

myKWS MAIZE

NEWSLETTER | ISSUE 6 | DECEMBER 2020

SEEDING
THE FUTURE
SINCE 1856



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European Corn Borer

As infestations become more common in the UK – we look at some facts surrounding ECB

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Maize 360

Covid19 has restricted our Open Days in 2020 – Experience the KWS Demonstration Site in a 360 virtual tour

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Digital Consulting for Farmers

Join the digital age!

Welcome...

...to the sixth issue of the myKWS quarterly newsletter. This series offers you timely and relevant information on maize, to help you maximise the potential of your crop.

In this issue we reflect on this year's harvest and discuss the European Corn Borer, a maize insect pest which may be on the move from isolated sites in Southern England. We also have news of one of our flagship varieties, KWS Exelon and launch our new Maize Seed Service.



Please scan this QR code to sign up for future issues.

REFLECTION ON THE 2020 MAIZE SEASON

JOHN BURGESS, KWS



The 2020 maize season produced high DM yields across all regions, although the range of starch content figures was wider than normal, partially due to difficult harvest conditions.

In fact, heat units were higher compared with the previous year, but the heavy rainfall in the run-up to harvest caused field access problems, and led to some crops being over-ripe.

Despite the autumn bad weather, the majority of maize across the UK went into the silage pits successfully and should feed out well for livestock farmers, with AD plant suppliers also generally satisfied with their production figures.

In a minority of cases, however, growers waited anxiously for field access while the crop continued to dry down beyond the ideal 32-35% dry matter. About one fifth of our own trial plots were affected by this issue, which was mainly responsible for the disparity in starch content figures across the board.

If these wet autumns are going to persist, then preserving soil structure is likely to become an even greater challenge. With the new UK Agricultural Bill and expected policy changes, it is quite likely that farmers will be challenged to under-sow maize or, as a minimum measure, to ensure that harvest is completed without causing soil damage. This also fits exactly into line with the use of earlier hybrids that are now commonplace on livestock farms.

SPOTLIGHT ON EUROPEAN CORN BORER

JOHN BURGESS, KWS and EMMA DENNIS, PROCAM



Photo credit: Emma Dennis

If you grow maize in Devon and Dorset, you may have experienced (or heard about) crop damage due to the European Corn Borer (ECB); it has also been identified in some parts of Kent. Here are a few facts about this insect pest, which could become more commonplace in the future:

ECB IN THE UK

- Confirmed in UK maize in 2010
- Currently only a small UK population, focused in the South of England
- Warmer winters, an increase in host vegetation and changing practices could see numbers increase
- Hosts include: sweetcorn; potatoes; beans; oats; celery; tomatoes; ornamental flower stems; mugwort; docks; pigweed
- Migrates from one field to the next – moths fly between fields and a build up of larvae is common in areas of intense maize cultivation
- Infestations usually spotted at crop-walking to assess maturity
- Insect activity hinders nutrient uptake – main damage is to stem
- Caterpillar stage – pale brown with a dark head (measures 2.5cms)
- Larval stage overwinters in maize trash

CONTROL

- Good stubble hygiene is key to minimising numbers
- Flail or mow to break up maize stubble, or use the plough for burial

- Rotate maize crops more frequently, as stubble can take up to 2 years to degrade

“*Aside from lodging, the damage can render the crop at higher risk of fusarium ear rot and slow down harvesting work rates.*”
John Burgess

“*The UK has no established ECB threshold. Ongoing research and monitoring is needed, to determine if future UK forage and grain maize production might be at risk.*”
Emma Dennis

? DID YOU KNOW?
Worldwide there are several different populations of ECB. In the UK it has one generation a year, with two generations/year in warmer countries like Italy.

NEW AND IMPROVED FOR 2021

INITIO BIRD PROTECT

KWS SEED TECHNOLOGIES



This late May 2020 field shot shows Jack Hinwood's maize crop near Clee Hill in Shropshire. It's not an easy site, with the land rising to 600ft above sea-level. The photo clearly shows KWS Calvin powering on, having benefited from our INITIO Bird Protect seed treatment. Meanwhile, the adjacent non-KWS variety is showing purpling; a stress reaction to the low temperatures. The adjacent crop has a long way to go to try and catch up.

WHAT'S IT ALL ABOUT?

Equally as effective as the now-banned Mesurol as a bird deterrent in trials.

Added nutrients get maize off to a good start by enhancing root development, especially in low spring temperatures.

New formulation: humic acids + a phosphorous-mobilised bacteria to boost plant health.

TRIAL RESULTS

Seed treated with INITIO Bird Protect produced 18% more fresh matter and 13% extra DM compared with a standard fungicide.

More marked effect on low-phosphate soils – 47% higher freshweights and 44% higher DM at 14 days, when compared with a standard fungicide.

Effect even more pronounced on untreated maize seed, where researchers found that almost entire rows of untreated seed was predated by birds, while the INITIO-treated seed was left virtually untouched.

INGREDIENTS

Zinc and Manganese – help the young plant to withstand early-season stress. Zinc deficiency at 4-6 leaves can be caused by the nutrient being locked in the soil due to the antagonistic effect of excess phosphorous. Zinc is particularly beneficial on high pH soils. Early manganese deficiency most commonly occurs in dry conditions, or on high pH soils.

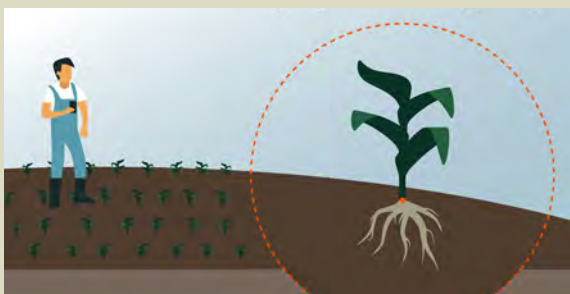
Humic acids – encourage strong root growth and promote nutrient uptake.

P-mobilising micro-organism *B. megaterium* – enhances nutrient uptake efficiency.

Systemic bird deterrent formulation.

"It is the unique combination of ingredients which makes INITIO Bird Protect so efficient. This product will help to protect the UK maize acreage – planting untreated seed for 2021 is not a viable option."

John Morgan, KWS



THE BENEFITS



Secure germination

Improves regeneration capability and tolerance towards cold stress



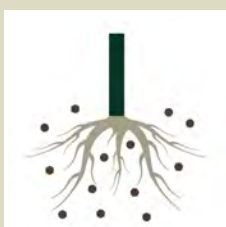
Better root development

Enhances root and fine root development for vigorous growth



Better phosphate uptake

Unlocks phosphorus in the soil, making it available at a soil temperature of 3°C



Rigorous and robust plants

Improves nutrient uptake and biomass build-up in the early growth stage



Bird protection

Keeps birds from eating treated seeds

? DID YOU KNOW?

INITIO Bird Protect will be standard on most KWS hybrid varieties for 2021.

UPDATE

KWS EXELON

Based on initial data, we are expecting it to take a strong position in the rankings.

GROWER TESTIMONIALS

Don't just take our word for it! Comments from two KWS Exelon growers this year (kindly sent to us by Mark Sheridan of ACT Forage Seeds):

J Hodge, Lancashire.

"Very impressed with Exelon this year. Was always a massive crop with very large cobs so expect starch yields will be good. Was the earliest variety to mature and the chopper driver commented on how it yielded. I am very happy with it as we have a new clamp this year and it's filled it! Grain was very hard and very little moisture left in the stalks. Looking forward to having it analysed."

R Moore, Staffordshire.

"We grew Exelon alongside our usual variety in the neighbouring field and it was 2 foot taller, also much bigger and thicker cobs and out-yielded it by 30%. Maturity-wise it was 4/5 days earlier. Really proved itself in a challenging year. We will be growing it again."

KWS EXELON UNIQUE TRAITS

KWS Exelon is the first of its kind with the potential to carry 20 grain rings. This compares with a figure of 15-16 for a typical older hybrid.

The extra cob weight in a variety like KWS Exelon could increase the potential for lodging in strong winds. That is why we are currently breeding for a lower ear insertion height, to offset the risk. We recognised that the relatively high position of cobs on the older-generation maize varieties had to change. KWS Exelon puts this into practice and will allow farmers to reduce crop damage from bad weather in the autumn.

The genetic potential to carry extra rings and low ear insertion height has been incorporated into all our new KWS candidate hybrids and will be available across our early and ultra early portfolio in the seasons ahead.



MAIZE 360 VIRTUAL TOUR

Many of our readers will have already been to our demonstration site at Lydney in Gloucestershire; we usually host grower visits throughout September. Sadly, the 2020 tours had to be cancelled but instead we put together a 'Virtual 360 tour,' which you can watch from the comfort of home or from the tractor cab while you are taking a break.

Clever technology allows the viewer to manipulate the screen to focus on points of interest and feedback from the video has been very positive. Nevertheless we understand that it cannot replace the 'real thing' and we look forward to welcoming you in September 2021. You can find the whole 360 tour at www.maize360.com. Below are a couple of snippets from the online event – more to come in future issues.

ROW WIDTH TRIALS

John Burgess (video transcript)

"At KWS we have been conducting row width trials since 2017 and looking at a combination of row width and plant population. The project is carried out in conjunction with Vaderstad."

"As part of our demonstration wheel, we planted at a seed rate of 100,000 seeds/ha with 50cms row spacings, which is quite a high seed rate at a relatively narrow row width. We are also trialling rates of as low as 80,000 seeds/ha at the same row width."



"The advantage of narrow rows gives the ability to tramline, which means easier herbicide application without running over the crop. Narrow rows also make for better drill utilisation across multiple crop types. Our findings to date have not uncovered any yield or quality penalty after the three years of trial work."

BREEDING PROGRESS

John Burgess (video transcript)

"Excitement is building within our maize breeding team, as we are making rapid progress on the production of early varieties with extremely high grain content. This is characterised by the presence of an enormous number of kernels on a very early hybrid. Look out for more information in this newsletter; we expect to launch these in the coming seasons, with seed available to farmers on a larger scale."



? DID YOU KNOW?

We have recently published two new best practice guide booklets, which replaced our 'Maize for Profit; Growing and Feeding' guide. Please feel free to download 'Growing and Agronomy' and/or 'Ensiling Feeding and Nutrition,' from www.kws-uk.com. Paper copies of the handy technical reference guides can be ordered from our HQ at Lydney.

myKWS

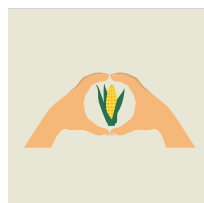
Digital consulting for farmers



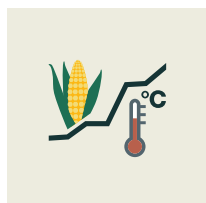
Please scan this QR code to sign up for myKWS

The free myKWS service is a central hub for all your crop needs. By signing up you can receive agronomic and portfolio related information for maize, cereals, oilseeds and sugar beet.

By signing up to **myKWS** you will enjoy crop specific eNewsletters and have access to interactive tools to support your cropping, including:



Maize seed service (new for 2021 season)



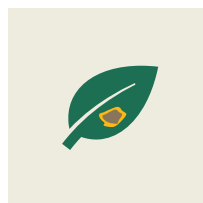
Maize heat unit service



Soil temperature



Satellite field vitality checks



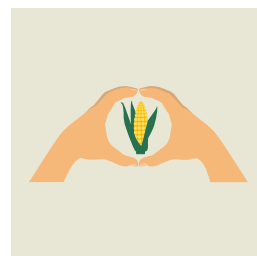
Damage symptom finder

NEW FOR 2021

MAIZE SEED SERVICE

Your re – sow solution for crop damage caused by frost or bird damage. Register your field no later than 5 days post-sowing and upload proof of purchase (delivery note or invoice)

- Share risk from crop damage caused by frost or bird damage
- Receive a 50% discount of seed purchase costs for re-sowing
- Re-establish your maize crop to ensure yield and avoid crop losses



Register for myKWS to access the maize seed service and for full terms and conditions:
www.kws.com/gb/en/mykws/

Thank you for reading our **myKWS Maize** newsletter, we hope you enjoyed it. If you haven't already signed up to receive regular copies, you can register at www.kws-uk.com

Here's hoping that winter-feed out goes well for livestock producers and that AD plants continue to run smoothly. Our next newsletter will be published in March, when the 2021 planting season will be almost upon us.

A Merry Christmas and Happy New Year
from all of us at **KWS Maize**



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