

Greenoak Newsletter for the Dairy Goat & Sheep Industry

Newsletter Date Jan 2009

We would like to take this opportunity to wish you all a happy New Year and look forward to working with you during 2009.

We have been asked a number of different questions about various milking parlour designs, hygiene and effective washing, together with a number of other questions regarding farm management efficiency. To this end, we will try to use this newsletter to answer some of these questions.

Should we install a high level or low level milk line in our parlour?

A low level milk line is far more efficient than a high-line, for the following reasons-

The teat end on a goat requires approximately 9-10" of vacuum measured at the teat end (**NOT THE READING ON YOUR GAUGE!**). To check this vacuum level a dairy engineer must carry out a dynamic vacuum test which measures the vacuum in the claw or near the bottom of the liner whilst milking.

To milk the goat quickly, you need a stable vacuum level at the teat end (*Fluctuation of less than +/- 1.5"*). When using a low line system the vacuum reading at the gauge tends to be 1 to 2" lower than a high line system. However, if you were to look at the teat end vacuum, both would be fairly similar during normal milk flow. The high line system requires a higher vacuum level to lift the milk up the hose to the line

During full milk-flow on the highline, you would expect larger vacuum fluctuations at the teat end due to slugs of milk travelling up the milk tube.

Also, as you get towards the end of milking, the teat end is subjected to a higher level of vacuum compared

to the low line. We are not suggesting that high line milking systems are not adequate to milk goats, as there are many installations with high level milk lines in Ontario.

We are stressing the point to allow proposed new installations the opportunity to design their milking facility for optimum milking ability.

The Challenge in washing a CIP system effectively

In Ontario, as the dairy goat industry is relatively new, the milk purchasing organizations will generally collect milk once a week.

This creates a challenge to keep the bacteria count in the milk under acceptable levels.

We have noted that some farms are washing with very high temperatures and strong concentration of chemicals. In some cases the type of chemical and temperature has had an effect on plastic components such as claw bowls, liners, and diaphragms in the parlours.

If you have a high bacteria count in your milk, you need to be aware that this could be coming from the local environment, such as bedding areas and buildings. It is possible to get some clues as to where the bacteria is coming from by carrying out a detailed analysis of the milk sample. If this is of interest, there are companies who offer such services. Talk to your vet, OMAFRA or your dairy engineer for more information on this.

Getting back to what you can do in the Milking facility to reduce bacteria build up, we would recommend the following-

1. The vacuum level during washing should be set to between 15 to 16" of mercury. If you do not do it at this time, it can be achieved by installing a separate vacuum regulator, which is set at the higher vacuum level for washing only. Talk to your dairy engineer about how this can be installed and controlled from your milk wash control panel.
2. An air injector should be fitted to your milking system to help create a turbulence during the wash cycle. The position of the air injector will be determined by the size and design of your milking system. Ask your dairy engineer for further details on this.
3. A pre-sanitizing rinse prior to milking is essential. To achieve this it can be done manually or with the aid of an automatic wash control system.
4. The air bleed holes on your milking units should be checked daily, as this will be needed to create turbulence with the milking unit.
5. The milk entry pipe from the milk pump line to your bulk tanks should be set so you do not get splashes of milk on the side of the tank. We have seen that such occurrences can be the cause of high bacteria counts.

The following are some guidelines for temperature of washing-

Pre-wash

Start Temp: 43-60 deg C (120 to 140 deg F)

End Temp: 38 deg C (100 deg F)

This cycle should be dumped to the drain and not recirculated.

Detergent Wash

Start Temp: 72 deg C (160 deg F) Minimum

End Temp: 49 deg C (120 deg F) Minimum

Final Rinse & Pre-sanitize Cycles

These are generally done cold.

Draining of the milking system is very important, so valves and slopes should be checked by your dairy engineers on service.

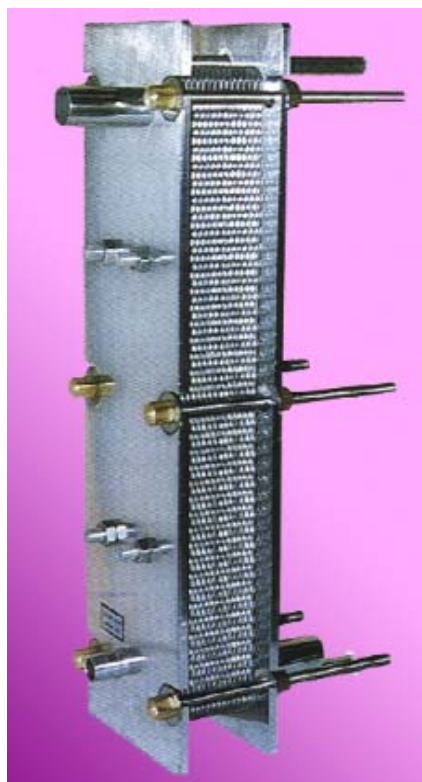
Cooling milk & providing warm drinking water

We have noticed that customers who provide warm water for the goats improve the quantity consumed compared to those who just use cold water.

If you can get the goat to consume more water, this will assist the animal in producing more milk.

One easy system to help with warming the water is a plate-cooler. This has the added advantage that it will cool your milk prior to entering the bulk tank, and provide savings in electricity costs from cooling.

As a result of these benefits, Greenoak is launching a range of Stainless Steel plate coolers designed for this purpose.



Milk Yield Recording

Following our installations of electronic milk recording in 2008, we have received a large number of enquiries for similar systems.

We have noted that the investment for electronic meters can be cost prohibitive for some smaller businesses. As a result we are launching a range of mechanical milk meters which can be installed when you need to take a record of the animals in the herd.

In addition, they could be used by more than one farm in agreement, to help spread the equipment cost.



Update on parlours installed in 2008

The fully automated 2 x 24 milking parlour with auto ID, milk yield recording and power take offs is working very well.

Two important procedures were put into practice and monitored by the farmer-

1. They noticed that if they let a side of animals in, allowed the 30 seconds or so to settle, then attach the milking unit, this improved the milk yield compared with attaching the milking units as soon as the animals reached their milking point. This is obviously assisting with stimulating the oxytocin release. This proves that we need to focus on preparation routines prior to attaching the milking unit to maximize milk yield as has been done with cows.
2. The Auto-take off setting was originally set to milk the animal out dry. This was based on what everyone seemed to do in the industry in Ontario. However, a customer decided to set the take off to take the milking unit off at approximately 100cc per minute milk flow. This would appear to be quite high, however this customer felt it was better to leave a little bit of milk in the udder/teats to prevent pulsating on a dry teat. In changing to this setting there was a noted increase of 300 ltrs per week in the bulk tank.

On another parlour, which is a single 24 with 12 milking units, this customer changed the milking system from a highline to a low line set up. This was done as they were seeing too much milk left in the milking unit once the take off had occurred.

In carrying out the modification, they noted better milking of the animals with improved yield and less udder infection.

If you would like to discuss any of the above topics in further details, please feel free to contact us.

Canadian International Farm Equipment Show

We will once again be exhibiting at the Toronto show on the 3rd, 4th and 5th of February 2009.

Please find a free entry ticket attached for your use.

We will be displaying details of some of the new products and would be happy to discuss any of the subjects covered in this newsletter further.

The exhibition will be at the Toronto International Center. See the official website for further details

<http://www.canadianfarmshow.ca>

Dealer Network for Ontario

Following our last newsletter, we mentioned that we have set up a dealer network to assist you with our product range and services.

Please see the following contact information for our Ontario dealer network.

Dairy Source

RR #1, Keene, Ontario K0L 2G0

Tel 705 295 3247

Dortmans Bros Barn Equip Inc

Adelaide Village, 2234 Egremont Rd

Strathroy, Ontario N7G 3H6

Tel 519 247 3435

Lawrence's Dairy Supply (1995) Inc

1760 Hwy 138, Moose Creek

Ontario K0C 1W0

Tel 613 538 2559

Moore Bros

5 County Dairy Services Ltd

80 Richmond Boulevard 214

Napanee, Ontario, K7R 3M3

Tel 613 354 4141

Norwell Dairy Systems Ltd

7877 Wellington County Rd, Drayton

Ontario N0G 1P0

Tel 519 638 3535

Norwell Dairy Systems Ltd

594711 County Rd 59

Woodstock, Ontario, N4S 7V8

Tel 519 456 3535

Penner Farm Services

RR #2, Tara

Ontario N0H 2N0

Tel 519 934 2343

For those customers who will not be able to make it to the show but would like to discuss subjects in this newsletter further, please contact

Sandra on

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