



# MGA TIMES

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**MINIMISING SOIL MANAGEMENT PROBLEMS**

As you will probably already realise this mailing is focusing on drilling the maize and soil preparation. To carry on the theme of soil conditions for establishing maize, we thought it would be a good idea to include Gordon Spoor's excellent paper presented at the 2005 maize conference. The paper highlights the importance of looking after the soil, how to avoid compaction and ultimately prevent runoff and erosion.



**TOP TEN TIPS TO GET MAIZE GROWING IN 2006**

Many agronomists and seed salesmen for that matter, would accept without much pressure, that seedbed preparation and successful maize establishment will have more of an impact on final maize yields than variety choice. With this almost universally accepted point in mind, it seems sensible to revisit the basics of maize field preparation and drilling. We have done so, setting out the MGA top 10 tips for excellent maize establishment.

1. Maize **seedbeds** should be fine next to the seed and coarse on the surface.
2. Avoid **soil compaction** and in particular deep soil compaction by: -
  - Working fields in dry conditions.
  - Use low ground pressure tyres or dual wheels.
  - Minimising the number of field passes.
  - Reducing the proportion of wheeled ground by using wide machinery.
3. Tackle soil compaction either via **sub soiling** spikes fitted to the plough bodies or as a separate operation using a winged tine type machine.
4. Use a soil thermometer and drill as soon as **soil temperatures** are consistently around 8°C. Delayed sowing will delay harvest.
5. **Drilling depth** should be between 1.5 and 2.5 inches to ensure adequate moisture is available for the seed to germinate. If necessary drill deeper.
6. **Accurate in row spacing** can best be achieved by reducing drilling speed.
7. **Starter fertilizer** works, with application rates depending on soil phosphate indices and other nutrient applications.
8. **Seed rates** should be geared to the yield potential of each site. On good sites yields have been boosted by increasing seed rates up to 47000 seeds/acre.
9. Identify fields at risk from **Soil Pests** and deal with them.
10. Use of the **MGA Nitrogen predictor** will ensure all sources of Nitrogen are taken into account and that you achieve yield 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 the attached input form to Jean at the office. We will get it back to you as soon as is possible.



**MGA GROWERS GUIDE**

We are in the process of updating the MGA Growers Guide, now that atrazine is no longer in use, the weed control section is being altered. Last year we added a section for weed identification, with pictures of the most common weed problems for maize. In this mailing we have included a section on Diabrotica. This has been produced for us by the Central Science Laboratory on behalf of DEFRA. We are very grateful to them for reproducing it in A5 format to fit into your Growers Guide. In future mailings there will be other alterations and new sections. Grain maize and energy maize being prime examples.

**MGA CONFERENCES 2006**

The repeat of last years "double bill" where the MGA Maize and Wholecrop Conferences are run back to back has again proved a success. The format gives those interested in the two forages a chance to attend both days with the minimum of travelling and the option of one day only attendance for those keen to focus on one crop. This years conferences were held at Hartpury College in Gloucestershire. As in the past, the morning session included technical papers and in the afternoon a tour of the college farm. John Morgan has summarised the maize papers for this mailing and we will include the wholecrop summary next month. **If you would like a full copy of the papers, please call the office and we will post them on.**

**SUPPLEMENTS FOR THE GRAZING DAIRY COW**

Members will no doubt be interested in the results of trial work reported by Dr Steven Morrison for the Agricultural Research Institute of Northern Ireland. Dr Morrison offered a supplement of various forages and concentrates to spring calving cows at grazed grass, the aim of the work being to identify forage supplementation strategies in the grazing situation that best integrated with differing grazing systems. Grass, maize and wholecrop silage were offered as supplements as was additional concentrate. Two different grazed grass allowances were offered. **Table.** Effects of a range of supplement treatments on performance of grazing dairy cows.

	Supplement					Grazing allowance	
	None	Grass silage	Maize silage	Wheat silage	Conc	Low	High
Supplement intake (kg DM/d)	-	2.8	4.3	5.4	3.8	4.8	3.5
Grass intake (kg DM/d)	14.0	11.2	11.0	12.1	13.9	11.1	13.8
Milk yield (kg/d)	22.6	22.5	23.3	23.0	25.8	22.7	24.2
Butterfat (%)	3.98	3.94	3.91	3.96	3.71	3.94	3.86
Protein (%)	3.26	3.16	3.21	3.28	3.24	3.18	3.28
Fat + protein yield (kg/day)	1.62	1.58	1.65	1.65	1.77	1.60	1.71

The results confirm that grass availability is an important factor influencing forage supplement intake. The results also confirm the potential of maize and wholecrop as buffers along side grazed grass in preference to grass silage. Members can get a full summary of the work via the MGA office who will also be able to put you in contact with Dr Morrison direct. In addition to the main objective outlined above, Dr Morrison was also keen to examine the effect of concentrates of contrasting degradability on milk production. This question was tackled in a similar manner and details of his results can be obtained from the office.



The MGA would like to take this opportunity to thank the Conference sponsors for their support of these events.

- HSBC BANK,
- BIOTAL Ltd,
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- CLAAS UK Ltd.
- & the hosts
- Hartpury College.



**Farm & Office comment -**

The MGA Conferences always seem to attract cold and snowy weather and this year was no exception. We had two excellent days, with some very encouraging comments from delegates. The office staff would like to thank our Chairmen, David Hardy and Peter King for their expert handling of the morning sessions. There was a lot of information packed into 3 hours which needed good chairmanship and we certainly had that from them. I am looking forward to processing your N Predictor forms again this year, Town Barton certainly spent less on fertiliser last spring by using the form. If the results aren't what you expect, please do not hesitate to contact me and I will pass you on to Simon.