Veterinary Book for

Cattle Farmers

By Cathy Thompson BVSc.

Written by a vet with more than 30 years experience in cattle practice.

First aid and explanations for common conditions • Safety and handling tips
Stories of real situations on farm • New Zealand based • Over 800 photos

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Heifer after surgery to remove a large melanoma. She is still sleepy from the tranquilliser and I am covered in blood. She made a full recovery. Details of this case on page 347. (*Photo by Melissa Smith).*

Cover Photo:
Stomach tubing a bloated Jersey cow.
(Photo by: Ross Nolly).

Back Cover Photo:
Mount Taranaki forms an impressive backdrop in many photos of Taranaki. The views are never the same and never boring. I took this photo between farm calls near Hawera.

VETERINARY BOOK FOR CATTLE FARMERS

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INTRODUCTION

WHY DID I WRITE THIS BOOK?

I have worked with many farmers during my vet career and most have been keen to learn about animal health and hear my stories about situations on farm (anonymously) and interesting cases. I have always taken photos and find them especially useful for this.

I recently wrote a book for vets "Practical Guide for Cattle Veterinarians" and any farmers I have shown it to are interested. This is the farming version.

Stories of some cases and situations I have had on farm are included; some names have been changed!

ABOUT ME

I was bought up on a sheep farm under the foothills of Canterbury and was often outside helping my father with stockwork.

I graduated from Massey vet school in 1975.

Back then the classes at vet school were 80% male, 20% female and the class had only 48 students. These days the gender balance has reversed, and the class sizes are over 100 for each of the 5 years.

My first job was a locum in Dargaville, Northland where I was a novelty- their first ever female vet. More surprising was that I worked mainly with large animals. I did some small animal cases too but I always preferred farm work. So began a career of proving to farmers that females can do anything, and size (I weigh 50kg) doesn't matter.

Following my marriage I worked a calving season in a mainly dairy role in Manaia, South Taranaki.

After a two- year OE and a period in Southland where my husband was working, we returned to South Taranaki in 1985. Our family now included 2 preschool children.

In 1987 I was asked to do a spring calving locum for my previous practice, based out of their Hawera clinic.

This was the first of 31 "springs" in Hawera. During that time I went from locum to job-sharing to full-time. I really appreciated the flexibility of the practice, now Taranaki Veterinary Centre, in accommodating these changes. I didn't miss a spring. Loved it!

As I had no brute strength to rely on (although I'm tougher than I look!) I had to work "smarter" using techniques that don't only rely on physical strength. The work injuries I had over the years were all short-term and I have been lucky to have no long-lasting effects.

In 2001 I was accepted as "Dairy Practitioner in Residence" at Massey when I spent 8 weeks giving final year vet students a taste of real-life vetting. I have been involved in the "Crossroads" programme for vet students, given talks at vet conferences and written articles about cattle and sheep cases for vet magazines. I have enjoyed supporting new graduate vets and supervising vet students. Our clinic provides seminars for farmers and I have enjoyed being involved in these.

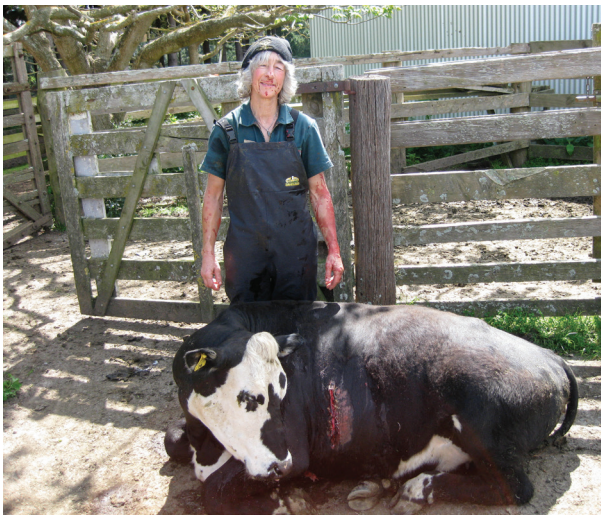
Just before I retired in 2017, I was honoured to receive the "golden glove" award from the dairy cattle vets organisation (DCV) for "outstanding contribution" to dairy practice. Apparently the increasing numbers of female large animal vets are partly due to my example.

Farmher posts:

Watch for these boxes scattered through the book. They are written by my friend Maryanne Dudli, a dedicated farmher/farmer with her own herd who works by herself. Telling it like it is in entertaining fashion- sometimes from her own point of view, other times from that of her alter egos - her cows - some of which are pets.

TOPICS COVERED AND LAYOUT

- The **main sections** cover 10 big topics. They are in alphabetical order except for Safe Handling which is first as it is so important.
- **Other conditions** (those not in the main topics) are listed alphabetically in the next section.
- The **"look up lists"** are after the contents - on page vi. They give a list of possible causes of the signs your sick animal is showing.
- I have **not** covered every possible topic for several reasons:
  - Some conditions are regional and you should get local information – for example mineral deficiencies.
  - Some treatment programmes, such as for non-cycling cows; or nutrition recommendations change so quickly you should get up to date information from your vet or advisor.
  - DairyNZ and LIC websites have lots of excellent up-to-date information.
  - As I have mainly worked in Taranaki there are some regional conditions I haven't had to deal with e.g. ergotism.



IMPORTANT NOTE TO FARMERS

- Animal welfare, drug and drench resistance and permitted drugs to use on farm are areas that are changing quickly, and your vet is the best person to advise on these topics.
- Your vet will also be aware of regional conditions, diseases or deficiencies, some of which I have not covered.
- Your vet may have different ideas on treatment and prevention which may be more suited to your farm and location. Your vet can also provide staff training specific to your farm situation.
- Some of my stories and photos are years old and welfare codes have changed a lot since then.

ACKNOWLEDGEMENTS/THANKS

Firstly, I would like to thank "my" farmers – you have kept me challenged, interested and entertained. I learned heaps from you.

I would like to thank Shoof international for their support of my book.

My thanks also to vet Guy Oakley for advice, editing and drawings; vet Barbara Richardson for the book idea; Janette from Digital Fuel for graphic design and Maryanne Dudli for her "farmher" posts.

I hope you enjoy the photos and stories and learn something along the way.

Cathy Thompson, Veterinarian.

VETERINARY BOOK FOR CATTLE FARMERS CONTENTS

MAIN SECTIONS

OTHER CONDITIONS SECTION

LOOK UP LISTS:

Signs your sick animal might show with a list of possible causes. Other causes are possible these are just the ones I have covered. Conditions listed are in no particular order.

BREATHING PROBLEMS

BEHAVIOUR CHANGES

COLIC (GUT ACHE)

SCOURING

LUMPS AND SKIN

REPRODUCTION TOPICS (MAIN SECTION 10)

SUDDEN DEATH

HEAD - PROBLEMS OF TEETH, MOUTH AND JAWS

"OFF COLOUR" / SICK

Farmher posts:

Shadows

My cows are funny creatures. They can provide comedic relief or major irritation, depending on how you look at it.

This morning, it seems that the bogeyman is in the exit race. Never mind that I've repeatedly checked and all is clear. Apparently he's lurking.

And, since the sun is actually out today, my heifers have a further issue. Shadows. They don't like them. Especially when, due to the angle of the sun, their shadow gets larger as they walk down the row. For the first few heifers this provided me with much hilarity – watching them stop and stare their shadow down, then jump back every time it moved... Now, I'm just so slightly over it. I've informed my cows of this, but as usual they just glanced at me and rolled their eyes.

So, if anyone is looking for me, I'll be in the cowshed until the bogeyman disappears or the sun moves...

Above is the first of Maryanne's "farmher" posts. Below is a story box of mine. You will see these scattered through the book. Sometimes they have examples of cases relating to the section they are in; other times they are stories from my time in practice which may not relate to the topic on that page.

Most photos relate to the topic but some are just work photos that I like.

Cathy after a muddy calving.

Cigarette burn visit

I went to Blue's farm to blood sample a cow for Johnes at milking time. Blue was smoking in the pit and I jokingly complained about smoke, hygiene and stuff as we walked up the pit. The cow was near the front of the row and I jumped up behind her to get the blood sample from her tail. The rail was slippery and I fell backwards into the pit. Luckily Blue was standing behind and caught me before I hit the concrete. I still have the cigarette burn on my forearm from his cigarette!

CALVING CONDITIONS

CALVING COWS - WHAT IS NORMAL?

There are 3 stages in a normal calving:

CERVIX OPENING

- This can take 2-6 hours.
- No pushing/straining is seen.
- The cow or heifer acts uncomfortable, swishing her tail, separating from the mob and maybe kicking at her guts.
- The muscles of the cervix are opening for the calf to pass through.

DELIVERY OF CALF

- This is when the cow strains and pushes the calf out.
- The cervix is completely open (this happens in the first stage).
- She might lie down or stand up or both.
- The muscles in the uterus also contract to help this process.
- This usually takes 2-4 hours, heifers generally take longer than cows

DELIVERY OF THE PLACENTA/CLEANINGS

- This can take from minutes (normal is a few hours) to days or weeks. *See **RFM/Cleaning** section for more details page 136.*

WHEN TO CHECK THE COW/HEIFER?

- If the first stage is taking longer than 6 hours.
  - The cow is "not getting on with the job" – she is uncomfortable but no straining or pushing is seen. **This is the classic sign of a twisted uterus** (more later in this section).
  - Occasionally this can be just a tightly bagged up heifer with a sore udder who is close to but not actually calving. **If in doubt check the cow.**
- If the second pushing stage is lasting longer than 4 hours in a heifer or 2 hours in a cow.
- If the bits of calf you can see are not right. Such as only one leg and a head.
- If the cow is straining but the calf is not getting any further out.
- **Don't assume a cow has calved because she looks "slab-sided"**. A cow with a large gut from the calf may suddenly look less full in the gut as if the calf has gone. But sometimes this is because the calf has moved up into the pelvis ready for calving instead of floating lower down in the uterus.
- **Don't assume the cow has calved because she has cleanings showing.**

IF IN DOUBT CHECK THE COW/HEIFER!

- You may be able to deal with some cows in the paddock, otherwise walk the cow to a yard or shed to be checked. This might be easier if you take some other cows also.
- **Is it safe?** For you, the cow and any helpers. *More comments in the **Safe handling** section, page 1*. Move the cow to a safer place if necessary.
- **What if the cow goes down?** This happens quite often in a calving cow or heifer so be prepared.
- **Find out** what has happened so far if you were not the one to find the cow with the problem.
- **Get the basic gear out.**
  - Ropes/chains, calving handles, lube, pulley or jack. Gloves if you use them.
  - When wearing gloves I put a hand sized milking glove on first and then a rectal glove. This is a lot better than a rectal glove only.
  - **AI wipes** are very useful for wiping cow backsides to get dung off if you're away from the shed. They disintegrate when wet, unlike paper towels.

My basic gear to check a calving cow. The epidural is only used sometimes. The piece of wood is great to use as a handle - no knots needed - put the ropes through the hole and the loops at the end of the rope around the end of the wood. I often used this handle for the head rope.

  - I prefer calving ropes to calving chains. I have seen calves with broken legs from the use of calving chains so if you use them do it properly. I wash my ropes several times a week and have a spare, clean set to use as needed.

- **Be aware that some calves start kicking and throwing themselves around as soon as they are on the ground.** This is usually "death throes" –a bad sign!
- **Once it's breathing regularly, turn the calf over.** This often stimulates breathing and revival.
- **Once the calf lifts its head and shakes it I feel confident it will survive.** Even so, these are still compromised calves compared to a normal calving where the calf is practically sitting up and shaking its head as soon as it hits the ground.
- **Get the calf (and cow) off the concrete**, preferably put the calf into a calf shed, and give it a feed of colostrum.
- **Don't wreck your body by lifting calves when you don't need to – a wheelbarrow is very handy**! This avoids dragging or carrying the calf out to the paddock or into the shed.

Calf transport by wheelbarrow. The calf and I weigh about 50kg each.

Trolley ready to collect a calf and take it to the paddock.

- **Spray the calf's navel with iodine** – spirit-based spray. **Spray the whole length.** Any **gold rings** you are wearing will become discoloured with iodine but they return to normal after a few days.
- **It used to be fashionable to hang the calf** over a rail to "let the fluid drain out of its lungs". However, it is now known that this fluid comes mainly from the stomach. This position also puts the weight of the calf's guts onto its lungs and makes breathing harder. **Don't hang the calf.**
- **"Swinging the calf"** in a circle was also fashionable but the effect is the same as hanging. Calves are slippery and others are just too big to swing.

Don't do this - old fashioned method and makes it harder for the calf to breathe. Any fluid is from the stomach, not the lungs. Same applies to swinging the calf.

If you do call a vet to a calving don't worry if you don't have all the details the receptionists ask you about. I tell other vets not to expect the farmer's description to be right all the time.

Some Examples:

1. "The calf's coming out **backwards**". I arrived to find **one front leg and a head** hanging out of the cow. One foreleg was back! I have no idea what the farmer was thinking!

2. "**The calf's coming back feet first**". I arrived to find 2 **front** legs (farmer didn't say much when I told him this!) sticking out but I couldn't find the calf's head. The farmer said: "I felt the head and knew it would get in the way of those back legs so I pushed it well out of the way". He'd pushed it through the wall of the uterus! I performed a caesarean and found the calf's head sticking out of the hole in the uterus. Luckily it was a good spot to remove the calf and stitch the uterus.

3. I went to Grant's place for a calving. As I was driving there I recalled several calvings I had done with Grant in the last few weeks – I could have done them with one hand they were so easy. So, it was poetic justice that, when I arrived, I found a heifer down with a rotten calf. It turned into quite a difficult calving. I think that was the only time I ever went to a calving expecting it to be easy!

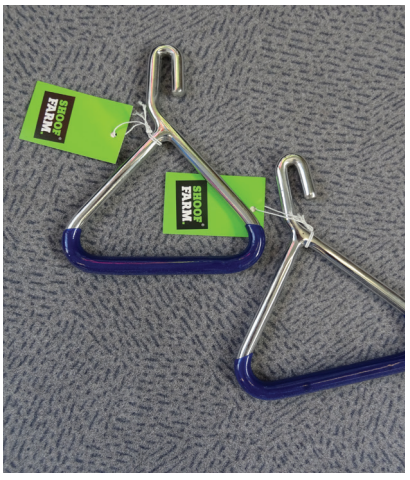
4. I was called to a life-style block to calve a heifer. The owner said she was acting strangely. The animal wasn't even in calf! Possibly rye-grass staggers.

5. **Third option at a calving.**

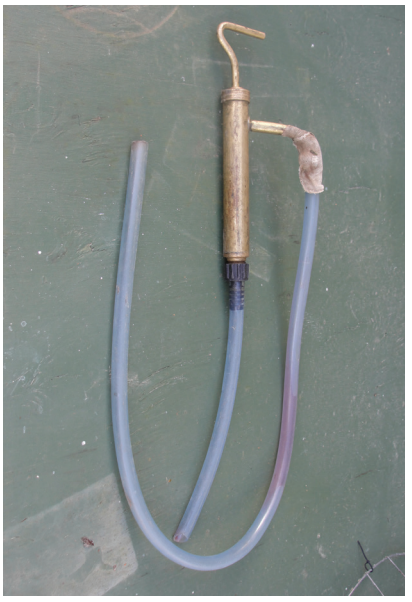
I was called to a dry stock block to calve a yearling beefie heifer who had unexpectedly got in calf. A possible "virgin birth"! The calf was huge, the heifer small and I told the farmer there were 2 options – a caesarean or a fetotomy. He told me he would go for the third option –mince! He told me later she tasted ok.

Fetotome used for cutting up dead calves inside the cow. Looks impressive but it is just to stop the wire cutting the cow.

HANDLES AND LUBE PUMP



Calving handles above.



Two styles of lube pump. These both came from a camping/caravan shop.

There are now lube pumps available which are made specifically for use on farm for calvings.

PULLEY OR CALVING JACK?

3:1 locking pulley above. This is the one I most often use.

I always store the pulley pulled through and ready to be used again. It is then more likely to tangle so I tie an overhand knot as above. The 4:1 pulley on the right is even more likely to tangle as it's longer.

Another type of locking pulley. No storage knot tied in the photo. Lots of rope to potentially tangle!

- Keeping the pulley ready for action (and clean!) is important. Spending ages untangling it and pulling the rope through is annoying when you want to use it straight away.

Photo on left – my calving pulley laid out ready for use. Red arrow indicates end closest to the cow and the green arrow the rope to pull on. Yellow arrow is the hook for attaching to rail/rope/chain.

Photos to right: Locked (top) pulley rope and unlocked pulley rope (bottom right).

Single calving rope attached to pulley by first hitch.

I use 2 hitches with a loop in the second one as shown above.

- The above is how I use my pulley. I prefer to tie the ropes on so the length is adjustable. One leg can be tied tighter than the other for instance.
- Some pulleys have a hook at both ends so that you can just hook the loops on the calving ropes through – the ropes must be similar in length though.
- There are several styles of locking pulley available but the basics are the same.

- Some farmers use the pulley the other way around (opposite to above). I think the cow just gets in the way then as you are pulling towards to cow.
- Whatever system you use – ropes/chains/pulley/jack - **you must become an expert at setting up and using the gear you have on farm.**

Rotten calf removed with a calving jack.

There is another photo of a calving jack in use below and on page 111.

"Vink" calving jack. The frame ends fit on the cow's rump.

PROS AND CONS OF PULLEYS VS CALVING JACKS:

ANCHOR POINTS

- Calving jacks do not need an anchor point (the cow herself is the anchor). This is good if the cow can be approached **safely** in the paddock.
- A pulley needs an anchor point. Usually this is a rail in the race or shed but out in the paddock a **stationary** farm bike, tractor or ute can be used.
- If the cow goes down, you will need to change the pulley anchor point to get the angle right.
- Most cowsheds or races have plenty of anchor points for a pulley.
- Using a pulley, a second anchor point is occasionally needed for the cow/heifer when the animal is down. The animal can slide back as you pull in very muddy or slippery conditions. Use a halter to tie the head up.

Vink still attached to a cow down calving. The calf has been taken off the calf puller and the cow has moved but it shows how the Vink attaches to the cow.

SAFETY

- **Calving jacks are large pieces of metal and they can do a lot of damage.** The free end moves a lot in response to small movements of the cow. Farmers have been hurt by the stem of the jack moving as the cow moves. I have been jammed against race sides by a jack or its handle during a calving.
- A cow down in the paddock with a jack attached via the calf's legs is potentially very dangerous if she gets up. The only way the jack will come off her is for the calf to fall out! Approaching the standing cow will generally cause her to turn away and you might be hit by the end of the jack.
- **Don't put a leg on each side** of the jack stem if the cow is down. Think about what happens if the cow moves!
- If you are standing behind a cow in a narrow race and the cow can come back down the race towards you it is possible to be hit by the end of the jack. I have had this happen (luckily with a pulley) when the cow I was calving broke the post behind her and came straight back down the race. Some headbails are not secure and the cow can escape.
- A pulley that is being used with something behind the cow (post, chain or rope) can be a problem if the cow goes down- the calf is sometimes partly out and the locking pulley rope can be very tight to release. But that is preferable to a cow going down with a jack attached – someone could be hit in the face. Another reason not to have anything behind a cow you are calving! Go for a headbail or halter.

PRICE AND CONVENIENCE

- A calving jack is a lot more expensive than a locking pulley.
- A locking pulley has other uses not just calving cows:
  - Dragging cows out of water troughs, feed troughs, up banks, out of creeks.
  - Pulling a cow off a rotary platform when she has gone down.
  - Pulling an animal out of a race after it has gone down and refuses to get up.
- Most calving jacks are quite large. They may not fit inside your vehicle.
- Your calving ropes end up with lots of knots in them – and so get shorter- when used with a calving jack. These knots are impossible to untie. Using chains will avoid this problem.

IF YOU DON'T HAVE A PULLEY OR JACK YOU CAN MAKE A 2:1 PULLEY

This is a 5-metre double looped rope which can be used to make a 2:1 pulley as below.

You could use any rope – you just need a loop in one end.

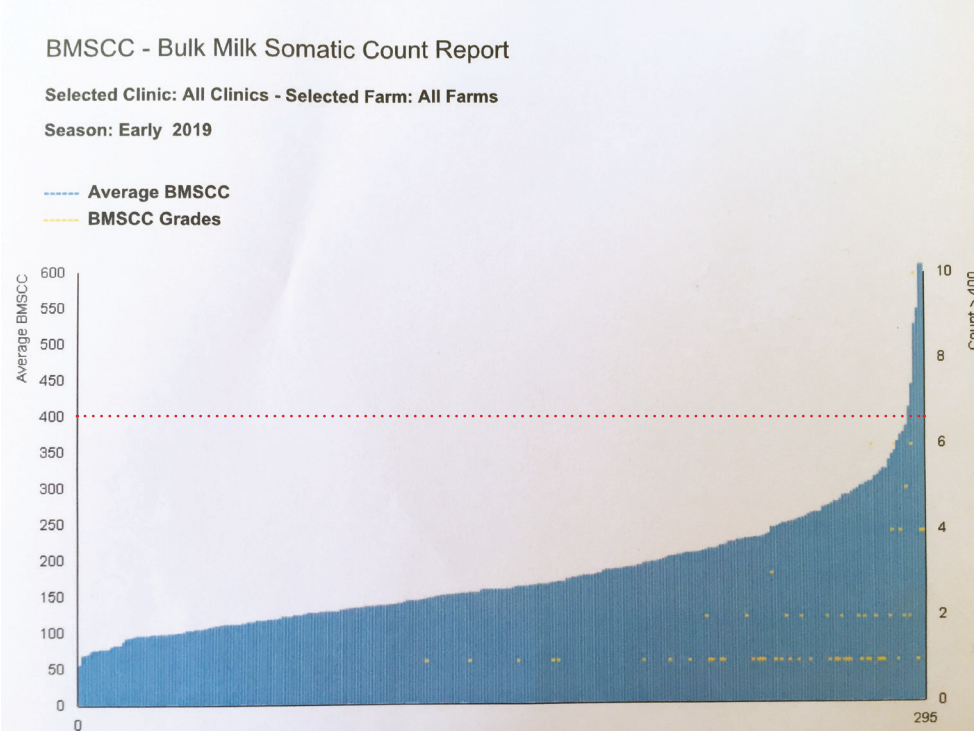
The 5- metre rope pictured above can be used to make a 2:1 (double pull) pulley. I sometimes use this if just a bit of extra pressure is needed. It is nicer rope to hold and you are less likely to damage your back than pulling on calving ropes. Before locking calving pulleys were commercially available, I used to use this method all the time:

MASTITIS AND MILK QUALITY

THE BIG PICTURE

- **Prevention** of mastitis and grading issues is important.
- Minimise the use of antibiotic mastitis treatments; this is important from an antimicrobial resistance point of view as well as treatment costs.
- **AMR** (antimicrobial resistance) is a real threat to both human and animal health and limiting the use of antibiotics is one of the keys to minimising its development.
- Your vet should have discussions with you about which treatments are recommended on your farm.
- Results of mastitis treatments and products used, lab results from milk or mastitis sample testing, herd testing results and mastitis incidence are used for discussions about lactating and dry cow treatments. Your records are important for this as well as for auditing from the dairy company.
- An **"antibiogram"** can now be done on bulk tank milk. This finds what mastitis bacteria are circulating in your herd and which antibiotic treatments are most likely to be successful. Discuss using this tool with your vet.

BENCHMARKING



- The graph above has the **average** early season bulk tank/milk somatic cell counts (left axis) from **295 farms** in one vet practice. The yellow dots are grades.
- As the average SCC increases the number of grades (right axis) for a farm increases.
- Some farms on the far right of the graph have an **average** SCC of 500,000 to 600,000 - way over the 400,000 grading level (red dots).
- **Where does your farm sit on the graph?**

BULK TANK SOMATIC CELL COUNT

WHAT ARE SOMATIC CELLS?

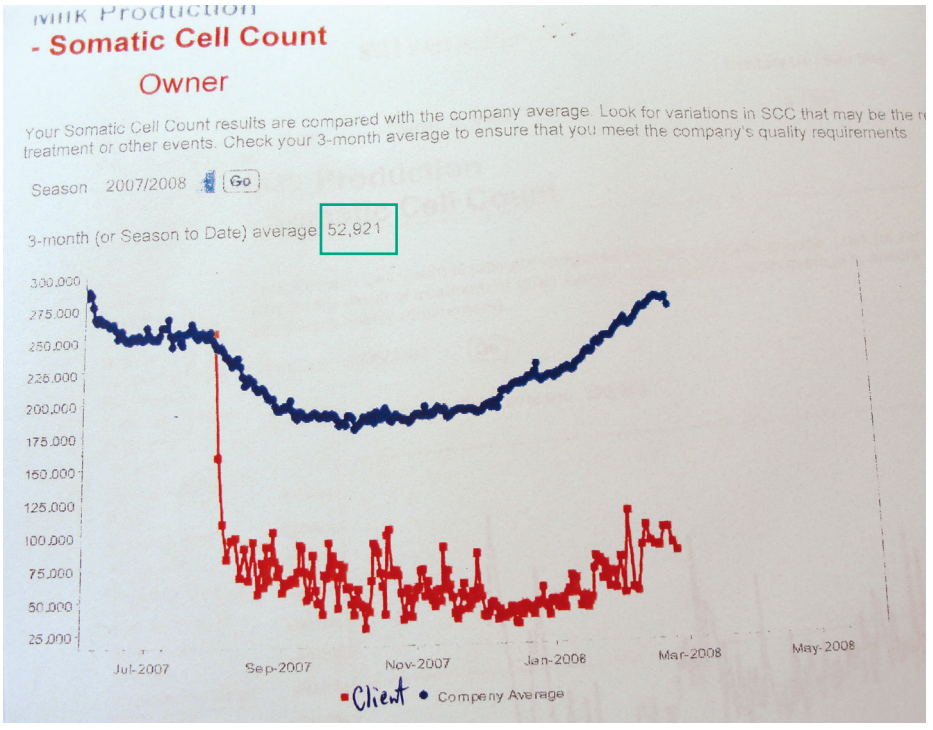
- SCC (somatic cell count) is the total number of **white blood cells** per mL of milk.
- The cells counted as "SCC" are white blood cells that the body produces in response to infection/ inflammation. These hunt out and kill bacteria and make up some of the "pus" or clots in the milk.
- SCC is an indirect measure of quality, as high SCC is an indicator of inflammation, most often this is caused by **infection**. SCC also increases when the udder starts the drying off process.
- White blood cells are also found in the bloodstream.
- Multiply by 1000 to get the true SCC. A cow with a SCC of 400 on a herd test actually has **400,000** white blood cells per ml of milk. The figures on the graph above on the left axis should be multiplied by 1000.
- SCC can rise from **100,000 to 10,000,000 in a few hours** as a cow's body responds to an acute mastitis infection.

SCC MEASURE:

- **Individual cow** SCC- indicator of the udder health of a cow measured by herd test (all 4 quarters contribute), RMT paddle or milk meter. A cow with high SCC at herd testing will need to be tested via RMT or milk meter to find the affected quarter(s).
- Bulk milk SCC from the vat (BMSCC or BTMSCC)) is an indicator of milk quality of the **herd.**
- High SCC does not necessarily mean the udder is infected. The cow might be:
  - Recently calved.
  - Recently infected but cured (clean up phase).
  - Udder is starting to dry off.

You can watch your bulk tank SCC online these days as well as the tanker dockets.

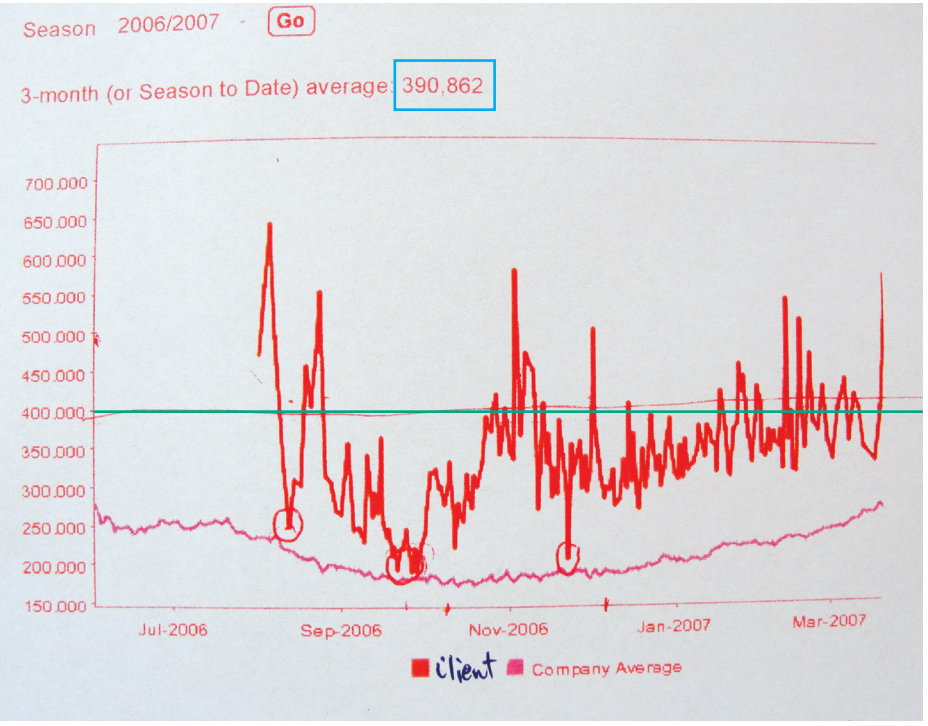
The two graphs below are totally different. Be aware that the SCC scale (on left) –is not always the same. The company average line gives a good idea of the average farm.



Low BTSCC all season can be achieved. This farm averaged less than 53,000 SCC for the season.

The farm here is the orange line, the blue line is the dairy company average.

Top figure on graph scale is 300,000.



Farm BTSCC is orange line, company average is pink.

Green line is grading level.

Huge cost and stress on this farm. This farm averaged over 390,000 SCC over the season.

Top figure on the graph scale is 700,000!

SCC – EVEN IF YOU'RE NOT GRADING IT STILL MATTERS!

Two studies in New Zealand showed:

- Average 1½ % drop in herd milk production per 100,000 bulk tank cell count over 100,000.
  - For example: 300 cow herd producing 100,000 kgMS/year with $5.00 payout:

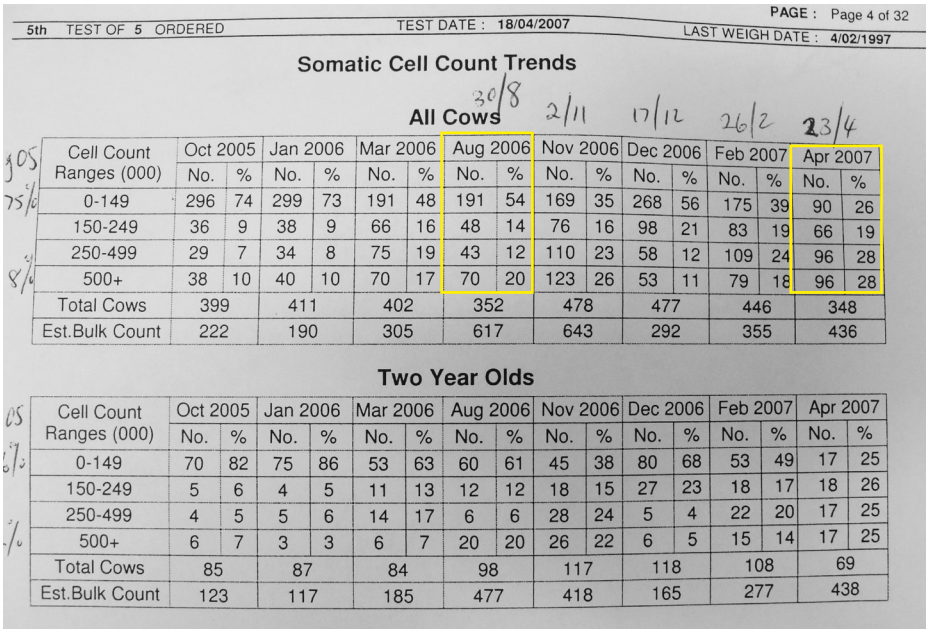
    BTSCC at 150,000 loses 750 kgMS = $3,750

    BTSSC at 300,000 loses 3,000 kgMS = $15,000

These costs are for loss of production only – add on treatment costs and stress.

TREND PAGES FROM HERD TESTING

- These pages give a good idea of your mastitis and SCC control at herd level.
- Study them when you get your herd test results. You can compare seasons to see if management or staff changes have had an impact at herd level.
- **Trend page targets:**
  - Early lactation: Cows < 150,000 > 80% of herd **(uninfected)**
    Cows > 500,000 < 5% of herd.
  - Late lactation: Cows < 150,000 >65% of the herd **(uninfected)**
    Cows >500,000 <12% of herd.
- If you study the trend pages from the 2 herds below you will see that the second farm has much better figures for the total herd than the first farm. The heifer figures follow the same trend as the herd on the two farms.



5th TEST OF 5 ORDERED TEST DATE : 18/04/2007 PAGE : Page 4 of 32 LAST WEIGH DATE : 4/02/1997

Somatic Cell Count Trends

All Cows

Cell Count Ranges (000)	Oct 2005		Jan 2006		Mar 2006		Aug 2006		Nov 2006		Dec 2006		Feb 2007		Apr 2007	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0-149	296	74	299	73	191	48	191	54	169	35	268	56	175	39	90	26
150-249	36	9	38	9	66	16	48	14	76	16	98	21	83	19	66	19
250-499	29	7	34	8	75	19	43	12	110	23	58	12	109	24	96	28
500+	38	10	40	10	70	17	70	20	123	26	53	11	79	18	96	28
Total Cows	399		411		402		352		478		477		446		348	
Est.Bulk Count	222		190		305		617		643		292		355		436	

Two Year Olds

Cell Count Ranges (000)	Oct 2005		Jan 2006		Mar 2006		Aug 2006		Nov 2006		Dec 2006		Feb 2007		Apr 2007	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0-149	70	82	75	86	53	63	60	61	45	38	80	68	53	49	17	25
150-249	5	6	4	5	11	13	12	12	18	15	27	23	18	17	18	26
250-499	4	5	5	6	14	17	6	6	28	24	5	4	22	20	17	25
500+	6	7	3	3	6	7	20	20	26	22	6	5	15	14	17	25
Total Cows	85		87		84		98		117		118		108		69	
Est.Bulk Count	123		117		185		477		418		165		277		438	

Early season for this farm is August, late season is April herd test.

Somatic Cell Count Trends

All Cows

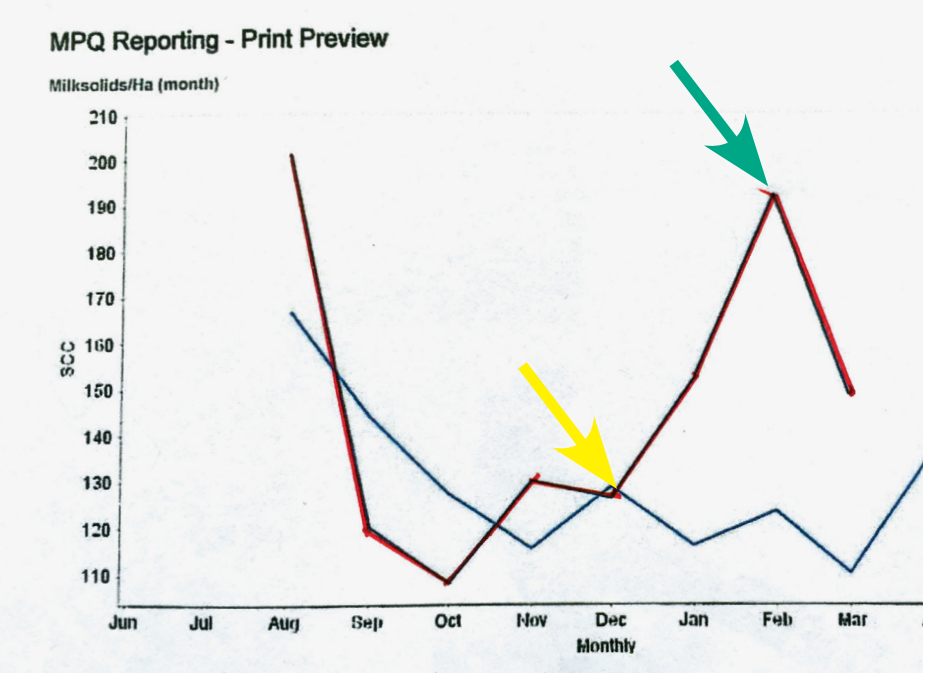
Cell Count Ranges (000)	Sep 2007		Nov 2007		Jan 2008		Mar 2008		Sep 2008		Nov 2008		Jan 2009		Mar 2009	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0-149	530	88	482	79	498	82	365	60	668	86	682	87	667	85	625	80
150-249	26	4	60	10	48	8	93	15	35	5	32	4	30	4	51	6
250-499	18	3	43	7	33	5	98	16	31	4	30	4	47	6	59	8
500+	29	5	24	4	26	4	49	8	39	5	43	5	45	6	50	6
Total Cows	603		609		605		605		773		787		789		785	
Est.Bulk Count	130		136		123		188		126		115		129		146	

Two Year Olds

Cell Count Ranges (000)	Sep 2007		Nov 2007		Jan 2008		Mar 2008		Sep 2008		Nov 2008		Jan 2009		Mar 2009	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0-149	138	91	134	85	134	86	124	80	172	92	175	92	177	92	171	90
150-249	7	5	12	8	10	6	15	10	8	4	8	4	5	3	11	6
250-499	4	3	8	5	4	3	12	8	4	2	6	3	6	3	6	3
500+	3	2	3	2	7	5	4	3	3	2	2	1	5	3	3	2
Total Cows	152		157		155		155		187		191		193		191	
Est.Bulk Count	76		105		92		102		73		66		67		73	

Early season is September and late season March herd test.

- **Herd size is no excuse** – the "bad" herd has around 450 cows, the "good" herd around 750 cows.
- Not all herds with low BTSCC and good trend pages have low levels of clinical mastitis but at least they are controlling SCC:
  - Stripping cows every day in the colostrum mob watching for clinical mastitis.
  - Checking cows leaving the colostrum herd to go into the vat with RMT or milk meter.
  - **Teatspraying effectively all season**.



Stopping teatspraying (or not starting!) increases SCC by about 100,000.

My farmer client found this out the hard way when he came back from a summer holiday to find the SCC had soared while he had been away.

He found out that his new sharemilker had stopped teat spraying at Christmas (yellow arrow).

Teat spraying was re-started (green arrow) and the SCC immediately started to drop. Red line.

The blue line was the previous season when the owner milked himself – and teat sprayed all season.

Effective teat spraying all season is recommended!

- Watching for clinical mastitis during milking all season.
- Effective treatments for clinical cases during the season.
- Culling problem cows.
- A plan for prevention of mastitis when cows are dried off and at calving.

2 types of RMT (rapid mastitis test) paddles.

String of high SCC milk (mixed with RMT detergent) hanging from an RMT paddle.

- Regular checks of the milking plant.

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