

myKWS MAIZE

NEWSLETTER | ISSUE 5 | SEPTEMBER 2020

SEEDING
THE FUTURE
SINCE 1856



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Maize 360

New for 2020 – Experience our demonstration site in 360° virtual reality



Welcome...

...to the fifth issue of the myKWS Maize quarterly newsletter. The aim of the series is to help you to maximise maize yields and quality and to keep you updated on topical maize agronomy and the latest industry issues.

In this issue we have covered seasonal updates from KWS and Rob Williams a Shropshire grower, plus we take a detailed look at corn cob mix (CCM), a forage alternative which may be useful to your business. Look out for **Maize 360** launching this autumn, an online virtual 360 experience of our KWS Maize Demonstration site at Lydney.



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

? HOW TO...

ASSESS CROPS FOR HARVEST READINESS

JOHN BURGESS, KWS



STAGE ONE

Examine the level of senescence on the silk, then break the cob in half and discard the top part.

Take your thumbnail and attempt to slice into a kernel. Inside you may see a very high level of starch and very little moisture; this indicates harvest-readiness.

STAGE TWO

Assess the stover. A fully mature plant will show a high level of stem reddening, which is caused by a build-up of anthocyanin.

Next, break the stem at the proposed cutting point. Normally this will be above the first node but below the second node.

Crack the stem and wring out the material. Very little sap leakage will indicate harvest readiness. A green stem with visible fluid means that the crop will need more time to mature before cutting.

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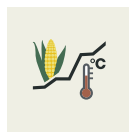
Once signed up to myKWS you will gain access to tools to help with the cultivation of your KWS maize varieties, as well as all your other crops from KWS.

Key tools for maize:



Soil Temperature Tool

Check the soil temperatures of the previous days for your region to find the optimal sowing date.



Heat Unit Tool

Check your predicted harvest date based on the FAO of your selected hybrids, and the average heat units for your location.



Field Vitality Check

Receive comprehensive field vitality maps for your fields across all crops.

Digital consulting for farmers

myKWS

The free myKWS service supports you with digital tools that help you with relevant decisions around your cultivation, as well as an e-mail service, which informs you about relevant topics at the right time – so that you can achieve optimal returns at the end of the season.

To find out more and sign up, visit our website:



www.kws-uk.com/mykws

KWS



SEASONAL REVIEW

PLUS: HARVEST INFO & CLAMP ISSUES



"The warm March and April weather encouraged some growers to sow their maize two to three weeks earlier than usual," says John Morgan.

"These were the lucky ones, because many later plantings were slow to emerge due to the dry conditions that followed."

"The early drought led to an uneven pattern of emergence in a minority of cases," he says. "This even occurred within individual fields, with some areas retaining soil moisture better than others. The result is a degree of variation in plant height on affected farms."

"Nevertheless, there have been no significant problems reported in the UK maize crop."

"A fairly normal maize year, although starch levels are likely to be down by a few points. Producers who used slightly reduced seed rates should see more marked benefits than usual this time." That is how KWS' John Burgess sums up the 2020 growing season.

"Heat units have beaten the average, but the high rainfall has slightly diluted the grain:stover ratio, which has had a knock-on effect on energy content," he says. "The excess water uptake has also delayed grain fill and harvest will certainly not be early for most; the grain must fully ripen before cutting, in order to maximise starch levels. As usual, patience will be key at harvest time."

The disease incidence for eyespot and helminthosporium has been lower-than-expected, he adds. "The spores of these two diseases are spread at flowering and this period was fairly dry, so levels were suppressed."

✓ TOP TIPS...

Common Problems Maize Ensiling

"The most frequent issue is linked to ensiling fairly high dry matter crops, where it can be difficult to compact and exclude the air. Additives offer a solution, but I would not recommend using a product designed for grass silage. Maize silage undergoes a much more restricted fermentation than grass silage and maize additives are designed to prevent over-heating. Meanwhile grass additives are intended to promote a full fermentation. A maize-specific product will always do a better job."

Feed-out Advice

At feed-out, aim to cut at least 1-1.5 metres of maize silage into the clamp each day, to prevent heating on the face. Shallow cutting may cause warming at the face and allow mould spores to develop.

John Morgan, KWS



REDUCED SEED RATES

Conventional Seed Rate

110,000 seeds/ha (45,000/acre). Produces 11 plants/m²

Reduced Seed Rate

90-100,000 seeds/ha (40-42,000/acre). Produces 9-10 plants/m²

Reduced Seed Rate Facts

- Potential to increase starch levels by 2-3% and bring harvest dates forward by 2-3 days.
- Require additional drilling precision capability
- Plants have greater access to light, boosting grain content & silage quality
- Individual plants can access more water, which sustains yields in low rainfall situations



HARVESTING ADVICE

The KWS UK portfolio focuses on offering farmers increased flexibility in harvest date, demonstrated in two key areas:

- **Avoiding rapid dry down of the leaf stover maintains a good level of stay green**
- **Early flowering and cob maturity**

TOO EARLY






Effects of harvesting too early

- Lower yield
- Reduced energy, starch and ME which results in lower intake potential
- Higher risk of clamp effluent which will require a longer chop length
- Poor dry matter intake and palatability resulting in acidic silage

TOO LATE

Effects of late harvesting

- Higher harvesting costs and increased field losses
- Low digestibility and palatability
- Excessive dry matter and poor clamp stability
- Difficult clamp consolidation which will require a shorter chop length
- Soil damage/compaction

Grain maturity	Description	Cob DM (%)	Whole plant DM (%)
Milk	 Grain immature Avoid premature harvesting	10-15	< 20
Soft dough	 Grains become firmer. Husks remain green	20-28	20-27
Hard dough	 Silage maturity reached at 'hard dough' stage. Reduced risk of clamp effluent	30-45	28-32
Hard ripe	 Grain at 'hard ripe' stage. Crop ready for late cut silage or CCM	48-50	33-35
Fully ripe	 Grain fully matured Husks died back Ready for crimped maize or late cut CCM	65-70	36-45



SEND US YOUR PHOTOS AND COMMENTS

Please don't hesitate to give us a call or drop us an email, if you would like to suggest subjects that you would like us to cover in future issues of this newsletter. We would also welcome photos of your maize crop and we would like to hear about how it is feeding out, when you open up the new clamp later in the season.

MAIZE PROGRESS

ROB WILLIAMS, SHROPSHIRE

Seasonal update from a dairy forage manager



Shropshire-based Rob Williams manages the dairy herd forage on behalf of farming company, Yareal UK, which has a herd of 1200 Jersey cows, plus 250 Holstein Friesians.

Maize for the TMR ration is sown across 600 acres in the county and KWS Calvini is one of the main varieties. The crop is grown on medium loam soils, up to an altitude of 500 feet above sea-level.

"We were fortunate with our maize planting this year," comments Mr Williams. "Everything was drilled by the middle of April and then the rain came along at just the right time, so the plants got off to a promising start. Hopefully we will be able to harvest at the usual time of mid-to-end of October, as the crops are currently looking very good.

"Our focus is on producing high quality forage and Calvini ticks all the boxes.

"It fits our requirement for good early vigour, high dry matter yields and high starch. It also has excellent cell wall digestibility and therefore increases the ME value of the ration, which in turn helps to lower our costs of production."

Mr Williams is advised by BCW agronomist, Ian Evans

“ Our focus is on producing high quality forage and Calvini ticks all the boxes. ”



CORN COB MAIZE (CCM)

In the last issue we briefly covered CCM and promised you a more in-depth review of the product this time. It is so nutritious that it far exceeds maize silage values and is ideal for high-yielding dairy cows, as well as being favoured by AD plants. It is also being recognised as one of the best feedstuffs for beef cattle in the final third of the finishing period. Already commonplace in France, Denmark and The Netherlands, CCM is gaining popularity in the UK and contractors are responding to the trend by investing in the required kit.

WHAT IS CCM?

Comprises maize ears (grain, spindle and sheath). Also known as 'earlage' or ground ear maize.

HOW IS IT MADE?

Once cobs are fully ripe (10-14 days later than maize silage readiness), they are snapped off the stem and chopped, with the grains cracked. CCM is harvested in a single pass using a row-dependent grain header linked to a traditional forage harvester.



HOW TO CHOOSE A VARIETY FOR CCM

We have done some of the work for you, having extensively tested several of our varieties for CCM. We recommend KWS Exelon but we do have other suitable varieties, so please get in touch if you would like advice specific to your location/situation. Key qualities of varieties for CCM include high grain yield and good standing power, plus 'threshability,' which makes it easy to separate the cob from the stover.

CCM TIP The later harvest of CCM can be offset by using ultra-early maturing varieties to bring cutting dates more in line with your traditional maize silage harvest period.

CCM BENEFITS

- **Highly nutritious for ruminants and sought-after for AD use**
- **Excellent 'scratch factor' qualities for ruminants**
- **Fits in well with a TMR ration which includes 60-70% maize silage**
- **Leaves behind a 'stubble carpet' that boosts organic matter levels when mulched in**
- **Ideal for maximising the value of an over-ripe crop**
- **High dry matter properties mean very low risk of run-off**
- **Extremely palatable – low ash content**
- **Can be stored in an Ag-Bag if clamp space is under pressure**

CCM FACTS AND FIGURES

DM 55%

Starch 45-55%

ME 13 MJ/Kg

pH 4.3

✓ TOP TIP...

Some farmers are finding benefits in making CCM once their maize silage pits are full. It offers an alternative, high-value feed option with a low storage requirement.”

John Burgess KWS

KWS DEMONSTRATION SITES

JOHN CLARK, MAIZE DEMONSTRATION SITE REGULAR



“Probably the best demonstration site of its kind that I have ever seen,” is how independent agronomist, John Clark, describes the KWS UK maize headquarters, having attended several previous open days. He plans to log in to the virtual event this autumn from his base in Devizes in Wiltshire.



“The autumn open days at KWS HQ give me the opportunity as an agronomist to catch up on the latest varieties and to find up-to-date information on maize-growing techniques and innovations,” says Mr Clark, of Agronomy One.

“There are two sites to view; one at almost sea-level and the other at 700 feet. There is not another place that I can think of which offers these extremes in such close proximity.

“One of the most interesting aspects is the population wheel, which demonstrates the effect of varying seed rates. A wide range of old and new varieties can be seen at close to the point of harvest and they are a reminder of just how much the KWS maize breeding programme has progressed over the years. Experts are on hand to answer any queries that come up and there are plenty of opportunities for networking.

“The organisation of the day’s programme is always superb and I would thoroughly recommend that agronomists and growers visit if possible or go online for the virtual maize 360 tour.”



Maize 360 – A virtual experience

New for 2020, we are launching an online virtual 360 experience of our KWS Maize Demonstrate Site at Lydney.

View the crops, walk the trial fields, find out more and listen to our experts as they take you through all of our commercial hybrids, latest sowing and drilling trials and compare the UK’s top maize hybrids.



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Maize Variety Portfolio 2021

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Maize Variety Portfolio 2021

The new Maize Variety Portfolio is now available.

The portfolio contains a handy reference chart to compare traits and performance between varieties and assess their suitability for your growing situation. Copies of the portfolio can be downloaded from our website at kws-uk.com or email maize@kws.com for your printed copy.



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