Propyzamide
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- Stewardship
- Best Practice
- Dose
- Timing and rates Trial data
- Soil degradation
- Resistance Management
- Stewardship
  - Tactics to reduce run off
  - Corteva initiatives
Product Stewardship is…

the responsible management of a product from its inception and development through to its use and lifecycle
Kerb and AstroKerb

APPLICATION TIMING
From 3 leaf of crop (1st October) up to before 1st February.

STEWARDSHIP MATTERS
Propyzamide works best when applied to cold, moist soils, but this must be balanced with the need to protect water.

SOIL TEMPERATURE
(at 30 cm) maximum 10°C and declining.

DOSE
Only use the maximum rate of 840 gai/ha for severe blackgrass situations. 750 gai/ha or 500 gai/ha are recommended for less severe blackgrass or other grasses and broadleaf weeds (see product labels for details). Only use one product containing Propyzamide per crop per year.

MOISTURE
Soils should be at 80% field capacity (1-2.5 cm of moisture).
Percent control of *Alopecurus myosuroides* in winter oilseed rape

**Dose**

Data from 12 trials

**Application Dates:** 1 Nov – 7 Dec

**Blackgrass Growth Stages at application:**
11-22BBCH

**Blackgrass populations at evaluation:**
50-731 plants/m²

![Box plot showing percent control of *Alopecurus myosuroides* at different doses and application rates.](image)
**Soil degradation**

**Propyzamide**

- Average soil half life **35-40 days**
- Persistence varies from **2-9 months** depending on soil type and climatic conditions
- $K_{oc} \ 548 - 1340 \ mL/g$

**Soil Degradation Depending on Temperature**

Climate chamber study

- Change of temperature after 120 days

Graph showing degradation of Propyzamide at different temperatures over time.
Blackgrass control from applications of Propyzamide at varying rates and timings

How does the timing and rate of propyzamide applications (Kerb Flo 400SC) impact control of Blackgrass?

Timing

A – Early Oct
B – Last Week Oct
C – Last Week Nov
D – Last two weeks Jan

Application Dates and Crop Growth Stages

<table>
<thead>
<tr>
<th>Trial</th>
<th>1-3 leaves, 64/m²</th>
<th>1-3 leaves, 105/m²</th>
<th>1-3 leaves, 10/m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4-7 leaves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>5-8 leaves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>7-9 leaves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>7 leaves – stem extension</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

500 g ai/ha
750 g ai/ha
840 g ai/ha

3 Trials, Essex and Kent
%Blackgrass Control – Visual  (165-168 DAT, 21st-24th March, mean of 3 trials)
NIAB Trial – Sustainable blackgrass control in OSR

Timing of propyzamide for black-grass control

Optimum timing - 9th Dec

Good rate effects from single timing
Two doses doesn’t give any benefit

Comparing rates of propyzamide

Timing
Early – 2nd Nov 2021
Middle – 9th Dec 2021
Late – 25th Jan 2022
IPM: Resistance management
Checklist for high risk areas

If at least 5 of the following criteria are met, then the risks to water will be significantly reduced

1. There is no risk of heavy rainfall within 48 hours of application
2. Field drains are not flowing and unlikely to flow within 7 days of application
3. Field slope is less than 5% (1 m fall in 20 m)
4. The field is NOT bordered by a watercourse
5. The field has a 6m grass buffer strip adjacent to water
6. There are NO field drains
7. The field has NOT been deep sub-soiled (below plough layer) or mole-drained within the preceding 6 months
8. The crop has been established with true minimum tillage working the top 4-6cm only or by direct drilling
Corteva initiatives for propyzamide stewardship

**Kerb weather tool update**
Launch earlier to help with planning re OSR drilling and which field to select for OSR

**Label statements**
Label amendment - maximum dose of 840g/ha per year per crop – awaiting CRD response

**Farmers Weekly online training**
Grassweed control in OSR, propyzamide and best practice

**Water companies**
Leaflets on propyzamide stewardship and field work in collaboration with water companies

**Trial data**
Trials program 2021/22 – review of propyzamide blackgrass control strategies – Year 2 to startAut 2022
Kerb Weather data app

Kerb weather tool helping farmers plan their propyzamide applications to oilseed rape

Allowing farmers to make local tactical decisions to optimise their AstroKerb® and Kerb® Flo applications and thus their activity against blackgrass.
Thank you!

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