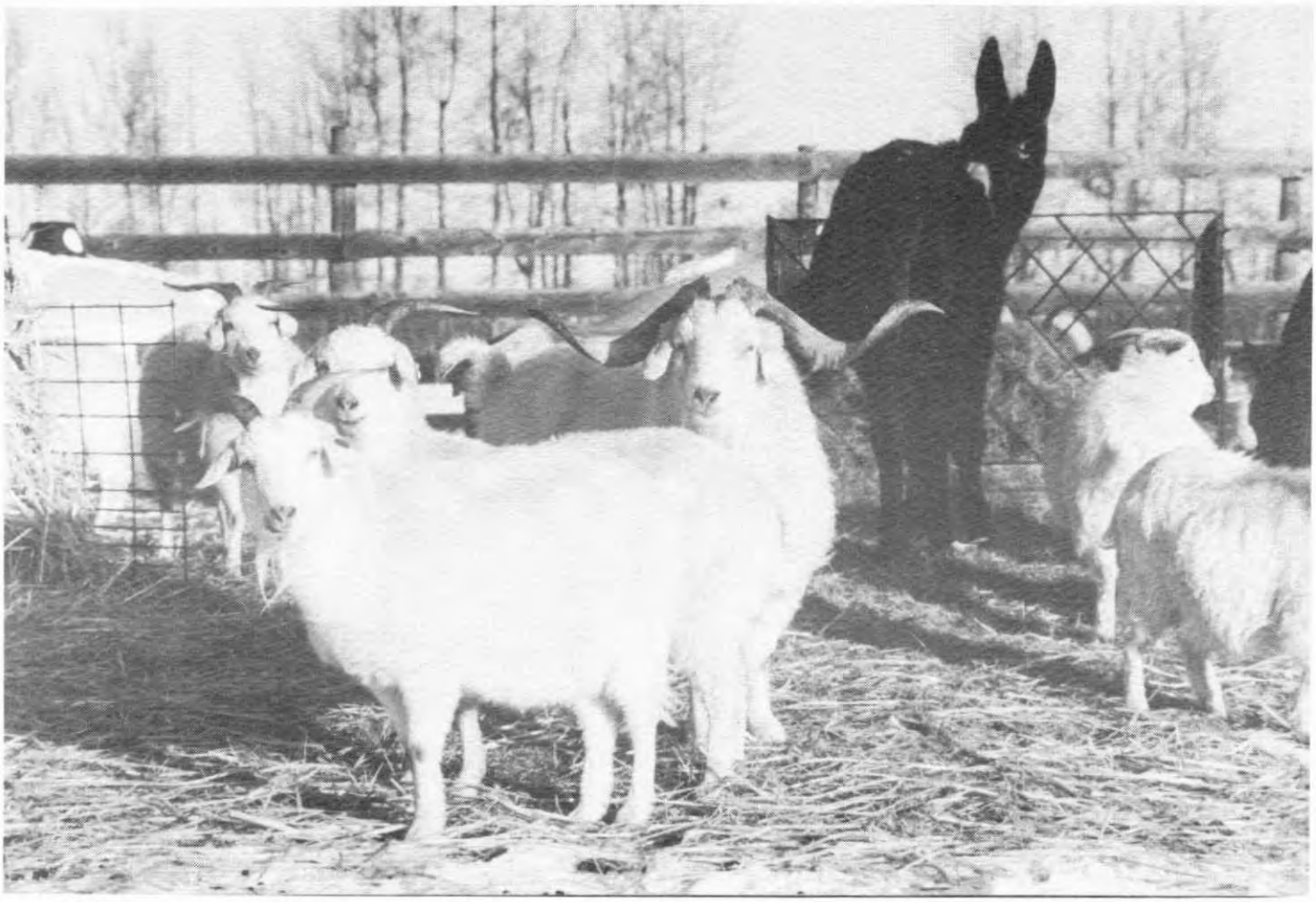
# CASH MIRROR

Volume 9, Issue 5 March 1998

The monthly magazine devoted to cashmere goats and their fiber



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# CASHMIRROR

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## Legal Drivel

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The *CashMirror* welcomes contributions of articles and photographs. Submissions may be made by mail, fax or e-mail.

No responsibility will be taken for material while in transit or in this office, although we will certainly be real careful.

**Cover photo by**
**Gerry and Pat Fuhr**
**Giant Stride Farm, Onoway, Alberta, Canada**
**Squash (the donkey) and Strider (the big boy) guard the girls.**

# Reflections

**by Linda Fox**

The Spin Cycles

Spinning starts out innocent enough. It sounds interesting, you research spinning wheels, find one you like and learn the basics. You learn to spin a basic yarn, learn to ply and turn it into a skein. From this point, your spinning will take you on a journey through several stages on your way from a person with a spinning wheel to The Spinner.

The first stage of spinning is the **Collecting Stage**. This time period occurs early in your spinning experience, where you accumulate a respectable quantity of spinnables. This is required so that you will have something to talk about with other spinners. At this stage, you want to try it all. You want to spin everything you can find from the finest angora rabbit to the coarsest buffalo hair. You don't necessarily try it all as you go, you just buy fiber to try some day. You justify expenditures for your experimental stash of fiber as an educational need. To hone your skills and focus on what you will eventually spin, you need it all, in your own home.

As long as space and funds permit, you will accumulate various-sized bags of this and that. Some of it will be raw fleece, as you have yet to obtain a perspective on just how much time you will take away from your spinning for washing, skirting and carding raw fleeces. A lot of your stash will be ready-to-spin stuff, purchased at various fiber events and stores across the country. In this stage, you won't actually spend much time spinning as you will be too busy hunting down and visiting every fiber store and show in your own and surrounding states.

You will also accumulate hand cards of various sizes, numerous books and magazines and possibly some combs and a drum carder, depending on your discretionary budget.

The second stage of your spinning life is the **Organizing Stage**. You will spend time sorting your bags of fiber, often necessitating moving it from one room to another as the stash builds. You will realize that you need additional equipment and more knowledge to spin things in your stash—such as those three orange boxes of alpaca that you bought at an extremely good price. You may invest in more equipment, such as an Ahsford lace flyer, which you think you will prob-

**Continued on next page**

## Help!

**4-H club needs a qualified person to judge our**

**Cashmere Show**

Held at our local Grange Fair, August 12th to 16th, in Wrightstown, Pennsylvania
Just 30 min. north of Philadelphia

Call: Ralph O'Banion
215-598-7627

E-mail: phcashme@voicenet.com

## Correction!

To National Western Stock Show
Cashmere Goat Awards
For Show Date January 15, 1998

The winners of the first three places for Class 006, Milk Tooth Doe Kids, should have been listed as follows:

1st: SMR Brio, Smoke Ridge Cashmere
Choteau, MT
2nd: Capcas #P8550, Kris McGuire, Laramie, WY
3rd: Comet, Erinn Kromer, Calhan, CO

The winners listed in last month's issue for this class were incorrect.

**Reflections**
**Continued from previous page**

ably need when you actually get to that huge box of fine Shetland wool which you intend to turn into an elegant ring shawl some day.

You will definitely take more classes during this period. Perhaps a class in spinning fine fibers, so you'll know what to do with that bag full of slippery angora. You might indulge in some intermediate and advanced spinning classes. You have the equipment and the supplies to spin and now need only add a little more knowledge and your (by now, quite expensive) stash of spinnables will be quickly turned into lovely and unique works of fiber art. You know that after you really get into this thing, you will no longer spend money on gifts or clothing for yourself or your family over many years to come. The rewards, when they come, will far exceed your pay-outs to date.

An optional stage, which occurs between the second and third, is wisely avoided by some spinners. It is the **Weaving Digression** and involves a digression into weaving equipment and supplies. A (potential) spinner may realize that her end products will not be knitted or crocheted, but woven. During the Weaving Digression, additional (expensive) weaving equipment and basic knowledge will be obtained to enable weaving of the spun products. I have no first hand knowledge of this stage as I felt the tug, but avoided the path.

The third stage is the **Reality Check**. Perhaps you arrive at this stage on your own and perhaps a less-than-indulgent partner shoves you into this stage with some embarrassing questions, such as, "I don't remember what color the living room carpet was," or "Could you clear a path to your daughter's bed, please?" or "How on earth has your Visa bill climbed to $4,000?" Either way, this stage is where you take stock of it all. You might get rid of some (a small amount) of your stash. More likely, you will focus somewhat on your goals and maybe even start a project or two. You will, in this stage, stop accumulating equipment and fiber, for the most part. You will have occasional relapses, but you won't go out weekly looking for new stuff to spin.

The fourth stage is the **Experimental Stage**. You will actually spend a lot of time spinning. You will spin a skein or two of the Navajo Churro, an ounce or two or cashmere, wash and spin a little of your own Suffolk (just because somebody told you that you couldn't), and even spin a little merino blended with a little angora on your drum carder. Silk is slippery, but nice. You spin some silk (both Tussah and Bombyx) and ply it with cashmere. You note that Qiviut is gorgeous; you spin it fine, to get maximum quantity. Nice, but cashmere comes in more colors. Cotton isn't as hard to spin as you'd heard, but it looks a little lifeless hanging next to the silk/cashmere skein.

As you near the end of the fourth stage, you will gaze around your home and find you have yarns of every size and weight hanging from every lamp, banister and chair back you can see. You will also note that you don't have enough of any one yarn to complete any project larger than a bulky Barbie sweater. You realize that you have to come up with an acceptable method of using all your experimental yarns (I put mine in Christmas knitting baskets for my nieces). You also decide that, in the future, you need to decide on a project **before** you begin spinning.

The next stage is the **Partial Project Stage**. Here, almost a full-fledged spinner, you actually decide on a project, select your fiber and purposefully spin with an end goal in mind. You spin green-dyed Tussah silk and ply it with gray cashmere and you actually knit on a sock...until you run out of yarn. You'll go back to that later...and then you spin several skeins of commercially-dyed merino and knit half of a sweater... until you run out of yarn. You spin a little Qiviut (you only bought a little) and knit part of a scarf...until you run out of yarn. You'll go back to that later...and then you spin...you see the drift here. After several months, you notice that your knitting bags and baskets are full of partially-completed projects. As you try to go back and spin similar yarns for your half-completed projects, some of which matching colors of the raw fiber are no longer available, you begin to see the value of completing the spinning of your yarn before you start to knit.

The next, and final stage, is the **Completed Project Stage**. In this stage, you have acquired the full wisdom of an experienced spinner. You normally spin with a purpose. You dutifully plan for a project and spin up your full requirement of yarn before touching your knitting needles. You have occasional relapses, of course, but for the most part, you will have completed projects to show for your time. At this stage, you will decrease your supply of fiber as you get rid of those items you realize you have no interest in spinning.

And when/if I ever get to this stage, I'll let you know.

# When to Evaluate??????

**By James Barton**
**Bar Y Ranch**
**Sonora, Texas**

**James Barton**

For a long time I have had a problem. I would go out and look at my animals, and think, "Look here, here is my new breed buck kid!!" He stands good, well boned, wide front/back, good heart girth, wide loin, nice neck and NOT cowhocked!!

Here is where my problem comes in. All anxious, I would pull my first fiber for a closer look. The fiber was a little tight when I pulled it. I would then hold it up to the light, and what I would see was not nice enough. So...I would pull 3 or 4 more samples, and it would all be the same. The fiber would be fine enough, but the character or style was not what I wanted.

Being the waging person that I am, I bet a lot of growers have done the very same thing. I would forget about it for a while, and next thing you know it is shearing time. Here again I would pull fiber, write down what I saw and then shear the goat. Later on after shearing I would be looking at the same fiber that I pulled and guess what I found? Something totally different!! I begin to wonder if I did not write down the right ear tag or what. I had made a mistake somewhere!!

The next year has rolled around and again the goats are in fleece, and again I start pulling fiber on these yearling bucks or even the 2 year olds. Again the style is not what I want. At this point after shearing the animals are pulled and sold for meat goats.

While classing my own fiber again, I find fiber I like and know I did not make a mistake on the ear tags or animal identification. I start to ponder my problem. Working with my goats and those of other breeders I would class their fiber like always. Pulling fiber, make my evaluation, and write it down. Then I would shear the animals and reevaluate them after shearing. I have come up with some startling finds:

1) On the fiber that pulled easily from the skin I made a good evaluation.
2) On the fiber that did not come out as easily, I found differences.

So, I started shearing the animals BEFORE making my analysis on them, and in my opinion, am making much better decisions about my animals and my breeding program. I am proud to say I am not going nuts, I don't think...

I am writing this little story so that some other growers may want to try this. I really suggest you do so you will see the difference for yourself. If you are concerned about just fiber analysis, before you shear your goats, you might use something like a mustache trimmer or a dog groomer to take some samples. In fact, I am thinking about using a trimmer when I am judging in a show instead of pulling the fiber. I feel I would make a more accurate evaluation.

**Thoughts Behind the Theory**

If my theory was not clear before, let me explain my train of thought. The main theory behind trimming the cashmere fiber on goats for fiber evaluation verses pulling the fiber, is that when the fiber is pulled, or plucked from the skew, it tends to loose its memory. The character, style or crinkles as some people put it in the fiber. Memory can be referred to as the elasticity of the fiber, or when the fiber returns back to its original state—If it does after it is pulled.

The stress of the fiber when pulled makes the fiber loose its style in some cases. My main point behind a lot of this is, "Why take any chances?" By trimming the fiber instead of pulling it, or by evaluating the fiber after it is shorn reduces the chance of damaging or altering the original fiber. The use of a mustache trimmer or a K-9 groomer is easy due to the portability of a cordless unit.

I would be interested to see the if there is a differences in samples of trimmed fiber off goats that have been combed. I am not saying that combed fiber may have damaged style. A lot of the combed fiber I see is very nice.

What I am suggesting is easy to do, so why take any chances? In my opinion it is important to make the best analysis possible of your fiber, what ever the means.

# Objective Measurement of Cashmere And its Role in Breeding Programmes

By Dr. Margaret Merchant, MLURI, Scotland, UK

The value of cashmere is determined by a whole range of characteristics which in the past were evaluated by the eye of an expert with many years of experience in the trade. The task was, and still is, to assess the amount of usable cashmere available in the undercoat, to determine the quality and the potential end use of cashmere and to estimated the cost of processing it into the finished product. Characteristics of cashmere which are assessed include:

- Diameter
- Length
- Colour
- Lustre and crimp (style and handle)
- Strength
- Yield (amount of cashmere af ter dehairing and scouring the raw fibre)

The variability in each of these components is also important as is the character of the guard hair which should be long and coarse for easy and effective removal and to protect the undercoat while in situ.

Objective measurements for many of these traits have been established and developed into IWTO (international Wool Testing Organization) specifications (the main exceptions being colour and lustre) which buyers rely upon increasingly to purchase fibre. Objective measurements also provide the means by which the requirements of the trade can be translated into goals for the producer and breeder.

The differential in the price paid for cashmere is variable but is always in favour of fine white cashmere with high crimp and low lustre and the production of such high quality fibre must be the ultimate goal of European cashmere breeders. However, the breeder has the additional task of increasing annual production per head since financial returns are determined not only by price/kg, but also by weight produced. Fibre traits such as fibre diameter and annual production, in cashmere goats are very strongly inherited (Sumner and Bigham, 1993; Bishop and Russel, 1996) but there is, as in other fibre producing species, a positive relationship between fibre diameter and fibre weight which prevents concurrent improvement in annual production and fibre quality. Devising a strategy to overcome this problem is the current challenge for researchers and breeders alike, but most breeders or even breeding groups in Europe currently operate on a small scale limiting the amount of information available and progress which can be made. One important aim of this Thematic Network, which is to be commended, is to establish common protocols for fibre analysis so that performance records from herds across Europe can be merged into a common database for the eventual benefit of all participants.

In any breeding programme, the rate of genetic progress is faster with selection for fewer traits in larger numbers of animals. In the past, the hand separation of patch samples to determine cashmere yield and estimate annual production, and the projection microscope technique for the measurement of fibre diameter, was expensive in terms of time and money. It limited not only the number of traits which could be measured but also the number of animals which could be tested. With the use of OFDA, we can not only measure fibre diameter more accurately, but we can also measure yield (Herrman and Wortmann, 1997) in a fraction of time, sparing resources to measure other traits such as length, colour and crimp, which can be included in the cashmere database.

With the best European cashmere goats, currently producing 250g of hosiery or 300g of weaving quality cashmere, and the average goat producing closer to 100g, selection for increased annual production of cashmere under 18.5µ, using measurements of yield and diameter, is likely to be a priority for the foreseeable future. However, information in the database will enable us to develop efficient selection strategies for other traits, if these become important. The first step is to decide what we want to measure and to establish a common protocol and standard of measurement. The data is only as good as we make it.

References

Bishop, S.C. and Russel, A.J.F., 1996. The inheritance of fibre traits in a crossbred population of cashmere goats. Animals Science 63: 429-436.

Herrmann, S. and Wortmann, F.J., 1997. Opportunities for the simultaneous estimation of essential fleece parameters in raw cashmere fleece. Livestock Production Science 48: 1-12.

Sumner, R.M.W. and Bigham, M.L., 1993. Biology of fibre growth and possible genetic and non-genetic means of influencing fibre growth in sheep and goats-a review. Livestock Production Science 33: 1-29.

# Marketing

## Your Cashmere Goats

By Miriam Jeswine

This article was originally printed in the May 1991 CashMirror. We won't normally reprint old articles, but we felt that this one contained good information that would be worth repeating...

Marketing is more than advertising and selling. It includes a wide variety of other activities: goal formation, information gathering, market research, graphic design, customer knowledge, customer service and more.

Before you sell something to someone, you have to know what you are selling and to whom you are selling. Dumb, you say, I obviously am selling the best Cashmere goats to anyone who will buy. But wait a moment. First, what do you mean by best? Best may mean one thing to you, and quite another to your prospective customer. This questions ties closely with your breeding goats. Start by listing your goals. Here are some things to think about. Notice that some of the items on the list are contradictory. You cannot do them all, nor can you have all things for all people.

Some Breeding Goals

1. Big meaty goats with heavy clipping fleeces of 18 micron.
2. Sixteen micron fleeces at age 5.
3. High yield fleeces.
4. Long guard hairs to defend the down against the brush.
5. Strong differentiation between guard hairs and down, so that you can separate the two fiber types easily.
6. Primarily commercial-grade goats which may pro duce maximal dollars per head, but not necessarily reproduce their own traits.
7. Breeding stock so prepotent that you can say with confidence that a sire from your herd will pass certain traits on to his offspring.

Before you can do a good job of marketing Cashmere goats, you have to be clear in your own mind just what it is that you are offering to the market. When you are clear about your breeding goats, and you have begun to see some progress toward achieving them, then you can say with more certainty who is the likely customer for your animals.

Use your list of breeding goals to list the potential customers. What are the customers' needs? What need might be filled by this type of animal? Who is going to be interested in the big, meaty animals with heavy 18 micron fleeces? Who will be looking for the superfine fleece goat? Will a person marketing primarily to handspinners look for a certain type of fleece? Who wants to emphasize dollar production rather than a breeding program? Who will be looking for a prepotent sire to use in a breeding program and what kind of sire might that be? One goat, or one flock cannot meet all those customer wants and needs. Once you know what you have and what your customers want, then you can tailor your marketing efforts toward the desired goal of sales by matching what you have with the needs of the customers.

Admittedly, in these early years of the Cashmere business in the United States, there is no consensus on goals for American Cashmere production. The fleece buyer, Hugh Hopkins, has stated repeatedly that he wants fine, under 16.5 micron, long staple, 1-1/4 inches long or more, crimpy, dull, good style. On the other hand, you hear people arguing that meat production is going to yield more dollars to the producers, and that fleece sales are frosting on the cake. Whichever side of the discussion

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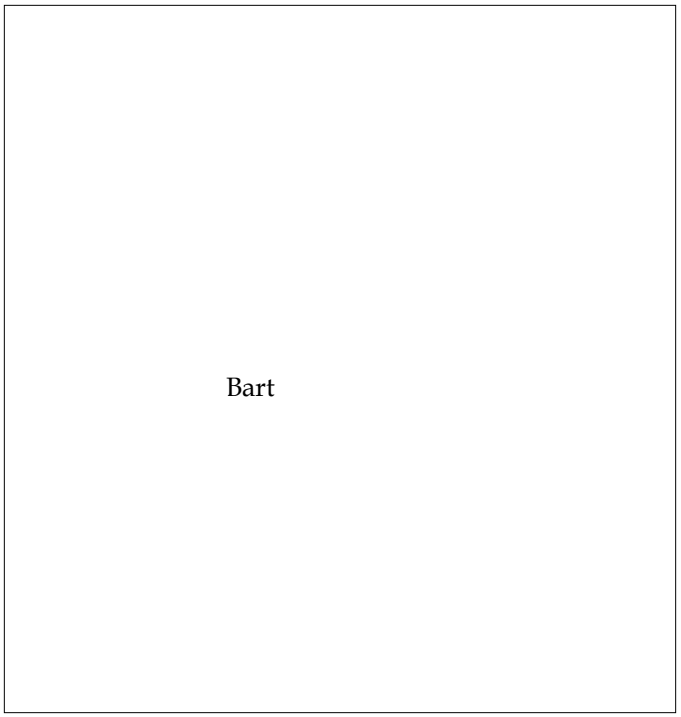
**Marketing**: The aggregate of functions involved in transferring title and in moving goods from producer to consumer, including among others buying, selling, storing, transporting, standardizing, financing, risk bearing, and supplying market information.

*Webster's New Collegiate Dictionary (1951)*




**"You want me to buy a *what!*??"**

## Marketing
**Continued from previous page**

you come to agree with, you can formulate your own goals and pursue them, confident that you can develop markets for your animals. It may be that two regional types of goats will evolve. In areas where markets for meat animals are strong, the emphasis may be on meat with fleece as a by-product. In other areas, the emphasis may be on superfine fleece production. Right now, there are a lot of buyers out there who do not know what they want, only that they want Cashmere. That is good and bad. The good is that they might be buy almost anything. The bad is that some of them may buy animals that aren't really producing Cashmere, or producing adequately, and those buyers are going to be sad and disillusioned. Potential Cashmere breeders are not appropriate customers for culls that should be sold for meat. The short term profit may be more, but the long term damage to your reputation and to the industry will cancel out any short-run gain.

Customer relations are important, not only before the sale, but after as well. This is an important but often overlooked part of marketing. A happy customer will come back, buy more and recommend you to others. An unhappy customer will not say anything to you, but certainly will to everyone else within earshot, canceling the effects of your advertising efforts. Many businesses have been built on word of mouth, and that is the best kind of advertising there is. People do business based on recommendations from other people. Customer relations are excruciatingly important. Treat your customers right and the benefits will come tack many times over.

Part of the pre-sale relations is how you handle inquiries from prospects. If you respond to inquiries promptly, and take the time to make it a personalized response with real answers to questions the prospect asked, you will establish yourself as a person who cares about your business and about your customers. I have written inquiries in response to expensive ads in magazines and gotten no reply, or gotten a reply that did not address my questions. I don't have to do business with unresponsive people, and neither do your customers. Besides, you waste your advertising dollar if you alienate the customer right away. A good first impression in the form of prompt, polite, thorough response to inquiries is essential to good relationships.

Good customer relations include your services. Provide full information about the animals you are selling, including full fleece information, not just the diameter on the first fleece. Provide also full health and, if appropriate, production information. See that goats are healthy before they leave your care. Deworm, delouse, trim feet and do whatever else is necessary to assure a customer that you care about their business. If you are providing buck service, it helps to offer boarding in a private pen as well. Including unlimited services for the same fee during the breeding season is another good policy. Finally, financing services can be a good marketing tool. Talk to your bank about setting up to take charge cards. The fees are relatively modest, and you may be able to get cash in a situation where a sale hangs on whether credit terms are possible. Another benefit is that you do not have to worry about collecting: you pass the risk on to someone else.

Once you have thought about what you have to offer the market, identified the kid of person who wants what you have, and decided how much time and resources you plan to devote to marketing, you are ready to approach the marketplace with your animals, reasonably confident that you can direct your efforts toward the people most likely to purchase what you have to offer. If your marketing efforts include frankness, honesty and service, you can be sure of repeated sales and good word of mouth public relations. That, in a nutshell, is what people spend years studying, in order to persuade us to buy all sorts of things more amazing than Cashmere goats.

# BEWARE THE GRAIN "HOGS"

## Lactic Acidosis in Goats

**By Paul G. Johnson**

**Grain hogs at the trough**

Lactic or rumen acidosis, (aka acute carbohydrate engorgement) is a different ailment than over-eating disease (Enterotoxemia) or bloat, although all can be fatal in a short period of time.

Acidosis is, as its name implies, refers to too much acid in a goat's rumen. A goat's saliva contains bicarbonate, which keeps the pH levels in the rumen balanced when hay or other forage is eaten. As grains lack the long fibers of forage/roughage, a goat consumes less saliva when eating grains resulting in pH levels dropping in the rumen. Too much grain consumed results in too low of pH and the rumen's bacteria can not cope!

Starches contained in the grains ferment and produce lactic acid. The blood stream picks up the acid, and, if the amounts are high enough, the entire goat's body chemistry is disrupted. Death can occur within two to four days.

All this can happen from eating too much grain. "Grain" herein includes wheat, corn, c.o.b., sugar beet pulp and silage, to name the some of the more common goat food. "Too much" can be as little as half again the normal feeding.

This means the biggest bully/fastest eater is susceptible. Over graining a pregnant or just-kidded doe is a common way for acidosis to occur. Any sudden increase in grain intake will spark acidosis. As it is such a quick killer, one needs to be aware of it.

The normal warning signs include: depression (other than that caused by too much TV news), soft stool or diarrhea, mucous membranes changing from healthy pink to white or pinkish white (check eyelids, vulva, penis sheath), not eating, teeth grinding, muscle tremors, rapid heartbeat/respiratory rates, crying in pain, restlessness (getting up and down) and staggering. Also, dehydration may be a sign. Sunken eyes is an indication of dehydration.

For the adventurous, you can check the heart rate by "... pulling a front leg forward and placing your ear over the chest where the goat's elbow was." Let us know if this works. If you get a heart rate of 90 or higher from a non-excited, resting goat, watch the animal closely for other symptoms. If the heart rate is over 100, call your Vet. If you get a hoof in your ear or eye, call 911.

It has been reported that animals with a heart rate of less than 100 will recover more quickly than one with a count over 120. More precise tests include checking the rumen fluid pH level. A normal pH rumen level is 6.0 and above.

Treatment for acidosis is basically with antacids. First, remove all food except some clean hay for 12-24 hours. Exercise the goat once an hour for 10 minutes or so. Drench with antacids such as sodium bicarbonate (baking soda) or Milk of Magnesia. An adult goat usually needs 15 - 20 grams, although some sources say up to 40 grams. Allow free choice hay or other roughage. Injections of thiamine, other B vitamins and calcium gluconate are commonly listed as treatments as well.

If you have not given vaccinations for C. perfringens types C and D, you should immediately give an antitoxin as the risk of enterotoxemia will be greatly increased under these conditions. Check with your Veterinarian on all treatments!

Rumen washings, rumenotomy and fluid treatments are more advanced treatments which can yield rapid improvements, usually within hours. Rumen washings are done with a stomach tube, with 10-15 irrigations using tepid water. Put the water in until the stomach (rumen) is distended and then allow to drain. Grain must come out with the water to be effective. Fluid treatments include introducing healthy rumen fluids from another animal (goat, sheep, or even cow). Rumenotomy is a procedure best left for a veterinarian unless you are experienced in such matters.

Ways to prevent acidosis include gradual introduction of concentrates such as grain over several weeks. This allows the microorganisms in the goat's digestive system to adjust gradually. Also, spreading out the additional feedings to several times a day can help. Always avoid drastic, sudden changes in a goat's diet.

Whole, dry grain is digested more slowly than cracked or crushed

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**Acidosis**
**Continued from previous page**

grain products, which allows the bacteria in the goat's digestive system to better do their job. Some producers regularly supplement grain with buffers such as bicarbonate of soda or calcium carbonate. Silage, which naturally ferments on its own should have sodium bicarbonate added before being fed.

Always store grain somewhere 100% goat-proof, as theft of grain is the leading cause of this problem!

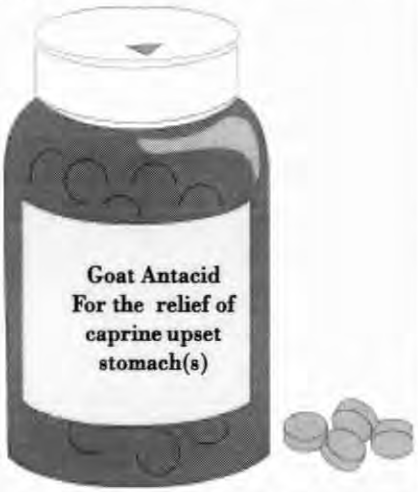
**References:**

National Agricultural Library
Extension Goat Handbook, National Dairy Database, "Grain Overload" by J.L.Ayers, Los Olivios, CA, June 1992,
http://www.inform.umd.edu/EdRes/Topic/AgrEnv/ndd/goat/GRAIN_OVERLOAD.html

Goat Medicine, 1994
Mary C. Smith
David M. Sherman

Goat Husbandry, Fifth Edition, 1993, David Mackenzie

The Merck Veterinary Manual, Seventh Edition, 1991




**Make sure all medications stored in the barn are kept under goat-proof lids.**

# Did You Know?

## Where Does the *Good* Cashmere Come From?

**I wouldn't be caught dead in anything greater than a 4-ply!**

**I wear nothing less than belly-hair next to my sensitive skin!**

You can find detailed (not necessarily true, but certainly detailed) information about cashmere in unlikely places. The September 1995 issue of *Vogue Magazine* contains the following information about cashmere:

**Under the Chin**
The best cashmere comes from under the chin of the goat. These are the rarest hairs and are reserved for only the most exclusive and expensive cashmere garments.

**Chest Hair**
The cashmere on the chest of the goat is almost as rare as that on the chin. It is used for very luxurious cashmere garments only.

**Belly Fuzz**
The belly of the goat must contain a lot of cashmere as this is where the most common *quality* fleece is found.

**The Flank**
The flank of the goat, alas, contains a lesser quality fleece. It is used for blends and private label pieces only.

**Back of the Goat**
Cashmere on the back of the goat is the least desirable. It is to be avoided due to its constant exposure to the elements.

Guess we should have spent more time checking our goats for cashmere on the belly!

The article also notes that cashmere, in its raw state, comes only from goats in the mountains of China and Mongolia. Also, the truly discriminating buyers will buy only Scottish-processed yarn because it's washed in calcium-rich water. Those who know never go for a garment made of greater than four-ply yarn.

Who needs goat magazines to get at the real facts!?

# Texas Cashmere Association International Cashmere/Meat Goat Registry

The Texas Cashmere Association has started a Registry for cashmere/meat goat animals. They have set standards, fees and procedures for registering qualifying cashmere/meat goats within their system. The Registry was started two and one-half years ago and so far, fifty qualifying animals have been issued registration certificates. The information below, concerning the Registry, has been reprinted from the Texas Cashmere News, January-March 1998 issue.

These standards recognize the cashmere goat as a dual purpose (fiber and meat) animal. To qualify for registration, the animals must generally exhibit desirable characteristics for both qualities.
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Standards
These standards are based on a cashmere/meat producing animal. Placing animal shall put fifty percent emphasis on cashmere characteristics and fifty percent on meat characteristics.

Fleece Characteristics
Diameter of cashmere must not exceed nineteen microns. Nineteen microns is considered coarse but if crimp is out to the end it is acceptable. Length of down shall be one inch or more. Body must be well covered. The down cover must exhibit crimp throughout its length. Down may be either longer or shorter than the guard hair and shall be low in luster. There shall be a clear distinction between the diameter of the down fiber and the guard hair. The down fiber is generally non-medullated. All natural colors are desirable (gray, brown, white, and white-white).

Meat Characteristics
Several criteria should be considered when selecting and judging meat goats. These include conformation (structural correctness), general appearance (size and scale, capacity, and depth and width of body) and muscling. The meat goat should have a straight, strong, wide, long, level back with slight sloped rounded rump.

Other Characteristics
The scrotum on the buck/billy should be large and well developed, having two testes. Any split of the scrotum can be no more than 1/3 of the testes in length. The doe/nanny should have a firm udder with well formed teats and genitalia.

International Cashmere/Meat Goat Registry

A. General Aspect
An overall purpose of the program is to create recognition that cashmere producers are seriously developing a valuable dual purpose cashmere/meat goat breed. International Cashmere/Meat Goat Registry standards which place equal emphasis on meat and fiber characteristics will be maintained and become the backbone of the program. These Standards are listed attached as Exhibit 1 (listed above).

An Open Herd Book will be established for a minimum of twenty (20) years. In the event it should be decided to close the book, a two (2) year notice will be given prior to closure. All producers both within and outside the State of Texas, can apply for entry. Qualified animals receiving registration status will be recognized as "Cashmere Breed Goats", regardless of any other breed name they may be going by such as Spanish, Boer, Fainting, imported and others. The success, reliability and credibility of the program depends on the honesty and integrity of all concerned. Every effort will be made to control the registration procedures and the issuance of registration certificates. Those found guilty of intentionally violating any aspect of the program will be disqualified for participation.

Although considerable thought and time has gone into the formulation of the program it is realized that all is not perfect at this time, and modifications will likely be necessary as we gain experience. A standing committee has been appointed to monitor the program and, if needed, recommend appropriate modifications.

B. Objectivity

The immediate objectives of the program are to:
1. Create an awareness among goat producers that registered cashmere breed goats are suitable for upgrading meat production whether the cashmere is harvested or not.
2. Identify superior animals and the herds which can significantly contribute to the improvement of the State's and

**Continued on next page**

## Cashmere/Meat Goat Registry

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the Nation's cashmere and meat goat gene pools.

3. Enhance an added value to registered animals.
4. Generate additional funds for the promotion and development of the breed.

C. Registration Requirements and Categories

Herd Prefix: A herd Prefix (code) must be registered with International Cashmere/Meat Goat Registry. This is a one time only registration. If your Herd Prefix is already registered with another association, it may also be registered with International Cashmere/Meat Goat Registry. A proposed Prefix already registered by another person will be rejected. Because of this possibility, submit your first and second Herd Prefix choices for registration.

Identification and Name: Any animal submitted for registration must be permanently identified with tatoos or microchips. This consists of the Herd Prefix in one ear and the animal number in the other ear. It is recommended that the animal's number be preceded with a letter. "Champion" cannot be used in a goat's name.

D. Permanent Registered Classes

Premier Certified Cashmere/Meat Goat: This is the highest certification status. The requirements are the same as Class A (see class A below). Permanent Registration with 2 exceptions are as follows: Visual inspection of the fleece and animals per seen by (3) inspectors, and compliance with minimum weight requirements as follows:

| Bucks | Does |
|---|---|
| 4 tooth - 130 pounds | 4 tooth - 70 pounds |
| 6 tooth - 145 pounds | 6 tooth - 80 pounds |
| 8 tooth - 165 pounds | 8 tooth - 100 pounds |

Class A. Certification is the process by which a goat may be registered. This may not be completed for goats earlier than 4 tooth. Permanent registration is to be done by visual inspection of fiber and meat characteristics and analytical fleece analysis. Any goat that is 4 tooth or older can be submitted for Permanent Registration.

In order to be permanently registered, goats must meet the following requirements as determined by analytical analysis of the mid-side sample.

Four tooth - 17 microns or less
Six tooth - 18 microns or less
Eight tooth - Not more than 19 microns

The goat must be one solid color (any color) on all shearable surfaces. A different color nose and/or different colored ears, tails, or short stocking legs will be accepted.

Class B. Any goat that is 2 tooth or older can be submitted for permanent registration by a visual inspection of fiber and meat characteristics or analytical fleece analysis.

Class C. This category is primarily for kids, but any animal claimed to be a Cashmere/Meat goat breed can be submitted for registration without analytical information. There are many advantages to this registration, such as:

Recording of birth date for advanced registration consideration,

Recording of information essential for pedigree formulation and building, and

Identification of producers developing a cashmere/meat goat breed justifying them for International Cashmere/Meat Goat Registry's registration, advertising and promotion endeavors

Class D. Certified Meat Goat. This category is for animals that do not qualify as registered dual purpose cashmere/meat goats, but which qualify as superior meat goats. Requirements are based primarily on meat characteristics, but as the program progresses, other characteristics will be considered. Submission for certificate can be made without submission for registration in any other category.

E. Charges for Services Rendered

Fees have been set for various services in connection with the registry. Contact them for information regarding these fees.

Inspectors

A panel of qualified individuals who will be willing to participate and donate their service will be formed.

For more information about the International Cashmere/Meat Goat Registry, contact Dee Broyles, President of the Texas Cashmere Association, RR 4, Box 537, Lamesa, Texas 79331, telephone: 806-489-7645.

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**Cashmere/Meat Goat Registry**
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## Texas Cashmere Association Establishes New Registry Guidlelines

Texas Cashmere Association has revitalized the Texas Cashmere registry, now officially called the International Cashmere/Meat Goat Registry. The Association has decided to forego using consultants to handle registry tasks and are now handling it themselves with new energy. They report a positive attitude on the part of many breeders, with over fifty registered goats recorded so far.

They welcome any and all, large and small, and will answer any questions you may have. Their goal is to establish a useable data and reference base for cashmere producers. They continue to work, with assistance from Langston University and others towards the common goal of a future reference source for breeders.

How beautiful you are my darling.
Oh how beautiful.
Your eyes behind your veil are doves.
Your hair is like a flock of goats descending from Mount Gilead.
Your teeth are like a flock of sheep just shorn.
...Song of Solomon 4:1


## Does Your Goat Practice Safe Sex?

**By Linda Cortright**
**Grumble Goat Farm, Union, Maine**

I thought not. Most bucks are reluctant to practice safe sex complaining that even the sheerest condoms cause a decrease in sensation. And there's nothing worse than an unprotected buck to throw a ratchet into your breeding program.

But fear not, there is a back-up--Lutalyse. Some of you may skip the rest of this article since I refuse to make any more cheap remarks about goat sex.

Lutalyse is a steroid that is very effective as an abortifacient when used correctly. Several weeks ago one of my young ladies broke loose and scaled a 15 foot fence into the buck field—just kidding it's only 4 feet. The guys weren't doing much of anything that afternoon aside from standing around chewing their cud and possibly even doing a little buck bragging. When all of a sudden there emerged this beautiful young lady on the horizon as if an answer to prayer. Just how lucky can a group of bored buys get? Unfortunately, by the time I knew anything was amiss all the passion had come and gone and there was my little lady just hanging out with the guys chewing her cud too.

I immediately returned her from whence she came, although my haste in doing so seemed rather foolish in hindsight, and went into the house to phone the vet.

The vet was on vacation—naturally, and the stand-in had to call around for the correct dosage. An hour later I went over, picked up the pre-filled syringe of Lutalyse, paid them 20 dollars, got home and marched into the field and promptly injected Daisy in the rump while lecturing her the entire time.

Upjohn, the drug manufacturer, recommends 5-10 mg IM be given anytime throughout the pregnancy. However, a little non-scientific research among some fellow goat buddies indicated that two hours after the deed did not really constitute a pregnancy. The most effective time to administer the drug is 7-10 days after copulation, thus allowing time for the egg to implant. It is my understanding going by the experience of others, that shots given before then are not as effective.

THIS IS NOT GOSPEL. So please, please check this out with your vet or a very knowledgeable goat person before trying this yourself.

If someone else would like to share their experience with either Lutalyse or getting their bucks to promise they'll always use condoms—let me know!

# Goat Meat Recipes! Try 'Em—You'll Like 'Em

*The following three recipes are reprinted from a Texas Agricultural Extension Service publication called "South Texas Recipes."Kid Goat Stew*

## Kid Goat Stew

(serves 10 to 12)

8 lbs cabrito
1/4 c vegetable oil (to brown meat)
3 T salt
3/4 c vegetable oil (to brown flour)
3/4 c flour
8 c cold tap water
3 large tomatoes, peeled & diced
1 whole green bell pepper, sliced
1 large onion, sliced in rings
10 medium to large garlic cloves, separated, pressed
ground cumin
1-1/2 t ground pepper
1 t dried oregano

Cut meat into 1/2" cubes. In a large Dutch oven heat 1/4 cup oil at medium high heat. Place meat and salt in heated oil and cook for about 60 min., stirring occasionally. Remove from heat and set aside.

In a large skillet heat 3/4 cup oil, add flour and brown well. Turn off heat and add water (1 cup at a time) to make gravy. Add vegetables and spices to meat and mix well. Simmer 25 to 35 minutes at medium heat till meat and vegetables are tender.

## Barbecue Young Goat

Barbecue Sauce
2 c water
1 T sugar
1 8-ounce can tomato sauce
2 T vinegar
2 T butter
1/2 t cumin
2 cloves garlic, mince
1/2 t oregano
6 whole cloves
3 carrots, diced
1 T ground black pepper
1/4 t salt

Cut a very young goat (8 to 12 lbs) into serving pieces. Wash and dry pieces and place in an open pan in a 350° oven.

Cook for 20 minutes using a meat thermometer, making sure internal temperature reaches 160o. Prepare barbecue sauce. Simmer for 30 minutes. Baste cabrito with sauce every 15 to 20 minutes for 2 hours or until meat is very tender.

## Hawaiian Goat Mini-Kabobs

(makes 60-70 appetizers)

1 lb boneless leg of goat, cut in 3/4-in cubes
3 slices bacon, cut in 1-in pieces
1 cup Italian dressing
1 14-ounce can pineapple chunks, each cut in half
1 clove garlic, minced
1/4 cup melted butter

Combine cubed goat, dressing and garlic in a shallow glass dish and marinate for 1 hour or overnight in refrigerator. Alternate cubes of goat meat, bacon and pineapple on mini-skewers or round toothpicks. Brush with melted butter. Broil 5-8 inches from heat source for 5 minutes. Serve hot.

# Chevon! - The *Other* Red Meat

**By Paul G. Johnson**

It used to be that some fiber producers refused to address the meat market aspect of the goat business. However, most producers now have come to the conclusion that the meat market must be addressed. More and more producers are checking out local demand for goat meat.

Rumors abound as to the numerous and varied ethnic markets crying out for goat meat. By and large, this is true, but having the right product in the right place at the right time can be a problem.

Religious references, especially the Bible and Koran (Qur'an), include descriptions of goats acceptable as food (e.g. without defect and unblemished), and specific ways in which they are to be slaughtered.

***Holidays are traditional times for goat meat, however, the only verifiable holiday where demand is significantly higher is Easter.***

For example, cabrito, of Mexican and southwestern US fame, usually requires young kids of 15 to upwards of 25 lb. liveweight, while Caribbean cultures utilize goats of any age, including old goats, for their goat curry and other dishes.

In Italy, as well as elsewhere in Europe, Capretto is a favorite. Capretto is a milk-fed kid of up to 20 weeks of age.

Goat meat, no matter the age of animal, is low in fat and cholesterol compared to other meats such as lamb. It looks like a healthy choice even when compared to the much-favored chicken (see Chicken Chart on next page).

The most consistent market demand for goat meat appears to be for kids from six to twenty weeks of age, from 15 to 40 lb. However, auction houses generally take them at any age. Big city markets seem to sustain higher prices over local, rural markets. Pooling of animals to truck to the large markets has been successful for several producers.

Holidays are traditional times for goat meat, however, the only verifiable holiday where demand is significantly higher is Easter. Other holidays include most or all Christian and Jewish holy days (shown on most calendars), as well as the Muslim holidays.

Islamic holy days and dates (Hijra 1419-1421) occur as follows:

| | New Year | Ashura | Mawlid | Ramadan | al-Fitr | al-Adha |
|---|---|---|---|---|---|---|
| 1419 | 4/27/98 | 5/06/98 | 7/06/98 | 12/20/98 | 1/19/99 | 3/28/99 |
| 1420 | 4/17/99 | 4/26/99 | 6/26/99 | 12/09/99 | 1/08/00 | 3/16/00 |
| 1421 | 4/06/00 | 4/15/00 | 6/14/00 | 11/27/00 | 12/27/00 | 3/05/01 |

The two big Islamic holy days for goat (and sheep) are Eid al-Fitr and Eid al-Adha. al-Fitr is the festival following the month-long fast of Ramadan. al-Adha celebrates the deliverance of Abraham's son by the Lord from the sacrificial altar. On this day, every male head of household is required to slaughter a fatted ram or goat. Mawlid celebrates the birthday of the prophet Mohammed, while Ashura is to remember the martyrdom of the prophet's grandsons.

Many other cultures enjoy goat meat. In fact we in the US are one of the very few who don't!

The biggest problem in establishing a local demand has been the fact there is no consistent supply of goats (outside of areas like Texas). Retailers are unwilling to offer goat meat as a grocery/meat staple until a steady, reliable source is available.

Restaurants are in the same boat. Also, many retailers are unaware of the huge ethnic demand potentials. Until they are educated and supply lines are established, we will have to market on our own, or by pooling with neighbors. For small, occasional producers who are just getting rid of culls, a simple ad in your state's largest newspaper or Agricultural paper may suffice.

Anyone who wants to seriously explore the meat market might want to contact the American Meat Goat

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**Chevon**

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Association for information and advice. Also, the publication *Meat Goat News* can be helpful. The addresses for this association and publication are found at the end of this article.

If you are serious about selling kids for the meat market, you may want to consider adding grain to their diet for those you retain past weaning age. If you can assume the heavier weights obtained will more than offset the added expense of the grain, you will have a better appearing and markedly heavier product.

The United States remains a major *importer* of goat meat! So the demand is there. It's just a matter of what, where and when.

When considering the meat market, especially for only a few goats, don't forget the most important market, YOU! Goat is a healthy meat and as with any home-grown product, you and your family will be consuming something which you can be assured is of top quality. Your local meat processor can make sausage and any other cuts you want.

Before making appointments with your local meat processor, check medicine labels to make sure that you have met minimum withdrawal times for medications administered.

Also, be aware there can be markets for by-products such as hides and horns. You can be sure the processor knows!

Readings from many sources indicate chevon or goat meat, regardless of age, sex or breed can supply you with high quality protein, healthy fat, and minimal cholesterol. Also, as shown in the chart at right, it contains many necessary nutrients.

**References:**

Clemson University, from their home pages at: http://goats.clemson.edu/NC%20Handbook/default.htm

Goat Notes, Australian Cashmere Growers Handbook, p.233-238

Meat Goat Production and Marketing Handbook, Sponsored by Rural Economic Development Center, Raleigh, North Carolina and Mid-Carolina Council of Governors, Fayette, North Carolina

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## The Chicken Chart
## (It does *not* taste like chicken!)

**Comparison of Nutrient Analysis of 85 Grams (3 Ounce) Cooked Portion of Meat from Goat and Chicken.***

| NUTRIENT | GOAT | CHICKEN |
|---|---|---|
| **General** | | |
| Fat, g | 12.3 | 11.6 |
| Protein, g | 22.0 | 23.2 |
| Calories, Kcal | 203 | 203 |
| Cholesterol, mg | 94 | 75 |
| **Minerals** | | |
| Iron, mg | 2.2 | 1.1 |
| Calcium, mg | 25.3 | 12.8 |
| Sodium, mg | 77.1 | 69.7 |
| Zinc, mg | 4.3 | 1.7 |
| Magnesium, mg | 23.7 | 20.0 |
| Potassium, mg | 308.3 | 189.6 |
| Phosphorus, mg | 57.8 | 154.7 |
| Copper, mg | 1.7 | .06 |
| **Vitamins** | | |
| A, IU | 34 | 137 |
| Thiamin (B1), mg | .32 | .054 |
| Pyridoxine (B4), mg | .17 | .34 |
| Cobalamin (B12), mg | .56 | .26 |
| Pantothenic Acid, mg | .30 | .88 |
| Niacin, mg | 2.52 | 7.20 |

*Nutrient Profile information taken from USDA Human Nutrition Handbook 8-5 and Johnson (1987).

The study yielding these results also compared meat from each gender class, including intact and castrate males and females. It was found that gender class did not significantly impact nutrient composition of goat meat.

*Above chart and related info from: Use of Goat Milk and Goat Meat as Therapeutic Aids in Cardiovascular Diseases, John R. Addrizzo, Clemson University, NC*

**Chevon**
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**References (continued):**
Marketing Channels for Meat Goats, Frank Pinkerton and Lynn Harwell
http://goats.clemson.edu/NC%20Handbook/default.htm

**Other sources of information for meat goats:**
Meat Goat News
PO Box 2678
San Angelo, TX 76902
915-655-4434

American Meat Goat Association
PO Box 333
Junction, TX 76849-0333
915- 835-2605

## NewLinks For OldNerds

Texas A&M metric conversion chart
It will do the work for you!!
**http://texnat.tamu.edu/ranchref/guide/metrconv.htm**

Boer & Meat Goat Information Center
**http://www.boergoats.com/**

TEXNAT - Reference Guide for Texas Ranchers
**http://texnat.tamu.edu/ranchref/index.htm**

Recommended Ritual Slaughter Practices (for goats) **http://www.grandin.com/ritual/rec.ritual.slaughter.html**

Goat Study Unit
**http://members.aol.com/kymwright/page29.html**

Coyotes - Texas A&M
**http://texnat.tamu.edu/ranchref/predator/coyote/COYOTE.HTM**

Maryland Small Ruminant Page
**http://www.intercom.net/user/sschoen/sheep.html#Goats**

Cashmere and Camel hair Manufacturers Institute **http://www.cashmere.org/**

# How About That Old Hay?

So, you have some hay left over in the barn from last year. Or, you run across an ad in the newspaper for last year's hay at a very good price. Is it OK to use it? And what about the protein levels? Inquiring minds want to know...

**Question**:
Does alfalfa hay lose its ~~flavor on the bedpost overnight?~~ protein after a while when stored in dry bales?

**Answer**:
From Mike Collins, Professor of Agronomy, Department of Agronomy, University of Kentucky:

The amount of change in hay composition during storage is strongly affected by its moisture concentration at the time of baling. Very dry hay changes very little during drying. This also applied to artifically dried (barn dried) hay which is practically idential in quality before and after drying. More typically, hay with moderate amounts of moisture, say 20%, undergoes some respiration during storage which impacts mainly the nonstructural carbohydrates (sugars).

We have found that the rule of thumb that 1% of the hay dry matter is lost for each unit of moisture drydown to equilibrium works well. That is, if hay were baled at 20% moisture and ended up at 15% moisture after going through its "sweat", the loss would be about 5%. Because nonstructural carbohydates are lost, fiber concentrations typically increase slightly but significantly. We often see no signficant change in crude protein concentration under these conditions but there may even be a slight increase due to the loss of the other constituents.

The most serious risk with respect to protein concentration and utilization is when moisture concentrations are high enough to support substantial heating. In this case, protein digestibility can be reduced.

Look for the available protein value on your quality analysis and compare this with the total or crude protein concentration value. In hay that has undergone significant heating, the loss in protein digestibility can be large. Slight heating is not serious. The degree of green color loss during storage is an excellent visual indicator of the extent of heat damage. Dark brown hay may have signficant loss in protein quality.

# Animal Husbandry

## Approximate Peak Water Requirements

| Livestock | Peak Water Requirements |
|---|---|
| Cattle | 7 to 16 gallons/day |
| Horses | 8 to 12 gallons/day |
| Sheep and **Goats** | **1 to 4 gallons/day** |

## Gestation

| | Approximate Gestation |
|---|---|
| Cattle | 283 days |
| Horses | 336 days |
| Sheep | 148 days |
| **Goats** | **151 days** |

## Forage Requirements

| Livestock | Forage Intake Per Day |
|---|---|
| Sheep | 3.0 percent X body weight |
| **Goats** | **4.0 percent X body weight** |
| Stocker cattle | 3.0 percent X body weight |
| Dry cow | 2.0 percent X body weight |
| Lactating cow | 2.5 percent X body weight |
| Horse | 2.0 percent X body weight |

**Reference Source:**
Reference Guide for Texas Ranchers
Texas A & M
http://texnat.tamu.edu/ranchref/guide/lshusb.htm

**This pond should provide enough water for two goats for the summer**

## Cashmere Tips
### and Information From the Cashmere & Camel Hair Manufacturers Institute

*http://www.cashmere.org/html/consumer_information.html*

**Facts about cashmere:**

It takes the fleece from two goats for a two ply sweater (10 - 12 ounces).

It takes the fleece from four to six cashmere goats to make a sports jacket (32 ounces).

One goat yields an average of four to six ounces of fiber.

**Facts about cashmere garments:**

Travels well, won't wrinkle.

Great insulating properties—warm in the winter and cool in the summer.

Is long lasting and becomes softer with age, rarely pills after being worn and washed.

Should last a lifetime.

# Johne's Disease - What Do I Need To know?

Introduction

Johne's disease, pronounced YO-knees, was identified more than a century ago, yet remains a common and sometimes costly infectious disease of dairy cattle. In spite of this, many U.S. dairy producers are unfamiliar with Johne's disease. The recent National Animal Health Monitoring System (NAHMS) Dairy 96 Study report showed that 45% of dairy producers were either unaware of Johne's disease or recognized the name but knew little else about it. This lack of familiarity has hindered control and prevention of Johne's disease in this country, and efforts are currently underway to change this state of awareness.

While estimates of the number of infected herds in other countries are not available, clinical Johne's
disease has been reported similarly from almost all countries in the world. It has also been reported from sheep, goats, deer, llamas, and other ruminants. Johne's disease typically starts as an infection in calves though clinical signs do not usually appear until 2 to 5 years later. The disease is difficult to find in its early stages. It reduces milk production, the productive life of cattle, and has no cure. Producers and others in the industry need to be familiar with Johne's disease and its implications for their operations. While this is a complex disease that we do not completely understand, basic information about this microbe, how it is transmitted and how to control it, is available.

Cost of disease

Information from the NAHMS Dairy 96 Study, a national study of dairy health issues conducted by USDA-APHIS-VS, estimates that the cost of Johne's disease can be quite high. The study found that, in infected herds where at least 10% of the cull cows showed clinical signs like those of Johne's disease, the average cost to those producers was $227 for each cow in the herd per year (USDA-APHIS-VS, 1997). In other words, the cost for a 100 cow dairy with at least this number of Johne's cull cows with clinical disease would be about $23,000 each year. The majority of this loss was due to reduced milk production. Other studies, including two from New York and Wisconsin, have similarly demonstrated large economic losses, especially due to reduced milk production and premature culling. This cost represents an estimated $200 million loss to the U.S. dairy industry.

About the disease

Johne's disease results from infection with bacteria called Mycobacterium paratuberculosis. This organism grows very slowly, causes a gradually worsening disease condition, and is highly resistant to the infected animal's immune defenses. Therefore, infected animals harbor the organism for years before they test positive or develop disease signs. According to the NAHMS study, the highest percentage of blood test-positive milk cows were those in their third and fourth lactation. The infection primarily affects the intestine, leading to prolonged diarrhea, poor digestion and excessive weight loss. Diseased animals do not refuse feed until they are severely affected. These bacteria are typically shed, in varying numbers, in a diseased animal's feces. Once outside the animal, the bacteria is quite hardy, living for months in water, feed and manure. The bacteria may then be picked up in fecally contaminated feed or water by non-infected animals. These newly exposed animals may develop disease and spread it within the herd.

Recent research has added to understanding of Johne's disease transmission, but has also raised concerns. Many previous beliefs about this disease's transmission and control have been challenged. Contrary to earlier notions that fecal contamination of feed and water was the sole means of transmission, infection of calves before they are born is possible. This appears to happen in 20-40% of calves from infected cows showing
clinical signs and about 10% of calves from infected cows not showing clinical signs. In addition, the
bacteria may be shed directly in milk and colostrum from infected cows, even without fecal contamination.

Calves less than 6 months old are most vulnerable to infection. Under intensive housing conditions with a high level of exposure of young cattle to the organism, clinical Johne's disease can become common in cattle from 1 to 3 years of age. As Johne's disease is just beginning to spread in a herd, there may be only one or two animals showing clinical disease signs at a time. These sick animals are culled and the disease may go unrecognized as a whole herd problem for some time.

National picture

Previous studies have estimated prevalence of Johne's infection from individual states and regions, but it has been difficult to get a national perspective from these studies. A USDA study conducted over a decade ago sampled cattle at slaughterhouses and, finding a low prevalence of infected cull cows, failed to generate concern about Johne's disease. However, the new
USDA Dairy 96 Study, focusing on milking herds, presented a different picture.

The Dairy 96 Study was designed, using blood tests and clinical history, to identify herds with at least 10% of cows infected with the organism causing Johne's disease. Results of this study estimated that about 22% of U.S. dairies are infected with the Johne's disease organism. Larger herds are more likely to be infected, as about 40% of the herds with at least 300 cows were infected, compared to less than 20% of herds with less than 50 cows. The larger the herd the higher the risk of Johne's disease. Only minor regional differences were noted, indicating that dairy producers in all regions of the country need to consider implications and risks associated with this disease.

About testing

For determining the disease status of a herd or an animal, both fecal culture and

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## Johnes Disease

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blood serum antibody
tests are available to producers. A problem with current tests, particularly for the individual animal, is their failure to detect early infections. This is because blood antibody development and/or heavy fecal shedding do not usually occur until late in the course of the disease. The difficulty in detecting early infections, along with very long period before clinical signs develop, may allow Johne's disease to remain a hidden herd problem.
However, test results used along with a history of clinical signs of disease in the herd can provide information to assist disease management in the individual cow and the herd.

Control
The principles of Johne's disease control include reducing exposure and infection of replacement cattle
on farm, monitoring and identifying the most highly infected cattle, and preventing introduction of infection by screening sources of off-farm replacements. Johne's disease control programs require a long-term commitment to prevention adapted to individual herds. This approach, however, has not yet been widely adopted by veterinarians and producers.

Finding replacements
Since Johne's disease occurs throughout the U.S., identification of uninfected or low risk herds as sources of replacement heifers would be beneficial. Currently, identification of infected animals before they are in an advanced disease stage and/or shedding significant numbers of pathogens in their feces is not very accurate. This makes it difficult to prevent the start of disease when introducing new cattle to dairy operations. Questions about choosing a source for replacement heifers and the appropriate disposition of young stock from a positive herd remain difficult to answer. Since an estimated 44% of U.S. dairy operations introduce cattle of various classes and ages each year (USDA-APHIS-VS, 1996), the availability of low risk cattle as herd replacements is critical. Johne's herd certification programs, with repeated herd testing, provide the best assurance for obtaining low risk cattle for replacements. This is certainly a lower risk than that from introducing untested or test-negative cattle from a herd with no documentation as to its actual Johne's disease status.

Public health
The Johne's disease bacteria, M. paratuberculosis, has been isolated from a few humans with Crohn's disease, a chronic intestinal disease. Since results from various studies evaluating a possible role of M. paratuberculosis in Crohn's disease have been contradictory, uncertainty about potential risk to public health from this organism
persists. Recent USDA-ARS research indicates that commercial pasteurization does inactivate the Johne's bacteria in milk. However, potential public health concerns remain about Johne's bacteria still active in undercooked meat, unpasteurized milk products, and water. Because of continued potential public health concerns relating to this disease, animal production industries must give this disease more attention.

Awareness about the disease
Several states have Johne's disease control programs in place or are in the process of implementing them. As reported in the NAHMS Dairy 96 Study, however, many dairy producers are unfamiliar with Johne's
disease. The study showed that 45% of dairy producers were either unaware of Johne's disease or recognized the name but knew little else about it. This lack of familiarity has limited the adoption of Johne's control programs.

What is next?
The time is past when we could think of the major impact of Johne's disease as an occasional cow with diarrhea that could be culled and forgotten. Johne's disease is a herd problem that worsens with time, reducing production and profit. It may even come under further scrutiny as a risk to human health. Implications of Johne's disease should be considered by all dairy producers and control strategies are available for implementation.

To this date, there has not been a consistent national or industry-wide education or control program in the U.S., but this is beginning to change. The Johne's Committee
of the U.S. Animal Health Association has formed the National Johne's Working Group to begin more cohesive education, research, and control efforts to deal with this insidious disease. This working group has been actively involved with planning the Johne's disease aspects of the NAHMS Dairy '96 and Beef '97 national studies, the USDA-ARS pasteurization studies previously mentioned, and development of a process to standardize Johne's disease tests across laboratories. The next steps for the National Johne's Working Group involve planning to provide additional educational materials and a coordinated education plan in the near future.

On a more direct level, all dairy producers should ask themselves the following questions: 1) Is Johne's disease important to me? 2) How can I identify Johne's disease in my herd? 3) If I find it, what should I do?

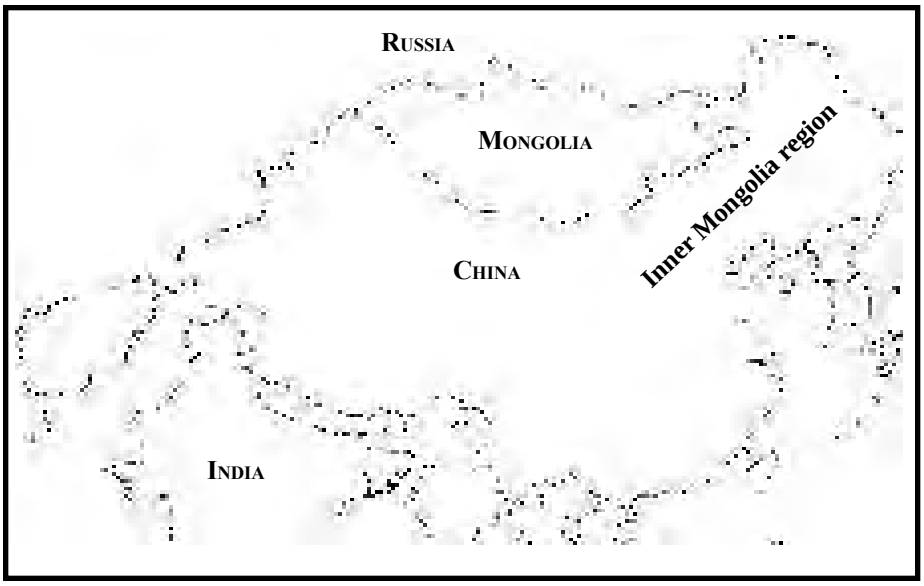
Additional information sources:

Your local veterinarian
Your state Johne's Disease Committee, if formed
Paratuberculosis (Johne's disease), Veterinary Clinics of North America-Food Animal practice, July 1996. Ed: R.W. Sweeney.
Johne's Disease on U.S. Dairy Operations, USDA-APHIS-VS, 1997, found on the World Wide Web at
http://www.aphis.usda.gov/ceah/cahm, then look under NAHMS and dairy
Johne's Information Center on the World Wide Web at
http//www.vetmed.wisc.edu/pbs/johnes/
National Johne's Working Group, Education Subcommittee Chair, Dr. Don Hansen, Oregon State University

Ed Note: I can hear most of you saying, "So what? Looks like a cow deal to me."

However, the first time I heard of Johne's disease was not from a USDA dairy cow article like this one, but from a lady who

**Continued on page 26**




**Mongolia (the country) and surrounding area**

**Note for the Geographically Confused**

**Mongolia is a country. It is not to be confused with inner Mongolia, which is a region of China.**

# Mongolia, Cashmere and the Gobi Cashmere Company

Mongolia is a vast, sparsely-populated country in north east Asia, situated between Russia and China. With an area of 1.6 million square kilometers, Mongolia is the seventh largest country in Asia and the 18th largest country in the world: half the size of India. The population of 2.3 million is 85 percent ethnic Mongolian, and seven percent Turkic (mainly Kazakh). The national language is Mongolian, with Russian as the traditional second language. However, the number of English, German and Japanese speakers is increasing rapidly. Chinese is not widely understood, except in border areas.

Mongolia is one of the highest countries in the world, with an average altitude exceeding 1,500 meters above sea level. Since Mongolia is located far from the sea, about 700 km from the Yellow Sea, its mountainous terrain plays a major role in the climate. The climate is semiarid and continental, with temperatures ranging from extreme cold in winter to warm summers, and exceptional daily variations: January temperatures average -35°C, while July temperatures may reach 25°C.

The country is divided into 21 aimags (provinces), the capital city—Ulaanbaatar—and three autonomous cities (Darhan, Erdenet and Choir). Aimags are further subdivided into sums, or small rural districts and these in turn are subdivided into bhags.

The largest cities are Ulaanbaatar (620,000), Darhan and Erdenet. The rest of the country is largely pastoral, with animal husbandry—sheep, goats, camels and horses—being the main economic activity. There is a tremendous difference between urban and rural living conditions. Life in the gers, or felt tents inhabited by nomadic or semi-nomadic borders, has not changed substantially during the last several hundred years, despite recent evidence of greater rural development.

**Agriculture**

Agricultural production in Mongolia is primarily focused on animal husbandry and crop farming (wheat, barley, oats, and vegetables). The total size of the national herd is 31.3 million animals, including 14.2 million sheep, 10.3 million goats, 3.6 million cattle, 2.9 million horses and over 355,100 camels.

**Mongolia produces more than 25% of the world output of cashmere**, and also exports high quality skins, hides, wool, meat and other animal products.

Crop farming is relatively new activity in the country, and was developed primarily through large state farms. The maximum total arable area of these farms was 1,322,000 hectares. The most important crop is wheat. The government has drafted plans to privatize all state farms and croplands by the end of 1998.

**Agro-Processing and Light Industry**

Agro-processing industries have great potential in Mongolia due to abundant local supply of high quality raw materials, including cashmere, camel hair, wool, animal skins and hides and timber. The country has a number of factories currently engaged in the primary processing of these raw materials, and in the production of finished

**Continued on next page**

**Mongolia**
**Continued from previous page**

items such as cashmere and wool garments, leather products, carpets and lumber.

The agro-industrial sector of the Mongolian economy is expected to grow rapidly in the coming years. **Cashmere, both raw and processed, is currently the second largest export item from Mongolia, and the domestic supply is expected to grow by 50% by the year 2000 due to a rapidly increasing goatherd.**

The food products sector also offers significant opportunities for expansion in both the local and international markets.

**Gobi Cashmere Company**

The Gobi Cashmere Company is the largest Mongolian producer of dehaired cashmere, cashmere fabrics and apparel, and other luxury fibers such as camel and yak wool. In 1996, the Company had sales of over US$20 million. Mongolia is the world's second largest producer of cashmere, and the Gobi Company owns over 20% of the world's cashmere processing capacity. The Government holds 75% of the shares in the company. The remaining 25% of the company's shares are traded on the Mongolian Stock Exchange.

The Gobi Company was established in 1981 with investment provided by the government of Japan and other international sources. The Company has the capacity to process 1,000 tons of raw cashmere (yielding approximately 470 tons of dehaired cashmere), 200 tons of camel wool, plus other fibers including yak hair.

The Company also produces garments and fabrics, and has the capacity to produce 68 tons of cashmere top, 120 tons of cashmere yarn of 7-24 count, over 300 thousand pieces of knitwear and more than 90 thousand meters of woven fabrics. In recent years, The Gobi Co. has maintained double-digit growth rates in both productivity and export revenues in recent years.

The Gobi Company consists of 6 major interconnected manufacturing processes, and employs 1,300 people. In recent years the company has made significant investments to upgrade its cashmere technology and equipment.
For example, fully automatic knitting machines and cleaning and shrinking equipment for knitted garments from Japan have been installed. The company has numerous links with foreign partners including sales agents in the USA (Forte Cashmere) and Canada (Cashmere Direct), and operates marketing international companies such as John Goby's (Belgium), Altai (Japan) and Gobi Cashmere Europe (Italy).

A feasibility study on cashmere and camel wool processing in Mongolia was started in the 1960's. With assistance of UNIDO an experimental cashmere and camel wool processing factory was constructed in 1976. Based on the experience gained from this operation the Gobi factory was established in 1981 with an investment provided by the government of Japan.

The goats, selected for cashmere, are raised in Mongolia, China, India, Iran, Afghanistan, former Soviet Central Asian countries and Russia. The goats from Mongolia and China have best quality cashmere in the world.

**Gobi Corp. Statistics**

Business type: Manufacturer Exporter/Importer
Year established: 1981
Awards: 10 gold medals including International certificate for the superior quality of products, International Gold cup for quality of products and Certificate for implementation of ISO-9000 serial standards

Staff: 1,500
Factory Locations: Mongolia
Total Factory Area: 4,000 sq. meters
Factory Equipment: Japanese advanced technics: fully automatic computerized knitting machines, cleaning and shrinking equipment
Capital: US$1,000,000 - US$4,999,999

Annual Processing Capacity: 1,000 tons of cashmere, 200 tons of camel wool
Annual Producing Capacity: 68 tons of cashmere top, 120 tons of 7-24 count yarns, more than 300,000 pieces of knitwear, more than 90 thousand meters of woven fabrics
Main export markets: Asia, Europe, and US
Major customers: Europe, Asia, America
Joint venture companies: John Goby's, Belgium, Altai, Japan, Gobi Cashmere Europe, Italy
Sales agents: Forte Cashmere, America, Cashmere Direct, Canada
Annual Sales Volume: US$25,000,000 - US$30,000,000
Monthly Capacity: 25,000 pieces of knitwear

Compiled from data provided by The Gobi Company, and the United Nations.

# Calendar of Events

**May 1-3, 1998**
Fiber in the Forest VI
Roseburg, Oregon. Workshops in spinning, hand weaving, basketry, felting For information contact Marlena Nielsen
2841 Nelqua Rd, Roseburg, OR 97470

**May 2-3, 1998**
25th Maryland Sheep & Wool Festival
Howard County Fairgrounds, West Friendship, Maryland. For information contact PO Box 99, Glenwood, MD, 21738, phone 410-531-3647

**May 16-17, 1998**
Northwest Fiber Fest
Skagit County Fairgrounds, Mt. Vernon, WA Demonstrations, vendors, livestock. fleece show & sale, May 15th is long wool and cashmere judging from 7:00 - 9:00 pm, For information, contact NWFF, 143 Barrel Springs, Bellingham, WA 98226

**June 4-7, 1998**
Estes Park Wool Market & Fiber Animal Show
Estes Park Fairg4rounds, Colorado. For information contact Estes Park Wool Market, Fairgrounds, PO Box 1967, Estes Park, CO 80157
Phone 970-586-6104

**June 6-7, 1998**
Big Sky Fiber Arts Festival
Ravalli County Fairgrounds, Hamilton, Montana, Animals shows, demonstrations, workshops, vendor booths, For information contact Diana Hachenberger, 406-961-3058.

**June 19-21, 1998**
Black Sheep Gathering, Lane Country Fairgrounds, Eugene, OR

# Association Contacts

**American Meat Goat Association**
W. E. Banker, President, 512-384-2829

**Cashmere America Co-operative**
Joe David Ross, Manager, 915-387-6052
fax 915-387-2642
Wes Ackley (Maine) 207-336-2948
Marti Wall (Washington) 360-424-7935

**Cashmere Producers of America** (CaPrA)
Marilyn Ackley, President
Phone/fax 207-336-2948
ackley@megalink.net
CaPrA office: 512-452-5205, fax 512-452-5521

**Colorado Cashmere and Angora Goat Association** (CCAGA)
Carol Kromer, Club Contact, 719-347-2329

**Eastern Cashmere Association** (ECA)
Ray Repaske, President, 540-436-3546
cashmere@shentel.net

**North West Cashmere Association** (NWCA)
Pat Almond, President, 503-632-3615
razberi@teleport.com

**Professional Cashmere Marketers' Association** (PCMA), Tom and Ann Dooling
406-683-5445
ann@MontanaKnits.com

**Texas Cashmere Association**
Dee Broyles, President
806-489-7645 office, 806-489-7959 home

**Wild Goat Women**
Debbie Walstead, Chairperson, 719-495-2962

# BREEDERS DIRECTORY

## ARIZONA

**CAPRON COUNTRY CASHMERE**
Gabriele M. Drewry
35039 N. Central Ave.
Phoenix, AZ 85027-7481
602-780-9704
Fax: 602-780-9715
email: GDrewry@aol.com

**RANCHO VERDE**
Christine Acridge
15419 E Rio Verde Drive
Scottsdale, AZ 85255
602-471-3802

## CALIFORNIA

**Sherry McVickar**
1662 Dwight Way
Berkeley CA 94703-1804

**Sunrise Cashmeres**
Melody and Jeremy Driscoll
PO Box 245
Blocksburg, CA 95514
707-926-5430

## COLORADO

**BV CASHMERE GOATS**
Bert Appell
29165 Oak Leaf Way
Steamboat Springs, CO 80477
970-879-2160
Fax: 970-879-8701
email: bert@cmn.net

**PEACHDÄTTER FARM**
C.J. Prince
23676 County Road 73
Calhan, CO 80808
719-347-2510
Fax: 719-347-2696
email:cjprince@bewell.net

**ROLIG GOAT RANCH**
Cashmere Producing Goats
Steven or Ellen Rolig
8435 CR 600
Pagosa Springs, CO 81147
970-731-9083, email:
roliggoatranch@pagosasprings.net

## KENTUCKY

**CANAAN LAND FARM**
Theo S. Bee
700 Canaan Land Rd.
Harrodsburg, KY 40330
606-734-3984
1-888-734-3984 (toll free)
http://www.bbonline.com/ky/canaan/

## MAINE

**BESSEY PLACE CASHMERE**
Wes and Marilyn Ackley
RFD #1 Box 2610
Buckfield, ME 04220
207-336-2948
email: ackley@megalink.net

**BLACK LOCUST FARM**
Yvonne Taylor
PO Box 378
Washington, ME 04574
207-845-2722
email: Lance@airs.com

**HARDSCRABBLE FARM**
Hattie Clingerman
PO Box 682
Winterport, ME 04496
207-223-4211

## MONTANA

**CASTLE CRAGS RANCH**
Diana Hachenberger
894 Pheasant Run
Hamilton, MT 59840
406-961-3058
Fax: 406-961-4770

**PMF CASHMERE COMPANY**
Tom and Ann Dooling
3299 Anderson Lane
Dillon, MT 59725
406-683-5445
Fax:406-683-5567, email:
ann@MontanaKnits.com

**SMOKE RIDGE CASHMERE**
Yvonne Zweede-Tucker
2870 Eighth Lane NW
Choteau, MT 59422
406-466-5952
Fax: 406-466-5951

## NEBRASKA

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Richard & Harriet Jensen
76460 Road 424
Cozad, NE 69310
308-784-3312

**HI-PLAINS CASHMERE**
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160482 County Road C
Mitchell, NE 69357
308-623-2627
email: ajbecker@PrairieWeb.COM

**SANDHILLS CASHMERE**
Mark and Karen Crouse
Box 595, East Point Drive
Bingham, NE 69335
308-588-6248
email: fibergoats@aol.com

## NEVADA

**ROYAL CASHMERE**
Eileen Cornwell
419 Centerville Ln
Gardnerville, NV 89410
702-265-3766
Fax: 702-265-1814
email:cashmere@sierra.net

## NEW JERSEY

**BLACK FEN FARM**
Virginia Hinchman/Kevin Weber
117 RD 2, Rt. 46
Hackettstown, NJ 07840
908-852-7493

## NEW MEXICO

**DOUBLE EYE FARM, INC.**
Sanford Bottino
PO Box 218
Ojo Caliente, NM 87549
505-583-2203

## OHIO

**TAMARACK RANCH**
Bob and Ann Wood
12000 Old Osborne Road
PO Box 567
South Vienna, OH 45369-0567
937-568-4994
email: annwood@erinet.com

## OKLAHOMA

**TEXOMA KIDS & CASHMERE**
J. D. and Karen Chandler
Rt 1, Box 37
Mannsville, OK 73447
580-371-3167
fax: 580-371-9589
email: jkc@flash.net

## OREGON

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PO Box 899
Mulino, OR 97042-0899
503-632-3615
email:razberi@teleport.com

**THE BARKING GOAT FARM**
Dewey and Eric Skemp
199 Ankeny Hill Rd.
Jefferson, OR 97352
503-373-9724
Fax: 503-362-8323
email: eric@hifly.com

**BLAUW DAK RANCH**
Bill DeJager
10640 Freeman Rd.
Birkenfeld, OR 97016-7226
Voice & fax: 503-755-2005
pager: 503-229-2776
email: blauwdak@3dwave.com

**CASHMERE GROVES**

Pat Groves
16925 S. Beckman Rd.
Oregon City, OR 97045
503-631-7806
email: pgroves@europa.com

**CHEHALEM CASHMERE**
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21605 McCormick Hill Rd.
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503-538-9791

**FOXMOOR FARM**
Carol J. Spencer
1178 N.E. Victor Point Road
Silverton, OR 97381
Phone: 503-873-5474
Message: 503-873-5430
email: foxmoorfarm@juno.com

**GOAT KNOLL**
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2280 S. Church Rd.
Dallas, OR 97338
503-623-5194
Fax: 503-624-1704
email: goatknol@teleport.com

**HARVEST MOON FARM**
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63300 Silvis Road
Bend, OR 97701
541-388-8992

**HAWKS MOUNTAIN PYGORA'S**
Lisa Roskopf & George DeGeer
51920 SW Dundee Rd.
Gaston, OR 97119
503-985-3331
Fax: 503-985-3321
email:hawksmtn@aol.com

**HOKULANI FARMS**
Cynthia and Karl Heeren
22260 East Highway 20
Bend, OR 97701
541-388-1988
email: hokulani@bendnet.com

**MCTIMMONDS VALLEY FARM**
Janet and Joe Hanus
11440 Kings Valley Hwy.
Monmouth, OR 97361
503-838-4113
email: janhanus@open.org

**MOONSHADOW FARM**
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46080 NW Levi White Rd.
Banks, OR 97106
Voice & fax: 503-324-0910
email: moon@hevanet.com

**NORTHWEST CASHMERES**
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19025 SW Hillsboro Hwy.
Newberg, OR 97132
503-628-0256

**OCTOBER FARM II**
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Rt 1, Box 63
Baker City, OR 97814
541-523-9859
Fax: 541-523-9436
email: octfarm2@eoni.com

**OVER THE RAINBOW FARM**
Deb Miller
95150 Turnbow Ln.
Junction City, OR 97448
541-998-3965
email: Llama@teleport.com

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27652 Fern Ridge Road
Sweet Home, OR 97386
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email:cashmere@proaxis.com

**SOMERSET CASHMERE**
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12377 Blackwell Rd.
Central Point, OR 97502
541-855-7378
email: brimble@cdsnet.net

**SUNSET VIEW FARM**
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4890 Sunset View Ln. So.
Salem, OR 97302
503-581-9452
email: carolbow@open.org

**WILLOW-WITT RANCH**
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Ashland, OR 97520
541-890-1998

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5935 Pidcock Rd.
New Hope, PA 18938
215-598-7627
email: phcashme@voicenet.com

## TEXAS
**BAR Y RANCH**
James Barton
PO Box 915
Sonora, TX 76950
915-387-5284

## UTAH
**HEIDI'S FARM**
Heidi J. Smith
7980 Long Rifle Road
Park City, UT 84060
801-649-3856
email: heidi.smith@genetics.utah.edu

**KANARRA KASHMERE**
Ron and Jan Gerrity
PO Box 420186
Kanarraville, UT 84742
435-559-9472
fax: 702-242-9436
email: GerrityGroup@EMail. Msn.com

## VERMONT
**CRR CASHMERE**
Tia and Peter Rosengarten
PO Box 37
Weston, VT 05161
802-824-8190
Fax: 802-824-4072

## VIRGINIA
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Craig and Lucy Raney
3627 Va. Ave.
Goshen, VA 24439
540-997-1121
Fax: 540-997-1124

**STONEY CREST FARM**
Anne and Roy Repaske
570 Paddy's Cove Lane
Star Tannery, VA 22654
Phone/fax: 540-436-3546
email:cashmere@shentel.net

## WASHINGTON
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810 Van Wyck Rd.
Bellingham, WA 98226
360-733-6742

**BROOKFIELD FARM**
Ian Balsillie/Karen Bean
PO Box 443
Maple Falls, WA 98266
360-599-1469

**GLACIER VALLEY CASHMERE**
Jim and Josie Baine
9817 381st St. E.
Eatonville, WA 98328
360-832-4442

**KELLERS KRITTERS**
Kay Keller
11030 Grandview Rd.
Arlington, WA 98223
360-435-6123

**LIBERTY FARM (NLF)**
Cliff and Mickey Nielsen
1505 Nile Road
Naches, WA 98937
509-658-2502

**STILL WATERS CASHMERE GOATS**
Diana Mullins
PO Box 1265

**Continued on next page**

**Breeders Directory**
**Continued from previous page**

Twisp, WA 98856
509-997-2204/509-421-3107
email: dmullins@methow.com

**WALLFLOWER FARM**
Dan and Marti Wall
1667 Beaver Marsh Road
Mt. Vernon, WA 98273
360-424-7935
Fax: 360-428-4946
email: cashmere@sos.net

**WINDRIDGE FARM**
Becki and Jim Belcher
202 Clemans View Rd.
Selah, WA 98942
509-698-3468

## CANADA

**GIANT STRIDE FARM**
Pat Fuhr
RR #3
Onoway, Alberta, Canada, TOE IVO
403-967-4843
email:103600.1332@compuserve.com

**TRAILTREE FARM**
Brian and Julie Snyder
979 Linden Valley Rd.
RR #1
Woodville, Ontario, Canada KOM 2TO
1-705-374-5527

## MEXICO

**EL MORO**
Fidel Florez B.
Tecnologico #58 - APDO. #31
Parral, Chih, Mexico 33800
Phone: 3-062

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**Johne's Disease**
**Continued from page 20**

I sat next to at a cashmere goat conference a few years ago in Wyoming. This cashmere goat producer had had a recent problem with Johne's disease in her herd. She indicated that the worst problem had been identification of the disease. Her goats had become progressively thinner and sicker and she and her veterinarian had attempted several unsuccessful treatments before the true cause of the problem had been identified.

# Classified Advertising

**CashMirror back issues** 7/96 - 11/97 $3 each or a whole dozen for $20. Back issues 10/89-6/96 $2 each or $15 for a dozen. We'll pay postage just to get them out of our attic. Most issues available. A good reference source about cashmere goats and history of the industry. Index for 11/89-4/96 in May 1996 issue, index for 7/96-6/97 in July 1997 issue. 7/97-3/98, you're on your own! (or ask us)

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**...Paul Johnson**

## The Deadlines:

Articles, photographs, advertising and other information submitted must be received by the 20th of the month prior to magazine issue date.

If you need assistance designing or laying out a display ad, or fine-tuning an article, earlier is appreciated.

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**Northwest Cashmere Association**

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**Cynthia Heeren, *Membership Coodinator*, 22260 East Hwy 20, Bend, OR**

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