

Technical Update - Maize Establishment

Information correct as at 16:00pm on 09.04.2020

- The better the seedbed the better the plant emergence
- Check soil temperatures regularly
- Drilling accuracy is paramount for even emergence and maximum yield
- Ensure good early season weed control and correct nutrient supply

Seedbed Preparation

Producing a good seedbed following this year's weather will be a challenge for many, but fortunately, there is still time to alleviate the worst of the problems.

With the ground so wet, subsoiling should only be carried out if the fields are checked first. If soil at the intended working depth can be rolled into a ball, then it is too wet. Different soils will need different management, but the target should be to create the best seedbed possible with the minimum number of passes to minimise further compaction.

Drilling Date- 7/8/9

Soils will inevitably be colder than normal this year and may take longer to warm up due to the high rainfall. Checking soil temperature is crucial so remember 7/8/9 – 7 days at 8 degrees C at 9.00am at your chosen drilling depth. A day late drilling in the spring equals two days later harvest in the autumn. However, do not drill your maize pre-April 15th to reduce the risk of frost damage.

Drilling Speed and Depth

The absolute key for a good maize crop is uniform emergence. Work from France has shown that the biggest competitor to a maize plant is its next-door neighbour. Each plant should emerge at the same time to minimise competition between plants. Extreme examples of inconsistent emergence can result in losses of up to 40%. The poorer the seedbed, the slower the drill will have to go to achieve a uniform drilling depth. Make sure the drill operator does a good job.

Seed Rate and Row Width

Generally, the higher the seed rate and closer the row width, the higher the overall yield, but this yield increase can be at the expense of starch percentage. As the number of plants per hectare increases, the size of the cob decreases.

Are you looking for bulk or starch percentage? For bulk, narrow the row width to 50cm and increase the seed rate to 110,000/ha, for quality use 75cm rows and 90,000 seeds/ha to establish 100,000 or 80,000 plants/ha respectively.



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Sowing Depth and Seed Dressings

Sowing depth will depend upon what/if seed dressings are on the seed. Where there is no bird repellent seed dressing, drill at least 7cm deep to ensure that rooks cannot dig the seed up. With a dressing the seed can be drilled at the normal depth (5cm) or into the soil moisture if the seedbed becomes dry.

Please read and follow the guidance given by your seed supplier where dressings are applied as the dust should not be inhaled.

For advice on fertiliser requirements consult your FACTS qualified advisor or use the MGA Nitrogen predictor. Consult your agronomist to ensure a weed-free first six weeks. Generally, this can only be achieved with a 2 pass strategy: pre-emergence to commence the weed control followed by a post emergence application to give season-long protection.

This factsheet has been prepared by Kite Consulting for Farming Connect.

Thanks to the Maize Growers Association for their help compiling this note.



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