



Building OSR Resilience (5)

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Ensuring the best establishment is the fifth and final article in our special series on ways of building greater resilience into oilseed rape growing to cope with today's uncertainties.

Establishment Essentials

Effective establishment remains one of the most important keys to winter oilseed rape success. And it isn't becoming any easier with increasing extremes of autumn and early winter weather and serious flea beetle infestations for many adding to the threats of slugs and pigeons.

"Long periods of autumn drought or sustained early season flea beetle or slug pressures will always create problems for OSR establishment," pointed out Dekalb technical specialist, Anders Christensen.

"But where conditions are less extreme we know varieties with the vigorous establishment abilities we have always prioritised in our breeding are better able to deal with difficult seedbeds, lack of moisture and early pest attack.

"By developing varieties in completely untreated situations, our breeders have been selecting for a complex trait which gives a high degree of tolerance to pests and diseases as well as adverse weather conditions," he explained.

"Where we have trial sites compromised by early flea beetle infestations, for instance, we see our vigorous varieties, in general, and those with faster leaf development, in particular, standing out from others in their ability to tolerate attack; an advantage which carries right through to yields.

"Varieties like **DK Extrovert**, **DK Exalte**, **DK Exception** and **DK Exentiel** have shown themselves to be more tolerant of larval feeding from the early winter as well as adult flea beetle damage at establishment. In our studies their extra biomass enabled them to cope more effectively with the damage caused and grow away from it."

Alongside such vigorously establishing varieties better able to cope with flea beetle and other challenges, ProCam head of crop production, Nick Myers sees greater attention to key aspects of early crop agronomy as every bit as vital.

Insisting that soil conditions are the most crucial consideration in drill timing, he identifies moisture conservation as the single most important essential, along with sowing early enough to get crops away ahead of the peak of flea beetle activity from the start of September.

"Sufficient soil moisture really proved the difference between success and failure last autumn," he recalled. "So, wherever possible, I like to see straw baled and removed rather than chopped and spread, and minimal soil disturbance in both seedbed preparation and drilling. A small soil crumb size around the seed and effective consolidation are equally important to give the best seed-to-soil contact.



“Nitrogen and phosphorus placed within easy reach of the germinating seed and root stimulating seed treatments are valuable too in giving the crop that all-important early edge; as are foliar micro-nutrients and phosphite at 2-4 leaves to promote root and shoot growth.

“A pre-em herbicide remains crucial where cranesbill and poppies are problematic. But in many cases otherwise, doing away with this will avoid any growth check as well as delaying agronomic investment until the crop is safely established,” Nick Myers added.

At Birch Farm, Oswaldkirk in North Yorkshire, particularly vigorous OSR establishment is Richard Wainwright’s key to taking the pressure off early agronomy, maximising yield potential and allowing the most effective cost control. In last year’s disappointing season, indeed, it allowed his 70 ha of mainly DK Extrovert to average 4.65t/ha and generate a margin over all input and operating costs of nearly £450/ha.

“Our rape goes in after winter barley,” said Richard. “Following intensive manure incorporation into the top soil layers we sow it across the full width of our 3m Sumo Trio in mid-August. We follow this up with a good Cambridge roll for the best seed-to-soil contact.

“It’s gooseberry bushes we want. So we sow an average 30 seeds/m² with a target of no more than 15 plants/m² in March. By drilling a reliable, fast-developing variety like DK Extrovert early into decent moisture and well-fissured soils with a nice manure mulch we get our crops away strongly enough to survive everything that attacks them.

“This means we have big, leafy crops going into the winter with few, if any, pigeon runways. Because the plants are deeply-rooted and well-spread out they produce thick, robust stems with excellent standing power.

“Reliably good establishment means we’re not tempted to add extra seed for the slugs or the pigeons either. So we’re doing nothing to get in the way of our crops’ ability to produce the open, well-branched canopies they need for the most efficient sunlight and nutrient capture.”