TOTALLY VETS™
ANIMAL CARE & EXPERTISE

VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM

JULY 2010

Above Michael and Susanna Booth from Longburn

Passion for progression

Michael and Susanna Booth were named regional Farm Manager of the Year in March. They have since gone on to represent the region at the national Dairy Awards.

Learning how to grow their business and fast-track their goals were significant benefits from partaking in the competition. Being able to benchmark their business against others also helped and they have now made the first step in their growth as 50:50 sharemilkers.

Michael and Susanna said, "even though it was a lot of work, we are not put off entering further events. The opportunities to mix and mingle with other farmers with vision and dreams, and to make new friends is hugely motivational."

Induction of dairy cows

Anita Renes

There are many consequences of inducing dairy cows but arguably the most important one is the damage to New Zealand's dairy farming image and risk to our market access.

We live in a transparent, global society that is increasingly aware of animal welfare. NZ exports 95% of its dairy production and our international customers have the power to use animal welfare as a trade barrier. We have all seen what happens when the media and animal rights groups latch onto issues such as sow crates, bobby calf welfare and emaciated cull cows. Videos of dead or dying induced calves scattered around paddocks have already hit You Tube. It is not a matter of whether the media will discover this; it is simply a matter of when. Is the short-term drive of some farmers to make money through inductions ultimately going to cost the entire industry?

A cost-benefit analysis conducted by LIC showed the profitability of inductions to be between -$20 and +$150 per induced cow. The profitability declines rapidly the closer cows are to their natural calving date when they are induced. The authors of this paper also asked the question, "for the small benefit available, is it worth risking market access?"

Eighty percent of Totally Vets' dairy clients do not induce. Induction, used strategically, can be effective but why induce every year? Obviously these farms have lots of late calving cows, reflecting a poor 6-week in-calf rate, and leaving the bull in too long. Instead of driving the induction ambulance to the bottom of the cliff each year, a planned approach to reproductive management will have benefits not only to the individual farmer but to the industry as a whole.

"We simply need to become better at managing the whole system - a tight calving pattern is often a reflection of, rather than the cause of, a successfully run dairy farming system".

PALMERSTON NORTH **06 356 5011** | FEILDING **06 323 6161** | admin@totallyvets.co.nz | **www.totallyvets.co.nz**

Totally Vets current stock health

Dairy

Cow condition around the district is hugely variable. If cows are light now they will be light when they calve. Your chances of putting on condition in the last month of pregnancy are non-existent. Light cows will be slow to cycle, later getting in calf or even end up empty. The compounding effect of poor condition on empty rate and calving spread, and consequently income, can be reversed. It requires recognition of an issue and commitment.

Feeding is the primary tool for rectifying the poor condition/poor reproduction spiral. There are secondary tools that will help regain and maintain that condition. Use your prescription animal remedy (PAR) consult, or as some refer to it 'the Food Safety consult', to discuss tools such as whole herd worm treatment; minimising weight loss

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HA HA

Great senior moment!

A very self-important college freshman was attending a football game. He took it upon himself to explain to a senior citizen sitting next to him why it was impossible for the older generation to understand his generation. "You grew up in a different world, actually an almost primitive one" the student said, loud enough for many of those nearby to hear. "The young people of today grew up with television, jet planes, space travel, man walking on the moon, our spaceships have visited Mars. We have nuclear energy, electric and hydrogen cars, computers with light-speed processing, and...," pausing to take another drink of beer.

The senior took advantage of the break in the student's litany and said, "You're right, son. We didn't have those things when we were young ... so we invented them. Now, you arrogant little shit-head, what are you doing for the next generation?"

The applause was deafening.

Best intentions, worst outcomes!

Peter Aitken

In spring 2008, John Doe had just finished calving when a relative asked if he would mind taking an extra, also recently calved cow, to milk. John thought this would be no problem so added her to his herd. In the late summer of 2009 a few cows had aborted and John called Totally Vets who, as part of their examination, tested the aborted cows for Bovine Virus Diarrhoea virus (BVDV) - a disease John had not seen before!

The aborted cows came back positive for BVDV antibodies. John then had his bulk tank tested to see what the herd infection status was. The result came back "high", indicating it was highly likely a persistently infected (PI), or carrier cow, was in the herd.

This surprised John, as he had not had BVDV before. The decision was made to test the bottom 10% of cows on production. Out of these, one was identified as being a PI cow... the same cow he had so generously taken on from his relative.

After discussions with his vet, it was decided to fix the problem and BVDV vaccination was undertaken before mating in September of 2009. The purpose of vaccination was to help prevent any further abortion problems, PI calves being born to affected cows, and associated production losses. Unfortunately however, as the "problem cow" had been introduced in the spring of 2008, just before mating, John did not know if any of the calves born in the spring of 2009 would be PI calves. The only way to find out was to blood test all the 2009-born young stock. Out of 128 calves tested, 14 were PIs and have since been culled! This loss of replacement animals is a massive cost for a kind gesture. It does not include other production losses associated with the disease.

BVDV is controllable so talk to your vet about a programme to suit your farm!

Totally Vets prints **Vet Notes** on paper using FSC certified mixed source pulp from Well Managed forests and other controlled sources. The paper is produced under an environmental management system ISO 14001.

FSC CERTIFIED — CERTIFIED MIXED PULP
WOOD FIBRE FROM SUSTAINABLE FOREST
ECF ELEMENTAL — CHLORINE FREE
ISO — ISO 14001 CERTIFIED
pH NEUTRAL — ARCHIVAL

between calving and mating; the strategic use of non-cycler treatment and synchronisation of mating; and appropriate supplementation with trace minerals and magnesium and calcium.

Sheep

Lack of an autumn pasture flush and tight winter feed conditions have seen many ewe flocks lose more weight than normal this winter. Where ewes have not been mid-pregnancy shorn, identifying the lightest conditioned sheep by eye is nearly impossible, so body condition-scoring is a must. In these sheep, an economic response to a long-acting anthelmintic treatment is more likely, as parasitism is always a factor in these cases.

For hill country farms where fertiliser application, including selenium, may have been cut back in recent years, talk to us about the options for checking and supplementing selenium to ewes pre-lamb. This is one of the critical points in the year where selenium levels need to be right up there.

Early season mastitis

Craig Dickson

Mastitis remains a significant concern for many of you and early lactation is when clinical infection rates are at their highest. The average rate of clinical mastitis from New Zealand studies is 14% across the lactation but there is large variation between herds.

So, what are the bugs and what do we do about them?

There are essentially two groups of bacteria responsible for mastitis: environmental and contagious. In the environmental group are bacteria such as *Strep uberis* (SU) and *E. coli* and in the contagious group (i.e. where cow-to-cow spread is the main mode of transfer) are *Staph aureus* (SA) and *Strep agalactiae*, with *Strep dysgalactiae* showing an intermediate profile.

Strep uberis infections tend to dominate in the early part of lactation, decline as lactation wears on and, in many herds, increase in the presence of SA infections. *Strep uberis* infections treated with antibiotics will typically achieve an 80% bacteriological cure rate. *Staph aureus* infections are much more difficult to treat and will typically show a 39% bacteriological cure rate during lactation, although these odds greatly improve to around 80% at first treatment with dry-cow therapy.

So with early season SU-dominated mastitis we should be able to achieve good cure rates with appropriate antibiotic therapy. There is more good news - SU infections show good penicillin sensitivity, so a penicillin-based product (or a penicillin precursor in the case of some injectable products) will perform the job perfectly adequately. Now is probably a good time to bring up the issue of the disappearance of Strepcin. It is always somewhat frustrating when you have used a product for some time and it appears to achieve good results and it is then removed from supply. For those of you who have been using Strepcin (streptomycin/penicillin combination intramammary antibiotic), the New Zealand trial work that has been done comparing a streptomycin/penicillin combination with a penicillin-only product shows no difference in cure rates.

So what if the bugs aren't playing the game?

If you are not achieving good cure rates with the products you are using, what options are available to you? Often the initial reaction is to request the elusive heavy-duty antibiotic that resides at the back of the clinic cupboard that cures all mastitis (I would love to know where it is because I'm still looking). Changing antibiotic type may be appropriate in some situations but in most it will not provide the magic answer.

The first thing to do, if you have not already done so, is start collecting some milk samples for culture. These need to be collected before the animal is started on any treatment. Ten samples is a good number for getting a feel for what is going on in your herd.

Cure rates are improved with prolonged treatment but this use is off-label. If you are considering this option, speak to your vet, particularly with regards to the impact on withholding periods.

Dirty cows are dead money

Paul Wiseman

After calving, the uterus of every cow will be contaminated by bacteria. While most cows clear these bacteria naturally, around 10%-20% will be unable to do so and often develop endometritis. It is often hidden and goes unnoticed.

ENDOMETRITIS:

- Affects a cow's ability to cycle at the start of mating
- Increases the time it takes for a cow to get in calf
- Reduces conception and increases empties
- Prolongs calving spread and decreases the number of days in milk

NEW ZEALAND STUDIES HAVE SHOWN:

- Cows with endometritis have 10%-30% higher empty rates
- If they do conceive, they are 2-3 weeks later in doing so

Every dairy herd in the country will be affected to some degree. As a result, you will have increased costs for insemination and culling, and reduced income because delays in calving mean delays in getting cows back into production.

Selecting "At Risk" cows for treatment will mean most cows with endometritis are missed. Metrichecking "At Risk" cows will only miss 71% of infected cows[1].

"At Risk" cows		
Metricheck™ status	"At Risk"	
	No	Yes
% of all cows	81%	19%
% pus positive	19%	28%
% of all pus positive cases	71%	29%

"AT RISK" COWS HAVE A VERY HIGH CHANCE OF DEVELOPING ENDOMETRITIS. THESE COWS HAD:

- Abnormal calving (e.g. assisted, twins, slips, inductions, dead calves, calving paralysis)
- Retained foetal membranes
- Vaginal discharge
- Metabolic diseases (e.g. milk fever)

WE COULD ADD TO THIS LIST OF "AT RISK" COWS BY INCLUDING:

- Age - first calvers
- Breed - Holstein-Friesian
- Time from calving
- Body condition score

And remember that there is an association between milk production and somatic cell count and "At Risk".

The chance of finding pus with Metricheck™ reduces with time after calving. Does this mean cows self-cure? Trial work suggests otherwise! It can take up to four weeks for the uterus to completely involute and after this time there is not much change in pus discharge. Cows are not self-curing. They're just not diagnosable to a not very sensitive test.

The treatment of endometritis has greater effect in cows that calve for a lesser amount of time. Cows treated 7 to 28 days after calving have reproductive performances as good as "clean" cows[1].

The diagnosis of endometritis with the Metricheck™ device 7 to 28 days after calving is predictive of reduced reproductive performance regardless of time to mating date start. Treatment 7 to 28 days after calving improves reproductive performance - nearly as good as normal cows. "At Risk" cows are at greater risk of endometritis, however, there are other risk factors to consider. It is therefore prudent to examine the entire herd.

[1] Runciman. Milking Success 2010.

What's the goss?

Greta, Christine and **Ginny** attended the Pan Pacific Vet conference in Brisbane at the end of May and came back with lots of good ideas. A 150+ page review on all the factors affecting lamb growth from the conference is yet to be digested - watch this space for pearls of wisdom once it's been read!

Ginny gave a presentation at the Brisbane conference on the findings from last year's 'tail end ewe trial'. While snippets from the 'tail end ewe trial' have been written in Vetnotes, we will also be bringing you a summary of it. Also ask Ginny about whether 'when in Rome' is a good idea with respect to Bundy Rum in QLD!

Craig Tanner has been flown to Israel by the Vietnamese government to be brought up to speed with Israeli dairy farming systems. The high technology systems practised in Israel will be right up Craig's alley and we look forward to Craig's comments. On his return, Craig will call on **Greg** in Vietnam.

The **Goss family** from Kimbolton will be regaling in the efforts of their daughter, **Sarah**, who was selected to play for the New Zealand Sevens side at the Roma Sevens tournament in Italy. Sarah, a year 13 Feilding High School student, has also achieved national honours as the first woman to win the junior section at the New Zealand shearing championships in Te Kuiti earlier this year. May your versatility and commitment bring you many more achievements, Sarah.

Anita Renes attended the International IDF Mastitis Conference in Christchurch where milk quality, among the many topics covered, was discussed. A national somatic cell count that has been increasing by 2-3% each year since 1996 requires a fresh approach to present the principles of the SAMM plan to a new generation of suppliers.

Ewe management after scanning

Trevor Cook

Our calculations show that $1000 spent on pregnancy-scanning 1000 ewes (includes the cost of beer) can return $5500 in increased income.

This comes from knowing which ewes are carrying more than one lamb. Being able to prevent just these ewes losing any more condition, lifting the condition score of just the light ones of these ewes and allocating safe paddocks and more grass to these ewes all results in more and bigger lambs.

Should multiples be run on their own from scanning? If feed is short and ewes are going to be underfed for the next month then it is better that multiples get the pick right from scanning. But if there is still some paddock cleaning-up to do and ewe condition is okay, then there is more to gain by using the power and efficiency of bigger mobs.

At 35 days before the start of lambing, multiple ewes must not lose condition and must begin to get more to eat. By 20 days before lambing starts, these ewes must be getting even more. What is the consequence of not doing this? Mostly, the time it takes for lambs to stand up will be affected. The longer a lamb takes to stand up, the more likely it is to be mismothered and weather events will shorten its life. It will also put a ceiling on how much milk ewes can produce, which in turn puts a ceiling on how fast their twin lambs can grow.

A similar outcome can result from how long these multiple ewes are off grass when they come in for their pre-lamb treatments. If it is 10 days before lambing that pre-lamb vaccinating takes place, it is far more critical that yarding time is very short compared to than if it is 20 days before lambing. What can keep this time short is only giving any worm treatment to light-condition ewes. Adequately fed, good-condition ewes will struggle to give an economic return on a pre-lamb drench.

Liver fluke

Craig Dickson

Liver fluke can cause production losses in sheep, deer and cattle. Learning the lifecycles of parasites is a pastime restricted to parasitologists, vets and people with too much time on their hands, but bear with me briefly because this bit is relevant.

The lifecycle of the liver fluke requires the presence of a specific freshwater snail (all right - Lymnaeidae, if you must know). This snail requires dams, marshy areas or slow-flowing streams to survive and hence perpetuate the disease. If your farm has these sorts of areas then liver fluke could be a potential issue.

The disease is generally seen from January to July. Disease can occur acutely or more typically as a slower chronic condition. Animals show poor growth and may have diarrhoea. Any number of disease states could explain these quite non-specific symptoms so it is a disease that is easy to overlook.

Fortunately we have some very useful tools for identifying the presence of liver fluke in your animals. Killing sheets are a useful starting point and they will often have feedback if there are signs of liver fluke involvement.

In the live animal, there are testing options on faeces, milk and bloods. Bloods can be done on individual animals or pooled samples.

There are various products available that are useful in the control of liver fluke. They vary in their mode of application - oral, pour-on and injectable - and also in their effectiveness against different stages of the lifecycle of the fluke. Some are effective against all lifecycle stages whist others will only kill adult fluke. The other thing worth noting is a variation in the withhold period associated with these different treatments.

Rather than bore you with a list of all the product options, if you have any queries, Totally Vets would be only too happy to have that discussion.

Mastitis in heifers

Paul Wiseman

We all know that mastitis in heifers is a common and frustrating problem. It is also a significant economic loss from treatment costs, production costs, reduced fertility and increased risk of culling.

Infusion of TeatSeal into the udders of heifers 3-4 weeks before calving is widely practised to prevent new infections. Published data indicate the overall risk of clinical mastitis can be reduced by 25% and subclinical infections by 57%. Data for reducing the risk of mastitis due to Strep uberis are even more impressive.

Other tools available to reduce heifer mastitis around calving or to minimise the impacts of infection include:

- Teat spraying 2-3 times per week before calving
- Pre-milking heifers that are dripping milk
- Identifying and avoiding environmental 'hot spots'
- Screening all heifers with an RMT test before going into the vat

Talk to Totally Vets about strategies to reduce mastitis, improve milk quality, and increase milk yield that could have a place in your operation.

Bull fertility evaluation

Barny Askin

It is often not until pregnancy testing that a defective bull is suspected. By then the damage is done and finding a whole mob of cows or heifers empty can be soul-destroying.

Bulls can be infertile or sub-fertile for a number of reasons including deficiencies in libido, inability to mount, neurological problems, penile abnormalities and sperm defects. It is estimated that in commercial bulls, when all these potential problems are taken into account, a staggering 13% of young bulls and 20% of mixed-age bulls can be unsound for mating.

This uncertainty can be eliminated by fertility testing. At Totally Vets we carry this out by collecting sperm from a bull using an artificial vagina (AV) while a heifer or cow is being mounted. During this process, the parameters listed above are evaluated and a sperm sample collected and then evaluated in our laboratory.

We have chosen to use this method of fertility evaluation over the Blockey test or collection by electro-ejaculation for several reasons. During the Blockey test, a cow or heifer is repeatedly served, which can have welfare implications. Also a semen sample is not collected and evaluated. Collection by electro-ejaculation has welfare implications for the bull, can be unreliable and does not evaluate the penis or ability to mount. Collection by AV eliminates many of these issues.

To carry out a test, all you need is a decent set of yards, cows or heifers on heat (we can help with this) and some reliable help. We have a portable crush for the heifer/cow that can be adapted to fit many different situations.

Please give us a call at either clinic if you would like to know more about this service.

Can you afford not to know the fertility of your bull team?

Effective decisions from effective business relationships

Greta Baynes

HOW DO FARMERS GET THE MOST OUT OF THE VARIOUS PEOPLE THEY DEAL WITH?

This Manawatu M&WNZ Monitor Farm seminar was held at the Feilding Civic Centre on 2nd June.

Rural banker Blair Shortall emphasised the evolving expectation that farmers not rely on their banker to complete the farm budget; putting it together yourself means you're more likely to have 'ownership' of it. Clear communication with your banker regarding goals and needs is essential.

Local accountant Phil Harre's top clients often revisit their budgets during the year. They have motivated staff who are mindful of the bottom line, use an effective advisory team, get their timing right and have great stockmanship.

Dairy farmer Bruce Coombes used his memories of 'starting at the bottom' to provide a better environment for his own staff. Bruce held daily meetings which included staff in

Calf-rearing

Greg Smith

No simple solution exists to prevent calf diseases but attention to detail and consistent standards will make the difference. Infectious agents by themselves are not always sufficient to cause outbreaks of disease in calves. Generally outbreaks are secondary to unfavourable environmental factors.

Getting the fundamentals right is the key to reducing calf-rearing issues. Focus on the following basics and calf-rearing will be enjoyable.

COLOSTRUM INTAKE

Calves with good levels of passive immunity have a much lower level of disease. Left to nature, approximately 30% of calves will fail to acquire adequate levels of passive immunity supplied by colostrum. Passive immunity can be checked with a blood test, best collected by 5-7 days of age.

CALF TRANSPORTATION

Transport of calves can cause stress and increase the risk of disease. Ninety percent of calves that feed well initially and then stop during the first week, with no apparent scour, do so because of navel infection acquired during transportation, and overcrowding and trampling that result. Navel spray prior to the trip is a worthwhile precaution but is not a substitute for gentle handling. Allow standing room for each calf on shorter trips and sitting room on longer journeys.

MANAGEMENT OF NEW ARRIVALS

After a long journey calves are often stressed and cold. Transport slows the gut and feeding may cause diarrhoea due to poor absorption. Allow new arrivals to rest for four hours before feeding. If hungry, feed electrolytes.

Training to accept an unfamiliar feeding system may be needed. Give yourself time to train calves to a new system.

FEEDING SYSTEMS

Most issues arising from faulty feeding techniques and procedures arise from over-feeding, under-feeding, feed composition or malfunctioning equipment. Of the different systems available - ad lib systems, calfeterias, automatic feeders and nurse cows - nurse cows are the one least influenced by people.

MILK QUALITY

Whole milk

Whole milk feeding has fewer associated quality problems. Sudden changes between stored colostrum and fresh milk can cause nutritional scour. Any feed changes should be managed gradually.

Milk powder

Most powders struggle to match whole milk at the normal rates, so diluting them is only asking for trouble. Buy on quality, not price, as the cheap powders can prove to be more expensive in the long-run.

Temperature

Keep this consistent, either always warm, or always at room temperature. Warm milk definitely has a better outcome in terms of growth rate.

ENVIRONMENT

No one design fits all for a calf-rearing shed. Provided these basic principles are followed, existing sheds will provide suitable environments.

1. Calves should be dry and draught-free. Ventilation above calf level removes urinary ammonia and minimises respiratory disease. Open the side facing north or north east. Ideally calf pens are twice as deep as wide or high.
2. Fill pens with calves of a similar age. Avoid contact with adult cows.
3. No more than 25 calves per pen. Allow 1m²/calf. Solid partitions between modules reduce the spread of disease. Sanitise and spell between batches.
4. Flooring - gravel over soil. Provide adequate slope directed to outer walls, not through neighbouring pens.
5. Bedding - fresh, deep litter at least 150mm thick. Sawdust> shavings> bark > post peelings.

HYGIENE

Effort put into hygiene will make a difference. Clean calf trailers, feeders, gumboots, clothes and sheds, reduce the bacterial and viral load and lower the risk of disease-spread.

Disinfecting occupied pens is only moderately successful. Isolating scouring animals and keeping them separate is the best option. Protect new arrivals from contact with the sick pen and always feed and treat the sick pen last.

Totally Vets have years of accumulated experience on calf-rearing, most of it gleaned from dealing with mid-season disasters which, with a little forethought, could have been prevented. An hour or two spent planning and preparing can go a long way to prevent a poor performance.

decision-making, he identified employees' strengths and channelled their work that way. All farm systems must be simple. "Don't demand respect - command it".

Warwick Catto from Ballance focused on nutrient use efficiency. There can be major variation in fertility between paddocks; consider soil-testing more of the farm to tailor nutrient application. Prioritise fertiliser application - target crops first, followed by new grass, young grass and lastly old grass and effluent paddocks.

Trevor Cook explained how you can help your vet: have the stock in the yards along with someone with knowledge of the patient and the health of its mates. Yes, vets fix sick animals and investigate performance failures but are underutilised for identifying production opportunities.

Phil Everest, an Ashburton farm consultant, outlined the benefits of a consultant. They bring enthusiasm and a fresh set of eyes to your farm. Consultants can adapt ideas from a wide range of sources to your farming system. They work to understand your business, identify opportunities, benchmark your business and assist in intergenerational change. To make the most of this, you must develop a strong working relationship, define clear goals and objectives and communicate well with one another.

More detailed notes on the day are available on our website.

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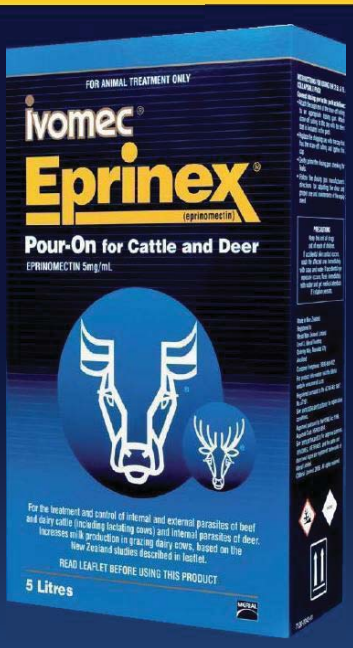

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- Recent rain in many drought-affected areas
- Reports of poor cow body condition score and higher than anticipated empty rates
- Opportunity to convey technical benefits of EPRINEX
  - Published peer-reviewed trials showing increased milk production, increased grazing time, increased BCS and improved reproductive performance

PROMOTION AVAILABLE 1 June until 31 July 2010

Collecting more information from your farm

MEAT & WOOL NZ
Monitor Farm Programme

Simon & Dennis Wishnowsky - 450 Mangaone Road Halcombe
Wednesday 4th August 2010

10.30am on-farm workshop looking at:

- Pasture scoring
- Body condition scoring ewes
- Crops

Followed by an afternoon session at the Halcombe rugby clubrooms:

- Setting up for calving
- BVD investigation
- Pregnancy-testing results
- Yard weaning results
- Bull fertility
- Mating management

Lunch provided

Enquiries to Charmaine@totallyvets.co.nz or phone 06 323 6161