Reducing Think Water run-off with cultivations and cover crops

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 do cultivations and cover crops matter?

There is no single solution to preventing the loss of oilseed rape herbicides from fields. Instead, best practice uses a full armoury of options to protect water courses. This includes careful choice of cultivations as well as cover and companion crops.

Contour ploughing

Cultivating and/or sowing a field across a slope (i.e. following contour lines) reduces the risk of rills and gullies forming during times of run-off. Benefits range from improved profitability to reduced costs of clearing soil sediment from roads and ditches.

Leaving surface trash and crop residues

Such techniques can reduce the risk of run-off and erosion. However, they can affect sowing and slug pressure depending on chosen method of establishment.

For more information see:

Straw incorporation review AHDB Research Review No 81: https://cereals.ahdb.org.uk/publications/2014/july/30/straw-incorporation-review.aspx

THE KEY
HERBICIDES

carbetamide clopyralid metazachlor propyzamide quinmerac







Establish cover crops and green manures

Cover crops, catch crops and green manures can all improve soil organic matter, water retention and structure. The gap between cereal harvest and oilseed rape drilling is too short, but cover crops can still play a part when established at a different part of the rotation.

Cover crops should be chosen to suit farm practice, expertise and available equipment.

For more information see:

Opportunities for cover crops in conventional arable rotations AHDB information sheet 41 2015: https://cereals.ahdb.org.uk/media/655816/is41-opportunities-for-cover-crops-in-conventional-arable-rotations.pdf SW6: Winter cover crops: https://www.gov.uk/countryside-stewardship-grants/winter-cover-crops-sw6

Cover Crops - a practical guide to soil and system improvement: https://www.agricology.co.uk/sites/default/files/NIABTAG%20Cover%20Crops lowres.pdf

Companion cropping

Growing two or more crops simultaneously offers an opportunity to create more crop cover during autumn and winter to reduce the risk of run-off. Companion crops may be killed-off by winter weather or can be removed with herbicides in spring.

For more information see:

Andrew Howard (2016) the potential for companion cropping and intercropping on UK arable farms Nuffield farming scholarships trust report: http://www.agricology.co.uk/resources/people-skills-cereals-oil-seeds-pulses/potential-companion-cropping-and-intercropping-uk

Use this check list to review your actions

| | | | YOUR ASSESSMENT | | | | |
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| は、一般の一般の一般の一般の一般の一般の一般の一般の一般の一般の一般の一般の一般の一 | Objective | Detailed actions or issues | l'm doing this | Maybe I could do this | Not doing this | I will investigate | Not applicable |
| | Reduce run-off | Contour ploughing | | | | | |
| | | Retaining surface trash | | | | | |
| | | Cover crops in other parts of the rotation | | | | | |
| | | Companion cropping | | | | | |

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