

Spring barley inputs

Agronomy Issues
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Spring barley seedlings

Fertiliser inputs

Fertiliser inputs for spring barley will depend on a range of factors including your previous cropping, soil type, winter rainfall and yield potential. We are all aware of the very wet autumn and consequently soils being depleted of leachable nutrients, namely nitrogen and sulphur.

The most important factor when deciding your nutrition programme is the end market, especially if growing spring malting barley. If your grain is being sold under contract for malting it will have a specific % grain nitrogen requirement. Some non-GN varieties such as LAUREATE are approved for both brewing and malt distilling, so it is important to know what the target % grain nitrogen is in order to tailor inputs accordingly.

As a guide, higher totals and later applications of nitrogen will result in higher % grain N. If growing purely for feed you are likely to want to maximise yield and therefore, supplying sufficient nitrogen to avoid crop limitations will be key. It is important to consider all areas of nutrition, not just nitrogen to maximise the crop potential.

Matt Bull - Seeds Technical Manager

End market nitrogen requirements

Grain distilling: Above 1.85% grain N. High nitrogen is key for grain distilling use in order to break down the starches of non-malted cereal grains into sugars. A three split programme has proved effective with roughly 40% in the seedbed, 40% at GS13 and the final 20% to be applied between GS30-49 to boost grain N, dependent on soil moisture.

Brewing: 1.6-1.8% grain N, higher for export contracts. Generally, a 50/50 split of half the total nitrogen dose in the seedbed and half by GS13 has delivered the right grain N for brewing specification in our trials. This has been consistent for both LAUREATE and PROPINO.

Malt distilling: Below 1.65% grain N. Trials experience has shown that generally applying all nitrogen in the seedbed gives the best balance between yield and % grain N for malt distilling contracts.

Spring barley nutrition goes far beyond just nitrogen. Always aim to keep soils at target indices for the key macro-nutrients and consider other yield and quality limiting deficiencies. Getting spring crops off to a good start will be critical. Ensuring crops have available phosphorus will aid with root development.

Sulphur should also be applied to many crops either separately or in conjunction with nitrogen, depending on which source type is being used, to ensure the correct N:S balance is maintained.

In some situations, other micronutrients may require addressing, especially manganese but also copper.

Attention to detail with spring barley nutrition is critical for achieving contract specification for sale in the target end market.