



Gold Cup Finalists  
2009 & 2010

**The Vortex Herd Feeding for health**

Latest costing figures at Vortex Holsteins near Dorchester Dorset, show milk sold at 11,660 litres/cow/year with 4000 litres from forage. The nutritional philosophy is feeding primarily for cow health, believing healthy cows are both productive and profitable. Specifically, rumen health and efficiency is seen as the driver of everything in terms of achieving "healthy" performance through nutrition. As a result, achieving high intakes of good quality forage is considered of paramount importance. It is then a case of having the faith and confidence in the quality of that forage to drive production. Very high quality forage tends to be more digestible and as such faster fermenting, so maintaining rumen pH can be a challenge, before we factor in concentrate and the acid load this produces. Over-feeding concentrate is not only unprofitable, but also detrimental to efficiency if acidosis (clinical or sub acute) is caused as result. Consequently, particular attention is paid to the type and level of concentrate used and forage combinations to try to minimize total rumen acid loads.

Fibre is then used as part of the "toolkit" for maintaining rumen function by promoting cud-ding and the cow's natural ability to buffer the rumen with the bicarbonate she produces. Excessive use of fibre though, takes up valuable space in the rumen we are trying to fill with quality ingredients, and reduces energy density of rations which can create healthy rumens, but disappointing milk production. Using the highly effective Ostrea rumen buffer helps to achieve the buffering effect in the rumen without the compromise of filling up rumen space with more fibre which is less digestible than good forage. There is also a strong benefit to extra calcium it supplies the cow in early lactation as a bonus.

The Vortex herd's ration relies on approximately 65% maize silage, with the remaining forage element split between grass silage and lucerne silage. Where possible, dry (70%+ DM) baled lucerne is also included as a preferred fibre source to milking cows.

6.5kgs of a high quality dairy blend is tub-wagon mixed with the forages, 150g of Ostrea rumen buffer and 1kg molasses. Intakes are closely monitored and feeders are cleaned out daily.

A maximum of 4.5kgs of a high sugar beet 16% protein dairy cake is then offered in the parlour (over and above the mixed ration) to target fresh/highest yielding cows. This is fed at a flat rate and dropped away on an individual basis using milk yield and largely cow condition as parameters. I look forward to continuing to work with this exciting, progressive herd.

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**Farm Profile**

170 acres - 75 acres grass, 60 acres lucerne, 35 acres maize.  
120 acres rented for rearing young stock. 150 acres of maize grown on contract.

270 Holstein cows  
Current rolling average yield 11,660 Kgs at 3.74% fat and 3.11% protein (3x) Average daily yield 38L. Average days in milk 195. Calving Index 400 days.

**Diet.**  
TMR diet fed for maintenance and 37 litres  
30Kg Maize, 6Kg Grain Beet, 6Kg Grass silage and lucerne silage, 4Kg Lucerne haylage.  
6.5Kg Mineralised Blend. 1Kg molasses. 1.75Kg straw  
150gms urea  
150gms Ostrea rumen buffer  
Parlour concentrates up to 4.5Kg for high yielders only.



Above: The Vortex Team

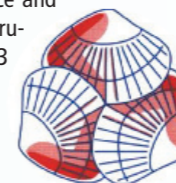
**Summer Feeding Solutions**

**Solutions**

Maximising the utilisation of home grown feeds is a key step to profitable dairy farming but lush spring grass is not necessarily a balanced feed for today's dairy cows. It is not unusual to see milk yields drop and butterfats crash once cows go out to grass. Rich in soluble carbohydrates and low in fibre it can soon trigger digestive upsets.

**Dealing with Butter Fat problems**

At the heart of the problem is often sub acute rumen acidosis, with pHs as low as 5.4 not unusual at summer grazing. Buffer feeding with a diet based on ingredients with good fibre content and the inclusion of a supplementary buffer can restore rumen balance and lead to better feed conversion efficiency. Increasing rumen pH from 5-8 to 6.4 can be worth an additional 3 litres of milk per head per day. Ostrea is an effective, long acting and cost effective rumen buffer, so when ever a buffer diet is fed during the summer it makes sense to include 100gms of Ostrea per head per day.



**Strategies for Coping with Heat Stress**

We all look forward to a good summer but often forget that cows can start to suffer from heat stress once temperatures go above 24°C especially in humid conditions. Cows will soon begin to pant and spend more time standing, with their heads down drooling saliva. Feed intakes can fall by around 10% and milk yields can suffer by between 5 and 20%.

Animal health can also suffer as a result of heat stress, with increases in clinical mastitis levels and raised somatic cell counts. Fertility can also take a hit with increased embryo losses and lowered oestrous expression.

Simple management steps to alleviate heat stress include ensuring ample supplies of fresh water and improving ventilation in the buildings and especially the collecting yard. Milking cows in small groups so they spend less time packed together in the collecting yard and milking at cooler times of the day are other options to consider. Grazing cows on the best pastures at night can also encourage dry matter intakes.

One common recommendation to cope with reduced dry matter intakes is to increase the energy density of the diet. Coupled with the loss of saliva, this increases the risk of rumen acidosis. Introducing Syn-Vital probiotic yeast into the diet can help cope with this additional nutritional stress by stimulating the adaptation of the rumen microbes. It is fed at 50gms per head per day.

**Preventing Buffer Feeds from Heating up**

Processing ingredients in a feeder wagon and introducing air into mix can lead to an increase in wild yeast activity resulting in heating and spoilage of TMR diets at the feed barrier, especially in warm weather. Farmer experience in Germany has shown that adding Organo Fresh to the TMR, at 1-2 litres per tonne can not only prevent heating and spoilage but also improve feed intakes by up to 2Kg fresh weight per head per day. At a time of the year when dry matter intakes may be depressed by heat stress Organo Fresh is another useful tool in promoting better feed utilisation.

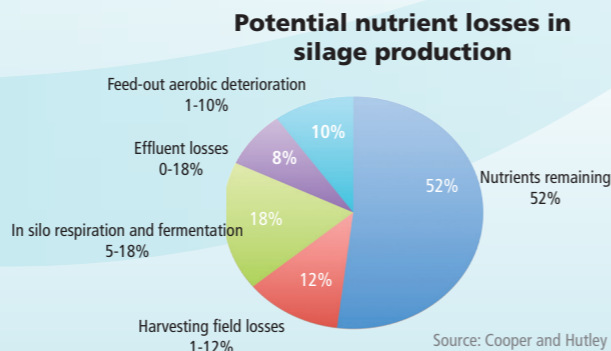
For more information please contact:  
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**EM Silage**

**Keeping Silage stable for over 200 hours Grass Silage trial results**

Trials have shown grass silage treated with EM-Silage additive, remained stable for more than 200 hours after being taken from the clamp, overcoming typical on farm losses of up to 10 per cent when silage is taken from its anaerobic environment.

The study at University College Ghent, Belgium, ensiled second cut Italian ryegrass for 124 days in micro-silos. These were then unloaded and samples of treated and untreated silage were loosely packed in polystyrene boxes for seven days and their temperature measured every 10 minutes. A rise of more than 3 degC above the ambient temperature of 20C was taken as a sign of instability. The untreated silage was stable for 42 hours, but the EM treated silage remained cool for more than 200 hours.



**Syn-Vital**

**Remarkable results with Syn-Vital in Cornish herd**

Peter and Louise Philips are planning to expand their Cuckoowell herd of pedigree Holsteins from 170 cows to 200. Over recent years they have bred the cows to elite bulls and have seen yields increase from 7,300 Kg to the current average 8,200Kg.

They are now trying to exploit the cows' genetic potential and to increase their yields further. So back in December when the cows were averaging 28L/day, Pete and independent nutritionist Fiona Berry "felt the cows were capable of yielding more". They had noticed that there was undigested maize grain and fibres coming through in the dung and so made the decision to feed EM Syn-Vital, a fermented yeast culture, new to the UK market.

The yeasts in Syn-Vital produce metabolites which stimulate the activity of fibre digesting microbes in the rumen, thus improving feed conversion efficiency.



Above: Pete Philips & Andy Berry

"The results were remarkable and Pete and I were both surprised at how fast Syn-Vital worked. Within five milkings there was a marked improvement in dung consistency" said Fiona, "and Pete saw milk yield rise from day 15, eventually increasing by 1.7L." Fiona has seen similar results with Syn-Vital in herds where other yeasts have previously have been fed. "One herdsman had noticed that the cows were performing better but didn't realise the farmer had changed the type of yeast. Syn-Vital costs 10p per cow per day and with an average response of 1.5 litres, worth around 39 pence, it is very cost effective". Peter concluded, "It really does work."

Syn-vital can be used 365 days a year supporting your animals nutrition. "Better health, greater manure quality (as an indicator of digestibility and digestive health) and higher milk production."

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**Farm Profile**

East Lanescott Farm, Cornwall.  
400 Acres - 85 of maize, 50 of wheat and 65 of grass.  
Stock; Cuckoowell herd of 170 pedigree Holsteins and followers.  
Average yield; 8,200kg  
Diet  
TMR ration; M +25Kg. Forage 30% grass and 70% maize. Blend of soya, sugar beet pulp, rapeseed and wheat.  
Parlor Concentrates; up to 5Kg

EM® Effective Micro-organisms Ltd

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