

BREEDERS DIGEST

Crop, variety and seed news for agronomists

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Correct inputs advised on spring barley

Unlocking markets by producing the required grain nitrogen specification offers a bright outlook for spring malting barley. Not least for NFC Tipple.



SPRING barley growers looking to capitalise on emerging export opportunities for new malting variety NFC Tipple should consider tailoring fertiliser applications to meet higher grain nitrogen requirements for export, according to Simon Phillips, technical manager for breeder New Farm Crops.

According to Mr Phillips, NFC Tipple has proved extremely popular among growers in the southern counties of England this spring.

That has been driven by the variety progressing well in European malting tests, he says. Several major European maltsters have been looking to source tonnages of the variety from this year's harvest for evaluation – so export has become a key opportunity for UK growers with access to southern ports.

"Typically, grain nitrogen requirements for UK spring malting barley for brewing have been

below 1.65%," explains Mr Phillips. "But if you're going for export, then 1.65 to 1.85% grain nitrogen may be needed. Therefore adjustments in nitrogen fertiliser applications may be required, but do check exactly what target nitrogen is required before adjusting your inputs," he adds.

Historically, Mr Phillips says that when aiming for lower grain nitrogen levels, tests on Optic have indicated that 60% of the total nitrogen fertiliser dose should be applied at the one and a half leaf stage of the crop, with the remaining 40% applied later at three and a half to four leaves.

However if going for higher grain nitrogen content for export that should be reversed, tests indicate – with 40% applied at one and a half leaves, and 60% at the later timing, he adds.

"Currently we are still evaluating how NFC Tipple responds to different nitrogen timings, but early indications would point to a similar split in application percentages and timings.

"Also application timings should take into consideration planting date – with late sown crops not requiring so much late on.

"Also, remember that NFC Tipple is an inherently lower grain nitrogen content producer than Optic by virtue of the fact that it is higher yielding, so has a greater grain nitrogen dilution effect. If you apply an extra 25 kg/ha of nitrogen to NFC Tipple, over Optic, it produces a similar grain nitrogen level to Optic."

If growers always produce high protein content due to land fertility, then they should not change their timings, he adds.

The Syngenta logo, featuring the word 'syngenta' in a blue, lowercase, sans-serif font with a green leaf-like shape above the 'y'.



Spring barley – make sure it's adequately protected this year

BE sure to maintain adequate yield and quality protection on spring barley this season. With inputs often already cut to the bone on many farms, cutting back further could cause yield and quality to plummet. Rhynchosporium remains the key disease and must be kept out of crops from the outset. Once established, it can slash yield by a third. However, two strobilurin applications per season can add substantially to yield compared with a single spray.

For NFC Tipple, a fairly standard spray programme based around a foundation of UNIX with AMISTAR OPTI or ACANTO at T1 followed by AMISTAR OPTI + triazole at T2 is suggested. With a mildew resistance rating of 9 and a brown rust resistance rating of 8 these shouldn't be too problematical. Addition of triazoles or a morpholine into the programme should be considered based on disease pressure and the need to boost any eradicant effect.

Boosting OSR yield with an optimum biomass variety

Farmers seeking to maximise their oilseed rape crop's gross income should search out varieties with optimum biomass characteristics, those combining yield with flexible crop management.

Biomass is defined as 'the total dry matter production of the whole crop as a given area', with total dry matter taking in roots, stems, leaves and seed.

According to SAC's Dr Elaine Booth: "Manipulating an oilseed rape's production efficiency continues to offer considerable scope. This can be measured

by the plant's harvest index – the ratio of seed to other parts of the plant.

"Low biomass oilseed rape varieties bred to have very short straw have so far frequently tended to be associated with a yield penalty. On the other hand, selecting relatively short and stiff varieties, the optimum biomass types, which have some associated management benefits and still maintain high yields, have clear advantages for the current grower."

NK's new optimum biomass concept can be defined by the following six variety characteristics: See table 1.

Table 1: Optimum biomass variety characteristics

| Characteristic | Target specification (HGCA Rating) |
|------------------------------------|---|
| Seed yield | 105% (equal to the average of the top three RL varieties) |
| Oil content | 44% or higher |
| Resistance to lodging at flowering | Minimum value 8 |
| Stem stiffness at harvest | Minimum value 8 |
| Plant height | Absolute value 7 |
| Merit Index | 133 (equal to the average of the top three RL varieties) |

Syngenta Seeds

Look out for NK Grace, the UK's first optimum biomass variety with a leading seed yield of 105%.

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