

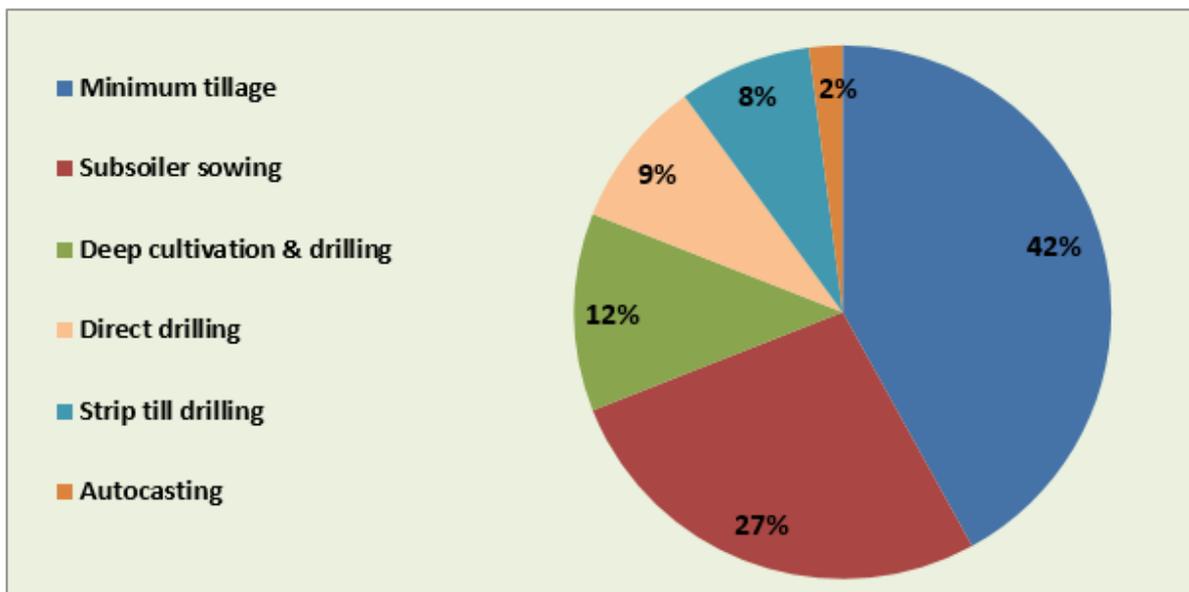
PUTTING THE SPOTLIGHT ON OSR ESTABLISHMENT IMPROVEMENT

16-Jul-2018

A national independent study of over 120 OSR growers (pure line and hybrids) found there are several key establishment factors which can help boost OSR yields. It looked at numerous aspects such as variety type, sowing date, establishment regime, different management practices and five-year average yields.

Minimum tillage was the most popular establishment regime followed by subsoiler sowing and some form of deep cultivation ahead of drilling (Figure 1).

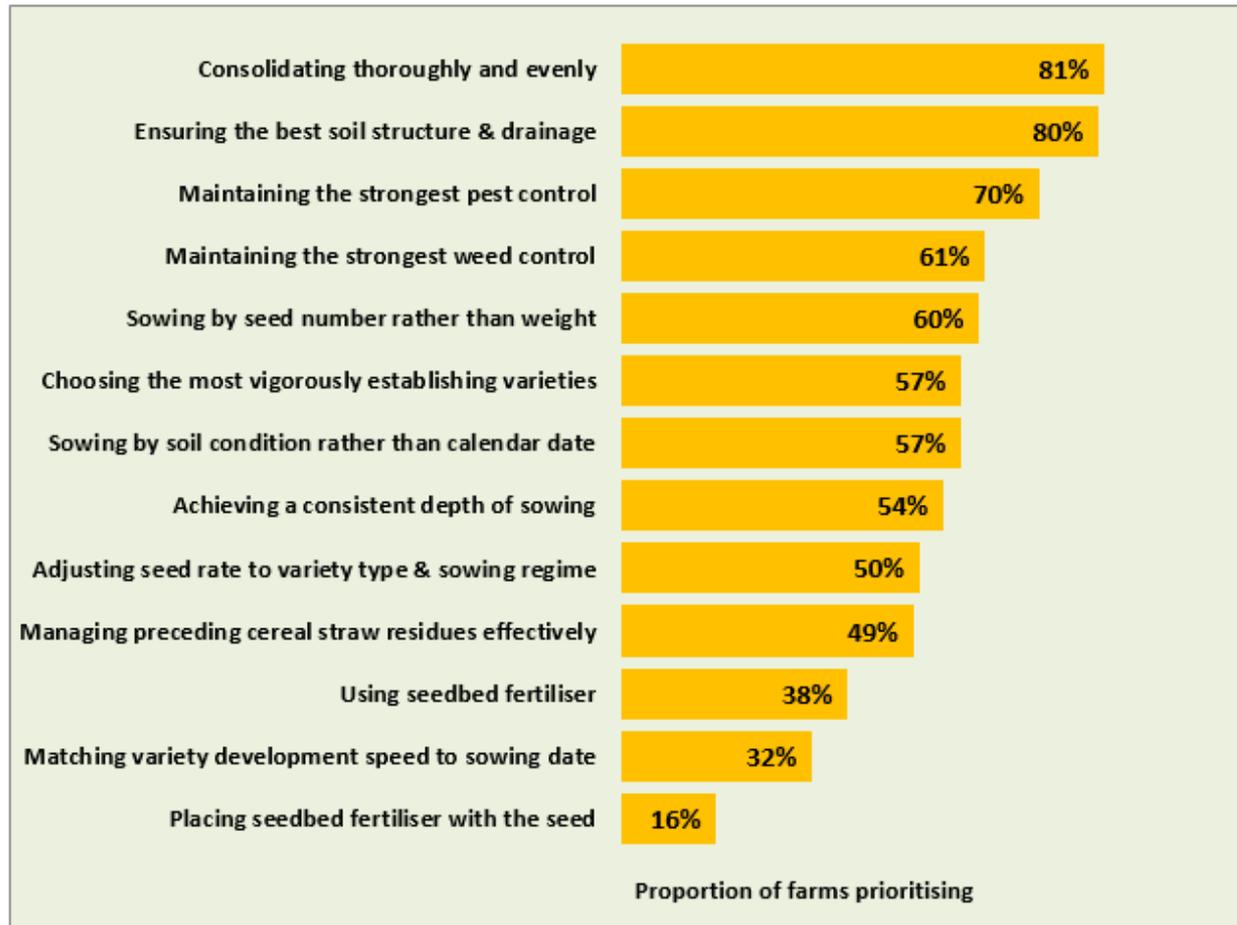
Figure 1: Establishment regime popularity



While this balance between the establishment techniques is used on mainly medium soil type, subsoiler sowing is the popular choice on heavy land farms, as is direct drilling.

70% of farms aim to achieve the best possible soil structure, drainage, and maintaining the strongest possible pest control. Over half of growers are also turning to more vigorous establishing varieties, sowing based on 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).

Figure 2: Current Establishment Practice Priorities



There are also some interesting differences between the most popular establishment systems. Subsoiler sowers are prioritising vigorously establishing varieties, variety development speed matched to sowing date and seed rates are adjusted to variety type and sowing regime. More are using seedbed fertiliser too, while less appear concerned about sowing depth consistency.

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

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, the higher output growers seem less concerned about using seedbed fertiliser than the lower output farms. With average establishment rates of 86% against the 77% of those with lower outputs, growers don't see such a strong need for extra support.

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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%

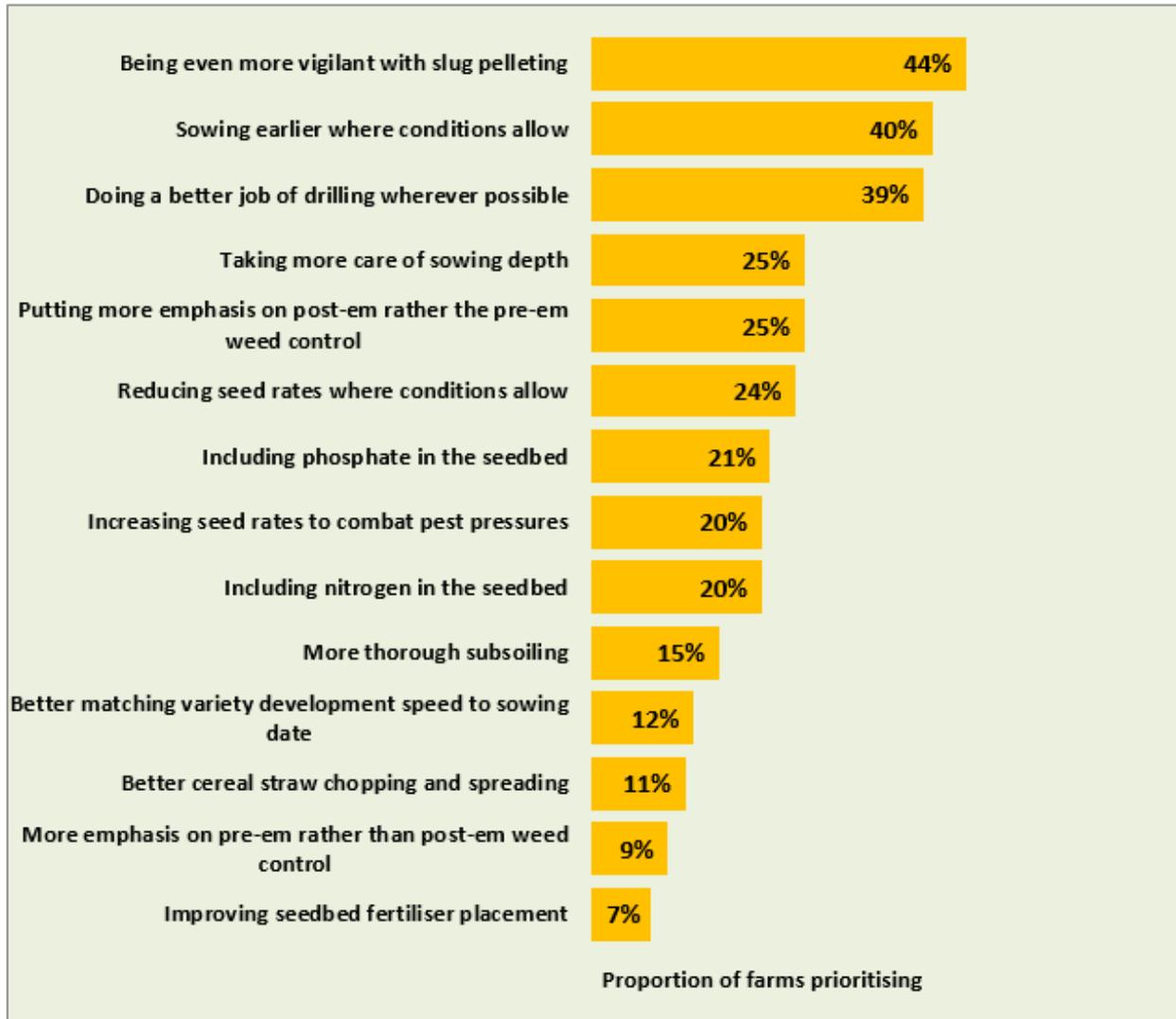
Overall, the study shows higher output and lower output growers are putting almost identical emphasis on all the other key establishment priorities. Nor is the difference between them clearly anything to do with the soils they're on, the establishment regimes they have or when they sow. It's just that 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 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)

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Figure 3: Immediate Establishment Improvement Priorities



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