

THE DAIRY GOAT DIGEST

*Dairy Food Safety Program, Food Inspection Branch
Food Safety and Environment Division*

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EXTRA-LABEL DRUG USE IN DAIRY GOATS

PHILLIP WILMAN, DAIRY FOOD SAFETY PROGRAM AND
DR. JOCELYN JANSEN, ANIMAL HEALTH AND WELFARE BRANCH

Goat producers should be aware that there are no approved antibiotics for use in goats in Canada. Therefore any use is considered extra-label drug use (ELDU). ELDU is defined as¹:

- Administration to a different **SPECIES** or production class (e.g., lactating versus dry versus weaned) than listed on the label
- Administration of a different **DOSE** than listed on the label
- Administration of a different **VOLUME** per injection site than listed on the label
- Administration via a different **ROUTE** than listed on the label
- Administration at a different **INTERVAL** (frequency) than listed on the label
- Administration for a different **DURATION** (length of time) than listed on the label
- Administration for a different **INDICATION** (purpose) than listed on the label

EXTRA-LABEL DRUG USE IN DAIRY GOATS (cont'd)

PHILLIP WILMAN, DAIRY FOOD SAFETY PROGRAM AND
DR. JOCELYN JANSEN, ANIMAL HEALTH AND WELFARE BRANCH

ELDU May Affect Milk and Meat Withdrawal Times

A question frequently asked by producers is: “Are milk and meat withdrawal times for goats the same as for cattle?” The answer is NO! Drug withdrawal times for products used in an extra-label manner are based on maximum residue limits (MRLs) and scientific studies, and take into account government testing. If no MRL has been established for a drug in a particular species OR for milk/tissue, then ANY amount detected in milk/tissue constitutes a residue violation. This is one of the reasons why goat withdrawal times are longer than cattle withdrawal times.

In the past year, there have been incidents of violative residues in bulk tank milk due to misinterpretation of drug labels. Cases have involved the use of calf scour boluses to treat for diarrhea in lactating animals. As the label did not say “not for use in lactating animals”, the product was thought to be safe. The various products are labelled for calves, foals, lambs and/or pigs and clearly do not list goats on the label. Even though one of the products did not say “not for use in lactating animals”, the use in a species not listed on the label was ELDU and treatment should only have taken place under veterinary supervision/consultation.

Producer Responsibility

Additional cases of inhibitor violations have revolved around lactating goats accidentally accessing medicated feeds or medicated milk replacers. We strongly encourage all producers to ensure that all medications are stored appropriately and securely to prevent inadvertent exposure of animals to antibiotics or direct contamination of the milk.

As more milk is being collected in larger trailers, the cost to a producer of a violative residue has gone up dramatically. Producers are encouraged to discuss the amount of insurance coverage that they have with their insurance broker. In some cases producers are only insured for \$10,000. As antibiotic inhibitor testing continues to evolve and more products can be detected, producers must be extra diligent in preventing residue contamination of goat milk and meat. ■

The cost to a producer for a full trailer load of milk that is rejected due to antibiotic residues can be as high as \$50,000.

References:

¹ Extralabel Drug Use. (n.d.). Retrieved from <http://www.farad.org/eldu/eldumain.asp>

KEEPING YOUR MILKING EQUIPMENT CLEAN

PETER MAW, DAIRY FOOD SAFETY PROGRAM

Maintaining clean, sanitary milking equipment is essential for consistently achieving low bacteria results. The following steps serve as a refresher on solution temperatures and concentrations to keep ahead of cleaning issues. Note that water used to make up cleaning and sanitizing solutions must be potable ('drinking quality').

Temperature

Hot water is essential for removal of organics (fats and proteins).

- First rinse must be between 115-120 degrees F (46-49°C). This removes the majority of the milk from the pipeline system. Do not recirculate the first rinse.
- Wash cycle requires 170-180 degree F (77-82°C) at the start of the wash. More importantly do not allow the water temperature to go below 120 degrees F (49°C) at the end of the wash as fat will start to re-deposit on pipeline/tank surfaces.
- Acid cycle. Hot water is not generally required for the acid cycle as this is a chemical reaction to remove mineral deposits from milk and hard water. Follow label recommendations for temperature as posted on the wash chart.

Concentration

Cleaning chemicals emulsify fat and remove protein and mineral deposits. Sanitizers remove microbiological contamination from equipment.

- First rinse uses fresh water.
- Wash cycle requires an alkaline based chemical with chlorine. There are three important elements to the detergent wash cycle:
 1. Alkalinity should be between 1100-1200 ppm which is higher than the 900 ppm required for cow milk (your dealer can check this)
 2. pH should be a minimum of 12 (this can be easily monitored with pH strips that read between 1-14)
 3. Chlorine concentration in the wash cycle should be between 100-200 ppm (dealer can check this)
- Acid cycle removes mineral deposits left by milk (such as milkstone) and water (such as calcium and iron). Acid solution should have a pH between 3-4 (this can also be monitored with pH strips)

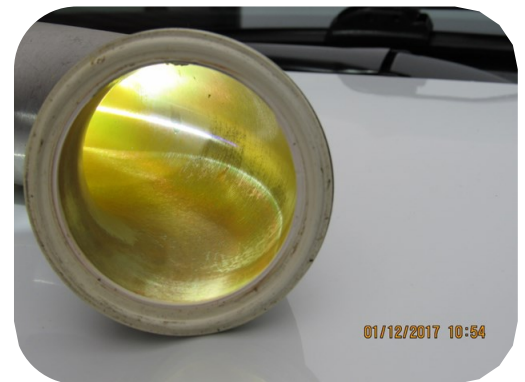
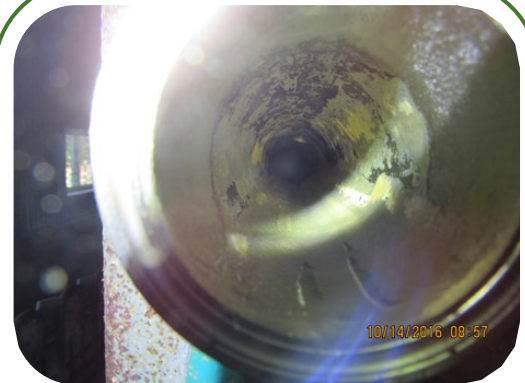


Figure 1: Iron build-up appears as a yellowish/brown film (top) and milk fat build-up in a pipeline appears as a greasy film (bottom).

KEEPING YOUR MILKING EQUIPMENT CLEAN (cont'd)

PETER MAW, DAIRY FOOD SAFETY PROGRAM

Manual cleaning requires the same diligence as clean-in-place (CIP). Buckets, pails, strainers and bulk tanks need to be rinsed and washed with manual detergents approved for use in food production and given an acid rinse after each milking or milk pick up. Talk to your chemical supplier for proper cleaning products and procedures.

Equipment must be sanitized before milking or before starting to fill the bulk tank, in order to kill any bacterial growth on equipment surfaces between milkings. Three common chemicals used to sanitize milking equipment are chlorine, hydrogen peroxide and acid. Chlorine can cause rubber parts to break down leaving a blackish film ('inking') so talk to your chemical supplier about which products will work best in your situation and recommended concentrations. ■



Figure 2: Agitator paddle with a milk fat build-up.

NOTE: It is a good idea to have a hand held thermometer to check on wash temperatures, pH strips to check solution strengths, and a good flashlight to check for build-up on equipment inside pipelines and bulk tanks.

DAIRY GOAT RESEARCH IN ONTARIO

DR. CATHY BAUMAN, ASSISTANT PROFESSOR OF APPLIED CLINICAL RESEARCH,
ONTARIO VETERINARY COLLEGE

The project, "*Investigating Mortality in Ontario Dairy Goat Kids*", has received full approval from OMAFRA. The project received funding support from the Ontario goat industry and the OMAFRA-University of Guelph partnership. This study will be conducted in 2 phases and is anticipated to start in August or September of 2017.

The first phase will consist of an on-farm questionnaire about management practices that may impact kid health such as amount and source of colostrum fed and perinatal care. The second phase will involve collecting the bodies of all kids that die on-farm from a sub-set of farms that participated in Phase I (~30 farms). The objectives of the study are to quantify the current level of kid mortality in the industry and identify the factors that predispose to a high level of kid deaths. In addition, it will be helpful to identify the role that colostrum quality and failure of passive transfer may also be having.

Planning is currently underway to address other health concerns impacting the dairy goat industry. One issue is to determine the drugs of highest priority to the industry that should be targeted for drug withdrawal studies. Management of disbudding pain in kids is another project currently being investigated. ■

PROPER MILK FILTRATION

MIKE FORAN, DAIRY FOOD SAFETY PROGRAM

The importance of milk filters on any dairy farm can easily be overlooked, yet they provide some significant benefits by helping to:

- provide high quality milk to dairy processors;
- identify mastitis and other udder health problems;
- identify insufficient bedding or an unclean environment; and
- ensure plate coolers remain clean, free of debris and functional.

Filtering milk is also a requirement under the regulations. Section 5.(2) of Regulation 761 under the Milk Act (Ontario) states that no producer shall sell or offer for sale milk that has not been filtered by means of a single-service filter or a stainless steel mesh-type filter approved by the Director. The purpose of filtration is to separate any solid particles suspended in the milk before it reaches the bulk tank.

How it Works

When raw milk is pumped across the porous surface of the milk filter, a pressure difference on both sides of the filter is created forcing particles that are smaller than the pore size of the milk filter (such as bacteria, somatic cells, water, fat, protein, minerals, etc.) to pass through. Milk filter pore size ranges from 100 to 250 micrometres while bacteria are much smaller — typically 1 to 10 micrometers. Particles that are larger than the pore size (such as straw, hair, flakes, clots or insects) are caught on the filter preventing them from entering the bulk tank.

Milk Filter Location

Milk filters should be installed only on the discharge side of the milk pump; usually in the pipeline between the milk pump and the bulk tank. In systems with plate coolers, the milk filter is always located before the plate cooler to ensure the milk is warm when filtering. Warm milk (36° to 38° C range) can be filtered easily whereas cold milk will block disposable filters.

Modern disposable milk filters are made of food grade materials with ‘high wet strength’, a sturdy seam, and evenly sized and distributed pores for consistent, reliable filtration of milk.

PROPER MILK FILTRATION (CONT'D)

MIKE FORAN, DAIRY FOOD SAFETY PROGRAM

Milk Filter Types

Modern disposable milk filters are made of food grade materials with 'high wet strength', a sturdy seam, and evenly sized and distributed pores for consistent, reliable filtration of milk. Producers milking with a pipeline typically use a sock and sleeves type filter. Producers milking by hand or with buckets will use a filter disk (Figure 3). Permanent filters constructed with fine stainless screens or mesh are also available but are not widely used on dairy goat farms and must be approved prior to use.

There may be a slight advantage in using a blue coloured filter. Clots or flakes indicating mastitis may be more visible on a blue filter. That said, a close examination of a white filter will also reveal problems.



Figure 3: A milk strainer with a properly secured filter disc.

Sizing the Milk Filter

Filters come in a variety of sizes and fabric weights to meet dairy goat producer's needs. A filter that is oversized for the milking system is not cost effective, whereas a milk filter that is too small has insufficient surface area for effective filtering.

In situations where milk filters are too small, the flow rate during the milking session gradually decreases as debris builds up on the filter. This could lead to milk by-passing the filter or, in some cases, the filter could burst. The milking system could also 'trap out' — meaning milk in the receiver jar flows over to the sanitary trap where the ball or float rises, shutting down the milking system. If this happens, additional manual cleaning of the trap and piping to the trap is often required.

Producers expanding their milking parlour need to work closely with their equipment dealer, including selecting the proper size of milk filter. If a producer experiences frequent milk filter issues they should work with their equipment dealer and OMAFRA inspectors to determine the root cause.

Plate Cooler Considerations

Poor milk filtration allows debris to pass through the system resulting in a buildup of debris in the cooling plates. The impact is a reduction in heat exchange efficiency as well as a dirty plate cooler which will eventually lead to elevated Bactoscan (bacteria) results. Using a new filter before and after each pipeline wash helps to ensure debris and sediment do not pass through to the cooling plates.

PROPER MILK FILTRATION (CONT'D)

MIKE FORAN, DAIRY FOOD SAFETY PROGRAM

Steps To Take if Abnormalities Observed on the Filter

If you see clots or abnormalities on the milk filter, you should consider using a strip cup and/ or the California Mastitis Tester (CMT) during the next milking to try to identify the problem goat(s). If you have individual goat milk meters you can check for a drop in milk production or a change in milk conductivity.

If you use a disk filter and observe slow milk filtering through the strainer, it may be an indication of high somatic cell count milk. Again, the CMT will often help identify problem goat(s).

If the milk filter appears to have more residue than normal, re-evaluate cleanliness of the environment including pens and holding areas. Udder preparation procedures should also be reviewed. Milk filters often indicate that fly control measures need improvement.

In some cases producers with a large group of goats in heat have noticed slight compositional changes in the milk which can lead to clogged milk filters. Producers in this situation should consider switching to a different type of filter during this time. Check with your supplier for milk filters that are less prone to clogging.



Figure 4: An example of a dust-proof, water-proof filter storage container.

Milk Filter Storage

Store milk filters in a clean area protected from moisture and dust. The heavy cardboard box that filters come in may be good enough, however disk type filters often come in a light duty cardboard box and should be transferred to a sturdy dust-proof and moisture-proof container for storage (Figures 4 and 5).

Inspectors have seen milk filters stored in close proximity to open containers of livestock medicines, which could lead to contamination of milk. In fact, one case of a positive inhibitor detection was probably caused by contamination of milk filters that were improperly stored. Filters should never be stored in a cabinet or fridge containing drugs or medicines.



Figure 5: Another example of a dust-proof, water-proof filter storage container.

PROPER MILK FILTRATION (CONT'D)

MIKE FORAN, DAIRY FOOD SAFETY PROGRAM

Changing Milk Filters

Producers with plate coolers are advised to change their milk filters after milking is completed and before the pipeline wash to avoid washing equipment with a dirty filter. Installing another clean filter prior to the next milking ensures any debris caught in the wash cycle will not impact the quality of subsequent milkings.

Producers that do not have a plate cooler should remove the in-line filter before starting the wash. The filter holder / spring can be washed in-line or left in the wash sink depending on the type of gasket used to connect the pipeline for wash. Do not wash with a filter in place, particularly a used filter. Filters can reduce the flow in the discharge line during the wash cycle and reduce cleaning effectiveness.



Figure 6: Care should be taken to avoid contamination when installing a new filter.

Although installation is second nature for experienced producers, there are a few points to keep in mind:

- Care should be taken to avoid filter contamination. Make sure hands are clean or clean gloves are worn when changing filters (Figure 6).
- Some producers choose to wet the filter (i.e., dip in wash sink sanitize solution) prior to installation to help the filter slide into the pipeline easily.
- Milk filters are intended for single use. Attempting to re-use a disposable milk filter will reduce milk quality.

Milk Filter Disposal

After each milking, filters should be closely examined for abnormalities. A good practice is to thoroughly rinse the milk filter to remove any residues prior to disposing the filter in a garbage can. Even a rinsed milk filter can attract flies and become a fly breeding area so used milk filters should be removed from the milk house regularly.

PROPER MILK FILTRATION (CONT'D)

MIKE FORAN, DAIRY FOOD SAFETY PROGRAM

Interesting Irish Study

A 2013 study conducted by the Food Safety Authority of Ireland (Raw Milk and Raw Milk Filter Microbiological Surveillance Programme (12NS2), 2015) looked at isolation rates of pathogens (micro-organisms that cause illness) on in-line raw milk filters and the corresponding bulk tank of raw milk. The results (Table 1) indicated a significantly higher detection of pathogens on raw milk filters than bulk tanks thus demonstrating the importance of not re-using milk filters. These findings are consistent with other similar international studies and support the on-going need to pasteurize raw milk to eliminate pathogens and ensure that the milk is safe for consumers. ■

Pathogen	Percentage Detection Rate ^a	
	Raw milk Filters	Raw Milk
<i>L. monocytogenes</i> (detection only)	20% (38/190)	7% (15/208)
<i>Campylobacter</i> spp.	22% (42/190)	3% (6/200)
Verotoxigenic <i>E.coli</i> (O157 and O26) ^b	6% (12/190)	Not Tested
<i>Salmonella</i> spp.	1% (2/185)	0.5% (1/206)
More than one pathogen detected in same sample	8% (15/190)	0 %
^a Percentage value based on numbers of samples tested for each pathogen		
^b Isolates of <i>E.coli</i> O157:H7 and <i>E. coli</i> O26 which had at least one verocytotoxin gene, VT1 or VT2 detected		

Table 1: Overview of pathogen detection rates across samples tested.

References

Raw Milk and Raw Milk Filter Microbiological Surveillance Programme (12NS2)(2015). Food Safety Authority of Ireland.



BODY CONDITION SCORING DAIRY GOATS

MARLENE PAIBOMESAI, AGRICULTURE DEVELOPMENT BRANCH

What is Body Condition Score?

Body condition score (BCS) represents the amount of body reserves an animal has and is an assessment of the amount of muscle and fat covering the body. It is an important indicator of animal health and welfare giving a dairy goat producer the ability to identify animals that are either under or over body condition earlier preventing further complications.

How Do I Body Condition Score?

There are a few different scoring systems that use different scales to express the body condition of a goat. The most commonly used scale is a 5 point scale which classifies goats as very thin (1), thin (2), normal (3), fat (4) or very fat/ obese (5). Does need to be restrained and palpated to give an accurate BCS. Palpation of the sternum and lumbar region, as shown in Figure 7, are also necessary for accurate BCS. Proper training and practice will allow you to body condition score animals in a consistent way. There have been some attempts to develop a way to body condition score animals visually. Visual body condition scoring is quicker, but lacks the accuracy that you get from palpating does to determine BCS. It is recommended to use touch to assess BCS at the sternum which is the breastbone of the goat and lumbar vertebrae which are located right behind the ribs and contain the spinous and transverse processes. Langston University has developed some resources to show you how to body condition score (<http://www2.luresext.edu/goats/research/bcshowto.html>). Additionally, Figure 8 which is adapted from Vieira et al., 2015 shows the body composition of the different BCSs and what you should feel to classify the animal.

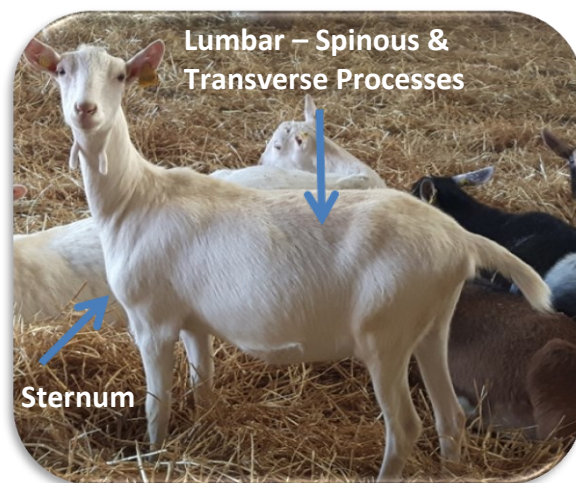


Figure 7: The lumbar vertebrae region which contains the spinous and transverse processes of the spine right behind the ribs and sternum region are palpated to determine the body condition of a dairy goat.

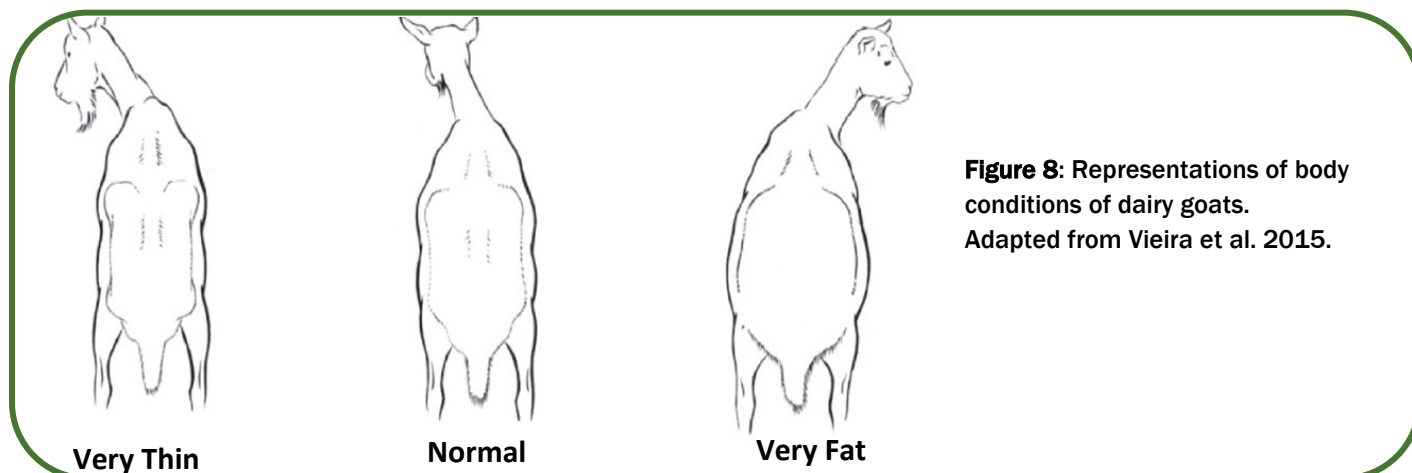


Figure 8: Representations of body conditions of dairy goats. Adapted from Vieira et al. 2015.

BODY CONDITION SCORING DAIRY GOATS (cont'd)

MARLENE PAIBOMESAI, AGRICULTURE DEVELOPMENT BRANCH

What should I be targeting for?

The objective of body condition scoring is to target and maintain BCS of your does at different times during production. Some important points in time to body condition score are at dry off, kidding, and peak lactation. BCS will fluctuate according to the stage of production, productivity of that doe and if the doe is carrying a single versus multiple kids. It is recommended that does should have a BCS greater than 2.5 and less than 3.5 at dry-off, greater than 2.75 to less than 3.5 at parturition, and no less than 2.5 at peak lactation. Figure 9 shows an example of a doe and how her BCS may change through the production cycle (Koyuncu and Altineckic, 2013).

Does that are too thin throughout gestation (less than BCS 2) will have low milk production and reproductive issues at breeding in the next lactation. On the other hand a doe that is over condition (BCS great than 4) can suffer from metabolic disease (i.e., pregnancy toxemia), reduced efficiency and may have difficulties kidding.

Body condition scoring is useful when done on a routine basis as it identifies does that need attention and helps manage feeding strategies and nutrition on the farm. Change in one BCS can mean a 3-5 kg change in body weight depending on the stage of pregnancy (Koyuncu and Altincekic, 2013). Changes in BCS in an animal may indicate a change in that animal's health status and nutritional status. Following the BCS of a group throughout the production cycle can help you understand how body condition changes according to milk production and stage of gestation giving you a tool to make better nutritional decisions and may help to prevent metabolic disease. ■

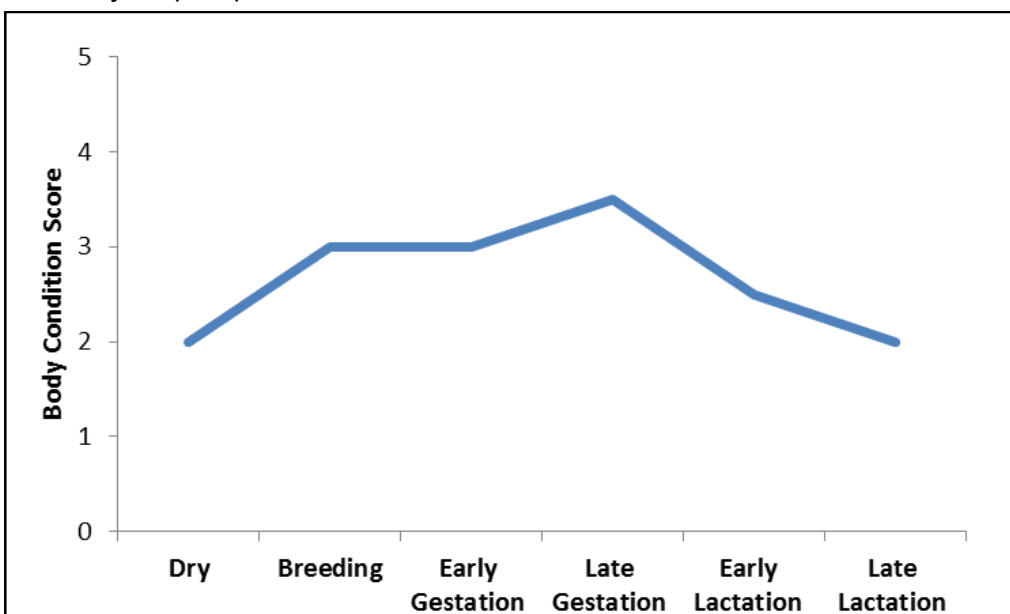


Figure 9: An example of the change in body condition over the production cycle of a dairy goat.

BODY CONDITION SCORING DAIRY GOATS (cont'd)

MARLENE PAIBOMESAI, AGRICULTURE DEVELOPMENT BRANCH

References:

Vieira A., et al. 2015 Development and validation of a visual body condition scoring system for dairy goats with picture-based training. J. Dairy Sci. 98:6597-6608.

Koyunca M., and S. O. Altincekic. 2013. Importance of body condition score in dairy goats. Maced. J. Anim. Sci. 3(2): 167-173.

Villaquiran, M. et al. Body Condition Scores in Goats. Langston University American Institute for Goat Research. http://www2.luresext.edu/goats/research/BCS_factsheet.pdf.

SCUR HORNS ON DAIRY GOATS

Occasionally 'scur horns' will regrow after disbudding. Scur horns should never be allowed to grow in such a way that they touch skin or grow towards the eyes. Producers should be diligent about checking animals for scur horns and are advised to trim them back gradually.



Figure 10: Some examples of 'scur horns' on dairy goats.

CAPTIVE BOLT EUTHANASIA TRAINING COURSES FOR GOAT AND SHEEP PRODUCERS

DR. JOCELYN JANSEN, ANIMAL HEALTH AND WELFARE BRANCH

In 2016, the Ontario Sheep Marketing Agency (OSMA), with support from Ontario Goat (OG), received funding to conduct euthanasia training for Ontario goat and sheep producers. This project focuses on hands-on training of producers on how to effectively euthanize goats and sheep on-farm using a penetrating captive bolt pistol. The decision to train using a captive bolt is an important one as some producers do not have firearms on-farm and/or are not comfortable using them to euthanize animals. To date, four training courses have taken place, three in Guelph and one in Kemptville, with 80 producers being trained. Feedback from participants has been extremely positive. The remaining two training courses (for 30 additional producers) will take place in late summer / early fall at the University of Guelph. There is a fee to take the course and interested goat and sheep producers will be asked to fill out a short application to participate and should contact the Ontario Sheep Marketing Agency at general@ontariosheep.org to get the application.

Training Includes:

- providing producers with information on how to make the decision to euthanize a goat/sheep,
- acceptable and unacceptable methods of euthanasia,
- additional requirements when using a captive bolt (secondary steps),
- how to safely use a captive bolt pistol,
- how to properly maintain a captive bolt pistol,
- the opportunity to practice on goat and sheep heads (visualize external landmarks specific to the species), and
- the development of a herd/flock specific euthanasia action plan.

Upon course completion, producers will leave the session with their own captive bolt pistol.

Culling animals from the herd/flock is part of farming; however, there are challenges with making these decisions. One of the biggest challenges is timing – when to remove the animal from the herd. Making timely culling decisions is best for the welfare of the animal. Waiting too long can result in animal suffering, an animal being unfit for transport (animal welfare issue) and/or being condemned at slaughter. ■



INCIDENTS INVOLVING GOATS AT ONTARIO SALES BARNs AND ASSEMBLY YARDS

PHILLIP WILMAN, FOOD INSPECTION BRANCH AND
DR. JOCELYN JANSEN, ANIMAL HEALTH AND WELFARE BRANCH

In 2016, approximately 63,000 goats moved through Livestock Community Sales Barns in Ontario. Any animal that appears to be compromised, diseased or abnormal is examined by an OMAFRA veterinary inspector. If an animal is deemed unsuitable for sale through the regular auction process, the veterinary inspector issues a “disposition” against that animal. Dispositions are defined in OMAFRA’s Guide to Uniform Disposition of Compromised Livestock and include:

- return to consignor, whereby the animal(s) in question will be returned to the owner,
- ring announcement, whereby all buyers are made aware of any condition that the animal might have, such as recent surgery or ring worm,
- direct to slaughter, where the animal must be slaughtered within a certain timeframe (usually 24 hours) and,
- euthanize.

The Guide is based on Provincial and Federal law, as well as the various Codes of Practice that are published for each animal species.

In 2016 there were 233 dispositions made against goats (this does not include goats that were found dead or euthanized by community sales barn staff). There were 186 goats ordered direct to slaughter, 46 dispositions ordered euthanasia, and 13 goats returned to consignor. The most common reasons for dispositions against goats are lameness, low body condition score (BCS) and mastitis.

Lameness is broken into five classes, with Class 1 being minor and Class 5 being severe (inability to rise without assistance, inability to remain standing). Any animal that shows Class 3, 4 or 5 lameness will be euthanized at the sales barn. Any animal with Class 2 lameness with no other conditions will be sent direct to slaughter. Any animal that has Class 2 lameness and any other condition will be euthanized.

BCS in goats is also broken into 5 categories, with BCS 1 being emaciated and BCS 5 being obese. Any animal with BCS 1 or lower will be euthanized. BCS of greater than 1 and less than 2 with no other conditions will be sent direct to slaughter. If an animal has a BCS of less than 2 and other conditions are present, the animal will be euthanized. ■

Producers are strongly encouraged to review the Guidelines for Transporting Cattle, Sheep and Goats distributed by the Food Inspection Branch, OMAFRA to all goat milk producers. For additional copies of the guidelines please contact Phillip Wilman at 519-826-3746 or phillip.wilman@ontario.ca.

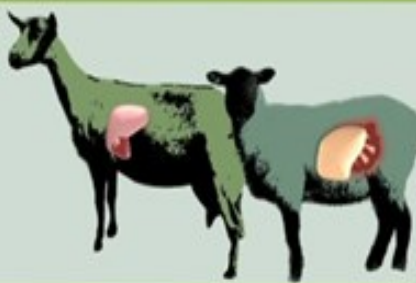
UPDATE : SMALL RUMINANT ADULT MORTALITY PROJECT

FREE POSTMORTEM EXAMINATIONS — FIND OUT WHY ADULT GOATS DIE

DR. JOCELYN JANSEN, OMAFRA; MARIE SPINATO, ANIMAL HEALTH LABORATORY, PAULA MENZIES, ANDRIA JONES-BITTON AND JEANETTE COOPER, ONTARIO VETERINARY COLLEGE

Don't know why your adult goat died? We want to help! The Animal Health Laboratory (AHL), the Ontario Veterinary College (OVC) and OMAFRA have received funding to conduct a study investigating adult small ruminant mortalities on-farm. Adult sheep and goat mortalities are rarely sent to a laboratory for a complete postmortem and veterinarians infrequently perform postmortems on-farm. However, there is value in knowing why an animal died (chronic wasting diseases, metabolic/nutritional diseases, neurological disorders, parasite problems), so that changes can be implemented to help prevent on-going disease. This project seeks to improve the practice of on-farm postmortems, and improve information flow among producers, veterinarians, and pathologists. **The cost of laboratory testing and the postmortem fee will be covered by the project!** In order to learn the most from this project, the project will be requiring a Premises Identification (PID) number on all submissions.

Distance Support for On-Farm Investigation of Adult Small Ruminant Mortalities



If you wish to participate, contact your veterinarian to alert them to the project. We have provided information to Ontario large animal veterinarians about how to register for the project and obtain a postmortem kit from the AHL.

It is important that :

1. The veterinarian has the kit before the postmortem is needed – so act now even if you have no eligible animals,
2. The animal is an adult and died or was euthanized due to an unknown or uncertain condition, and
3. Very importantly - the animal is fresh, i.e. not rotten and not frozen.

Registering premises is quick, easy and free.

⇒ Visit the Ontario PPR website:
www.ontarioppr.com OR

⇒ Call Monday through Friday,
8:30am – 5:00pm at
1-855-697-7743

Information needed to obtain a Premises Identification Number (need to accurately identify the property by providing one of the following):

- Assessment Roll Number (tax assessment number) – preferred method
- Latitude and Longitude GPS coordinates
- Municipal Address of the premises
- Lot and Concession Number of the premises

UPDATE : SMALL RUMINANT ADULT MORTALITY PROJECT FREE POSTMORTEM EXAMINATIONS — FIND OUT WHY ADULT GOATS DIE (cont'd)

DR. JOCELYN JANSEN, OMAFRA; MARIE SPINATO, ANIMAL HEALTH
LABORATORY, PAULA MENZIES, ANDRIA JONES-BITTON AND
JEANETTE COOPER, ONTARIO VETERINARY COLLEGE

The project began May 2017. Details of the project can be found at <https://www.uoguelph.ca/srmort/>
Please note that only veterinarians licensed to practice in Ontario and who provide veterinary services to Ontario sheep and goat farms are eligible to enroll in the project. The farming operation **must** be raising animals for meat, milk or fiber, i.e. pets and hobby farms are not eligible. **Please contact your veterinarian for more details and to ensure that they have requested a project account.** ■

This project has been funded by the Agri-Food and Rural Link KTT Funding Program, part of the OMAFRA-U of G Partnership; and the Ontario Animal Health Network.

NEW DAIRY FOOD SAFETY PROGRAM MANAGER

Dr. Robert Blenkinsop became the Dairy Food Safety Program manager on October 11, 2016. Robert comes to the program with a strong background in food science and food safety.

Between 2007 and 2016, Robert served as the Horticulture Food Scientist in the Food Inspection Branch, providing scientific and technical leadership to a wide range of ministry projects relating to the safety of foods of plant origin. He led the development and implementation of a variety of scientific studies assessing food safety risks at both the farm and processor level.

Robert has previously taken on short-term managerial assignments at OMAFRA, in the Food Inspection Branch's Food Safety Science Unit, and in the Agriculture Development Branch's Horticulture Crops Unit.

Prior to joining OMAFRA in 2007, Robert worked in the food processing industry as an R&D scientist for a global food manufacturer, where he led a number of North American product and process development initiatives. He holds a Ph.D. in Food Science from the University of Guelph. ■



BACTOSCAN TEST RESULTS: 12 MONTH AVERAGES

JEFF PERKINS, SCIENTIFIC SUPPORT ANALYST, FOOD SAFETY INFORMATION MANAGEMENT UNIT

Month	Samples Tested	<100 ibc/ mL	101-320 ibc/ mL	>320 ibc/ mL	% <100 ibc/mL	% Compliant
7/16	258	167	59	32	64.7%	87.6%
8/16	260	167	63	30	64.2%	88.5%
9/16	260	148	87	25	56.9%	90.4%
10/16	261	155	87	19	59.4%	92.7%
11/16	262	146	96	20	55.7%	92.4%
12/16	256	136	101	19	53.1%	92.6%
1/17	256	137	96	23	53.5%	91.0%
2/17	262	133	93	36	50.8%	86.3%
3/17	272	145	93	34	53.3%	87.5%
4/17	280	156	90	34	55.7%	87.9%
5/17	291	174	83	34	59.8%	88.3%
6/17	280	185	81	32	66.0%	95.0%
Average	267	154	86	28	57.8%	90.0%

Table 2: Distribution of goat milk Bactoscan results for the period of July 2016 to June 2017. This table represents bacteria test results (using the Bactoscan) for regulatory goat milk samples (1 per month) collected from each dairy goat farm over the past 12 months. “%Compliant” figures represent the percentage of samples that met the regulatory standard of less than 321,000 ibc/mL. The columns of less than or equal to 100 (≤ 100) ibc/mL illustrate that the majority of goat milk producers are shipping milk with very low bacterial levels.

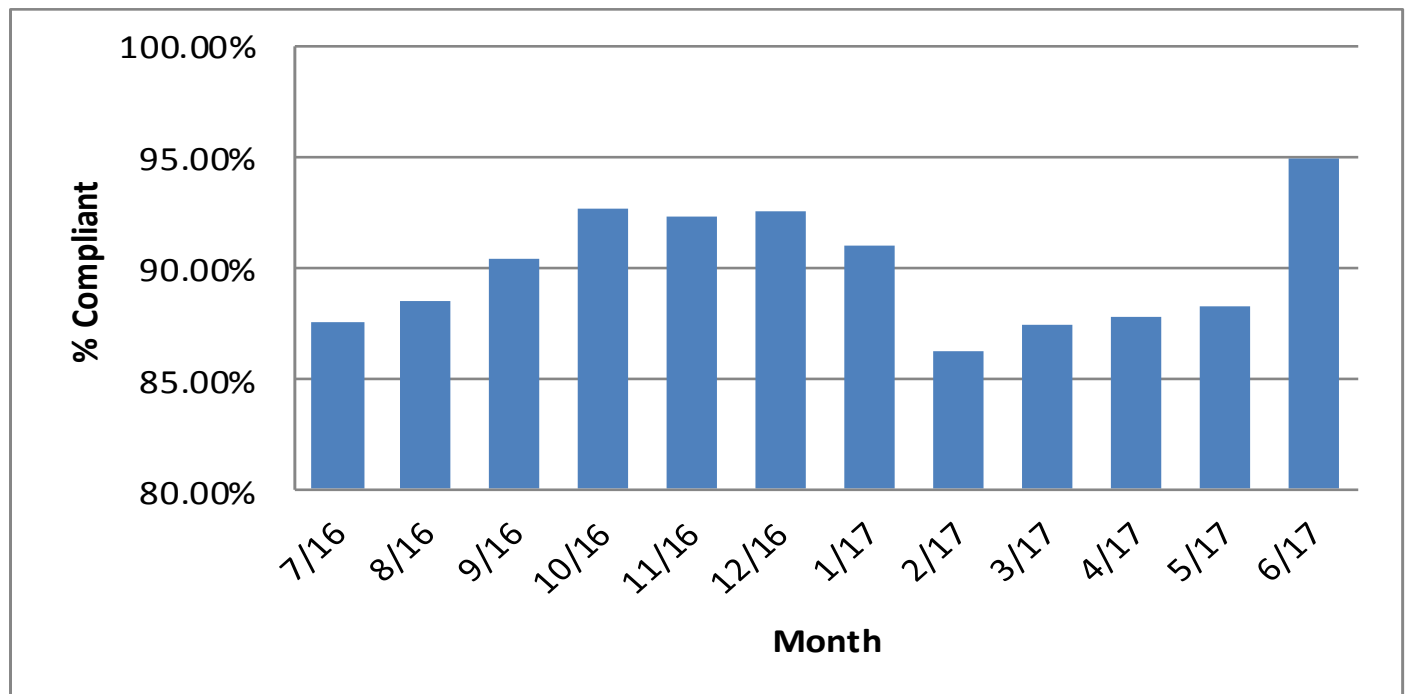


Figure 11: Goat Milk Bactoscan Results - Percentage of Producers Compliant ($<321,000$ ibc/mL).

SUMMARY OF RAW GOAT MILK TEST RESULTS

JEFF PERKINS, SCIENTIFIC SUPPORT ANALYST, FOOD SAFETY INFORMATION MANAGEMENT UNIT

Month	Bactoscan	% Fat	Freezing Point	% Protein	Somatic Cell Count
7/16	83,000	3.41	-0.542	3.17	1,052,000
8/16	83,000	3.37	-0.541	3.13	1,132,000
9/16	84,000	3.53	-0.544	3.23	1,231,000
10/16	88,000	3.80	-0.548	3.43	1,370,000
11/16	94,000	4.02	-0.549	3.61	1,486,000
12/16	101,000	4.10	-0.549	3.37	1,593,500
1/17	105,000	4.13	-0.549	3.66	1,606,000
2/17	104,000	4.14	-0.549	3.61	1,506,000
3/17	102,000	4.13	-0.546	3.53	1,356,500
4/17	94,000	3.93	-0.546	3.42	1,232,000
5/17	89,000	3.72	-0.546	3.33	1,150,000
6/17	84,000	3.50	-0.545	3.22	1,133,000
Average	93,000	3.80	-0.546	3.39	1,293,000

Table 3: Goat Milk-All Test Result Averages (Medians).



DAIRY FOOD SAFETY PROGRAM

- **Robert Blenkinsop**
Manager
519-826-4378
- **Brenda Norris**
Dairy Regulatory Analyst
519-826-4684
- **Darlene Shewen**
Administrative Service Representative
519-826-4583
- **Phillip Wilman**
Raw Milk Quality Program Coordinator
519-826-3746
- **Mike Foran**
Raw Milk Specialist
519-826-4061
- **Peter Maw**
Raw Milk Specialist
519-826-5996
- **Arnold Brittain**
Raw Milk Specialist & Dairy Plant Specialist
631-933-8801
- **Rick Bond**
Dairy Food Safety Advisor
519-826-4089
- **Kim Conway**
Dairy Plant Specialist
519-826-4381
- **Gireesh Raina**
Dairy Plant Specialist
519-826-3039
- **Kevin Cook**
Summer Experience Student

FOOD SAFETY SCIENCE UNIT

- **Bruce Keown**
Dairy Food Scientist
519-826-3869

INFORMATION MANAGEMENT UNIT

- **Jeff Perkins**
Scientific Support Analyst

LEARN MORE!

For more information on getting started milking goats, goat farm inspections, grading and transportation of goat milk, and much more visit the Dairy Food Safety website page at:

www.ontario.ca/bw92

More information on nutrition, business management, marketing, production, and breeding goats is available at: www.ontario.ca/cbgk

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