



## NUTRITION TECHNICAL NOTE – OCTOBER 2012 MAXIMIZE MAIZE FEED VALUE AT HARVEST CHRIS SAVERY – MGA RUMINANT CONSULTANT

Continuing wet and indifferent weather has meant that prospects for maize harvest have not improved.

Many farms are now missing last year's maize from their diets and milk production is below target, generally reflecting the lower quality grass silage. This is creating considerable pressure to get maize back into the diet as soon as possible.

Harvesting maize that is immature loses some key benefits of the maize. There are 2 main reasons. Firstly, the carbohydrate has not been laid down as starch and it is ultimately the high digestibility and starch content that makes maize so valuable and attractive. Secondly, the dry matter content will be low, which will not only risk losing nutrients as effluent, but will also result in a lower pH and higher acid load – potentially restricting intake.

I have been picked up for implying that this low dry matter, more acidic maize silage is almost more of a problem than grass silage. Maize silage often has a lower pH than grass silage (at similar dry matters), and it is true that its lactic acid content will generally be around 25% lower than grass silage. Whether you are making grass silage or maize silage, my message is that you should strive to avoid low dry matter silages. They may be considered more stable in the clamp, but higher acidity that occurs with wetter silages is undesirable in the rumen. Recommended maize silage dry matter is 32 – 35% dry matter and you should strive to get as close to this as possible, with the grains mature.

### **How long will I need to wait and will it reach maturity?**

Unless there is a very good reason for taking the crop at an immature stage, it is desirable to wait, both for increased maturity and a drying of the plant. The present wet weather will hopefully give way to dry, even if not warm weather, which would allow crops to progress.

Estimates of harvest being delayed up to a month are not uncommon, with shorter days and generally poorer ground conditions, bringing a range of harvesting concerns.

If grass silage based diets need additional supplementation in the meantime, act now. Do not wait and watch performance slip, hoping the maize will be ready. Using a moist 'forage substitute' will benefit the diet, take the pressure off harvest and hopefully give the maize a few days in the clamp before use.

### **Once the maize has reached a reasonable stage for harvest:-**

Avoid harvesting in wet conditions - maximize the plant dry matter on the day and minimize the risk of soil contaminating the silage.

Increasing cutting height must be judged carefully. Quantity will want to be maximized, but low cobs must be collected and the lowest dry matter stalk preferably left.

The wet season to date, may mean that there is a greater likelihood of moulds and yeasts on the plants at ensilage. Although these may not create a major problem at ensilage, they may well lead to faster deterioration once the silage starts to be used.

Light frosts can pass almost un-noticed, but once severe frosts hit, the plants will start to desiccate and decay. Wet and warmer weather subsequent to this may encourage onset of moulds and fungi.

In view of the risks associated with these last 2 points, it is essential that ensilage is done with care. Good consolidation is a must, with an additive against aerobic spoilage used if there is a risk.

***You have waited a long time for this crop. Don't rush or skimp on the management at ensiling.***