



# VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM

APRIL 09



Above from from left, Paula, Glenda, Libby, Christine, Julie, Suzanne, Liam, Helen and Diane.

## \$3148 raised for Relay For Life

Despite intermittent rain showers, nothing could dampen the spirit of our dedicated team of walkers, runners and buggies!

Totally Vets raised \$3148.10 (every cent counts!). It was a great team effort including organising the roster, designing the T-shirts, pitching the tent and supporting people on the track.

We would like to thank Libby, Sean and Jaz Ellery who gave up their time to run for us from the small hours of the morning, and a big thanks to our vet nurse Helen who, once again, did a fantastic job at organising the Totally Vets' team.

## Why the fancy pants?

In July 06 Manawatu Veterinary Services and Awapuni Veterinary Services announced the launch of Totally Vets.

A lot of questions were raised about what we were trying to achieve by the merger. Awapuni Veterinary Services brought a strong equine influence to add to Manawatu Veterinary Services' inimitable reputation with pets and sheep and beef farms. Both practices brought considerable practical experience and knowledge of the dairy industry. When you deal with Totally Vets you deal with the combined knowledge and experience of over 25 veterinarians'.

Close to three years later, some other fruits of the merger are finally starting to filter through to our clients including the introduction of a new website, [www.totallyvets.co.nz](http://www.totallyvets.co.nz). It was designed to provide free access to vital up-to-date animal health information. Work on

the website is ongoing and new articles and features are added regularly.

We have now revised our newsletter as part of our continual goal of providing you with the best service possible.

Welcome to the new Vetnotes. It has been re-invented in consultation with our clients to become more attractive and easier to read. You will still find the same informative articles written by the Totally Vets team and we will still be keeping you up with all the gossip. We even kept Paul's joke column, although he is a little upset about losing the turkey picture.

There is one new feature that we have added. It is the 'Totally Vets current stock health'. This is a short list of all the current stock health issues related to your particular animals. If you don't have time to read the entire Vetnotes then this is for you.

Enjoy.





# Totally Vets current stock health

The six "P's", (Planning and Preparation Prevent Piss Poor Performance), are as applicable at this time of the year, if not more so, than at any other time of the year.

## Dairy

- Condition and feed are primary factors in determining dry off dates.
- A few cool mornings will not guarantee a reduction in the facial eczema risk, especially as round length is pushed out. Go to [www.totallyvets.co.nz](http://www.totallyvets.co.nz) for a weekly FE update
- Achieving young stock live weight targets is one of the most profitable farm goals. Benefits are in lifetime production and reproduction. Ample quality feed, excellent animal health and regular monitoring of live weight gains are the keys to success.



## HA HA From Paul

A tourist from the United States was driving around New Zealand. He was a bit tired and thought he needed somewhere to stay the night before getting to Queenstown.

Then out of the darkness ran a bull, he swerved but couldn't avoid it, drove into it and killed it. He was still able to drive the car, so feeling guilty he drove to the farm house and knocked on the door, the farmer answered the door. The American said 'I'm very sorry but I've killed your bull, would you like me to replace it.'

The farmer said 'No dramas mate, go around the back and you'll find all the cows in the shed, go for your life'

# Vaccination options for your horse

It's generally advised that you vaccinate mares' prior to foaling. Vaccination stimulates the mares immune system, resulting in transfer of immunity to the foal through antibodies secreted in the colostrum.

These antibodies are absorbed through the foals gut immediately after birth, and help prevent infection from exposure to that bug.

The immunity the foal acquires wanes at around three months. This means your foal requires vaccination to stimulate development of its own immune response, and subsequently produce its own antibodies.

The combination of vaccines used depends upon your situation and the risk of exposure to each bug. Booster vaccinations are required to maintain strong immunity.

**Note:** Tetanus antitoxin which provides immediate short-lived protection is used in case of an injury, when the vaccination status of your horse is unknown. Use of the antitoxin is not a substitute for a full course of toxoid. A toxoid provides long-lived immunity. **Lucy.**

**Contact Totally Vets with any queries or to vaccinate your horse.**

VACCINE	USED FOR	INITIAL COURSE	BOOSTER VACCINATION
Tetanus toxoid	All horses.	Start at 3 months of age, earliest. Two doses toxoid, 4 weeks apart	One year after initial course, then every 5 years.
Strangles	Studs, stables, competition horses.	Start at 12 weeks, earliest. Three doses, 2-4 weeks between each.	Once a year.
Salmonella	Disease occ. in adults & esp. foals	Start at 4 months of age, earliest. Two doses 4 weeks apart.	Once a year.
Eq. Herpes Virus 1 & 4 (respiratory)	Studs, stables, competition horses.	Start at 5 months of age, earliest. Two doses, 4-6 weeks apart.	Every 6 months or every year depending upon risk.
Eq. Herpes Virus 1 (abortion)	All pregnant mares.	One dose at 5 months pregnancy, two more doses at 7 & 9 months.	Follow protocol every year mare is in foal or in contact with pregnant mares.

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- Arrange works collection of liver samples for copper, selenium and cobalt testing.
- Authorisation of veterinary medicines is an essential compliance issue that we all must meet. No authorisation, no veterinary medicines. Avoid the hassle and phone your nearest Totally Vets and ask for your regular vet to discuss your needs.
- Once a day milking is hazardous if your BMSCC is greater than 200,000.
- PD outcomes are hugely variable this year with empty rates ranging from 6% to 36%.

## Beef

- PD results among beef herds appear to be more satisfying than on dairy farms.
- Consider copper and selenium deficiencies if young stock are failing to thrive.

## Horses

- Good quality autumn feed is providing ideal conditions for weaning foals.
- Branding and vaccinations against tetanus, strangles and salmonella can be booked in now
- Pregnant mares are coming up for their EHV abortion vaccinations.

## Sheep

- Salmonella and barbers pole have been keeping a low profile this season.
- Trichostrongyles are about and can be as devastating as barbers' pole.
- Monitor winter hogget weight targets and remove excess numbers
- Avoid checks and toxicity issues when shifting stock onto crops such as brassicas with a slow introduction.



# Drying-off early - decisions and deadlines

As we approach the time of the year when you should be thinking about who, when and how to dry off, it is helpful to go back to basics to aid your decision making.

### WHO:

Cow condition and health throughout the season may help you make this decision. Chronic mastitis sufferers should be culled. Those cows that have lost condition or never regained condition since calving are candidates

for drying off. Similarly, young cows, low producers and high somatic cell count cows should be dried off early.

Reducing the number of milkers frees up feed for the better producers, allowing them to be milked for longer, as well as allowing the dried off cows and the milkers greater opportunity to put on condition.

### WHEN:

Drying off depends not only on cow condition and your current feed situation, including what you have on hand for winter, but also your calving date and what treatment regime, if any, you are planning on using. Different dry cow antibiotics have different periods of efficacy and therefore withholding times, and it is important to factor this into your planning.

### HOW:

The drying off process can take 4 to 10 days. This will be determined by the level of milk production when you decide to dry off. Higher

producers will take longer. Reduce dry matter intake to maintenance levels 3 - 4 days before your planned dry off date and change to a low protein diet by reducing pasture intake and feeding low protein feeds such as maize silage, silage or hay.

When drying off, do not restrict water intake or make any sudden change to their diet. Starving cows at drying off can be associated with more mastitis in the following lactation.

Immediately after their last milking, treat with the appropriate dry cow antibiotic with or without a teat sealant. Vividly mark and separate these animals from the milking herd. A week or so after drying off run the cows through the shed and check for mastitis. Teat spray at this time to further minimise the risk of mastitis during the dry period. **Paula.**

**Refer to our article "Good science behind combination drying-off treatment" on page 5 or contact Totally Vets for more information on products.**



## Beef weaning

The growth of weaners is largely dependent on the quality and quantity of feed they are provided. By 3 months of age, up to 50% of the calf's diet is from grass, so on rough feed, this can have a huge effect on growth rates. Weaner live-weight gains can also be negatively affected in the 2 months before weaning depending on the diet offered to the cows.

If the cows are on rough pasture to "clean up", this may decrease the cow's milk production, further reducing the amount of good feed the calf receives.

The main decision around choosing a weaning date therefore needs to be the quality and quantity of pasture. Cows can become a low priority stock class after weaning and can afford to lose up to 10% of their March live-weight up until 6 weeks before calving. Due to this flexibility, holding back the cows can create that extra good feed needed for the calves.

The fate of the calf is also important. Will it be sold straight off the cow? If so, delay weaning until the day of the sale. There will be a weaning check if weaned earlier, as 25% of their diet is still milk. There is more flexibility with calves that will be finished or are replacements and the decision can then be made on feed availability. **Greta.**

**For further information contact us at [Totally Vets](http://www.totallyvets.co.nz) or visit the website [www.totallyvets.co.nz](http://www.totallyvets.co.nz)**

## Maximising growth in young deer

With venison prices currently ahead of what we have seen for several years and talk of further price rises, now is the time to implement steps to ensure weaners are maximising their liveweight gains.

The single most important element in controlling LWT gains in growing deer is their feed. Swards should be kept above 10cm in height. If swards are grazed at 6 - 8cm in height, only 60% of potential growth can be achieved, while grazing down as far as 3cm will result in nil weight gains. Pasture quality is very important, so fertiliser use, pasture species and weed control should be considered.

Mobs should be kept at reasonable sizes (around 85), and keeping one or two quiet hinds in with weaned deer will help to reduce stress and energy expensive behaviours such as fence pacing.

Copper status in weaners will have a big impact on their performance. Copper levels fall to their lowest in late winter. Ideally sampling occurs now to determine if supplementation is required to keep levels adequate over winter.

Blood samples give an immediate picture of copper status, but are not a good picture of



long term stores. For this we require liver biopsies either on live deer or livers from the works. Once diagnosed, appropriate treatment plans can be instigated. Excess copper can be toxic. Treating deer with adequate to high levels can cause death - this is why it is important to test before treating.

Effective drenching for parasites such as lungworm and various abdominal parasites can help to maintain, and in certain cases, improve growth rates. Faecal egg counts and/or blood pepsinogen levels can be used to monitor both the level and frequency of drenching required, as well as the effectiveness of the drenches being used. **Hamish.**

**If you would like to discuss any aspect of maximizing growth in young deer, give us a call at [Totally Vets](http://www.totallyvets.co.nz).**

## The times they are a changin'

Changes in agriculture have been astonishing. We now use technology our forebears never dreamed of. Consequently fewer and fewer people are involved in the production of food.

In 1900 36% of all US occupations were agriculture pursuits. In 2000 only 0.7% of the US population was employed in farming, forestry or fishing. No longer are there millions of producers selling to local buyers.

### IN THE US TODAY:

- The top 10 food retailers sell more than 75% of food
- The top 10 chicken companies produce 79% of chicken



# Good science behind combination drying off treatment

It's important to ensure we "get the basics right" and focus on areas where we can make a difference. Mastitis at and after calving is an issue we can dramatically reduce through appropriate management and preventative treatments.

The objectives of a good dry cow treatment programme are to;

- Cure existing infections
- Prevent new infections during the dry period.

Dry cow antibiotics achieve the first objective and prevent new infections during the early dry period up to however long their period of activity. While there is a good cure rate on post drying off infections in dry cows, with up to 80% being cured during the dry period,

the activity of dry cow antibiotic declines over time, meaning its protective effect against a new infection is negligible past 50 days, even with the most powerful treatments.

In herds with high bulk milk somatic cell counts it is often necessary that higher SCC cows be dried off earlier as milk volumes decline in late lactation and grade avoidance becomes the name of the game. However, having a dry period of greater than 50 days sets those same cows up to be susceptible to infection the following season, due to the fading effect of dry cow antibiotic, and within cow susceptibility to infection.

Why individual cows are more susceptible to infection has numerous answers including her previous mastitis history, the length of the dry period, milk yield at drying off, nutritional/ trace element status and how quickly she forms the keratin plug in the teat canal after drying off.

Teat sealants effectively mimic the keratin plug, and infusion at drying off will see the product sit in the teat sinus, preventing bacteria entering well after the effects of dry cow antibiotics have waned. Sealants reduce infection over lengthy dry periods.

Combination treatments of high cell count cows at drying off with antibiotics and a teat sealant have been shown to reduce the incidence of new infections at calving by half.

In cows with a dry period longer than 10 weeks, only a third as many cows were infected under combination treatment, compared with those treated only with antibiotic.

A trial carried out by Richard Laven at Massey University has shown combination treatments can carry positive benefits for mastitis management into the new season. Cows treated with dry cow antibiotic plus teat sealant had half (8%) the infection rate of those treated with antibiotic only (15%).

A cow that has had clinical mastitis during the season and a cell count over 150,000 should definitely have antibiotic. If she is going to be dry for more than 10 weeks, then a teat sealant should be considered to ensure a barrier to further infection before calving.

A cow with a low SCC through the year and no mastitis may be an ideal candidate for only teat sealant treatment.

Dry cow antibiotics are a prescription animal remedy and cannot be prescribed without a prior consultation. If you haven't already received Totally Vets Drying Off Consultation for 2008/09 questionnaire, pick one up from either practice. Completing this as thoroughly as you can goes a long way to fulfilling the requirements of a consultation. Without information our promise of best advice is difficult to deliver on when we set aside dedicated time to go through it with you. **Paul.**

- The top 20 pork producers produce more than 50% of pork.

Industrialisation of agriculture has improved food safety, increased product variety and given us more consistent and affordable food. Sadly with fewer people connected to the food system there is reduced understanding of how food is produced. The result is decreased consumer confidence in agriculture and increased consumer concern and activist pressure.

All of us involved in agriculture have to be that much more aware of how our daily operations compare against the expectations of our customers. Step away from these expectations and government steps in to legislate, regulate and magnify compliance costs. The question becomes one of how to maintain public trust that allows the freedom to operate.

Unfortunately it is no longer sufficient to rely on science and reason as a means of justifying how we farm. Consumers place a much

greater value on confidence than competence in determining who they will trust in the food system!

As well as being good custodians of the land and the animals we farm the more we can connect with our increasingly urbanized customers on a very real level, the better off we will be. So well done to our local Federated Farmers members who recently opened their gates to all comers for the recent 'Day on the Farm' – you did us all a favour.



# Lame sheep: scald, footrot and abscesses

The footrot bacterium, *Dichelobacter nodosus*, which lives only in diseased feet, would not be expected to survive in the environment for longer than a day or two in hot, dry weather (7-14 days in the winter) and thus the prevalence of footrot should be substantially reduced due to the rate at which the disease is transmitted from one animal to the next. However the disease does not totally disappear.

*Fusobacterium necrophorum* is a normal inhabitant of the environment derived from the faeces of livestock. This bacterium, like *D. nodosus*, does not survive long in the environment under dry conditions. However, because it is a normal gut inhabitant there is a continual contamination of the environment.

*F. necrophorum* is the cause of Ovine Interdigital Dermatitis or Foot Scald usually requires and the skin between the claws to be wet and damaged in order for the disease to establish. Under the right conditions, scald lesions can then progress onto Footrot (with the presence of *D. nodosus*) or Foot abscess (with the presence of *Actinomyces pyogenes*). However, scald can also come about through trauma or cracking of the interdigital skin so in a dry year, with the presence of dry, stalky pastures and dry, cracking skin, outbreaks of scald, hence footrot are possible.

Regular foot bathing with 10 % Zinc sulphate or 5% Formalin is likely to have high cure rates (80-100%) this time of year in those flocks where incidences of foot scald are high. Avoid using Zinc sulphate if Formalin has been used in the last few months as effectiveness of the zinc sulphate may be reduced. If you are concerned about a lameness problem, please consult Totally Vets regarding treatment and prevention options. **Hamish.**

**For further information contact us at Totally Vets or visit the website [www.totallyvets.co.nz](http://www.totallyvets.co.nz)**

## New insights into 'tail end' ewes

Totally Vets have recently begun a new project entitled 'The Life and Times of Tail End Ewes'.

'Tail end' (very thin) ewes are a problem on most hill country farms in New Zealand. Their reported incidence varies hugely from farm to farm, and from year to year.

The anecdotal expectation for these ewes is that they will have a high death rate, and that they will have a low level of productivity. Because so many of the productive parameters of breeding ewes are linked to body condition score it is logical that the productivity of tail end ewes will be low. Farmers use a variety of techniques to manage these sheep including ignoring them, culling, drenching for worms and/or preferentially feeding them.

It is widely expected by farmers that just treating tail end ewes for worms will give a high recovery rate. Though how long any recovery persists for in individual sheep has not been defined, and formal research work to date has failed to show definitive links between 'standard' indicators of parasitism (e.g. FEC, dag score, some antibodies) and ill thrift in mature ewes.

Despite the numbers of tail end ewes reported from farmers and their supposed impact on production there is actually very little work done that defines the problem or its likely causes. The numbers of ewes, their demographics and their productive or treatment outcomes are very poorly researched or understood.

So we and five of our keen minded clients have waded into this area with a study that will follow individually identified thin ewes for at least 12 months, and compare their performance and fate to individually identified better conditioned flock mates.

We will be looking at changes in bodyweight, condition score, faecal egg count, and dagginess, as well as recording ewe age, state of feet and teeth, and their productive



## Simple health checks

Much of what happens during Autumn will be reflected in farm productivity and animal health issues next season. Although a small part of nutrition, trace minerals and magnesium are essential for life. Unless facial eczema damaged cows are identified and preferentially treated they are at risk at calving.

Liver is the sample of choice for measuring copper status of normal animals, and autumn is a good time to assess liver copper stores. Liver copper concentrations will decrease to 1/3 - 1/4 of the autumn level over winter. Testing in the autumn gives time to supplement before the high demands of late pregnancy and lactation.

Blood samples can be used to determine if copper deficiency is the cause of a current problem. Blood is a poor indicator of liver stores and is not the recommended sample when information on storage is required. Avoid sampling animals with infections and facial eczema, since copper levels in blood increase significantly in inflammation.

There are two blood tests for measuring selenium. One gives an indication of current status as selenium is absorbed from the diet and shifted into the liver within hours. The second reflects selenium intake from 3 months ago and gives a reliable indication of current selenium status if stock have been grazing the same soil type for the past 3 months and no selenium has been supplemented in this time.

Another check for selenium should be done in the winter because selenium deficiency is known to depress milk production and may affect parturition, retention of foetal membranes and conception.

Measuring serum magnesium status in the autumn allows you to monitor if sufficient magnesium is available, and check on the efficacy of supplementation. This test should be part of a series of serum magnesium tests throughout lactation, including: drying off, mid winter, precalving and peak lactation.

Checking magnesium concentrations in late lactation or the early dry period can allow supplementation to be started and continued over autumn and winter if necessary.

Facial eczema damages the liver resulting in marked increases in the enzyme GGT. Serum GGT activity increases up to 10 times above normal by 7 - 10 days after FE spore intake. Serum GGT steadily declines from 4 to 6 weeks after the danger period has past.

Tissue sampling in the autumn or at drying off provides an opportunity to ensure trace elements and magnesium concentrations are appropriate heading into winter and assess any effects of facial eczema on the liver. Options for sample collection include collecting liver and/or blood samples on the farm, or getting liver samples collected at the slaughter plant.

**Courtesy of Gribbles Veterinary.**

outcomes, including the response of a percentage of the thin ewes to drenching.

The overarching questions we hope to answer are:

- How much less productive are the thin ewes compared to their better conditioned counterparts?
- Do thin ewes tend to get worse, get better or stay the same? And over what period does this happen?
- How much greater is the risk that these ewes won't make it through the season?
- Is there a measurable response (condition or productive) to treating these ewes for worms and if so how long does it persist for?
- Can we predict any response seen above by looking at FECs or dags?

- Is there any tendency of these ewes to be of a particular age?
- Can we quantify the likelihood of these ewes to be suffering from poor feet or teeth?

We all certainly have our opinions about the answers to many of these questions, but it would be nice to have some objective data!

In the meantime, with mating still approaching for many hill country flocks, the greatest opportunity for most to improve conception rates is to focus some effort on lifting the condition of the lightest 25% of the flock - knowing that conception rate is definitely influenced by body condition!

And until or if there is clear evidence to the contrary, we would always recommend drenching these ewes for worms. There is no point in stoking a whole lot of feed into

these animals if there is a worm burden that is holding some of them back. But currently we have no way of assessing which of the light ewes this applies to, so do them all.

It is sensible to use a combination drench containing a 'white' component (e.g Oxfendazole, Albendazole) as this drench family also deals to adult liver fluke, so will help reduce challenge from these. Though with the high feed covers and good rainfall this autumn it is unlikely that sheep have been grazing in a manner which will have put them at great risk from fluke this year.

As our study progresses we will keep you posted on what we are finding, so watch this space ... **Ginny.**



# Treating non cyclers - local results!

With a few whole herd pregnancy tests under our belts and data analysis courtesy of MINDApro, some interesting results have emerged from this season's campaign of treating non-cycling cows.

Non-cycling cows were treated with a vaginal insert CIDR or Cue-Mate for seven days, with hormone injections given at the time of device insertion and removal. Then 48 hours after device removal, usually at afternoon milking, a final 'ovulating' hormone was given. This was followed by Fixed Time Artificial Insemination (FTAI) the next morning.

We recommended treatment to be initiated 7-10 days before Mating Start Date (MSD) to maximise early conception opportunities. Depending on numbers of cows not mated by Wk 4, a second wave of treatment was often applied at that time.

## SO WHAT DID WE LEARN?

Herd Size range	221 - 441
Percentage of herd treated	9 - 21%
1st service conception rate (to FTAI)	34 - 55%
4Wk in calf rate	36 - 62%
8Wk in calf rate	60 - 84%
Empty(MT) rate	7 - 21%

## SOME GENERAL OBSERVATIONS:

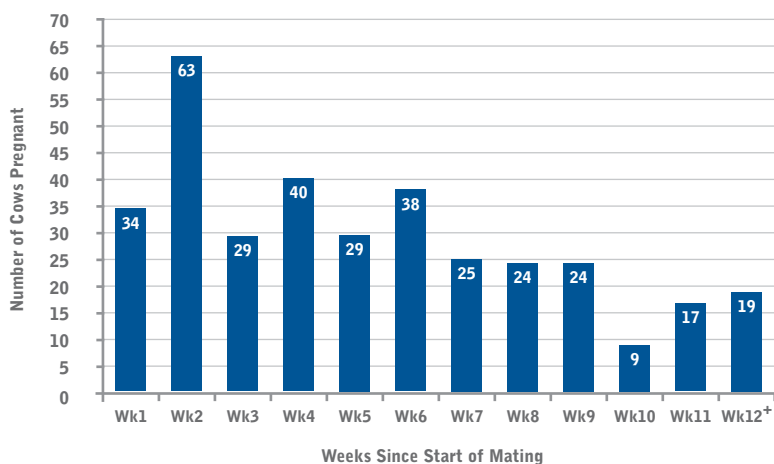
- the higher the percentage of herd treated (a greater non-cycler problem), the lower the 1st service Fixed Time Artificial Insemination Conception Rate (FTAI CR) and higher the final empty (MT) rate. There's also a strong correlation with body condition score.

- 3/6 herds achieved FTAI CR between 52% and 55% - in all these cases, this was better than the 1st service conception rate (CR) for the entire herd.
- the money number is the 4Wk in-calf rate - again wide variation from herd to herd, with the target being over 60%
- MT rates amongst treated non-cyclers were similar to the overall MT rates for each of the herds.

those at 35% CR the exercise will prove to be far less profitable. There is a breakeven FTAI CR point below which treatment of non-cyclers loses you money!

## DO YOU KNOW HOW WELL YOU FARED?

Another way of highlighting the positive impact of early anoestrus intervention is to look at a MINDApro Pregnancy Confirmation Report. It is presented here for the poorest performing of our analyzed herds with only a 34% CR.



## SO WAS IT MONEY WELL SPENT?

The basis' for the economic gains due to early treatment of non-cycling cows are:

- a reduction in the average interval from MSD to conception of 13-16 days in progesterone-treated cows, compared to doing nothing, resulting in more days in milk in the next lactation - in other words, treated cows conceive more quickly
- as a result of calving earlier next season, treated cows are less likely to be anoestrus next year, so there is diminished risk of them being retreated

With the goalposts shifting sharply on MS payout & cow prices, earlier cost benefit models predicting up to a 3-fold return on investment at a 40-45% FTAI conception rate no longer apply. Instead, more conservative rates of return (75-100%) can be expected in today's market conditions.

Local data indicates there are both upsides and downsides to this range. Those at 55% CR have had exceptional rates of return while for

Note the spike in Wk 2 coinciding with pregnancies to FTAI after Cue-Mate treatment around MSD. Left untreated, few of these cows would have cycled in Wk 2, let alone conceived. The net result is greater lactation days next spring.

## HOW CAN WE HELP?

Talk to Totally Vets about...

- measuring response rates in treated non-cyclers
- minimizing the number of non-cyclers in the first case
- the value of being MINDApro registered
- performing an InCalf reproductive review of your herd - what went well; what needs improvement and options available

Craig T.