



NATIONAL YEN INTELLIGENCE

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Last season's YEN crops had a considerably better start than those in 2016/17 and were arguably better set-up to deliver, with average seed numbers of 106,000/m² compared with 95,400/m². But the long, hot summer meant thousand seed weights of only 4.4g against 5.2g the previous year. So 2018 yields at 4.65t/ha were noticeably back on the 4.90t/ha of 2017.



Dr Sarah Kendall

"In both seasons we saw a good correlation between average seed number and performance," explained Dr Sarah Kendall. "On average, 2018 crops with 100,000 seeds/m² out-yielded those with less than 100,000 seeds/m² by 1.0 t/ha. In 2017 the difference was 0.8 t/ha. In contrast, yields continue to be relatively unaffected by crop biomass, establishment system, drilling time, seed rate or levels of either nitrogen or sulphur fertilisation either - although the latter isn't surprising as the growers involved are probably already employing best practice here.

"There is some indication that the best performing half of crops (averaging 5.3t/ha in 2018 and 5.4 t/ha in 2017) are receiving their nitrogen, as well as fungicides and PGRs, in more applications than the lower performing half (averaging 4.0 t/ha and 4.5t/ha respectively). The timing of applications, in particular, is something we definitely need to look into more."

The YEN results suggest a positive association between soil health – as assessed by both soil organic matter content and soil respiration – and OSR performance. Far more marked, though, is an apparent link with magnesium nutrition; the better-performing crops in both 2017 and 2018 coming from soils with a noticeably higher Mg content; and this despite the average Mg content of soils supporting the less well-performing crops being perfectly adequate by accepted standards.

"This would make a good case for foliar magnesium if we can establish a causal effect," said Sarah. "In which case, the timing of this feeding may also be an important consideration."

Where timing very definitely does appear to be important, the YEN results indicate, is in the period between flowering and



desiccation. In both seasons, the highest yielding 50% of crops started flowering earlier and were desiccated later – on average this meant an extra 9-10 days of seed setting and pod filling.

“This strongly suggests that, having maximised seed setting through the flowering period, growers should hold-off on desiccation for as long as possible,” Sarah Kendall noted. “After all, there’s no sense in working hard to secure the most efficient canopies and those that stay green for as long as possible only to kill them off too early. Instead, more patience would certainly seem to be a virtue here – supported perhaps by pod shatter resistance and pod sealants to limit the risk of seed losses.

“Improving how and when we do things – rather than what we do – appear to be key ways we can improve both the level and consistency of OSR performance.,” she concluded. “We look forward to providing increasingly accurate guidance on the most critical considerations in these respects as the YEN programme develops – with registrations for the 2019 season now open at www.yen.adas.co.uk



