

Integrated slug control in winter oilseed rape

Slug damage

Germinating oilseed rape seedlings are highly vulnerable to feeding by slugs (especially *Deroceras reticulatum*, but also *Arion*, *Milax* and *Tandonia* spp.), but seeds are not attacked.

The growing point of a germinating oilseed rape shoot is above ground (unlike cereals), so plants are readily killed by surface-feeding slugs. Serious damage occurs up to the 4-true-leaf stage.

Assessing slug risk

Slug numbers were monitored in traps in cereal fields and stubble prior to drilling winter oilseed rape, from 2002 to 2004. Slug damage was assessed at oilseed rape establishment to assess the potential value of traps to predict slug damage severity. Figure 1 is an example of the data obtained.

Trapping

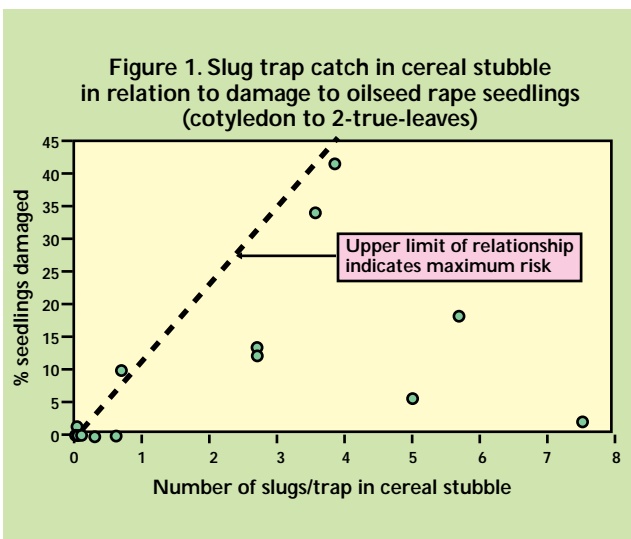
Weather conditions during the short period between harvesting cereals (especially wheat) and drilling winter oilseed rape may not suit trapping. Therefore, it may be worthwhile to trap in standing cereals up to 10 days before harvest, particularly if you plan to broadcast seeds into standing cereals or stubble (eg Autocast).

In the 7-10 days before cereal harvest, or in stubble, put out slug traps when the soil surface is visibly moist and the weather is mild (5-25°C). These consist of a cover about 25cm across, with a small heap (20ml or 2 heaped teaspoonfuls) of chicken layers' mash beneath.

Nine traps should be placed in a 'W' shape in each field (13 traps for fields larger than 20ha), concentrating on areas known to suffer from slug damage.

Leave traps overnight and examine early the following morning.

A catch of 4 or more slugs/trap in standing cereals, or 1 or more slugs/trap in cereal stubble indicates possible risk if other conditions are met (Figure 2).



Action:

- Trap to assess slug activity just before, or after, cereal harvest.
- Use trap catches and weather and cultivation data to assess slug damage risk.
- Cultivate to reduce risk of slug attack.
- If risk is high, broadcast slug pellets as soon as possible after drilling.
- Monitor crops throughout the early susceptible growth stages.

If you are unsure about any of the suggested actions, or want them interpreted for your local conditions, consult a professional agronomist.

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Reducing risk

Shallow cultivation after harvest to incorporate crop residues reduces slug numbers, especially in dry conditions. Drilling in a fine consolidated seedbed will prevent slugs accessing seedlings before emergence.

Examine crops regularly for slug damage from sowing to the four-true-leaf stage. Damage after this stage is unlikely to result in

additional plant loss or significant economic damage.

Slug pellets

An application immediately after drilling is most likely to be effective. Treatment after crop emergence is only worthwhile before four-true-leaves. Broadcasting is the best application method.

Summary

These guidelines result from a Defra-sponsored Sustainable Arable Link Project. Partners are ADAS Consulting, Bayer CropScience, CropTech, De Sangosse UK, Godfrey Farms, HGCA, Rothamsted Research, Lonza, and University of Newcastle.

The overall aim is to devise a rational risk assessment system for the integrated control of slugs in arable crops. Using the text and decision tree, growers can assess risk and control slugs effectively, whilst reducing unnecessary molluscicide use.

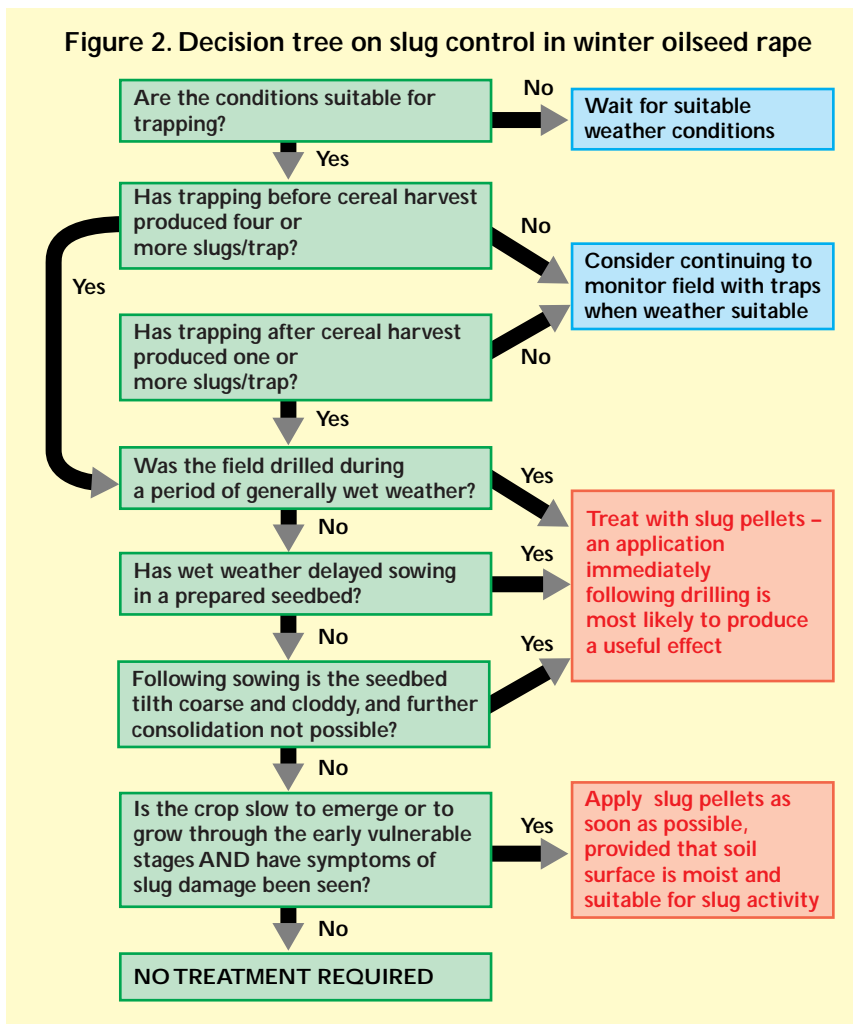
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Ongoing project 2436

Pest management in oilseed rape - a guide, HGCA (2003)

Figure 2. Decision tree on slug control in winter oilseed rape



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