

## REPRODUCTIVE TRIAL IN CIRCULAR HEAD

A pilot trial carried out in Victoria last year demonstrated some promising results using an existing reproductive program but incorporating a new hormone.

The trial involved the use of the OvSynch program that has been around since the mid 1990's. This program is still used and although the submission rates achieved were good, conception rates were not up to the standard achieved with the use of PG/Cuemate programs.

The benefit of OvSynch is that all cows in the herd are fixed time inseminated on the same day. While having logistical problems on the day, this saves the labour of heat detection in the first cycle. With missed heats estimated to cost farmers between \$200-300 the fixed time insemination could also have economic advantages. With the addition of the new hormone into the Ovsynch program the 25 day in calf rate increased by 28% and the 6 week in calf rate by 25% in the trial herd. When compared to herds in our district the results were still

not exceptional but when you compare the results to other Victorian herds they were significantly improved.

When you compare the poor results coming out of Victoria (6 week in calf rates of 45% and 21 week empty rates of 18%) Circular Head is way ahead. However, there may still be benefits for Circular Head dairy herds which is why Smithton Veterinary Service has become involved in the follow up trial from this pilot study. Five herds from around Australia have been selected to expand this trial and we are running one of the herds in Circular Head.

A 900 cow farm has been selected and Smithton Veterinary Service is working closely with this farm to record significant data which can be analysed and extrapolated to our district. We are also interested to see if there is an age or time since calved response to this new hormone. We should have the first round of results later in the year/early next year and will keep you all informed.

## OPEN DAY

*Smithton Veterinary Service* will be open to everyone in the community on

**Sunday 28th November  
from 11am-3pm**

The day will be filled with lots of interesting large and small animal displays, pictures, information and facts.

Giveaways and competitions with HEAPS of GREAT prizes.

Lots of fun and a sausage sizzle.

We extend a very warm welcome to ALL our farm and small animal clients and their families, as well as the general public.

*Watch this space for more information to come!*

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## PRE-MATING PLANNING

In many ways, what happens within your herd between calving and mating start determines what will be happening next year. So a little planning and thought now can yield profitable results next season. With this in mind, following are some things for you to think about:

### Calving pattern

– if you didn't have at least 70% (75% is better) of the herd calve in the first 3 weeks of your calving pattern, it is likely there will be a higher than desired number of non-cyclers and cows with infections at mating start. This % is easy to work out – just look at the number of cows & heifers that calved by day 21 after calving start date (based on last season's mating start date, not when the first cow or heifer happened to calve this year) and divide this by the total number of cows and heifers that calved. Eg if last season's MSD was 23/10/09 (this is a CSD of 1/8/2010) and you had 190 cows/heifers out of a total of 300 calved by 21/8/10, this is 63.3% calved in the first 3 weeks. This is well below our target of 70-75% so expect more non-cyclers and more cows still with infections at MSD. Even better, talk to us about the options to tackle this problem. Remember, calving pattern has a significant influence on time between calving and MSD, and therefore on subsequent fertility of your herd.

### Nutrition

– ensure the cows are on a rising plane of nutrition. A cow's dry matter intake does not peak until about 14 weeks after calving (for the average cow in the herd this will probably be after mating start), so it is essential that the feed is of high quality to ensure adequate energy intake. The approach to solving this is to follow good grazing practices (2.5-3 leaf grazing with post grazing residuals of about 1500kgDM/ha) and to provide adequate supplements to fill any shortfalls. Feed budgeting and monitoring of pasture cover/growth rates and knowing what your cows' feed requirements are, are keys to this.

### Drenching

– on many farms there is a very good argument for a pre-mating worm treatment of the herd but especially of younger cows. Feel free to talk to us about this. We currently have Noromectin Pour-On 20 litres on special (see enclosed specials list).

### Vis Vaging

– done to detect cows with uterine infections, this is best performed 2-3 weeks before MSD. Ideally, the whole herd is examined or alternatively the 'at risk' cows in the herd. 'At risk' cows are those that were late calvers, have been induced, had RFM's or vaginal discharges, milk fever, calving problems, twins or any other health problem in early lactation. Recent Victorian trials have shown that infected cows have reduced AI conception rates and in calf rates compared to non-infected cows (*see table below*).

	Infected Cows	Non-infected Cows
6 week in calf rate	37%	54%
21 week in calf rate	76%	87%
1st AI conception rate	29%	39%

### Pestivirus

- once the herd has calved and are being milked into the vat, it is a good idea to bring in a bulk milk sample for antibody testing. We may still be able to access this test free of charge or if not, the cost will be about \$15. The bulk milk antibody test is a great opportunity to monitor what's happening in your herd if you have already started a control program or to give us some background starting information on the likely status of your milkers if you haven't started a control program. Please feel free to speak to us about this.

## Bulls

– bull management planning should be well underway for those starting mating in the next couple of months. Tips to manage your bulls (from InCalf & SVS):

- Number of bulls – 3 bulls for every 100 cows (4 bulls if using synchrony). A herd of 300 cows will require 9 bulls.
- Have bulls on farm by MSD (AI start).
- Bulls should have a veterinary examination and be semen tested at least 2 months before required. SVS have semen tested over 200 bulls in the last 2 years with approximately 5% being rejected as infertile and another 15% as sub-fertile. These figures do not take into account bulls that have been rejected for other reasons eg. undersized testicles, bad feet, poor leg conformation. These bulls do not even reach the stage of semen testing. Approximate cost for bull testing is \$50-\$60/bull including semen testing.
- Always run at least 2 bulls with a small mob.
- Use bulls aged between 15 months and 4 years.
- Ensure bulls are in good body condition, drenched and vaccinated with 7 in 1.
- All bulls should be ear notched for **Pestivirus** and vaccinated .
- Rotate bulls frequently – run half the bulls with the herd at any one time, spell the rest, rotate at least weekly.
- Group bulls of similar size, age and temperament.

## Tail Painting, Synchronising & Non-Cyclers

– planning or evaluating your options well before MSD is the key. If the herd is tail painted for at least 3 weeks prior to MSD, you will be in the best situation to know how many cows are cycling and not cycling by MSD. The earlier you know this information the earlier you can make a decision about what to do. This decision will vary from farm to farm but if you choose to treat non-cyclers as we recommend, then the best cost benefit is if you act early, certainly within 2 weeks of MSD. There is little point in treating non-cyclers if you are getting most of them back in calf outside the AI period. Synchronising the cycling cows is a very cost effective way to get them back in calf earlier and hence achieve a tighter calving pattern. There are a number of programs available and the correct one for you will depend on a number of factors such as the herd's calving pattern, when the cows were tail painted, your facilities, how complicated or simple you want it to be etc . Again, plan early and talk to us about your options.

## Replacement Heifers

– we recommend a MSD for heifers 10-14 days before the MSD for the milking herd and only mating for 6-7 weeks. Well-grown heifers with adequate fertile bulls will get in calf quickly. Weighing heifers just prior to mating and comparing this to targets is a useful assessment tool. Please note we advise regular weighing of heifers every 2-3 months from weaning to calving.

## YAKULT FOR COWS

A new product has been released for cattle called ProfeSTART®. This product is the equivalent of a probiotic for cows/calves like yakult or inner health capsules for people. Any sickness that cattle have will upset the microbial balance of the cow's stomach and when you think of the amount of bacteria in the rumen and digestive tract there are a lot to upset with health and production consequences if the gastrointestinal tract of the animal is not working properly. ProfeSTART® includes five of the main bacterial species found in the intestinal tracts of cows and helps re-establish the normal gut flora of the animal to improve the efficiency of the rumen. Some cases where the probiotic may be effective include post antibiotic treatment where normal rumen flora have been knocked out, post acidosis (grain overload) or in calves changing diets or with dietary scours. The product is reasonably priced and comes in an easily dispensed gel. If you would like to know more about the product or where it may benefit your animals talk to one of the vets.

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## COCCIDIOSIS TESTING

As many of you are aware Coccidiosis is a contagious disease affecting the bowel and is caused by a small parasite that is ingested from the pasture or ground. The condition affects calves in particular with the usual age affected being between 3 weeks and 6 months. It can also be seen in older animals especially if they are under 'stress' be it from environmental, disease or other causes. Occasionally we also see the condition in calves younger than 3 weeks.

Clinical signs include sudden death, scouring, with or without blood and straining. Dehydration may occur requiring treatment and calves that recover may then show illthrift.

The eggs can survive for up to two years and become infective under moist conditions. Circular Head has an ideal climate for the development and persistence of this parasite. Large numbers of eggs must be ingested to produce the disease. Therefore, coccidiosis is more common where a build-up of faecal contamination occurs. For example, in calf paddocks and around and in feed and water troughs.

From the time eggs are picked up to the onset of disease may be as short as fifteen days. As stated above, most cases recover without showing signs. Treatment involves the use of specific medications drugs and fluids/electrolytes and is usually successful provided bowel damage or blood loss are not severe. Bowel damage may cause a setback in growth rates. The course of the disease is usually 5 - 6 days.

Diagnosis is based on the signs above and a very simple and cheap test done at our clinic. If necessary, post mortems can be performed to aid with diagnosis. Prevention includes avoiding overcrowding, regularly rotating calving paddocks and keeping supplementary feeding off the ground where possible.

Remember that Coccidiosis may mimic bracken fern poisoning, high worm burdens, some bacterial infections and may occur in conjunction with other diseases. If in doubt please ask.

As we have published in previous newsletters there has been a new product registered for the treatment and prevention of coccidiosis called Baycox. This product can be used to prevent outbreaks occurring over stressful times eg when calves are put out or at weaning. It will only cover the animals for 42 days so it is essential animals are exposed during this time or immunity will not develop. Bayer, the makers of Baycox are offering free testing to farms through our clinic who suspect that they have coccidia present (before signs start) in their calves. This would involve faecal testing of the group at a high risk period for the presence of eggs. If they are present in sufficient numbers then Baycox could be used to cover the calves while immunity develops and prevent clinical signs and losses. If you are interested in taking up the offer please contact the clinic so the appropriate samples and timing can be advised.

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## LOOKING BACK—PLANNING FORWARD

For most farmers calving is almost finished or at least well underway. Now is as good a time as any to review your mastitis and milk quality history for this calving period. It is a good idea to jot down (and record somewhere where you can refer to it next year) what has gone well and what hasn't. Keep a checklist. How many clinical cases have you had? How many heifers calved with mastitis? What treatments worked well and which ones didn't. Did you take samples and if so what type of bacteria was isolated? What was teat condition like?

Answers to these sorts of questions will help in planning for next season. For instance those farmers that used Teatseal on their heifers are likely to be very happy with it with fewer heifers coming in with mastitis and are likely to use it again next year. Some farmers might decide their teat spray this season was not up to standard and consistent mixing was an issue or teat condition was a major problem - they may decide to use a RTU product next year and with a higher emollient level etc. Please note that recently, we have tested a number of teat spray samples that have been well below specs.

Milk sample cultures this year have again shown the environmental bugs to be the predominant bacteria at this time. These bacteria are associated with faeces in particular but can also be found in the soil and on the cow's skin.

Whilst we recommend looking at wet, muddy and faeces contaminated areas in the paddocks and laneways as a possible source of these germs, attention must also be given to the yard and milking shed environment. Yards and sheds where there is excessive use of high pressure water, backing gates, dogs, udder washing but not drying and a 'stressful' milking routine where cows are defaecating excessively, can all lead to increased exposure to these bacteria.

Although the teat canal provides a good defence and correct teat spraying is very effective, if these are overwhelmed by the sheer number of bacteria, mastitis is more likely to occur. Any strategies must be aimed at decreasing these bug numbers whilst ensuring teat health is maximized. Remember a cow is also much more susceptible to mastitis around the calving period. Not only because her immune system is less able to cope but also because cows are more likely to be exposed to mud and manure during calving. This mud and moisture at this time of year will dry out teats and lead to cracking. Bacteria thrive in these cracks.

Management strategies during mastitis outbreaks or cell count blow outs in this calving period include:

- Calving in the cleanest driest areas possible (consider calving heifers separately so they are not forced to calve in the less suitable areas of the paddock)
- Removing calves and milking the cow within 24hrs of calving and then twice daily thereafter
- Consider pre calving teat disinfection for those with tight udders or dripping milk
- Avoid wetting udders or teats – if washing you must dry, consider pre milking teat disinfection
- Looking and listening for correct machine function eg cup slips, blocked air admission holes, appropriate vacuum levels etc.
- Attention to heifers with udder oedema with the use of diuretics and letdown is often beneficial.
- Ensure all quarters are fully milked out – many of these environmental bacteria take a while to fully establish in the udder and twice a day machine milking is very effective in removing them. Because the bugs are easier to flush out, in general they are usually easier to treat but only if diagnosed early. This effect underlines the need to strip each quarter at each milking during the colostrum period (rather than at the first milking and then just before going into the vat).
- Record cases and results – analysis of these can be helpful for next season.
- Correct teat spraying is essential and is the single most effective aspect of mastitis control – if not done properly or if too weak a solution is used, an infected cow can potentially spread infection to the next 5 or 6 cows. In an outbreak situation and where you have an automatic teat sprayer, consider spraying by hand for the calving period at least. In general, we do not recommend the use of automatic teat sprayers.
- Milk infected cows last

As we continually stress, taking milk samples is absolutely necessary to determine what bacteria may be causing you grief. It allows us to give you more meaningful and relevant recommendations. Samples should be taken from all clinical cases, be stored frozen and submitted if numbers are excessive. Submitting a sample here and there is not only costly to you but not as useful as submitting 10-20. A larger number of samples is far more likely to show a trend and consistent pattern.

Please be advised information from the Countdown Downunder Farmer Guidelines (now out of print) has now been put on the Dairy Australia website with some useful associated links.

# READ AND WIN

## October Quiz

Answers from the Newsletter please

Q1 How long before MSD do we recommend vis vaging is done?

A \_\_\_\_\_

Q2 What disease should all bulls be tested for before being run with the herd?

A \_\_\_\_\_

Q3 Bayer, the makers of Baycox®, are offering free testing for which disease, before signs are obvious?

A \_\_\_\_\_

Q4 List 3 management strategies that are important during mastitis outbreaks or cell count blowouts.

A 1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

Q5 Circular Head dairy herds generally have superior reproductive performance compared to Victorian herds?

A True / False

Q6 What is the estimated cost of a missed heat?

A \_\_\_\_\_

Name: \_\_\_\_\_

Phone : \_\_\_\_\_

*This month's prize will be an esky*

*Please drop your entry in to SVS or fax to 64521221 before October 25th.*