



**nantwich**  
farm vets LLP

# **NEWSLETTER**

# **OCTOBER**

# **2020**

## **This Month:**

**Early Lameness Intervention**  
**A NEW Herd Monitoring Tool**  
**Selekt Pump Servicing**



**01270 610349**

**[nantwichfarmvets.co.uk](http://nantwichfarmvets.co.uk)**

# FAIR WEATHER AND FEEDING



I am writing this on the 20th September, beautiful blue sky overhead. Fabulous weather. Indian summer? By the time you're reading this, maize harvest will hopefully be well underway. Let us hope we are not in another nationwide lockdown by then and it is still just limited to localised areas. Unfortunately, the pandemic is still well and truly with us. Although national consumer demand is recovering it is still way off pre Covid-19. July GDP was up 6.6% (agriculture up 1.1%) compared to June, but still down 12% (agriculture only down 2%) from January-February 2020 average. So in general agriculture has been impacted less than a lot of industries (apart from a few milk buyers relying on other industries, that is).

Not that I am a regular market visitor, but dairy stock has been selling well in the last 3-4 months. There is a shortage of cattle numbers countrywide. Dairy and beef cattle <30 months of age are down 1% (67500 head) from this time last year, and breeding females >30 months are down 3% (52700 fewer cattle). These are not insignificant numbers. The change in breeding philosophy in a lot of dairy farms in 2018, using more sexed dairy semen and beef semen, will have had a major impact on these numbers.

According to Trouw Nutrition database, grass silage analysis certainly reflects this year's weather patterns. Grass silages of the same cut do seem to be feeding very differently on farms. Later first cuts and 2nd cut grasses have higher NDF and lignin and are not driving the milk as we would expect and certainly not like the early first cuts. On average they are drier and intake and digestibility characteristics are lower. Do not be afraid to add water to these diets with drier forages as lowering the dry matter by adding water will certainly help lift intakes and reduce sorting.

A fair lot of this year's whole crop wheat has had a negative impact on milk volume on many farms, especially when replacing last year's maize short term until this year's harvest is fed. Whole crop wheat starch levels are certainly down on last year, accentuating this milk drop. Those few very hot days in August had an impact on yield, dropping by up to 5 litres/cow in some herds. The larger milk drops coincided with forage changes on a few herds and not all the milk has come back on those. Unsurprisingly I am seeing preg rates drop from during that period. As John said last month, "it will take a lot longer to correct the stress induced issues than the length of period of stress they were under".



**nantwich**  
farm vets LLP

Rob

## EARLY INTERVENTION BRINGS LAMENESS SUCCESS

When it comes to lameness, you can never treat too early. Early foot lesions often progress quickly before outward signs are obvious, leading to discomfort, pain and more serious mobility problems which are harder and more costly to treat. Looking for very subtle signs, such as a cow intending to make a movement and then withdrawing– this could be the result of pain associated with a functional change in the hoof. Early intervention is a key part of management and will reduce the likelihood of chronic lesions that may result in an increased number of culls.

This is where mobility scoring comes in as an essential part of a lameness control program. A formal scoring should be carried out ideally fortnightly and at least monthly and will enable the detection of far more cases of early lameness than just casual monitoring.

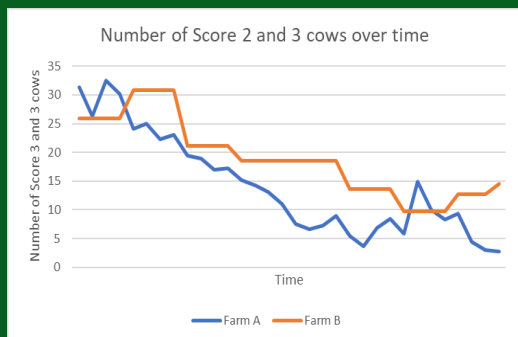
The Nantwich Farm Vet team of Vet Techs carry out regular mobility scoring on many of our farms. As part of a project with CEVA Animal Health we closely monitored a couple of farms, following some one to one advice from vet Steve



Crowe. These farms were scored monthly and all score 2 and 3 cows were examined within 2 days and treated as necessary by a member of the farm team who had completed the Dairyland Hoofcare foot trimming course.

As you can see from the graph, over the course of two years both of these farms showed a big reduction in the number of score 2 and 3 cows present in the herd. This demonstrates the combined benefits of mobility scoring and early (and effective!) intervention.

It is always beneficial to treat pain. Apart from being a significant welfare issue, lame cows suffer the effects of pain and inflammation in many different ways, including fertility issues and reduced productivity. Effective analgesia and anti-inflammatory medicines can have a significant positive impact. For more information visit [www.wavegoodbyetopain.co.uk](http://www.wavegoodbyetopain.co.uk) for a helpful guide to lameness in cattle, or speak to one of the Vets team on 01270 610349.



# ARE YOUR COWS ON TRACK?



**Stuart Russell has developed an exciting set of tools for analysing your herd production.**

So, you all know I'm a bit strange....

After trying on-and-off for nearly 8 years, I've finally managed to do something extraordinarily difficult with milk yield data which might be very valuable to your businesses in the near future. The idea was to make a machine-learning model of milk yield, constituents and profit, giving it lots of things to use as 'levers', such as seasonality and genetics, and train it with a mountain of data and an army of computers. This way we can see the real drivers of success for your cows, and can predict the production and economic effects of management changes.

To illustrate this, I have chosen one focus dairy farm at random from a group of 45, then found some 'peers' which are similar to this focus farm. The 45 farms were a mix of UK dairies, including both indoor & seasonal grazing, but all were mainly Holstein and had good pedigree information.

The 'focus' herd and its 'peers' were milked 3x, and with average 305d milk yields from 10,573 to 13,311kg. I can't even scratch the surface in a newsletter, so here is a glimpse which I hope will interest you, focused on milk yield for now. These globally-unique tools will soon be available to you all, and I hope they will help many of you to find your hidden bottlenecks.

## SEASONALITY

Among these non-seasonal herds, there was still a strong seasonal pattern in their milk yields, even accounting for any changes in calving pattern. The smallest effect of season was a 0.8kg swing from peak to trough, and most herds were in the 2-5kg/cow/day range, leaving 365 to 913kg/cow/year milk on the table. Most herds have their biggest positive effect of season in May-June despite the warming weather (Figure 1), and their lowest yields in Nov-Dec. Perhaps this could be solved by long daylength lighting, but I doubt that's the full story – a few of these herds have already invested in lights, including our 'focus' herd, which had a 2kg/day swing from peak to trough. On the other hand, our smallest seasonality herd





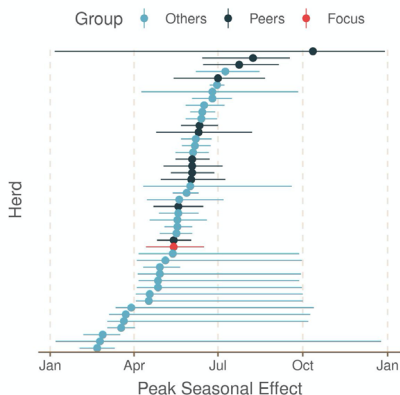


Figure 1: Peak Seasonal Effect in Milk Yield, after removing other effects.

doesn't have fancy lighting! It's probably a nutritional effect, with first cut silage making everybody smile, and perhaps running out of Maize or opening the clamp a bit early every year brings the trough.

## GENETICS

Investment in genetics is a great idea, but how hard should you pull on that lever compared with other ways you could spend your money? Most herds were gaining 1.25-1.5kg/cow/day Milk for every extra 100kg PTA for milk,

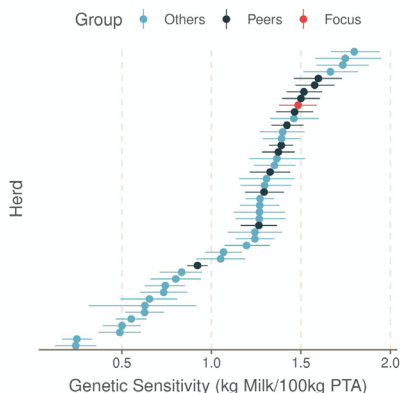


Figure 2: Genetic Sensitivity - the expected increase in milk yield for every extra 100kg PTA for Milk. The herds below the 'elbow' are likely limited by something else!

and our focus herd was right up at 1.5kg/cow/day. On the other hand, some herds were getting much less return for any investment here. It looks like the 'elbow' in this graph is the split between herds where 305d milk yields are moderately genetically limited (above the elbow), and those which have a different bottleneck entirely (below the elbow). That doesn't mean facilities or management are poor – a few of the herds below the elbow are exceptional for both. Small management tweaks for these herds could lead to very big rewards as we remove the bottleneck and let the cows fly! On the other hand, further investment in genetics may not achieve the return they expect.

## NON-GENETIC COW 'ABILITY'

This one is really exciting (though maybe only for clinically odd people). The model also gives a good idea how individual cows perform throughout their lives, independent of their genetic merit. In all herds I've seen, the variation between cows in this non-genetic 'ability' is much greater than can be explained by the cows' genetics alone. Every herd has cows which are consistently giving 25% less milk per day than they should, even accounting for genetics and many other factors (Figure 3). They also have a handful of superstars, consistently giving 25% more than they should. Some herds are good at keeping higher performing animals into old age, while others seem to do the reverse.

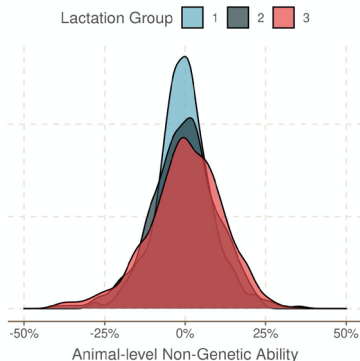


Figure 3 – Distribution of cow 'ability' in the focus herd. This is that cow's consistent performance above or below expected, after accounting for genetics and many other effects. Lactation Group 3 is for cows above 2nd lactation.

I expect this to help make culling decisions far more accurate than current tools allow, and it will help calculate optimal culling and replacement rates for each individual herd. The real prize here is to work out why some cows end up giving a lot less than they should. For some herds it may be simple (lameness, mastitis etc), but it very well may not, especially if you have already fixed the easy problems. Evidence-based dairy farming.

## HERD MANAGEMENT SUCCESS

What if you could see what your cows should be producing, based on everything else we know about your herd and cows? On the face of it, the focus herd performed really well during 2020 (Figure 4 - blue dots). Surely we should repeat the exact same nutrition and management next

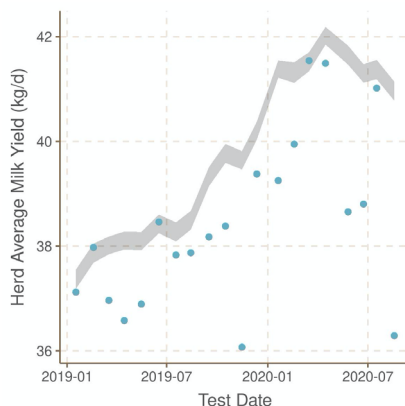


Figure 4 – Focus herd performance (blue dots) vs expected (grey shaded area). The expected values have been calculated using the herd's history, as well as what we know about the calving pattern and the cows themselves. Despite excellent yields this herd was underperforming!

year? Unfortunately, the herd was actually underperforming by 2-3 litres for most of 2020 compared with the expected yields (Figure 4 - grey shaded area). On the other hand they performed as expected in March-April 2020. Knowing this, how much more could we learn about the real reasons behind performance success on this herd?

## THOUGHT FOR TODAY

Most people are pretty pleased when they reach a 40kg/day average on an all-year-round calving herd, or get a 21-d Preg Rate of 30%, but it's quite common to hear the someone say 'I'd love to know how we got here so we can do it again!'. It's easy for us all to give explanations after the fact (genetics, facilities, lighting etc are often given the credit) but if you can't pull the same lever and reliably repeat the achievement next year, you probably haven't found the real reason for your success.



Come along to our SELEKT Pump Servicing Clinic to have your SELEKT Pump serviced free of charge.



Free SELEKT  
Pump Servicing  
Clinic

**Date** Wednesday 21st October 2020

**Time** 10am - 12pm

**Venue** Nantwich Farm Vets, The Meeting Room, CW5 6BU

**Servicing** Drop off your SELEKT pump prior to the clinic or come along on the day so the SELEKT team can service your pump. They will also be on hand to give you advice on cleaning and maintaining it and can answer any questions you may have about using the SELEKT System.

# SELEKT®

SELEKT® is a registered Trade Mark of Nimrod Veterinary Products Ltd.  
Find out more at [www.selektsystem.co.uk](http://www.selektsystem.co.uk)



# Contacts

## Vets

**Dave Shaw**  
07836 335185

**Rob George**  
07773 384450

**John Manson**  
07813 690860

**John Yarwood**  
07814 879109

**Stuart Russell**  
07770 448179

**Peter Duncalfe**  
07717 780604

**Laura Donovan**  
07800 647608

**Steven Crowe**  
07891 843694

**Amy Cox**  
07966 833870

**Sarah Williamson**  
07812 173942

**Joe Mitchell**  
07773 342345

**Lewis Hodgson**  
07972 463365

**Craig Scarisbrick**  
07958 361378

**Eleri James**  
07958 361194

**Zoe Waterson**  
07891 843573

**Gwen Davies**  
07949 576107

**Jack Randle**  
07866 257014

## Vet Techs

**Laura Tomlinson**  
07572 145549

**Chloe Harding**  
07572 145554

**Sarah Holt**  
contact office

**Georgia Richardson**  
contact office

---

Hurleston, Nantwich,  
Cheshire  
CW5 6BU

 **Nantwich Farm Vets**

 **@NantwichFarmVet**

 **@NantwichFarmVets**



**nantwich**  
farm vets LLP



**01270 610349**

**nantwichfarmvets.co.uk**