



OSR Herbicides?
Think Water

Drilling and crop establishment

Oilseed rape plays a valuable part in many farm rotations as a break and 'cleaning' crop, especially where black-grass is a problem. However, keeping herbicides out of drinking water sources is key to preventing restrictions on use, or even loss of the products.

Why does drilling and crop establishment matter?

A wide range of establishment methods are used for winter oilseed rape in the UK, which can affect the risk of herbicides reaching water courses.

The broadcast/ drilling options

Broadcast into standing crop/stubble (Autocast) is a quick and cheap option, but with a high risk of poor/uneven establishment. Slug damage can be higher and exposed seed reduces herbicide options.

Direct drill/no-till minimises moisture loss. However, uneven trash distribution may cause uneven establishment. While risk of run-off is reduced by trash, it is increased in compacted areas like tramlines and headlands.

Sub-casting places seed in soil disturbed by widely-spaced tines. In wet conditions, this causes unacceptable 'slotting', providing a direct route for herbicide loss to drains.

Drilling after non-inversion tillage (minimum tillage = top 5 cm) removes surface compaction, but compaction may be caused deeper in the soil profile. Run-off is minimised by removing surface compaction.

Drilling after ploughing can result in high moisture loss which reduces establishment. However, the risk of run-off is reduced as surface compaction is removed. Plough pans can restrict water movement in the soil.

The best option for water protection: In well-structured and well managed soils, direct drill/no till or min till (top 5 cm) are the best options in most seasons for reducing losses of OSR herbicides through land drains or from run-off.

THE KEY HERBICIDES

carbetamide
clopyralid
metazachlor
propyzamide
quinmerac



Other establishment topics

Sowing date: seed sown in late August into good quality, moist seedbeds can enhance crop competition, although very early drilling may lead to an overly large canopy that will require management. Early crop cover can reduce the risk of run-off.

Row spacing: drilling narrower than the traditional 30 cm can increase crop competition, while drilling wider at 60 cm enables inter-row cultivation to tackle early weeds. However, wider row spacing leaves a considerable amount of soil unprotected by the canopy, which increases the risk of run-off.

Seed rate can be increased to provide more crop competition. However, high seed rates will require extra canopy management later in the season.

Seedbed consolidation will aid herbicide performance, reduce the risk of herbicide movement through the soil to water sources and reduce slug pressure.

Autumn nitrogen (up to 30kg/ha in NVZs) can boost early crop growth for improved competition.

Use this check list to review your actions

Objective	Detailed actions or issues	YOUR ASSESSMENT				
		I'm doing this	Maybe I could do this	Not doing this	I will investigate	Not applicable
Reduce drainage losses by improving soil structure	OSR established by direct drill/ no till	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	OSR established by min till	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Aim for late Aug sowing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Consider row spacing impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Consider seed rate options	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Consolidate seedbed after sowing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Consider autumn Nitrogen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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