

myKWS MAIZE

NEWSLETTER | ISSUE 3 | APRIL 2020

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THE FUTURE
SINCE 1856



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Welcome...

...to the third issue of 'My Maize Matters;' KWS' quarterly newsletter. Our series will keep you posted on topical issues which can help you to maximise the results from your maize crop during the growing season, as well as offering advice on varietal selection and other related subjects.

In this issue, we are looking ahead with tips for this year's planting period, following a very difficult autumn and winter for farmers. We also have an update on our Dry Matter Monitoring Tool and there is news about NIAB's revised trials protocol. In addition, you can find details on how to visit our on-farm site in Gloucestershire this September. Try to book early, as this tends to be a popular event with growers.

Please scan this code to sign up for further issues:



Seasonal Review

JOHN BURGESS, KWS



We've come through a really challenging time and producers across the country may find that their soils aren't fit to be worked until the beginning of April at the earliest. Every year I urge growers to be patient before maize seedbed prep and again before sowing. For 2020, the message is particularly important. The soil will be slow to warm up and drilling could be as late as the middle, or even the end of May. The worst possible scenario is to drill too early, as maize seed will deteriorate if left in cold soils and plant populations will suffer.

The autumn drilling problems have had a knock-on effect on spring seed sales, including maize, and many of our most popular varieties sold out much earlier than usual. Plus, the loss of MesuroI meant there were no carry-over seed stocks from 2019. We're putting plans in place to reduce the likelihood of any future shortages.

We've seen a trend towards farmers switching to earlier varieties, which require a shorter growing season in order to reach maturity, and our variety sales have reflected this trend. This was a wise choice for 2020, because our early hybrids such as CITO KWS (FAO 150) or SERGIO KWS (FAO 160) offer the opportunity for 'catch-up,' with the potential for harvest before the bad weather sets in.

All-in-all, we're all looking back at a time of great challenges and dairy farmers have been especially hard hit. Cows have been getting through maize silage stocks at a rapid rate and it looks as if turn-out will be delayed this spring.



MESUROL BAN NEWS

The ban on Mesurol has the potential to create a far-reaching impact on the industry, but KWS has come up with an alternative option.

Our premium seed has been treated with our new and highly effective product: **INITIO BIRD PROTECT**, to safeguard yields. As well as providing bird damage protection, it also has a fungicidal action and boosts early vigour.

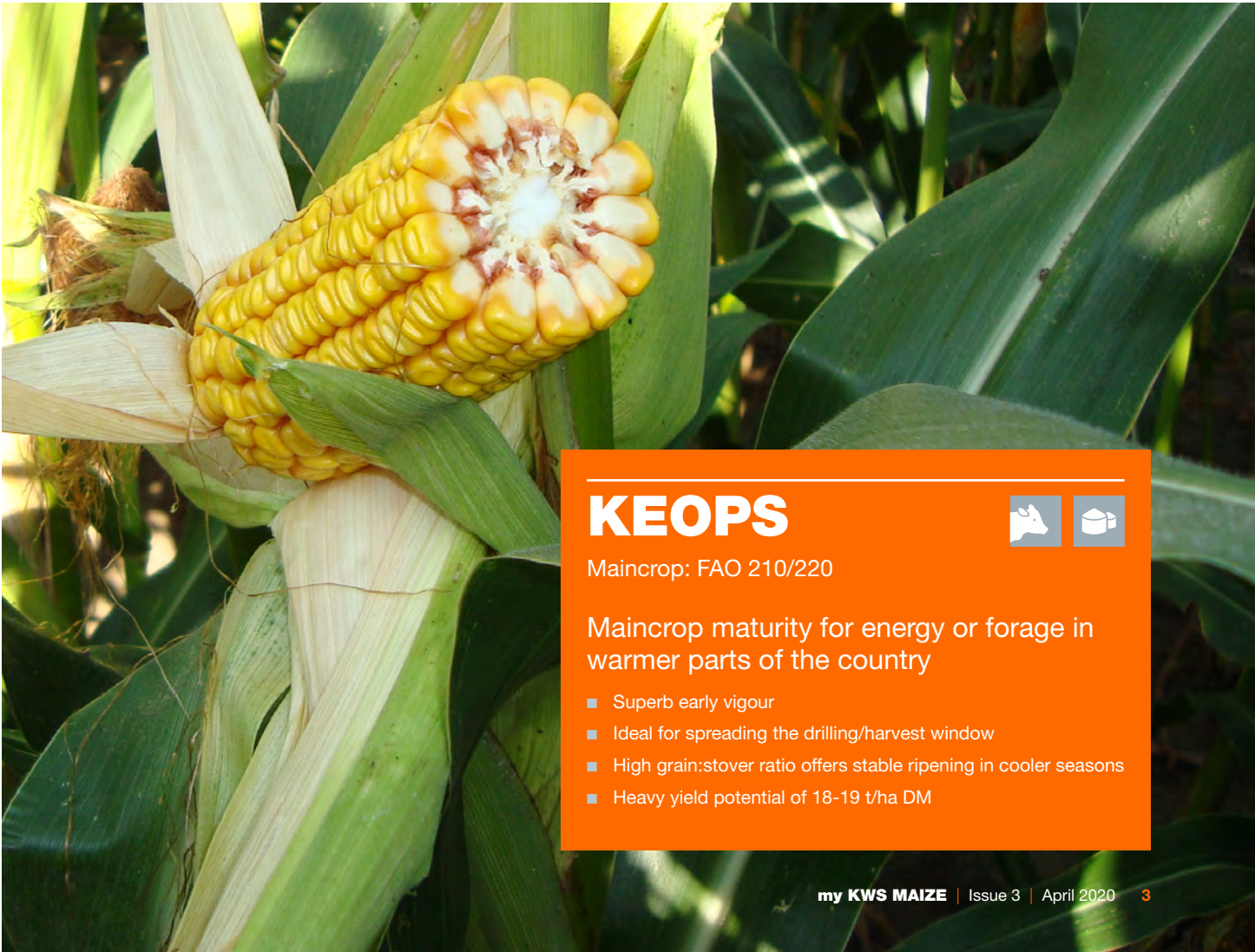
We have so much confidence in Initio Bird Protect that treated bags come with a crop safety commitment. We offer a 50% re-sow discount with replacement Initio-treated seed, if bird damage occurs. In conjunction with your retail distributor, we will carry out a field visit to verify damage levels, but we are not expecting to come and see you this season as it gives excellent results.



? DID YOU KNOW?

In the wake of a number of seed protection chemicals being banned and the potential threat of the withdrawal of current options, KWS researchers are working to find a fresh solution for the problem of bird damage within seed and young crops. This year's KWS seed has been treated with a highly effective product: **INITIO BIRD PROTECT** to safeguard yields.

* Use plant production products safely. Always read label and product information before use.



KEOPS



Maincrop: FAO 210/220

Maincrop maturity for energy or forage in warmer parts of the country

- Superb early vigour
- Ideal for spreading the drilling/harvest window
- High grain:stover ratio offers stable ripening in cooler seasons
- Heavy yield potential of 18-19 t/ha DM

MAIZE AGRONOMY...

UNDERSOWING MAIZE WITH GRASS

Environmental concerns over run-off and leaving land bare in the winter have put the spotlight on undersowing maize with grass and it can help with cross-compliance and greening requirements. We would love to hear about your experiences with this system – good or bad. Just use the contact details at the end of this newsletter to drop us a line on the subject, if you are willing?

Maize Undersowing

- Wait until the maize is tall enough to intercept the sunlight
- The grass will help to mop up excess water in the soil
- Choose an early maize variety and one with high vigour
- A spinner is a good option for grass seed distribution
- The grass can be cut or grazed in early season the following year

SOIL TEMPERATURE

At sowing time, the soil temperature must exceed 10 degrees Centigrade for five consecutive days before seed is planted. The figure should be adjusted to 8 degrees C for light soils and 12 degrees C for heavy soils.

It is essential to ensure adequate soil aeration; whether ground conditions are wet or dry. Routine sub-soiling is recommended, particularly on continuous maize land, as it will encourage maximum germination rates and strong rooting.

SEEDBED PREP

Once soils have dried out sufficiently, the maize will need a reasonably open and rough seedbed to trap oxygen and retain heat. A super-fine seedbed will reflect sunlight, as well as being prone to capping after heavy rainfall.

? DID YOU KNOW?

Undersowing is already common practice in Denmark and Germany



FERTILISER

(We strongly advise soil testing for N, P and K when conditions are suitable)

Maize has fairly simple requirements when it comes to fertiliser, but it is a 'hungry' crop, as first-time growers will discover.

Nitrogen – the legal N-Max limit is 150kgs/ha and this is adequate for the crop to reach its potential. The rate may be trimmed to 130kgs for ultra-early and early varieties that have been planted in late season, because the growing period will be too short for full take-up.

Phosphate – the recommended DAP requirement is 125kgs/ha and this figure has remained unchanged for many years. If poultry manure is used, it may be possible to reduce the rate to 100kgs.

A warning about the use of phosphate: the new Agriculture Bill mentions that soils will be tested for excess phosphate and there could be repercussions if levels exceed a fixed amount. This measure aims to prevent leaching into watercourses, which has a very damaging effect, and high rainfall will exacerbate the issue.

Potash – this is a vital nutrient for maize and crops will not reach their potential unless the soil index is on target. Therefore the rate has been set at 250-275kgs/ha.



Sulphur – there is a requirement of 30kgs/ha and on many farms the level will have to be topped up with regular sulphur applications. The nutrient is essential for providing standing power and a deficiency can lead to lodging.

Some growers may also consider foliar feeds in the form of liquid phosphate. These can increase herbicide efficacy by stimulating weed growth and they also reduce herbicide damage on young maize plants. Applying a foliar product at the three to five-leaf stage can maximise kernel development before the critical 'V6' (six leaf stage). However yield responses to these applications can be hard to measure accurately in an ongoing trial situation.

DRILLING DEPTH

Drilling deeper offers a number of benefits, including improved rooting and nutrient uptake and greater drought tolerance. It can also produce a stronger stem. Accurate seed placing reduces competition and creates a more uniform pattern of light interception.

"Deeper drilling means it will be essential to make sure that maize seed has access to enough oxygen in the soil profile. I would always recommend sub-soiling, because anaerobic conditions will have a negative effect on germination rates."

John Burgess

"The past couple of years have seen high maize crop yields and the off-take of potash will have been high. A 40t/ha crop will have removed 220kgs/ha of potash at harvest.

"In high growth periods, maize has a daily requirement of 8kgs/ha. Given the higher-than-expected fresh yields from both 2018 and 2019, we would strongly advise assessing K index before drilling this season and correcting any K deficiency, to maintain supply with crop off-take."

Drilling Tips

✓ **Take your time over drill calibration, to maximise uniformity of seed placement.**

✓ **Avoid double plants, which weaken root structure, can result in two smaller ears and will not optimise yield and maturity along the row.**

Recommended drill depths

- Early to mid season (April to early May) 3 cm to 5 cm
- Mid season (Early May onwards) 5 cm to 7 cm
- Late (mid May onwards) 7 cm to 9 cm max

Effects of Premature Drilling

- Slowed germination
- Uneven emergence
- Reduced nutrient uptake

Effects of Late Drilling

- Delayed harvesting
- Requirement for early-maturing varieties



AUGUSTUS KWS

Ultra Early: FAO 160



Ideal for short-season maize silage production

- Rapid early vigour
- Number 1 DM yield in its segment (94% across all marginal areas)
- Full cob sheath coverage
- Excellent starch (35.5%) and ME (11.66 MJ/Kg)

NIAB Revises Trials Protocol

NIAB is planning to revise its trials protocol for maize following the Mesurol ban. At present, the standard advice is to drill at 5cms once soil temperatures reach 8°C.

The new protocol will follow a guideline of 10 degrees C for the drilling date, while the drilling depth recommendation has been changed to a minimum of 7cms and a maximum of 9cms. A delayed drilling date is one of the few options to minimise bird damage to untreated maize seed, according to KWS' John Burgess.

He comments: *"Cultural control methods are likely to be used more widely on farms in the future. Overcoming issues that arise from the ever-decreasing availability of chemical solutions to cropping problems may require a change of attitude among growers."*

UPDATE

KWS NEW PRECISION DRY MATTER MONITORING TOOL

In previous issues, we have outlined details of our new maize dry matter monitoring tool. It will be available to all buyers of our premium-brand varieties.



JOIN US AS PART OF THE PILOT TEAM

Would you like to take advantage of this new technological development by joining our 2020 pilot scheme? If so, please contact the KWS maize team using the information at the end of this newsletter.

Feedback from pilot users of our new Dry Matter Monitoring Tool has been very positive and we will be including it in our in-house trials for 2020 at our Lydney (Gloucs) site.

Here's a brief explanation of our new service (due to go live in 2021):

- Online service to increase decision-making accuracy at harvest time
- Uses satellite imagery accurate to 10m square for crop analysis
- Imagery combined with variety FAO and rainfall, heat unit and radiation data on individual farms
- Colour coding system indicates crop is too wet, harvest-ready or has exceeded target dry matter
- Prioritises fields ready to cut – especially useful for large acreages
- When launched it is expected to cover 80% of the UK maize-growing area



Where?

Lydney, Gloucestershire

When?

Open during September

What's to see?

Main site and replicated site at 600-feet above sea-level in nearby St Briavels

- Compare the UK's top 20 best-selling maize hybrids
- Learn about the science behind maize breeding
- Practical advice on maize-growing
- Population wheel showing the effect of varying seed rates

How?

To book, contact your merchant or call KWS Office: 01594 528234
email: maize@kws-uk.com

Tour of adjoining AD Plant optional

- Established in 2013
- 1.5 megawatts
- Feedstocks: maize and rye silage, FYM and chicken manure

Group tours available on request



Meet the Team...



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