MGA TIMES

Maize Growers Association

October 2020

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MGA MAIZE CONFERENCE 2021

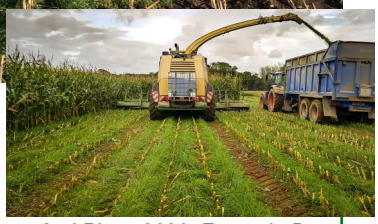
SAVE THE DATE!! WEDNESDAY 24TH FEBRUARY 2021

This year we are taking a new approach to the conference as it will be held virtually via video conferencing software. More information to follow, but we hope that this format will allow greater accessibility to those that have not previously been able to travel to the conference.

Photo Competition!

Due to the success of last year's photo competition, we have decided to hold another this year! We would like to see photos of your undersown (at drilling or 6-8 leaf stage), or your post-harvest cover crops, and we'd like to know why you have chosen to sow a cover crop, perhaps due to financial savings in previous years from reduced fertiliser requirements, or due to increased awareness of environmental benefits, or perhaps to improve your soil organic matter. The more information the better! We would like to see a picture which tells us a story about why undersowing and cover cropping is so important. The winner will be decided after the deadline on **Wednesday 27th January 2021** and will receive a bottle of Bourbon Whiskey, kindly sponsored by Grainseed Ltd

Winner 2020. Phil Campion, Agrovista



2nd Place 2020. Frans de Boer, farmer in West Sussex

Please note that, by sending the photo, you are giving the MGA permission to use it for publicity purposes. We may show the pictures entered at the conference in February and in future articles.

Email Updates

We are gradually sending more articles, updates, invoices and mailings via email to save money and become a little more eco-friendly! If you have not received emails from us (our most recent will have been the cover crop seed rate guide and the photo competition advert last week) and would like to, please let us know in the office via email so that we can add you to our mailing list. In addition, if you would like the six weekly mailing to be sent to you electronically rather than on paper, please let us know. Our email address is: **info@maizegrowersassociation.co.uk**

DO SOMETHING WITH YOUR STUBBLES!!

In relation to the above photo competition, the tweets and retweets you will have seen on our Twitter page, and our recent email article on cover crop seed rates, we would like to draw your attention to research that was done by IGER (now North Wyke in Devon) between 1998 and 2001 which is still very much valid now, in 2020. Four scenarios were compared: bare stubble, ploughed stubble, ryegrass undersown, and a ryecorn cover crop. The results showed that chisel ploughing (across the slope if in a field with a gradient) resulted in the least run-off, followed by undersowing, then a post-harvest cover crop, then 'conventional' bare stubble. Whilst ploughing showed the greatest water-retention, note that ploughing is not always appropriate on lighter soils and may make run-off worse in these cases due to loosened soil (and increased surface area) which is then more prone to forming deep gullies and hence more water run-off during persistent downpours. It is not always necessary to plough the whole field, bands 3m wide at 15m intervals across the field may be enough. Undersowing and cover cropping as the next best options also offer a myriad of other benefits which you will already be aware of: increased nutrient retention, increased soil organic matter content, and the potential to make use of this otherwise unproductive land over winter with grazing/ silaging where appropriate.

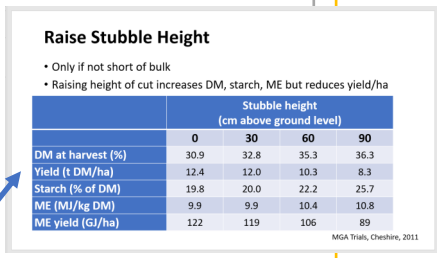
Measuring run-off at IGER

Environment Agency

Undersown	Chisel plough	Stubble	Cover crop
53 litres	1litre	228 litres	179 litres

Webinars

We have now run three webinars, the first on Maize Harvest, the second on Post-Harvest Field Management, and the third on Winter Feeding. We had an excellent number of sign-ups to all three, 65, 38 and 47 consecutively and some constructive questions during and after. We do not have any planned for the immediate future but will certainly be holding more as the year progresses and we begin to think about variety choice and then drilling next year. Thank you to those that attended or watch afterwards. If you missed them and would like to watch the recordings, please email us in the office and we will send you the link.



A slide from Prof. Mike Wilkinson's feeding presentation which touched on the factors which affect quality of silage, among many other subjects.

Silage analysis discount costs

In Mike's webinar, he stressed the importance of regular testing of silage as you go through the clamp. We would like to remind you that the MGA offer discounted silage analysis through Sciantec. We will send you the sample bags, forms and paid postage bags, you collect the sample and send off, then we email you the results when they arrive a few days later. The cost per test per sample is below (exclusive of VAT). Please email us if you would like more information or to request the silage sample pack.

Analysis	Price (£)
NIR—Fresh Grass	12.77
NIR—Grass Silage	12.91
NIR—Maize Silage	12.89
NIR—Wholecrop Cereal	15.96

EMM review

This year we were unable to hold our European Maize Meeting in Italy, as originally planned, so instead held it via Zoom on 7th September. We had seven countries in attendance, Denmark, France, Germany, Ireland, Italy, Sweden and the UK, with the Belgians this year unable to attend. The topic was Maize and the Climate. Each country presented a paper on this subject, a summary of which is given below. There will be a more detailed review later in the year.

- **Denmark**—Ole Aaes looked at the effect of maize production on the climate. The suggestion was that growers should aim to get a higher yield from the same inputs so that there is a lower footprint per unit produced. Catch crops were favoured as they reduce N leaching and increase carbon content in soil, especially if established early. N inhibitors should be used so that there is less leaching and fewer emissions from applied slurry, and N use efficiency should be increased by considering timing and method of application. These measures, plus a high yield, gave the lowest climate footprint (g CO_2 per kg DM).

- **France**—Anne-Sophie Colart explained that there has been a mean temperature increase since 1985, decrease in rainfall and increase in evapotranspiration. There is now a greater number of degree days so potential for earlier harvest, or higher yields in late-maturing varieties. However, there will be a problem if maize cannot be irrigated sufficiently, so it will be increasingly important to choose varieties that can cope with greater heat stress and can better utilise water. It will be important for varieties to have improved cold tolerance to respond to earlier drilling dates; sowing dates have become 10 days earlier over the last 25 years in trials. Anne-Sophie has encountered pest issues with climate change as France has lost the licence to use many active ingredients. She anticipates that this will worsen.

- **Germany**—Friedhelm Taube explored a study that has been done on increase in maize yield compared to breeding progress and climate change. They found an increase in temperature since 1970 has resulted in an increase in silage yields. Selective breeding has led to increased leaf and stem DM but not increased cob DM or improved root traits. Whilst leaf number and DM has increased, there has been no significant increase in feed quality. Selection for varieties with increased leaf area index has been an adaptation to climate change for high-input systems in North-West Europe, as there is a greater surface area for sunlight. There has not been an increase in photosynthetic rate however.

- **Italy**—Marco Pasti, who intended to host this year, highlighted awareness in the need to improve plant resilience to higher temperatures and drought, in the use of irrigation and water availability and distribution, and increase in insect control for those pests suited to warmer, drier climes. He also suggested that in-field variability should be better monitored and controlled using satellite imagery, a subject which may be on the mind of some UK growers this year as a result of drilling into little or no moisture in places and consequently irregular establishment within fields.

- **Sweden**—Magnus Halling looked into the effect of climate change on maize crops. They have noticed increasing heat units since 2008, at around 2% per year, and noted that days until harvest has decreased since 2008. Dry matter yield and content has increased, and starch content is up.

- **UK**—Jon Myhill presented research to suggest that winter rainfall will increase and summer rainfall will decrease. This means a greater area in the North of England which may be suitable for maize growing, but may mean that irrigation is required in the south especially on sandy soils. We are predicted a longer growing season but more damaging droughts. Increased flooding in winter and from summer storms may lead to increased compaction, waterlogging, soil erosion and crop failure. Yields will likely increase with temperature rise however, and grain maize may become more viable. We will have to better understand and utilise irrigation and prepare for climatic stressors, new pests and diseases.