Introducing Clearfield® Oilseed Rape: A guide to use and best practice
Introduction

Clearfield oilseed rape is a production system combining high quality hybrid seed with innovative BASF herbicides.

The system is a new way to approach weed control in oilseed rape, allowing true post-emergence broad-spectrum activity. With a continuing positive outlook for oilseed rape grain, excellent performance on difficult weeds like charlock will bring new opportunities to grow the crop on the farm.

Using traditional plant breeding, varieties are being produced by a range of seed companies and there will be wide choice available to the grower.

The first Clearfield herbicide, with the brand name Cleranda, is UK approved specifically and only for use on winter oilseed rape hybrids carrying the Clearfield brand. Good stewardship of Clearfield oilseed rape is essential.
Key problems for the UK oilseed rape grower

- Limited timing flexibility of herbicide options
- Reliance on pre and early post-em residuals
- Wide germination window for broad-leaved weeds
- Increasing problems with cruciferous weeds
- Impact of problem weeds on grain sample quality
- Intensity of workload around oilseed rape planting time
- Dependence on seedbed conditions
- Need for rapid establishment

Features and benefits of Clearfield Oilseed Rape

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<th>Key features</th>
<th>Later timing than other BLW residuals</th>
<th>Control of problem weeds</th>
<th>Control of volunteer oilseed rape</th>
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<td>Benefits</td>
<td>Can target weeds once emerged</td>
<td>Reduces risk of crop rejections</td>
<td>Helps minimise competition and maximise yield</td>
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<td>Can ease pressure around OSR drilling by spraying later</td>
<td>Improves potential oil profile of grain sample</td>
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<th>Additional features</th>
<th>Two complementary actives*, one new in OSR</th>
<th>Different routes of uptake</th>
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<tr>
<td>Benefits</td>
<td>Broadspectrum weed control available</td>
<td>More consistent performance in range of conditions</td>
<td>Helps with rapid crop establishment in the autumn</td>
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<td>Includes volunteer cereal activity</td>
<td>Less dependant on state of the seedbed</td>
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*Clearanda contains metazachlor and imazamox.
Charlock
**Description:** Charlock is a 20-200cm high, dark-green to purplish hairy annual; it can be very variable in form, with irregularly toothed leaves. The pale yellow four-petalled flowers occur at the top of the flowering spike.
**Prevalent soil types:** found on well-aerated and well-watered but drained, alkaline-rich soils, which have a high organic matter content.

Hedge mustard
**Description:** it is an annual or over-wintering annual, 30-60cm tall, with almost horizontal branching stems and deeply cut spear-shaped and lobed leaves. The yellow flowers are very small with four petals, in flat-topped flower heads. Hedge mustard reproduces only by seed, which is wind dispersed.
**Prevalent soil types:** likes dry, loose, nutrient-rich loams and sandy, stony soils.

Runch (Wild Radish)
**Description:** annual, growing to 1m tall, with roughly hairy stems. The leaves have toothed lobes near the stem and a large lobe at the tip. There is a branched tap root.
**Prevalent soil types:** it prefers lime-free but nutrient-rich sandy and loam soils.

Shepherds purse
**Description:** a very variable annual or biennial dicotyledon, growing to 5-60cm. Most of the leaves grow as a rosette at the base. The flowerhead is covered with small four petalled white flowers, developing into a characteristic heart-shaped seed head.
**Prevalent soil types:** it generally grows in nutrient-rich soils, with pH>5, such as humus-rich loams and nitrate-rich sandy soils. Shepherds purse avoids wet soils.
Good stewardship

Take care to avoid mis-application of Cleranda to non-Clearfield oilseed rape

- Cleranda must only be used on oilseed rape hybrids carrying the Clearfield brand. Treatment of any oilseed rape crop not carrying the Clearfield brand will result in total crop loss.
- Take note of the packaging of both seed and chemical products and ensure they carry the Clearfield brand. Seed product names will always carry the suffix CL.

Clearfield products will be in distinct packaging

After growing Clearfield OSR, volunteers with some tolerance to Group B* herbicides may appear within the field and possibly in neighbouring fields as a result of mechanical movement of seed or some cross-pollination with other OSR crops at the field margin.

- Take care to avoid field-to-field mechanical movement of seed e.g. clean out harvesting and planting machinery.
- Stimulate germination of volunteers post-harvest to control with cultivation and possibly an approved formulation of glyphosate.
- Where chemical control is needed in the following crop, use an appropriate non-Group B* herbicide. See page 11 for more information.

Avoid the development of resistant weeds. The Clearfield production system utilises herbicides with more than one mode of action to reduce the risk of weed resistance. Use as part of an integrated approach to control weeds in the rotation. Consult the Cleranda product label.

Key management steps in the oilseed rape crop

1. Before sowing
   - Choose Clearfield variety.
   - Check and ensure access to the herbicide.
   - Check / review best practice.

2. At sowing
   - Record variety name under field records (e.g. Farm Management Software).
   - Clean out the drill, before adding Clearfield seed.
   - Plant 100% Clearfield seed (do not mix with non-Clearfield seed)

3. At crop emergence
   - Check weed development.

4. At spraying
   - Ensure to treat only Clearfield branded seed.
   - Target weeds at optimum growth stage.
   - Read and follow the Cleranda product label.

5. Following spraying
   - Thoroughly wash out the sprayer, before treating other crops.
   - Do not spray washings onto non-Clearfield oilseed rape.

6. During winter and spring development
   - Check and monitor herbicide performance.

7. At harvest
   - Actively manage seed losses from the combine.

8. Post-harvest
   - Manage volunteer emergence through combination of cultural and chemical means.

9. In the following crop and through the rotation
   - For chemical control of Clearfield volunteers, do not rely on Group B (ALS-inhibitor) herbicides alone.

Refer to field records when planting following crops.

*ALS inhibitor herbicides e.g. sulfonyl-ureas.
Measures for control of Clearfield volunteers in following crops

There are a range of chemical classes with activity on volunteer Clearfield oilseed rape. To achieve chemical control of Clearfield volunteers, do not rely on a Group-B (ALS-inhibitor) herbicide and ensure to include a herbicide with an alternative mode of action.

Use a combination of cultural and chemical means to manage Clearfield oilseed rape volunteers.

* ALS inhibitor herbicides e.g. sulfonylureas.

For more information on herbicide groups, visit: http://www.hracglobal.com/Publications/ClassificationofHerbicideModeofAction/tabid/222/Default.aspx
Clearfield and Cleranda are registered trademark of BASF. Cleranda contains metazachlor + imazamox. Use plant protection products safely. Always read the label and product information before use.

For further information including warning phrases and symbols refer to www.agricentre.basf.co.uk

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