NZAGA Newsletter

NZ Arapawa Goat Association **August 2016, Issue 7**

From the Editor

Hi all, really strange weather for winter here in New Zealand. Freezing cold southerlies in some areas, droughts in some places and gorgeous days here in the Wairarapa, intermingled with howling southerlies. Hopefully some of the attached articles will help to keep our Arapawa goats well and thriving, especially as many of our does are currently in kid.

I am delighted to commence this newsletter with some wonderful news. The escapees featured in the previous newsletter are safely back home. Overleaf is Lynne's story. I am in awe of the lengths they went to in their efforts to retrieve their lost girls. It is wonderful, and reassuring, to know our precious Arapawa goats are in the hands of such good people.

Many of you will be aware that New Zealand has a Code of Welfare issued under the Animal Welfare Act 1999 that is specifically for goats. There is a requirement under this act that all owners and people in charge of goats need to meet the minimum standards in the code of welfare. While the 'Recommended Best Practice' is not legally binding, it is included to 'raise the bar' of animal welfare.

If you would like to see the whole code, it can be accessed through the Ministry of Primary Industry's website: www.mpi.govt.nz/. You can also obtain a hard copy of the complete code by contacting them through their website and place a request. With the 'Animal Welfare' team's permission, from time to time I will be including excerpts from the Code to support the information being presented.

Warm cheers,

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Newsletter Contents:

Escapees return home

Hi everyone – some great news. Following on from the May newsletter. Now there was only one doe (Goat4) left out of the four that arrived. During the following afternoon Goat4 started bleating madly and soon we could hear Goat3 replying. She came up to the fence but would vanish as soon as we appeared. We suspected that it was more likely that Goat4 would escape rather than Goat3 return into the paddock so we decided to find a very friendly goat asap and Snowy, a 6 month old Saanen, arrived the next day from not too far away. After a few introductions she settled in with Goat4 and they became friends. The next day Goat3 returned to the fence and the three goats spent the whole day together around the fence line. Late in the afternoon we built a 'step ladder' with large rounds of tree trucks left over from some logging and the following morning Goat3 was back in the paddock. We had also located Goat1 and Goat2 out the back of our property in a herd of feral goats that roam over a number of properties so at least we knew where they were. So the question was how to get them back. We tossed around a number of ideas, most of which ran the risk of all the goats dispersing further away and making retrieval even harder. The final decision was **a helicopter and trap gun**. Now this may seem excessive and expensive but the helicopter is only a 10 min flight away and the pilot and trapper are very experienced. So on the day we had them trapped and in the trailer within half an hour with absolutely no fuss. They have been back for three weeks now. They spent the first week in home detention in the shelter, and after they were let out they spent some time working out that the fences were not only impassable because we have added 600 high rabbit netting, they were also electrified, and since then they've decided things aren't so bad and are settling down. And now we are thinking about getting some more.

Spot the odd one out.

Kidding – A natural process, but some of us ‘beginners’ appreciate knowing what to look for. So I have taken some photos of my doe, a first timer, as she approaches her time. Subtle changes as she prepares to deliver:

3 days before

2 days before

One day before

8.30 am; delivered at midday

Signs of the doe's first stage of labour may include pawing her bedding, nesting, restlessness, looking back at her sides with white discharge coming from her vulva. You may notice her vulva becoming soft and the muscles appearing loose. She will lift her tail and become vocal. In other words, there is no doubt she is in labour. Rather than looking round, like a barrel, her hip bones will appear pronounced. This stage of labour usually lasts for only a few hours or it may last for 12 to 24 hours. There is no need to get concerned unless you notice the colour of her discharge changing to bright red. Her second stage of labour is signaled by labour pains and straining. A water bag will appear and as she continues to push, all going well two white hooves will present in the bag. Allow 30 minutes for this. **If in doubt, get the vet out!**

The sequence of twins being delivered to Millard Farm Meadow:

A beautiful sight – two healthy little kids.

Minimum Standard No. 11 – Kidding Does

(a) **Intensively farmed goats must be inspected frequently before and after kidding to ensure that they are not experiencing difficulties.**

(b) **If any doe is having difficulty kidding and the stock handler is unable to resolve the problem, expert advice must be sought as soon as possible, or the animal humanely destroyed.**

(c) **Excessive traction must not be used to kid any doe.**

Recommended Best Practice

(a) Where animals are unaccustomed to daily supervision such as in extensive systems, breeds or strains suited to easy births and good maternal care should be used. In more intensive systems, where animals are habituated to the presence of humans and management activities, assistance should be provided to animals experiencing difficulties without unduly disturbing others giving birth in the vicinity.

(b) Easy-kidding sires should be selected for goatling mating as large kids can cause significant injuries to small does.

(c) Goats close to kidding should be inspected frequently; preferably **at least every 6 hours**.

d) Kidding paddocks should provide dry ground, shelter and protection from adverse weather.

(e) Does that have been trying to kid for more than 1 hour without progress should be given assistance or veterinary help (kidding in this context means vigorous abdominal straining).

(f) To minimise the potential for damage to either doe or kid, controlled traction should only be used if the operator has diagnosed an unrestricted birth canal and the kid is in the normal position for delivery and should be conducted with plenty of lubrication. The amount of traction used should be no more than a single person can apply.

General Information

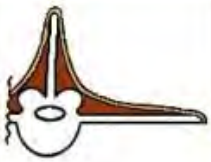
The important features to be taken into consideration when deciding to assist a doe to kid are:

- an assessment of the size and number of kids, and whether they are alive and in the correct orientation for delivery;
- an assessment of doe health and condition; and
- the amount and direction of traction, which alters as the kid enters and passes through the pelvic canal.

Is my Arapawa goat too fat?

If you look at the goat's belly, or width side to side, and this is really big or wide, that is not fat. It represents good rumen development and is a sign of a healthy goat. A goat's rumen is like a large fermentation tank, and the bigger it is the better they process their food. But, while a big rumen is a good thing, it must not be confused with bloat. With bloat, only the left side will bulge. If you see this, ring your vet – **it is an emergency!** And don't give it fluids!

The following chart has been put out by NZ's Ministry for Primary Industries in the Animal Welfare (Goats) Code of Welfare 2012, page 37. It can be used broadly for all breeds of goats, however it is useful to note that dairy goats in general tend to be leaner than meat goats. The use of body condition scores (BCS) is less accurate for assessing kids and growing goats. Body condition scoring is based on palpation of the spine, pelvis and rump of live animals. The simple scoring system varies from score 0 (emaciated) to 5 (obese). Visual assessment of body condition of goats can be difficult where the coat is long as a long fleece can disguise the actual appearance of the pelvis, ribs and spine, while a short coat can make the animal's appearance more irregular and highlight these areas. The only reliable method of assessing animal body condition is by palpation of the ribs, spine, pelvis and rump.

0 **(Emaciated)**			No internal or external fat reserves
1 **(Poor)**		Loin Rump Pins	No muscle on edges of transverse process, bones very sharp, thin skin. Vertebral angle has little muscle and is very concave. Spinous processes very prominent with no muscle in between. Sharp outline visible; no muscle between skin and bones Very sharp, no padding
2 **(Thin)**		Loin Rump Pins	Muscle extends to the edges of transverse process, spacing can be felt between the vertebral processes, thin skin Outline slightly contoured; light padding but bones still somewhat prominent and very easy to feel Sharp, little padding
3 **(Good)**		Loin Rump Pins	Muscle and subcutaneous fat covers edges of vertebral process; individual bones are somewhat distinct Smooth, without signs of fat; pelvic bones and spine are distinct Slight pressure needed to feel the pin bones
4 **(Fat)**		Loin Rump Pins	Vertebral processes indistinct and firm pressure needed to feel them. Vertebral angle rounded but not yet bulging over spinous processes. Spinous process spacing difficult to detect; spine felt as a hard line. Heavily padded with fat; bones can only be felt with firm pressure Heavily padded with fat, and firm pressure needed to feel them
5 **(Obese)**		Loin Rump Pins	Edge of vertebral processes and spacing between too fat to feel bones. Vertebral angle bulges over the level of the spinous processes. Spine lies in the centre of a groove of fat Buried in fat, bones very indistinct Buried in fat, hard to locate

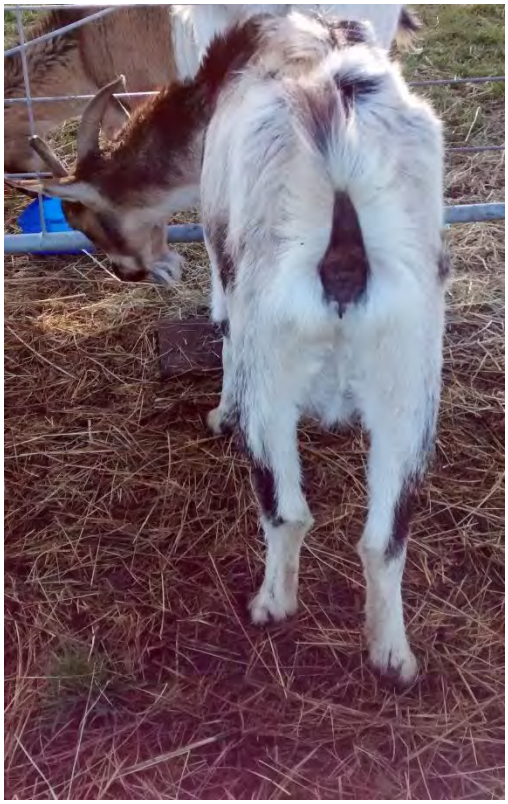
NZ Code of Welfare (Goats) 2012

For those who prefer visuals:

The doe on the left has a well-developed rumen. The middle goat is fat, and the wether on the right is bordering on obese. You can also see the fat in his face, around the jawline and cheeks.

The doe on the left is four months pregnant and is in good condition. The doe on the right meets the criteria for thin, which is to be expected after feeding twins for 11 weeks. She will quickly regain condition when the kids are weaned at 3 months.

If you want to see images of very thin or emaciated goats, please look online. I hope never to have an opportunity to take a photo of such an event.



Make Mine Milk!

By Andrea Gauland, Te Hua Farm, North Canterbury, NZ

The following article is a précis of one written by Andrea for the Rare Breeds NewZ and published in the Rare Breeds NewZ, November 2009. The full article can be accessed on the International Arapawa Goat site: *http://www.arapawagoats.com/milk.html*.

The Arapawa Island Goat is a wonderful addition to any lifestyle block, particularly if the big milkers are not your cup of tea. About half the size of a standard dairy goat breed, the Arapawa will give proportionally less milk, but with less input as well.

Hand milking

A young doe at her first kidding will have a small, compact but well-attached udder. The teats can be on the small side, making hand-milking harder for those with large hands. However, they are quite suited to a milking machine. By the second year, the doe's udder will have expanded, quite possibly to double the size of her first year. By her third or fourth year her udder will have reached full capacity.

Machine milking

You could expect up to 1½ litres a day with once a day milking. It doesn't sound like a lot, but a pair of milking Arapawa does could provide the family with three litres of milk a day and eat less than one full-sized dairy goat. The added-value of Arapawa Goat's milk is its taste and butterfat content. The milk has a distinctly sweet and nutty flavour to it, almost a hint of sweet, raw almonds, and feels much richer in the mouth. The butterfat content can be as high as that of an Anglo Nubian, and makes wonderful fresh and aged cheeses.

The Arapawa doe settles in well to a daily milking routine. Share-milking with her kids and milking once a day in the morning is ideal. The kids can be removed in the evening once they are a couple of weeks old and off to a good start on their dam's colostrum. Milk the doe in the morning and then let the kids out to be with mum so they can feed during the day.

At the milking stand

Rich feeds aren't required in their diet, but a supplement of rolled barley and some lucerne chaff will go a long way toward increasing production. Any new feed should always be introduced gradually, to allow the gut flora of the rumen to adapt. Seaweed meal added to the diet wouldn't go amiss, as they have evolved on the beaches of Arapawa Island and often seen feeding on seaweed washed on shore.

Andrea's very simple homemade cheese: Queso Blanco.

Heat two litres of goat's milk over a low heat to 82°C, stirring often to keep it from scorching.

Add ¼ cup vinegar (our preferred is apple cider vinegar), stirring all the while. You will see the curds separate from the whey.

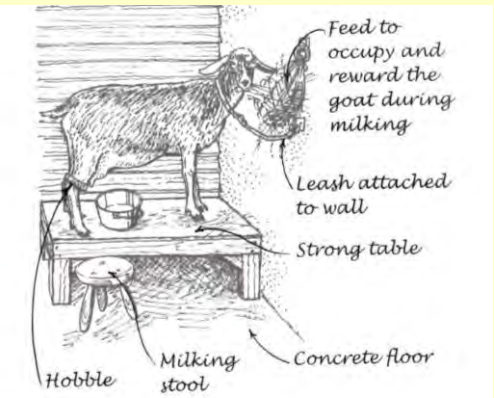
Pour or ladle the curds and whey through a finely woven cotton tea towel, mutton cloth or cheesecloth. Tie into a bag and hang for several hours up to overnight, until the curds stop dripping.

Unwrap from cloth and you can store it, wrapped in cling film, in the fridge for up to a week.

This simple cheese can be cubed and fried without worry of it melting, and can be a nice snack for children with the addition of the seasonings of your choice. It has a bland, slightly sweet flavour on its own. Before you tie up to drain, you can also stir through things like jalapeno chillies, olives, sun dried tomatoes, a bit of sea salt and fresh herbs – feel free to experiment! Then tie up, drain as above and when you slice it, you have your flavourings already added, and it's also quite pretty.

Motivated by Andrea's article, I am determined to give this a go. **Okay, so for the beginner (that's me!), where to start?** These are the notes I have made for myself (Alison):

~ Get my doe onto the stand
~ Give her some food (e.g. hay, chaff, rolled barley, handful of animal nuts)
~ Put a strap around her back legs to stop her kicking (me and/or the bucket)
~ Wash her udder with warm water using clean cloth
~ Encircle one teat with thumb and hand so thumb is at the front and open palm at the back
~ Gently squeeze with the thumb so the milk comes down to the end
~ Gently stroke downwards to squirt the milk out
~ Throw away the first squirt which cleaned the teat
~ Now put a bowl or small bucket under her udder
~ Repeat the milking procedure until one side of her udder is empty
~ Repeat the same with the other teat
~ And when I get confident, try two hands at once!



Bridgewater, A & G (2007). The Self-Sufficiency Handbook, p 156

Rather than using ties, I have purchased a NZ-made goat milking hobble to trial. Sue from Taranaki is making a small one for my Arapawa goats at a cost of $25 plus P&P of $4

Sue Vanner <haltersplus@xtra.co.nz>

Minimum Standard No. 13 – Milking

(a) All does must be milked or suckle kids frequently enough during lactation to minimise discomfort and maintain udder health.

(b) Milking equipment must be well maintained to minimise the risk of damage and infection of the teats and udder.

Recommended Best Practice

(a) Regular routines for milking should be established, in order to minimise or avoid distress.

(b) Does in dairying systems should be milked within 12 hours of separation from their kids.

(c) All lactating does, including those being sold or exhibited, should be milked or suckle kids at least once every 24 hours unless good management practices dictate otherwise.

(d) To minimise the risk of discomfort or damage to the teats, the partial vacuum in the milking machine should not be higher than 40 kPa and the teat-cup liners and the pulsation system should function properly.

(e) Care should be taken to avoid over-milking.

(f) Milking machines should be tested at least once a year and more frequently if the milking process is compromised, as indicated by milking speed, teat damage and/or doe behaviour. All faults should be corrected immediately.

(g) The risk of teat and udder infections should be minimised by practising good hygiene.

(h) The teat condition of does in dairying systems should be monitored and an appropriate remedy used if condition deteriorates.

(i) Goatlings that are to be managed in dairying systems should be familiarised with the milking facility prior to kidding.

(j) Where there is a risk of an extended failure of the electricity supply, provision should be made for an independent generator to operate the milking machine and ancillary equipment.

General Information

Milk removal, conducted in good environmental conditions and with an efficient milking machine, is complete after about 6-8 minutes for most does, depending on milk yield and rate of milk flow. Signs of discomfort (kicking the cups off and/or constant movement by the doe while milking) and/or an increased incidence of sores on the teats can indicate faults in the vacuum level or pulsation system, or the presence of stray electrical voltages (electrical shorts) in the farm dairy. Signs of poor teat condition include redness and chapping. This is more likely to occur during wet and windy weather.

Arapawa Goats are browsers and foragers!

When advertising a pair of twins on Trade Me I received a number of queries from people who wanted the boys as 'lawnmowers'. So perhaps this is a good time to remind everyone that goats are foragers who do best on weeds, trees, bush, shrubs and vines that have woody stems and are not listed as potential poisonous in earlier newsletters. More like deer, they are not grazers like sheep. This is especially true of Arapawa goats as they have only recently been taken into domestication, restricted by fences and dependent on what you feed them. Their favourite browse on the Island include Broadleaf, Mahoe, Five-Finger and Seven-Finger. The following are taken from Niki Morrell's article in 'The Rural': www.therural.co.nz/horticulture/native-fodder-trees-and-plants-for-livestock.

1. **Broadleaf, Kāpuka** *(Griselinia littoralis)*

The shoots and leaves of this hardy native are highly palatable to stock and deer. The plant recovers quickly from browsing. Reasonably fast-growing (30-50cm per year), it is often planted for shelter on exposed coasts. It grows in most situations but needs some wind and frost protection in the high country. Depending on local conditions, it can reach heights of anywhere between 6 and 15 metres and can also be pruned into a shrub. Broadleaf can live more than 100 years.

2. Whiteywood, Māhoe *(Melicytus ramiflorus)*

This small (5m), fast-growing tree is so palatable to cows and horses that early Banks Peninsula farmers nicknamed it "cow leaf". It was considered a valuable source of fodder, especially in droughts. Sheep, deer and goats love it too. Mahoe can withstand wind but needs protection from prolonged freezing. It will recover quickly from drought, once established. In favourable situations, Māhoe can live up to 80 years.

3. Five-finger, Whauwhaupaku and Mountain Five-finger, Orihou *(and P. colensoi)*

Highly palatable to cattle, these small trees grow 5-8m high. True five-finger is widely distributed throughout both islands, while mountain five-finger is found only in the South Island. True five-finger is fast-growing and hardy, although young plants will need protection from frost on exposed sites. It can grow in semi-shade but dislikes heavy clay soils. Mountain five-finger is more tolerant of cold, wind and soil type.

4. Patē, Seven-finger *(Schefflera digitata)*

Patē likes shelter, shade and moisture. It is related to the five-fingers and has a similar, almost tropical-looking appearance. It grows on Stewart Island and both main islands, not usually reaching more than 3-6m in height, although it can attain 8m in the right conditions. Once established, patē is a fast grower. It is vulnerable to frost and drying out when young and will sometimes drop its leaves in winter.

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Risk Alerts

Ngaio

The Ngaio tree (Myoporum laetum) is a native to NZ and was in Ship Cove when Captain Cook first anchored there on Endeavour. Ngaio grows throughout the country, and does well in both forestry and coastal areas. Lethal to livestock, I am horrified to see it being sold in garden centres and by retailers of native plants who sell to farmers and lifestylers. A shrubby bush or a tree growing up to 10 metres, it is easily identifiable as the leaves are yellowy-green, fleshy and distinctly spotty. Those spots are toxic glands.

According to naturalists, if you rub the leaves on your skin it will repel insects such as mosquitos and sandflies. But if your goat ingests the leaves, it will likely suffer liver damage. The symptoms displayed by your goat will include severe constipation, abdominal pain, lethargy, anorexia, and in some cases, blood-stained faeces. In this case, seek veterinary help immediately'.

Berries on the Ngaio tree

Warning

If you are using horse nets for hanging hay for your goats, please be careful. One of our members lost a precious doe who hung herself in the netting.

Q & A

The parents of a doe kid has the same mother but different fathers. Can the doe kid be registered in the future? What is the view on inbreeding/line breeding?

I handed this question over to Stephen Henry who is a Biological Engineer working out of the Auckland University of Technology. This is his response:

"Provided siblings were not breeding with each other or child/parent then there should be enough genetic diversity – considering the fact that the original animals are significantly inbreed. The only risk is if there is with a genetic disease, and perhaps this has already been mostly bred out. Therefore I agree – register all animals regardless of heritage, including those who are bred with siblings or parents (hopefully accidental). In labs we have animals that are so in-bred they are virtually genetically identical and they survive perfectly well – the only risk is if disease occurs it will have the same effect on all animals – rather than some surviving (which is evolution, survival of the fittest)."

When we moved to our property five years ago, we inherited a wether [who] died last year of old age. Our neighbours moved out a couple of months ago, and we took their nanny goat (we certainly missed having a goat around the place. [The wether] always pooed in his hut, which wasn't a problem as it was easy to sweep out. However, the nanny goat wees as well as poos in the hut, and I'm not quite sure how to manage it. The hut floor is wooden, and unfortunately there are no gaps between the slats, so it doesn't drain away. I tried hay and then wood shavings for bedding, but of course they both got very wet. Can you give us some advice about what we should do?

My does also mess their houses more than the bucks. What I do is get untreated pallets (normally free from places like Farmlands), fill the gaps with slats so hooves don't get stuck, then scatter straw over top – straw does not absorb the moisture so the girls and their kids always have dry (if not clean!) bedding. If you are concerned about the wooden floor put a layer of bricks under the pallet (or a cheap tarp) that can be pulled out and cleaned or replaced later. An alternative (used in some pet zoos overseas) is to put dry sand down and rake it out periodically.

Bucks available

Choyer Kauri (AG247) (on the left) currently in **Christchurch** is available for sale. His dam is Home Farm Lilly; sire is Home Farm Revy. Contact Heather: choyer@slingshot.co.nz

Shane of **Warkworth** (north of Auckland) was also looking for a new home for his buck; Hank of Kaipara Farm (AG240), out of Skinner's Miss Gerrard and Texas Wally. Hank's adolescent photo is on the right: pe0w.pe0w.emz@gmail.com

Mature doe wanted

I have been approached by a man in the Northland region who is wanting to start a breeding programme. He is looking for a mature doe to accompany the buck Kaipara Coast Titan (AG237), out of Tutukinoa Tittle (AG030) and Tutukinoa Caramello (AG32).

Overseas Update

The story of the Arapawa goats continues to spread around the world. Christine Ball of the UK sent me this link to The Livestock Conservancy whose mission is to protect endangered livestock from extinction: A must read!

https://livestockconservancy.org/index.php/heritage/internal/arapawa

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The next NZAGA newsletter is due in November; articles, photo and questions welcome

Alison
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