



MGA TIMES

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MAIZE CONFERENCE 2007

The 2007 Maize Conference was held at Hartpury College on the 21st of February 2007. Papers on maize growing and feeding were presented alongside those on Bio-gas production, Hungarian Maize Growing and a fascinating insight into how 8 members of the Harrison family successfully farm together. Full conference papers are available from the office. A couple of paper summaries have been included to whet your appetites!!

RENEWABLE ENERGY FROM MAIZE SILAGE

SEED DRESSING & SEED RATES

Energy Balance (GJ/Ha/Yr)

	Product	Input	Output	Balance	Ratio
W	Bio-Ethanol	26.47	61.14	34.67	2.30 -1
W	Bio-Diesel	22.00	40.25	18.25	1.83 -1
W.	Bio-gas	22.00	101.39	68.48	3.11 -1
Maize	Bio-gas	32.4	190.0	157.6	5.24 -1
Rye-Grass	Bio-Gas	30.18	131.8	101.62	4.35-1

Firm seed rate and seed dressing recommendations were welcomed by members keen to gain "take home" messages from Simon Draper's paper at the conference. Simon also updated members on the latest herbicide advice including the new products on, or very close to the market. Herbicide advice focused on the updated star guide to herbicide efficacy (copies available in the next mailing) and concluded that timing of application is even more important than in the past, if effective weed control is to be achieved. Particularly interesting was Simon's review of the last three years seed dressing and seed rate trials. Clear yield advantages have resulted from increased seed rates and following the use of seed dressings. Interestingly the yield benefits associated with seed dressings were also achieved when treated seed was mixed with untreated seed (50/50 mix). (See agronomy technical note within this mailing).

An energy balance for biogas production from maize nearly 3 times better than that for bio-ethanol, was reported by Owen Yeatman as he updated members on his Nuffield Scholarship reviewing on farm Anaerobic Digestion. Owen went on to update members on his travels during 2006 and the ongoing expansion of the technology in Germany. There are now over 3500 on-farm anaerobic digesters in Germany. Members heard more about Owen's plans for the 340 kw plant to be built on his farm in Dorset. The plant should supply electricity for over 400 houses and is set to be the UK's first on-farm Biogas plant powered by crops. The digester will be fed a mixture of 8000 tonnes of manure and 3700 tonnes of forage maize. Having warned members that his financial figures were for guidance only, Owen went on to estimate the net margin from the project to be in the region of £67000 which represents a 19% return on the capital invested and suggested that few other investments in agriculture had this potential.

With Nitrogen prices continuing to challenge economic logic, it is important to apply products used at the most appropriate level to ensure excellent crops. With this objective in mind, we would encourage as many members as possible to use the well researched and tested MGA Nitrogen Predictor to calculate this years crop requirements. The Nitrogen Predictor is based on MGA and other research which provides a site specific recommendation. Please fill in and post or fax the attached input form to Jean at the office. We will get it back to you as soon as is possible.



WHOLECROP CONFERENCE 2007

The MGA wholecrop conference was held at Harper Adams College on 7th February 2007. Two excellent papers on ruminant feeding were complimented by farmer papers looking at fermented and urea treated wholecrops. The use of wholecrop as feedstock for biogas production was also covered. Full wholecrop conference papers are available on request, please give Jean a call at the office for a copy.

BUG HEAVEN!

The need for an effective “Rumen Mat” and “Bug Heaven” were key features of Dai Grove-Whites (Faculty of Veterinary Science at Liverpool University) excellent “farmer speak” paper. Dai, an early adopter of the Sub Acute Ruminal Acidosis (SARA) theory, outlined the importance of ruminal liquid pH and how saliva, a consequence of cudging, being alkaline can buffer low rumen pH's. The benefits of assessing dung consistency were outlined using some excellent photographs. Dai concluded by reviewing the effect different feeding systems can have on rumen health and maintained full audience attention to the end as he outlined the “Dolly Parton Effect”.



BOVINE FARM WORKERS UNION

Even more practical, if that is possible, was Malcolm Graham's paper on “My on-farm experiences of feeding wholecrop”. Malcolm, a Nutrition Consultant working with Keenans tackled the subject of successfully feeding cows, as the “Shop Steward of the Bovine Farm Workers Union” (BFWU), or in other words from the cows point of view. Malcolm summarised the pro's and con's of the main wholecrop options, talked feed conversion efficiency and ration formulation. The importance of long fibre as the foundation of a good ration was highlighted as was ration presentation and nutrient balance. Key nutrition benchmarks were laid down. The benchmarks included energy and protein targets, ration dry matters, plus mineral requirements. Silage inspection along side analysis and careful monitoring of performance should be the starting point when formulating rations for livestock was Malcolm's “take home” message for delegates.

2007 THE YEAR FOR BIOGAS

A pay back period of just over 8 years for investment in crop fed biogas production was one of the many messages put forward by Lucy Lewis, head of research at UK Biogas company Greenfinch Ltd. Lucy provided delegates, many of whom who were completely new to biogas production, with a potted history of and potential future for Anaerobic Digestion (AD) in the UK. A full explanation of how gas is produced from AD led on to crop yields and example costings. Lucy's fascinating paper got the conference buzzing from the start and the regular referrals to her paper throughout the morning and during question time illustrated fully that she had most definitely struck a real chord.



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I'm sure all members of the MGA will be sad to learn of the unexpected and sudden death of Nigel Jones. Nigel has been an enthusiastic member of the Maize Growers Association for many years through his association with the maize seed trade. Nigel's involvement in discussions at farm walks and conferences will be very sadly missed by everyone who knew him. Our condolences go out to his family.

STARTER FERTILISER – DO WE/DON'T WE?

The annual debate about whether we need starter fertiliser or not for successful maize growing is being debated yet again around the country.

The general recommendation has been to apply 125kg/ha (1cwt/acre) of Mono Ammonium Phosphate (MAP) or Di-Ammonium Phosphate (DAP) alongside the seed at sowing, to supply an easily accessible source of P for early root development of the maize plant. This has been shown to be particularly valuable for crops sown in to cold seedbeds, often on heavier soils. MGA research has also shown an increase in crop maturity, consequently earlier harvesting yet without significant yield increases.

The benefit therefore of starter fertilisers will be more significant on less favourable sites or in poorer drilling conditions.

Where substantial quantities of slurries and manures have been used (both of which have plentiful amounts of available P), the response to starter fertiliser applications will be reduced. Also, as with all crop nutrients, the uptake of P will also depend on the levels of all the other essential nutrients required for good plant establishment, often the most forgotten of these being Lime. Soil ph's below 6.0 will start to impact on nutrient uptake.

Consideration must also be taken in to account of the phosphate status of your soil (Soil indices). More and more we are starting to see P indices of 4's and 5's occurring where frequent applications of manures have been made in conjunction with high phosphate fertilisers. Environmentally this situation cannot continue due to the polluting nature of phosphates – eutrophication of rivers is a direct result of high phosphate levels in water courses, often associated with erosion of high phosphate soils.



In conclusion, starter fertilisers will act as a good "insurance policy" for getting your maize crop off to a good start. But, if growing maize on a favourable site with high P indices and regular applications of manures, consider lowering MAP/DAP rates to 60kg/ha (0.5 cwt/acre) or using none at all. You could save yourself £5 - £10/acre and help the environment!

BARRIE BRYER — MGA TREASURER

As mentioned in January's MGA Times, Barrie Bryer our treasurer is retiring at the AGM in May. On 21st February at the Maize conference at Hartpury College. Noelle Floyd, our previous secretary came back to present Barrie and Rosemary with a picture and a bouquet of flowers. Knowing of Barrie's keen interest in the Send a Cow project, we thought that rather than the traditional retirement gift we would organise a collection amongst members, the ultimate result of which would be a donation to the project. There is still time to donate to this very worthwhile charity. Please ring the office if you would like a donation form or contact Send a Cow on 01225 874222. If you quote the number 72812, any gifts will be added to Barrie's collection.



Presentation to Rosemary & Barrie at Hartpury College

DIABROTICA CONSULTATION

DEFRA have written to all maize growers in England to invite your views on the right action to take against the recently arrived pest of maize, *Diabrotica virgifera*, also known as western corn rootworm. They have written to a number of potentially interested organisations as well. This consultation is being conducted in England only since regular surveys in Wales, Scotland and Northern Ireland have not shown any occurrence of the pest. The MGA would urge members to consider the implications to maize growers in the affected areas when responding. For more information go to <http://www.defra.gov.uk/planth/diab.htm>



Last Word: We would like to thank everyone that was involved in making the conferences a success again this year. We would especially like to thank Noelle for making the presentation to Barrie and Rosemary at the maize conference. In the next couple of weeks look out for the MGA herbicide star chart. The popular guide will this year be laminated with illustrations of the seedling weeds to look out for in the maize crop.