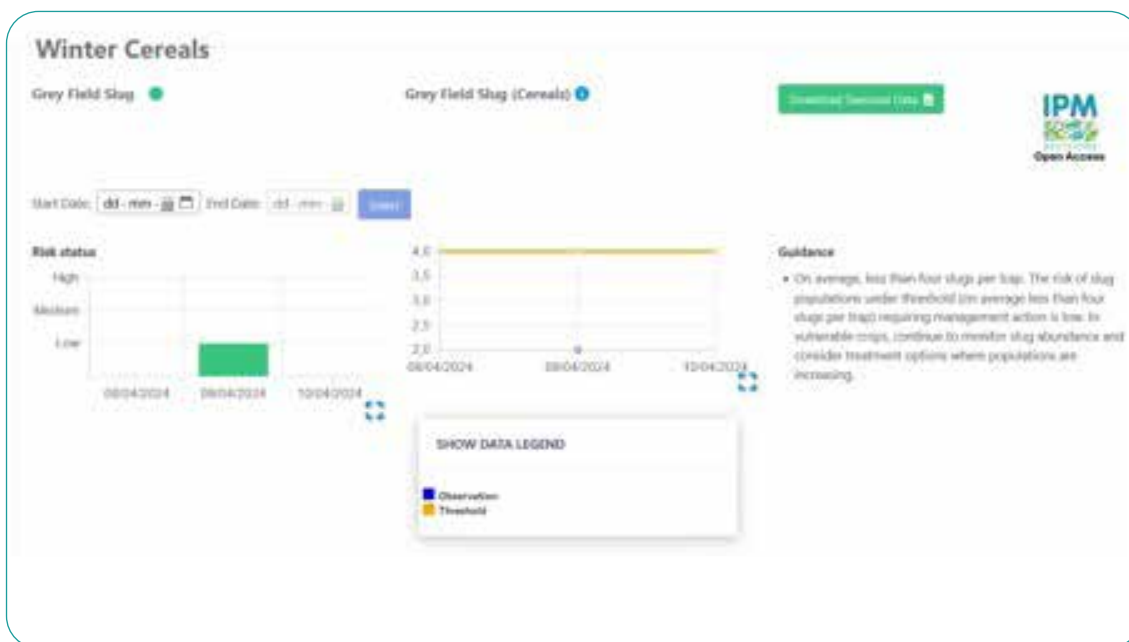


Fig. 2. The 'Risk status' for damage caused by grey field slugs.

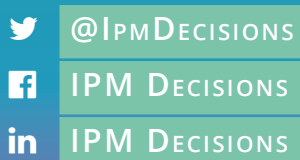
Where can DSS be used

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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