

The 2022 maize-growing season was challenging; not least due to the widespread droughts, so what should growers be considering ahead of the coming season? **Wendy Short** reports.

Making plans for maize in 2023

Each growing year is different and it is unwise to base decisions solely on the previous season's conditions, says Andrew Cook, of KWS.

Instead, he recommends taking a five-year average before making plans for varietal selection, seed bed preparation and sowing.

Varietal selection is probably one of the most important factors in ensuring a successful maize harvest, says Mr Cook.

"Forage maize should have a high dry matter rating and starch content should be a minimum 30%. Milk producers who feed a total mixed ration (TMR) could include some ultra-early varieties in their portfolios. They require

fewer days to reach maturity and can bring harvest dates forward, allowing early access to the clamp.

"This will be particularly helpful if grass silage yields fail to meet expectations.

"On farms where maize represents a significant proportion of the diet, the addition of some of the later-maturing varieties may be useful. They tend to combine high energy yields with moderate starch content and these qualities can reduce the risk of acidosis in the herd."

Rising input costs will have affected decisions on whether to use a pre-emergence herbicide, but he views the application of both treatments as an 'insurance policy.'



Young maize plants' good start can be hampered by weeds.

"It is well-documented that maize plants will not get off to a good start if they are faced with early competition from weed species," he says.

"Another advantage of a pre-emergence spray is that it will help to minimise weed growth, if the weather causes delays to post-emergence treatment timings.

The final decision will depend on the individual business and the cost of the additional expense has to be factored in to the gross margin calculation."

Patience

Every year Mr Cook urges growers to exercise patience at drilling time, as the soil must have reached an even temperature of 8degC for three-to-four consecutive days on fields with light soils and 12degC on heavy soils.

"Seed breeders have made great progress in improving the genetic potential of maize varieties over the past several years, but some of these gains will be lost unless sowing takes place at the correct time," he says.

"It is not easy to get the timing right, but as a general rule it is better to wait until the soil has warmed up. Premature drilling will lead to delayed germination and the young seedlings will have an uneven emergence pattern.

"Sowing into cold soil will also place limits on nutrient uptakes.

"Conversely, late drilling will delay cutting dates and may take some farms into a period which is less-than-ideal for harvesting.

"This can result in crop yield and quality losses, along with soil structure damage which can have a negative effect on the following crop. In cases where drilling is expected to be delayed, then early-maturing varieties can allow for a degree of catch-up."

If the coming season proves as dry as last year, growers can mitigate risk by using deeper drill settings compared with the standard figure used on the farm, he adds.

"Deeper drilling can give seeds and seedlings a greater degree of protection from a lack of seedbed moisture post-planting.

"As long as the seedbed has been well-cultivated and the soil is friable, increasing the drill depth can permit plant roots to reach further down into the soil to access water and nutrients.

"It can also increase stem strength in the crop, to give greater lodging resistance.

"We have been seeing strong

autumn winds become part of the UK weather pattern and using deeper drilling to manipulate crop performance can be especially beneficial for maize which is sown in relatively exposed areas."

Oxygen

However, it is essential to ensure that deeper seed placement is combined with measures to create an environment with sufficient oxygen, he warns.

Maize plants will not reach their potential if they encounter compaction and anaerobic conditions will lead to a percentage of seeds



Andrew Cook

Applying the correct drill setting is another important element of crop management, he says.

"Try to avoid rushing when the drill is being calibrated; that will apply whether you use your own machinery or employ a contractor.

"Take care to eliminate double plants, which will have a weak root structure and will compromise yield and uniformity along the row.

"My final advice is to ensure seed placement accuracy; this will reduce inter-plant competition and produce a uniform pattern of light interception."

failing to germinate.

On most dairy units, sub-soiling will usually offer the cheapest and most cost-effective solution.



Sowing into cold soil will also place limits on nutrient uptakes

ANDREW COOK



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