Establishing Oilseed Rape in Adverse Weather Conditions

With reports that up to 50% of UK Oilseed Rape is at risk of failing this winter, growers are justifiably worried, but stick with it - the crop is tougher than you think, say DSV’s OSR experts.

The perfect storm of late harvest, unusually dry seedbeds at drilling, low air temperatures and cold soils combined with atypical autumn rainfall patterns has produced a nightmare scenario for Oilseed Rape establishment, with unprecedented levels of slugs making the problem even worse.

But Oilseed Rape is an inherently resilient plant and growers should not be panicked into hasty action by either ploughing crops in or overinvesting in an attempt to remedy the situation. Even the most unpromising looking crops can make it through adverse conditions. In some cases, survival actually depends on the plant limiting its growth in the early stages.

Late drilling isn’t really the problem

Analysis of ProCam’s 4cast agronomy database going back to 2008 and based on 1.5 million acres of arable production, indicates that rape yields don’t usually fall away until sowing dates get well into late September.

The analysis shows, optimum drilling date is still around the end of August into early September, but typically yields show only 0.2 tonnes/ha difference between sowing in the last week of August and the last week in September.

The problem this year is not necessarily late drilling, but that crops were often drilled into dry soils with no rain for 2-3 weeks followed by downpours and very cold conditions subsequently.

But it’s not all bad news. Often the greater the stress endured in early days, the greater the vigour subsequently when conditions pick up and the higher the resulting yield.

Strong hybrid varieties, in particular, can turn every degree of temperature and hour of sunlight into growth following periods of apparent dormancy.
Soil temperature and root development

Soil temperature has more of an influence than air temperature during plant establishment.

Furthermore, top growth is less important than root establishment in the autumn and winter period.

Even if it looks as if not a lot is happening above the ground, plants can often be diverting energy and nutrients into establishing a good root system to see them through the winter.

Around 2 – 3” of root is all a plant needs to have a good basis for growth when conditions pick up. So, even if you don’t see evidence of growth on top, it’s not automatically a cause for concern.

Similarly, a crop can withstand a lot of damage from pests and frost before it becomes a write-off.

Don’t worry too much about plant populations

Whilst optimum OSR plant populations in winter are commonly believed to be between 30 – 35 plants/m², the truth is much lower populations can produce higher outright yields.

ADAS trials establishing 25 plants/m² in late September in the North of the country produced yields of over 4.5 t/ha from crops entering severe winters with only 3 or 4 true leaves.

With good hybrids, populations between 5 - 15 plants/m² have been shown to produce excellent crops. Many producers actually target 10 plants/m² believing this to be the optimum for yield and oil content.

Crops with low plant populations produce more branches and fill seeds for longer than high population crops. If establishment is fairly even, regardless of actual population, you should be OK.

A genetically strong hybrid crop will only really be unable to compensate if it is very patchy and plant numbers drop to less than about 5 plants/m².

The Bottom Line...

• You’re not alone Growers throughout the UK are experiencing the same problem and it’s affecting all regions, across all varieties and in all conditions.

• Keep the faith Your crop should bounce back and all but the very worst should be given the chance to perform.

• Don’t panic Wait until the New Year to assess poor crops and make any decisions.

• It’s good to talk Talk to your agronomist about keeping competitor weeds at bay, managing threats from diseases and maybe giving your crop a nutritional boost.

All the available data suggests thin crops survive better and deliver more than thick ones, so the take-home message is that crops need to be very sparse and uneven to justify re-establishment.

The unprecedented levels of slugs we now have are a direct result of 2012’s poor conditions with many growers facing a losing battle to control them.

Record rainfall during April and May coincided with the main slug-breeding season, providing ideal conditions for a population explosion. Weather since then has remained favourable for survival and breeding, resulting in record levels of both adults and juveniles.

Once you’ve taken all the preventative action you can there’s little more you can do and there’s already concerns about levels of metaldehyde in watercourses.

But Oilseed Rape can tolerate a fair degree of slug damage so, again, don’t make any hasty decisions. Wait until the new year to make a final assessment.