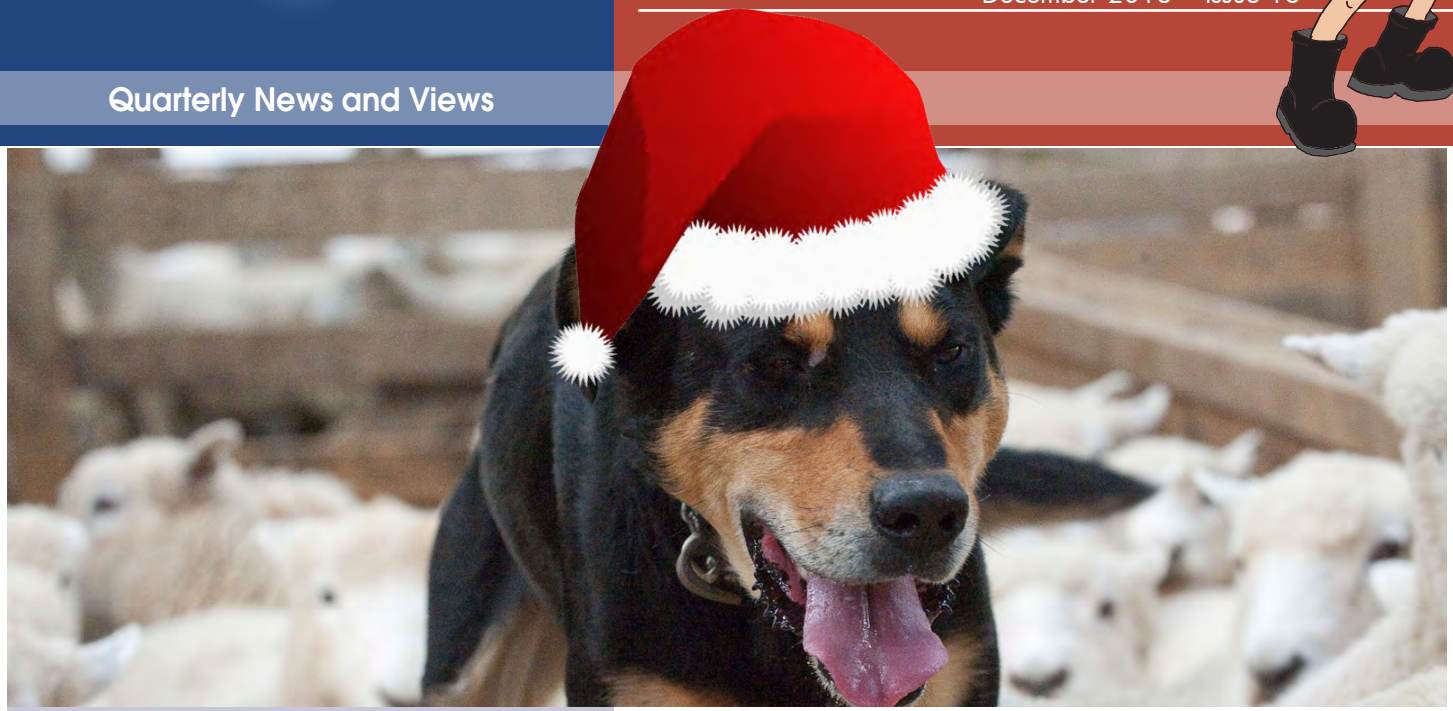
Quarterly News and Views

Over the Fence

Greetings from Wanganui Vet Services

December 2013 • Issue 18



Inside this Issue:

Animal Health Reminders

For the next 2 months:

- Toxovax / Androvax
- Ram Fertility Checks
- 5 n 1 Vaccine for Lambs going onto Crops
- Finish Velvetting / Tidy Regrowth
- Mastitis Milk Samples for Culture

Christmas is fast approaching as we enjoy what has been a dream season thus far. A great season for dairy calving and mostly excellent weather for lambing meant that we have seen very few significant animal health problems this year.

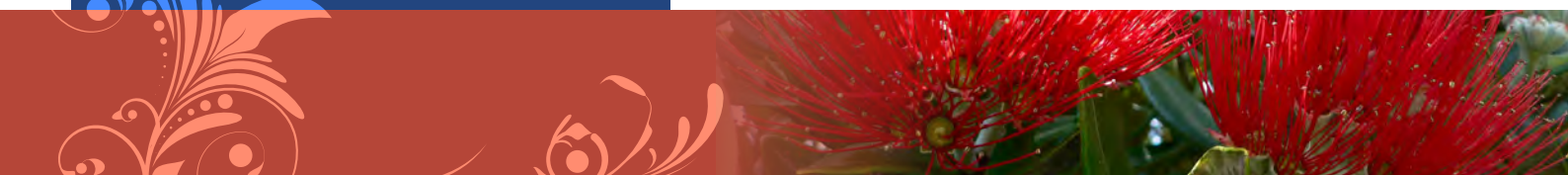
In saying that, I guess that we did have our worries as a result of our local experience with the Theileria outbreak working its way through New Zealand. Developing a plan for working out how to manage this disease and just what it will mean for farming in New Zealand over the next couple of years remains very much a work in progress.

All commodity prices are looking good at the moment, the All Blacks look to be headed for the 'perfect year', our Lorde and Lydia Ko are international heroes, Dave Taylor removed his moustache, at the time of writing Tom and the team are preparing for the most awesome Christmas float as we are all look forward to another great summer here in Wanganui.

We hope that you all get a chance for a good break with some quality family time. Unfortunately this seems to get harder to organise in this busy world these days.

We love what we do and we will be looking forward to more of the same after the New Year.

Merry Christmas from all of us, and thank you for your support.



CONTROL OF GASTROINTESTINAL WORMS IN SHEEP

Effective control of gastrointestinal worms of sheep must be based on limiting their exposure to infective larvae on pasture. In addition host responses are enhanced by good nutrition and the overall level of feeding including trace elements.

The control of internal parasitism should involve an integration of farm management systems with strategic anthelmintic use. It is very important to recognise that every farm is different, with a different mix of stock (species and age group within species), different microclimates and different grazing systems. While general guidelines about parasite control can be given, a parasite control programme for each individual farm should be developed based on sound principles, monitoring and experience.

MANAGEMENT STRATEGIES FOR CONSIDERATION

Rotational Grazing

Rotational grazing was once thought to offer a useful means of reducing pasture infectivity but the periods of resting required are unacceptably long to get 'safe' pasture.

4-5 months in autumn and winter
2-3 months in spring and summer.

Furthermore under some circumstances rotational grazing may return animals to a much higher, rather than reduced level of pasture infestation. Larval development on pasture often takes about 3-6 weeks. If sheep are rotationally grazed as a single species at an interval close to that for maximum larval development, the sheep can be regularly exposed to maximum numbers of larvae.

Provision of Safe Feed

Fodder crops, new pasture, hay and silage aftermaths all initially provide excellent 'safe' feed. However on most sheep farms only a limited area of land is used for these purposes.

Dilution

In general the parasite challenge increases with increasing stocking rate. This will be further compounded if cattle numbers are not increased proportionally. The sheep to cattle ratio is an important consideration when it comes to parasite control, but keep in mind, on steep hill country for instance it may not be possible to run cattle at all.

It is possible however to achieve dilution by grazing "resistant" stock with susceptible animals. This concept is exemplified when dairy farmers set stock one or two calves in each paddock of the farm.
For sheep farmers dilution is more difficult but the following strategies are worthy of consideration.

- Set stocking cattle with young sheep in the spring when feed is plentiful.
- Reduce the proportion of young to adult sheep on the farm. Lambs and hoggets are the most vulnerable to parasitism and are the main contributors of pasture contamination.
- It affects cows that have recently calved that are under stress more severely than dry stock

Many farmers are guilty of keeping whether or ram lambs for too long and of wintering all ewe lambs rather than selecting replacements at an early age. It is ironic that lambs are often retained for these longer periods because of the difficulty in getting them in prime condition for slaughter. A situation contributed to by the effects of parasitism.

Alternative Grazing by hosts of different species

Alternative grazing of sheep and cattle is an excellent way of providing parasite control because different worms are found in cattle and sheep apart from one, Trichostrongylus axei.
To achieve adequate control the grazing management must be planned carefully.
e.g Divide farm into two areas. On the first area the ewes are grazed from lambing until weaning. At weaning the ewes remain in that area but the lambs are shifted to area two, which has been prepared by cattle. The lambs are rotated around this area then followed by cattle then lambs again. Each year, lambing is alternated between area 1 and area 2 and lambs do not graze pasture after weaning, which was grazed by lambs the previous autumn.

Alternative Grazing by hosts of same species.

Older sheep are generally more resistant to worms than lambs so alternate grazing with ewes should reduce the level of exposure of lambs. To be effective there should be a delay of some 30 days after the lambs have grazed an area before the ewes are introduced so that time is allowed for larvae to develop.

However, while these effects occur in sheep they are much less reliable than in cattle as adult sheep can contaminate pastures significantly especially with species such as barbers pole. In addition the production of the ewe especially wool production, is compromised if she is regularly exposed to high larval counts.

Integrated Control

Involves drenching lambs at weaning Nov/Dec then moving them onto 'safe' pasture, then drenching again Feb/March and moving onto 'safe' pasture which has not been grazed by lambs since weaning. However there have been problems implementing this scheme and additional treatments 3 to4 weeks after each move are frequently recommended.
By late November/ early December high levels of pasture larvae usually arise on areas where ewes and lambs have grazed. The contamination is derived from ewes during the post lambing period and to some extent from the lambs themselves. Thus one of the first aims should be to provide 'safe' pasture onto which the lambs can be moved following weaning. Drenching prior to moving will slow the contamination of the 'safe' area. However with sheep to cattle ratios used in New Zealand it is often difficult to provide sufficient safe pasture at this critical time.

The area grazed by ewes and lambs is usually highly contaminated which only leaves those areas grazed by the replacement hoggets or cattle. It cannot be assumed that hoggets will automatically provide safe pasture for weaned lambs as they can be a significant source of contamination. In addition hoggets are often grazed on an area not considered suitable for lambing ewes especially on hill country farms. Such areas often have poor quality pasture species which won't be suitable for weaned lambs.

Production of safe pasture by drenching

Realistically, on most New Zealand sheep farms, the use of anthelmintics at strategic times is necessary to achieve adequate parasite control. On many farms, management of grazing is limited by relatively high sheep stocking rates with small numbers of cattle, so that the control of parasites depends to a large extent on the use of anthelmintics. However, it must be emphasised that the management practices discussed should not be ignored, as there is a need for increased use of control by management if the useful life of anthelmintics is not to be limited by the development of anthelmintic resistance. The autumn rise in larval numbers on pasture comes from eggs deposited by lambs earlier in the season thus a preventative drenching programme needs to be developed that involves drenching lambs during the summer/autumn period at intervals close to the pre-patent period(time from larval ingestion to egg deposition in the faeces) of the parasite, with the objective of breaking the life-cycle and reducing the shedding of eggs onto pasture.

The drenching programme involves about 5 drenches at 21-28 day intervals and no greater than 28 days. This programme means that on most farms the last drench is given sometime in March/April. The first drench is given when lambs are eating significant amounts of pasture usually at about 8-10 weeks of age. They must be drenched before they have a significant worm burden i.e before they get daggy and scour.

This preventive drenching programme has been found to give good control of parasitism during the period of treatment but does not prevent parasite build up in April, May and June. It is suggested that this failure may be due to contamination from ewes, especially two-tooth ewes which can have substantial rises in faecal egg counts in autumn. This problem can be overcome by additional drenches given in April, May and June if there is a rise in lamb faecal egg counts. As larval development in winter is progressively inhibited by cold, the interval between drenches can probably be extended to 6 weeks or more at this time. Faecal egg count monitoring is a useful aid and recommended when making drenching decisions.

Parasite control in adult sheep

The control of parasitism in adult sheep is very important. Increased production of wool and lamb may be achieved by the appropriate drenching of adult sheep. However the slavish drenching of ewes pre-tupping and at other times, without due consideration being given to bodyweights, faecal egg counts and available feed, could be expensive and is likely to help the development of anthelmintic resistance. On the other hand there are many situations where pre-tup, pre-lamb and post-lamb drenching may be desirable.

Parasite burdens pre-tupping

81 trials in New Zealand involving 62,000 ewes showed a mean increase of 3.6% lambs produced by drenched ewes pretupping but the response was extremely variable ranging from -11 % to + 20%. However flocks with a mean faecal egg count above 100eggs per gram were positively correlated with an increased lambing% showing the value of doing faecal eggcounts before tupping.

Parasite burdens pre- and post-lambing

There have been a number of studies, which have examined the benefits of drenching ewes before and/or after lambing. Many of these trials have failed to measure a full range of production benefits.

Anthelmintic treatment of ewes before lambing fails to control the post lambing rise in faecal egg counts unless the ewes are shifted to "clean" pasture, which is often impractical, or the product has persistent activity e.g. drench capsules. Drenching ewes 3-4 weeks after lambing can control the post lambing rise to some extent and has been shown to increase the production of both ewes and lambs.

A trial has shown that drenching ewes at docking increased the weaning weight of lambs from between 1.4 and 3.7 kg.

Other trials have demonstrated improvements in the fleece quality and quantity and also that the benefits of reduced pasture contamination may remain for much longer than previously thought. One particular trial found that a single drench of ewes 3 weeks after the mean lambing date not only increased the weight of the ewes and lambs at weaning (3.3 and 0.8 kg respectively) but also significantly reduced the pasture larval counts in the following autumn and winter. In addition the treated ewes produced 0.18 kg more wool during summer.

Farmers are confronted with a dilemma when it comes to deciding whether there is any benefit or not by drenching ewes. For this reason we recommend monitoring faecal egg counts prior to drenching at strategic times to find out if drenching will be worthwhile. As well drenching only poorer conditioned ewes or perhaps only the more vulnerable two tooths or in lamb hoggets can be an excellent strategy to help create refugia and lessen the risk of drench resistance. In addition, consideration should be given to modifying pasture management and in some situations increasing the cattle to sheep ratios to help reduce pasture contamination.

CONCLUSION

Parasite control is a complex business and there is no one recipe. Every farm will have different requirements based on stocking rate, age distribution, sheep to cattle ratio, pasture species, topography, resistance level and stock policies etc. In view of this the best advice is to get Veterinary assistance to help you plan a parasite control and strategic drenching programme for your farm. The cost benefit of a well-planned programme can be huge, let alone helping to delay the onset of drench resistance.

VETERINARY AUTHORITY FOR SIMULTANEOUS DRUG USE

Over the last year there has been murmurings that we might be required to issue vet prescriptions for farmers who decide to use more than one antibiotic at once to treat a sick cow. Generally this would be simultaneous use of an injectable antibiotic along with an intramammary.

Confusion can arise about what the withholding period should be when two products are used together. Traditionally the accepted approach has been to work out which product has the longest WHP and use that time and perhaps add another 12hrs to be safe.

Apparently that's not good enough any more and Fonterra are required by their customers to demonstrate

CHECK RAMS FOR BRUCELLOSIS

From time to time we get outbreaks of this disease in rams and particularly during the mating period it can spread like wild fire and affect a lot of rams. Occasionally a high % of a ram flock is affected requiring the entire ram flock to be culled.

The Brucella bacteria gets into the testicles and surrounding epididymis causing inflammation and irreversible damage to these organs resulting in either reduced fertility or no fertility in the affected rams.

We recommend that all breeding rams are checked annually for Brucellosis. Rams have their testicles palpated and any that are abnormal, usually with hard lumps and other deformities can be blood tested to identify whether Brucellosis is the cause or not. If Brucellosis is the cause, then all rams will need to be blood tested so all the positives can be culled. Follow up blood testing will need to be done until all rams are clean.

The main points to remember about Brucellosis are

- Always purchase rams from a B. ovis
- free source
- Avoid sharing or borrowing rams
- A community eradication approach is best to rid the disease from a particular district
- The disease is not carried from season to season in the ewe flock
- Its only carried by rams from one season to another
- There is no treatment. Test and cull is the only way to get rid of it and then put in place a good biosecurity plan.

SOIL COMPACTION WHACKS FERTILITY AND GROWTH

Soil compaction has a disastrous effect on pasture growth and should be avoided at all cost. Soil compaction reduces the flow of oxygen to the roots and increases carbon dioxide levels. Roots find it difficult to grow in low oxygen and to push through compacted soil. Minerals are less available to plants. This all adds up to disappointing yields.

Wet soils are cooler soils putting a handbrake on spring growth. When compacted soils begin to dry out rain finds it hard to penetrate and move through them. Pugged soils become brittle when they dry and are prone to wind erosion. Long term the consequences are slow organic decomposition, nutrient cycling and soil structure development. Farms are more likely to lose higher levels of phosphate during storms.

It has been shown that pasture yields can be down 40% after a single pugging so all steps should be taken to avoid or reduce pugging during wet periods.

TOXOVAX ORDERS

A reminder. Toxovax must be ordered early to guarantee supply. The vaccine only has a short shelf life and is only manufactured on demand. Orders must be in at least 3 weeks before requirement.

One vaccination of Toxovax gives life time protection to ewes. (Ewes need to be vaccinated at least 1 month before tupping.)

they are minimising the perceived risk of residues when simultaneous use of antibiotics occurs.

There are an infinite number of combinations that could be used and as yet no company or allied interest group have come up with official WHP recommendations for this so for now its up to us Vets to issue recommended WHP's for simultaneous use of drugs based on what is on your annual Veterinary authority.

So if you do tend to use more than one antibiotic when treating a cow for mastitis in particular please let us know what combinations you use and we will work out what an appropriate WHP would be and put that on your Veterinary authority so if you are audited you have something to show

FLYSTRIKE PREVENTION

Flystrike is estimated to cost the New Zealand sheep industry about $37 million a year with those losses coming from deaths, cost of treatment, reduced fertility and lost meat and wool production. Research has shown that even relatively small strikes can cause a marked appetite loss in the struck animal with a resulting loss in weight. Recovering this lost weight can take significant time. Anecdotal evidence suggests that ewes and ewe hoggets struck in late summer or autumn are far less likely to get in lamb than non- struck animals.

Apart from the cost; the damage to sheep and lamb pelts caused by fly strike can be horrendous with the effects becoming a major animal welfare issue if stock is not treated early enough. Fly strike maggots rapidly multiply and eat in to the skin and flesh of affected animals. Animals can rapidly develop toxaemia and die if not treated. In regard to welfare alone every attempt should be made to take all measures necessary to prevent flystrike from occurring.

Four species of blowfly are recorded as initiating strikes on sheep in NZ; with the Australian green blowfly (Lucilia cuprina) and the European green blowfly (Lucilia sericata) recognised as the most important primary strike flies.

Prevention of flystrike caused by the larvae of these species is largely reliant on the application of a range of insecticides by a variety of means (saturation dipping, jetting, low volume pour ons or spray ons) to the fleece of at risk animals along with good husbandry such as effective worm control to prevent faecal soiling and crutching and shearing at appropriate times.

The flystrike preventative compounds most commonly used in NZ belong to the broad insect growth regulator (IGR) group of chemicals.

The IGRs fall into two distinct chemical classes, as defined by having different unrelated modes of action.

These are the

1. Triazine/pyrimidine deravitives represented by cyromazine (Vetrazin) and dicyclanil (Clik)
2. Benzoyl phenyl urea (BPU) compounds represented by diflbenzuron (Zenith) and triflumuron(Zapp)

You need to discuss the best prevention option for your situation with us, taking in to account factors such as application method, length of treatment required, with holding period, labour, facilities, possible chemical resistance, breed and age of sheep, length of wool, type and severity of strike etc.

Minimising the losses caused by flystike requires a planned preventative treatment approach using effective products keeping in mind that resistance to the different chemicals is becoming more prevalent with time unfortunately. A preventative approach means that treatments are applied before expected fly activity rather than waiting until animals get struck, Treatments applied when animals are getting struck are referred to as reactive treatments and production losses will have already occurred

CAMPYVAX 4

Vaccine used to prevent Camplobacter infertility and abortion in ewes needs to be given twice 4-8 weeks abort before tupping.

Summer Sheep Calendar

- Vaccinate 2TH's/hoggets with Campy4 vaccine
- Vaccinate 2TH's/hoggets with Toxovax
- Vaccinate 2TH's/hoggets with 5in1 sensitiser pre tup
- Androvax use in selected flocks
- Fly strike control for lambs and ewes
- Salmonella vaccinate ewes on high risk properties
- Get rams Vet checked for soundness and Brucellosis

LAMBS GROW FASTER ON PLANTAIN

Lambs grew faster and finished earlier on a plantain mix compared to ryegrass and white clover in an International Sheep Research Centre trial carried out over 2 years. Average daily weight gain of lambs was compared on 3 different pasture mixes

- Ryegrass and white clover
- Plantain, white clover and red clover
- Plantain, chicory, white clover and red clover.

The lambs on the chicory and plantain mix achieved the highest net live weight production per hectare. The only disadvantage of a plantain mix was slower growth in winter and weed control. It is essential to have weed control sorted before moving to a plantain-clover mix.

Plantain mix grazing tips for lamb finishing

- Plantain should not be grazed until there are 6 leaves per plant. This greatly improves plant survival
- Maximum lamb growth is achieved on plantain-mix swards 7-10cm in height
- Allow 2-4 weeks recovery from grazing. Plantain-red clover mixes should only be grazed monthly to ensure persistence of red clover

JOHNE'S DISEASE

Johne's disease is a wasting disease that affects sheep, cattle and deer. Merino sheep are particularly susceptible. There is no known cure and affected animals die from dehydration and severe malnutrition. It mainly affects adult stock older than 12months of age.

- The disease is caused by a bacterium called Mycobacterium paratuberculosis closely related to the Tb bacteria.
- Once infected with the bacteria an animal may remain healthy for its entire lifetime but a number will become sick and die from clinical disease anywhere from 1 year of age after becoming infected. (The incubation period is 12 months). The majority of animals infected will remain disease free after exposure.
- We do not fully understand why some animals develop clinical disease and others don't, but genetics, the strain of bacteria and stress triggering clinical disease are all thought to be factors.
- The bacteria are spread through dung, via colostrum and milk, in utero or via contact between the mother and offspring. Young animals are most likely to become infected and usually do so shortly after birth often through faecal contamination of the dam's udders and teats
- The dung of infected animals contaminates pastures and waterways, spreading the infection through stock on the farm. The bacteria is hardy and can survive for anywhere between 3-18 months on pasture. Contaminated water is believed to be an important source of infection to older animals.
- The symptoms of clinical disease in most animals are wasting and diarrhoea. Most affected sheep just waste away. Affected cattle often have a fluid swelling under the jaw called 'bottle jaw' sometimes confused with woody tongue.
- On post mortem affected animals have swollen and corrugated intestines and in particular a thickened ileocaecal valve.
- Preventing Johne's disease completely is not feasible but a risk management approach should be taken to minimise the infection rate. Talk to your Vet about the best control measures on your farm
- A vaccine is registered for use in sheep in NZ. Vaccination will reduce the the number of cases and deaths but it will not guarantee that sheep will not become infected nor will it eradicate the disease
- If you have an unacceptably high number of fading ewes and ewe deaths; get your Vet to confirm the diagnosis. Johne's can be confirmed by a blood test or by post-mortem.
- Most sheep flocks in NZ have a low level incidence of the disease with only a small number of deaths per year. In most flocks good farming practices including good nutrition will minimise the number of cases. Culling affected fading ewes early is a good option.
- On dairy farms Johne's is present in effluent on infected farms. Effluent spreading is due to increase dramatically due to new effluent regulations about to be implemented. This is a concern as spreading effluent on pasture is the perfect way to spread Johne's to stock.
- On dairy farms the following control measures should be followed

- Avoid effluent spreading on calf paddocks or paddocks cows regularly calve in
- Don't keep Johne's affected cows, don't pool colostrum from these cows or keep their calves
- Don't put scouring sick cows in paddocks calves are reared in
- Keep calves away from effluent areas for 1st 6 months of life.

THE MAINTENANCE COST OF GROWING STOCK

Farming is all about profit per hectare. "Weight out the gate" is the bottom-line for pastoral farmers, whatever the class of land being farmed.

A lamb growing at 300grams per day uses 48% less feed to reach 40kg than a lamb growing at 100 grams per day. In other words a lamb growing at 300grams per day compared to 100 grams per day to reach 40kg has a 50% less feed cost.
The difference is all about maintenance cost. The lamb growing at 100grams per day will take so much longer to reach 40kg but all the while it has to eat sufficient feed to maintain itself.

Many farmers are engaged in the headlong pursuit of more lambs – but don't properly grow the lambs they already get. It is of vital importance of making the most of the growth rate potential between birth and weaning – the first 100 days to optimise food conversion efficiency and profitability

Another good example is growing out 3 year old bullocks. The maintenance cost of growing big steers like these is huge. It is far more profitable to turn stock over at lighter weights.

Farmers should be wary of some of the 'indicator' traits which are bandied about, like scanning%. It is better to use a measure of actual output such as kg of meat and fibre produced per hectare.

FACIAL ECZEMA

The facial eczema season is only a couple of months away so start planning your preventative programme now. To help you we provide a weekly email spore counting service from our 6 monitor sites starting in late January. If you are not already on it for a small fee you can be included by sending your details and email address to John Pickering at **johnpickering@xtra.co.nz**. John sends out the spore counts weekly including advice.

FEEDING A HUNGRY WORLD

It is estimated that the present world population to be more than 7.1 billion and it is forecasted to rise to more than 9.3 billion by 2050. Combine this with an increasing 'middle class' in China and India and the demand for protein will grow.

To keep up with this demand, NZ agriculture will need to become more productive. We will need to produce more food from the same area of land (or less) and the same number of animals (or fewer). The outlook for NZ agriculture going forward is very positive providing industry leaders and politicians can get their act together and ensure farmers are paid acceptable sustainable prices for the products produced.

There will be a huge need to improve biological efficiency at both animal and farm levels. At the animal level, this includes better feed conversion efficiency and less wastage (such as lamb loss and ewe death) less clinical and subclinical disease (e.g. parasitism and facial eczema) and better production. At the farm level it involves producing more high quality feed and better managing stock to make more efficient use of that feed.

Much of the improved production needed is well within our grasp if we can improve overall performance on average or poorer performing farms. Much of the extension work being done within the dairy, sheep, beef and deer industries is aimed at the top 20 per cent of farmers. These farmers are certainly benefitting from this attention, but there is a glaring performance gap between higher and lower performing farmers in New Zealand suggesting both a sizeable challenge and an exciting opportunity.

We as Veterinarians are ideally placed to help our farmer clients meet this challenge because we have regular contact with our clients and for the most part have an excellent relationship with them built on trust and understanding compared to most other rural professionals.

CONVEYER SERVICE

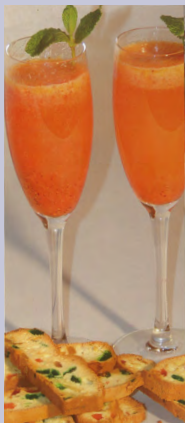
A reminder that the conveyer is available all year round for any sheep handling activity eg drenching, vaccinating or dipping. The conveyer gang are always on stand by.

Bookings can be made by contacting Bruce Baldwin 027 663 2565 or Tom Dinwiddie 027 231 1036 or the clinic 06 349 0155.

What's Up

CHRISTMAS STRAWBERRY PUNCH

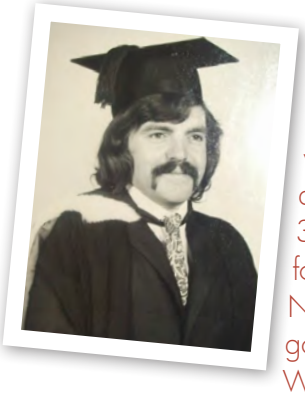
1 cup hulled strawberries
1 teaspoon lemon juice
1 teaspoon caster sugar
1 tablespoon Cointreau or other juice
Flavoured liqueur
½ cup freshly squeezed orange juice (or Charlies)



Puree the strawberries in a food processor, then strain into a glass jug. Stir in the remaining ingredients and leave to seep in fridge for up to 2 hours. Just before serving carefully pour in 1 bottle chilled sparkling dry wine. Pour into champagne flutes and add a sprig of mint.

This recipe can be multiplied to make a large quantity of punch for a crowd.

ALL IN THE NAME OF CHARITY...



Dave Taylor was very gracious to lose his whiskers which have been apart of him for the past 35 years as a fund raiser for Jigsaw held Friday 22 November 2013. All in the good spirit of Movember. Well done Dave!

VETCARE TRAINING

Term 4 –Last term!

Term four kicked off to a busy start with the delivery of the last eight units for the year, from now on and until the end of the term the emphasis for the students is on the completion of their clinic logbooks and assignments. There have been a few fun times timetabled for stress relief!! The latest being a Halloween themed day.

The end of the study year and final completion of the Veterinary Nursing qualification is fast approaching with the graduation ceremony being held Friday 6th December. Time to celebrate success and new beginnings!!

We have some class members that have already secured employment both here in New Zealand and Australia. We wish them all the best of luck for their future careers.

XMAS OPENING HOURS

WE WILL BE AVAILABLE	
Monday 23rd and Tuesday 24th	8.00am – 6.00pm
Wednesday 25th and Thursday 26th	CLOSED
Friday 27th	8.00am – 6.00pm
Saturday	9.00 – 12.00pm
Monday 30th and Tuesday 31st	8.00am – 6.00pm
Wednesday 1st and Thursday 2nd	CLOSED
Friday 3rd January business as usual	8.00am – 6.00pm

WANGANUI VETERINARY SERVICES
35 Somme Parade, Wanganui 4500
Telephone: 06 349 0155 A/H: 06 349 0486
www.wgvets.co.nz