



PUTTING THE SPOTLIGHT ON OSR ESTABLISHMENT IMPROVEMENT

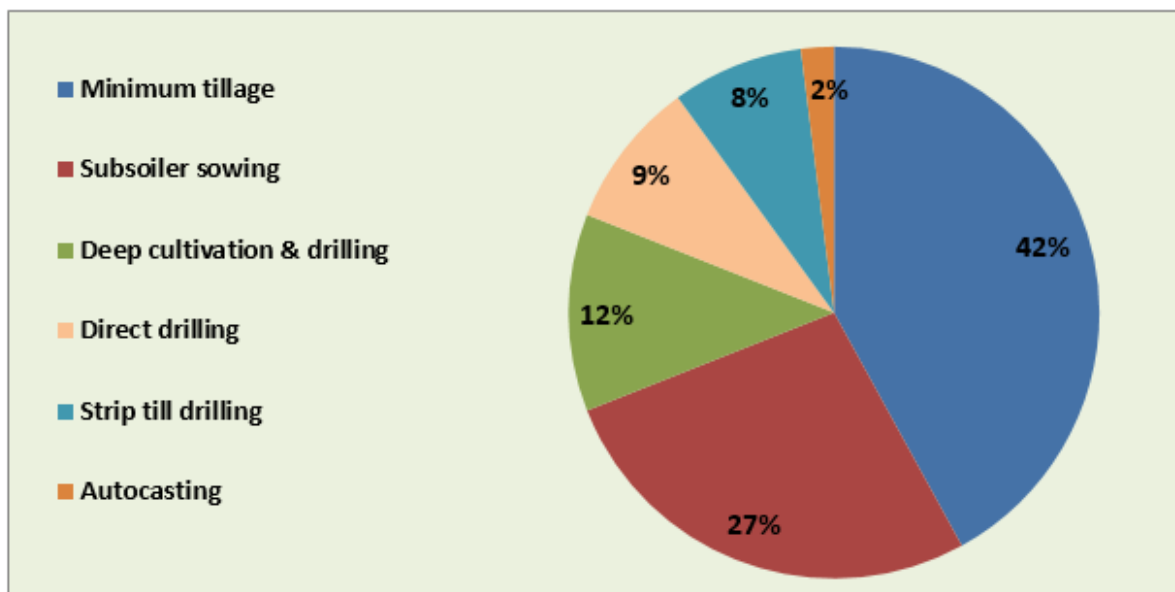
16-Jul-2018

A number of key establishment factors distinguish UK winter OSR growers achieving higher average yields from those with more modest performance levels in a national study of more than 120 producers across the country. Foremost amongst these are variety type and growth habit, and sowing flexibility and depth control.

The mid-June study run independently for leading breeder, Dekalb was designed to provide growers with up-to-date benchmarking information to maximise critical crop establishment this season. It gathered information on variety type, sowing date, establishment regime and a whole range of management practices alongside typical establishment rates and five year average yields.

A similar number of the farms involved are growing hybrids and pure line varieties, with minimum tillage the most popular establishment regime, followed by subsoiler sowing and some form of deep cultivation ahead of drilling. Less popular but employed on more than 5% of farms are direct drilling and strip till drilling, with auto-casting very much a minority sport. (figure 1)

Figure 1: Establishment regime popularity



While this balance between the establishment techniques holds true on farms with a mainly medium soil type, subsoiler sowing is very much more popular on heavy land farms, as is direct drilling. Deep tillage is, understandably perhaps, far less widely practised here.

Just over 40% of crops are generally sown in the last week of August, with around 30% in each case going-in the two weeks before and after – the bulk in either the third week of August or the first week of September.

Heavy land growers sow a higher proportion of their crops in the second and third weeks of August than those on medium ground and a lower proportion in the final week of the month. Interestingly, in both cases around 30% are generally sowing in September.



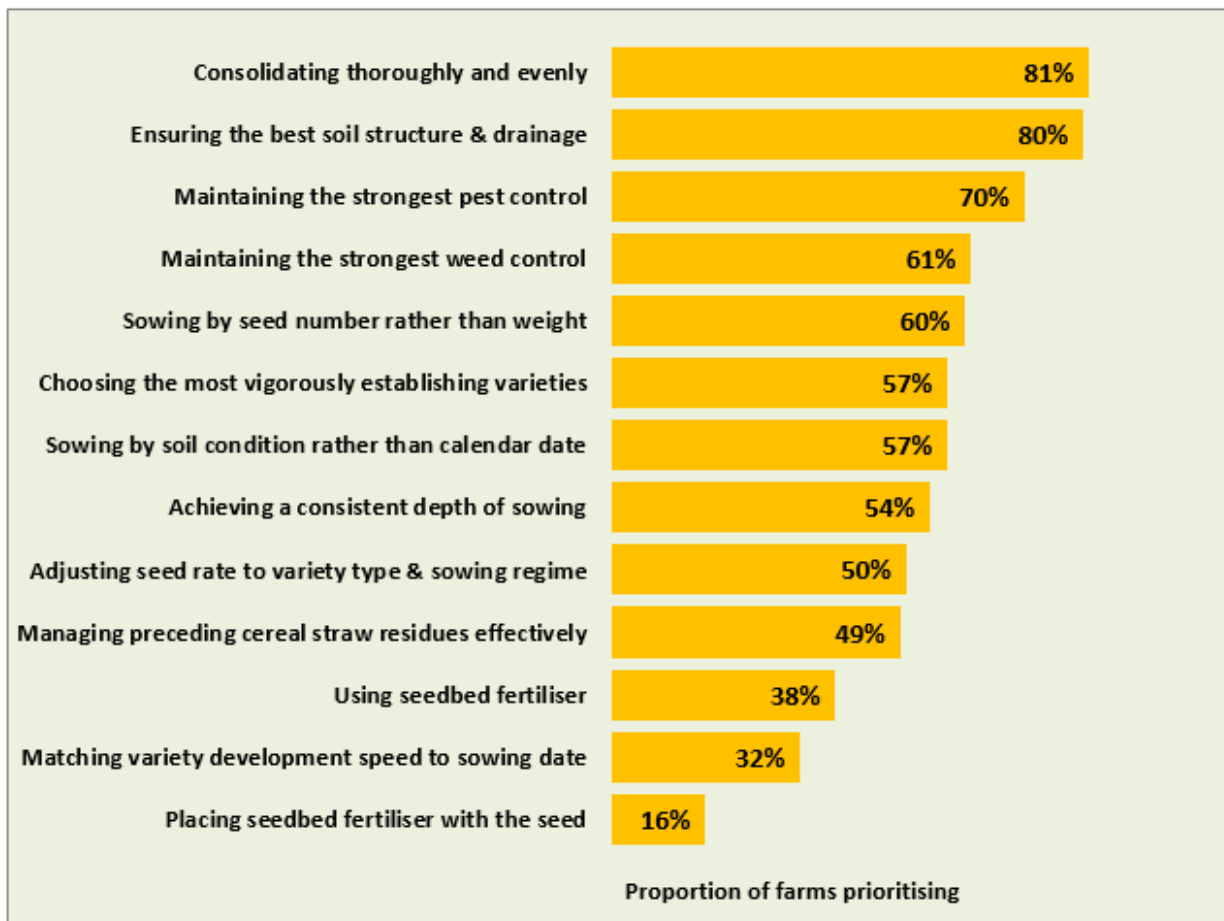
“Consolidating thoroughly and evenly after sowing, ensuring the best possible soil structure and drainage and maintaining the strongest possible pest control stand out as the three most important establishment management practices,” pointed out Dekalb marketing manager, Mark Shaw responsible for the study. “They are priorities on 70% or more of farms.

“Also being prioritised by more than half the growers are choosing the most vigorous establishing varieties; sowing by soil condition rather than calendar date; sowing by seed number rather than weight; achieving a consistent depth of sowing; and, maintaining the strongest possible weed control (Figure 2).

“Our study shows heavy land growers are placing noticeably more emphasis on achieving the best soil structure and drainage, choosing the most vigorous establishing varieties and matching variety development speed to sowing date than those on medium ground,” he noted.

“On medium ground greater priority is being put on sowing by seed number, a consistent sowing depth, thorough and even consolidation, and adjusting seed rates to variety type and sowing regime.

Figure 2: Current Establishment Practice Priorities



“We can also see some interesting differences between the most popular establishment systems here. In particular, far more subsoiler sowers than min-tillers are prioritising vigorously establishing varieties, variety development speed matched to sowing date, seed rates adjusted to variety type and sowing regime, and the most effective cereal straw



management. More are using seedbed fertiliser too, while less appear concerned about sowing depth consistency.”

Overall, the Dekalb study recorded average establishment rates at a very encouraging 83% and five year average yields of 3.95 t/ha. It also showed little, if any, difference in either establishment success or yields between different soil types, establishment regimes or sowing times.

Despite a similar balance of soil types, regimes and sowing times across the two groups, a number of clear management differences were, however, apparent between farms with five year average yields of 4.5 t/ha or more and those averaging 3.5t/ha or less.

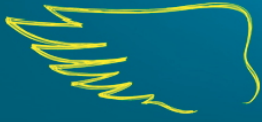
“Markedly more of the higher output growers are putting over half their winter OSR area into hybrids,” Mark Shaw observed. “And the lower output farms are continuing to place relatively greater reliance on pure lines.

“At the same time, the higher output growers are placing noticeably more priority on sowing by soil condition rather than calendar date; matching variety development speed to sowing date; sowing by seed number rather than weight; and, achieving a consistent depth of sowing. They also appear to be more flexible in adjusting their seed rates to variety type and sowing regime (Table 1).

“Interestingly too, the higher output growers clearly seem less concerned about using seedbed fertiliser than the lower output farms,” he noted. “Perhaps this is because, with the establishment rates they are typically achieving – an average of 86% against the 77% of those with lower outputs – they don’t see such a strong need for extra support.

Table 1: Key Establishment Differences on Higher Output Farms

	Higher Output Farms	Lower Output Farms
Five-year average yield	4.5 t/ha or more	3.5 t/ha or more
Average establishment rate	86%	77%
Proportion with greater than 50% of crop area in hybrid varieties	67%	56%
Proportion with greater than 50% of crop area in pure line varieties	33%	44%
Proportion prioritising sowing by soil condition rather than calendar date	72%	40%
Proportion prioritising achieving a consistent depth of sowing	56%	40%
Proportion prioritising matching variety development speed to sowing date	40%	24%
Proportion prioritising sowing by seed number rather than weight	72%	56%
Proportion prioritising adjusting seed rate to variety type and sowing regime	52%	44%



“Our study shows the two groups are putting almost identical emphasis on all the other key establishment priorities. Nor is the difference between them clearly anything to do with the soils they’re on, the establishment regimes they have or when they sow. It’s just that those achieving higher outputs are being both more precise and more flexible in their variety choice and sowing decision-making.”

The three most important areas for improving their establishment this season identified by growers in the Dekalb study are greater vigilance in slug pelleting; earlier sowing where conditions allow; and, better rolling wherever possible.

Also identified as priorities for improvement by more than 20% of growers are taking more care over sowing depth; putting more emphasis on post-emergence rather than pre-em weed control; and, reducing seed rates where conditions allow (Figure 3)

Figure 3: Immediate Establishment Improvement Priorities

