CASH MIRROR

Volume 10, Issue 4 January 1999

The monthly magazine devoted to cashmere goats and their fiber

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CASHMIRROR

ISSN 1090-736X

Technical Information

This magazine is published each month by:
CashMirror Publications
2280 S. Church Rd.
Dallas, Oregon 97338
503-623-5194
Fax: 503-624-1704
E-Mail: goatknol@teleport.com
Home Page: http:// www.teleport.com/~goatknol

Publisher and Ace Reporter:
Paul Johnson
Editor: Linda Fox
Eastern Correspondent:
Linda Cortright
N. Rocky Mountain Correspondent:
Yvonne Zweede-Tucker

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Results published in the magazine are from information supplied by clubs and organizers and no responsibility for complete accuracy can be taken although we'll certainly try to get it right the first time.

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:
Mickey Nielsen, Liberty Farm, Naches, Washington
"Cashmere quads and a chicken"

The Guard Hair Contest
It was exciting—It's over

It's being judged now. There were a lot of good (and some very strange) entries. Announcement of winners will be in the next issue. Stay tuned!

New Year's Resolutions 1999

1. Brace all the corner posts on the new fences - or at least do those along the driveway so that visitors will think that I've braced them all.

2. This is the year to actually fix the leak in the automatic waterer in the barn.

3. This year, when one of the brackets for the plastic "gutter feeders" breaks off, replace it. Don't wait until all of them are broken and it takes major money and an hour to replace them all.

4. Mow the lawn (don't just let out the goats).

5. Take the mountain of accumulated empty feed sacks and polypropylene twine pieces stacked in the corner of the barn to the dump.

6. Make a real backup of my computer's hard drive.

7. Don't waste so much film on the cat.

8. Try to make it through an entire meal (with non-goat people) and not mention goats.

9. Spin a little each day. One day per week, spin a lot!

9-1/2. Get rid of excess wethers and culls sooner.

10. Sit down a while each day and talk to my goats (out of sight of the neighbors, of course).

Goat Knoll Farm Field Day
Designed Mostly for Beginners

Where: 2280 S. Church Rd., Dallas, Oregon
When: Saturday, March 20, 1999, 10:00am - 4:00pm or so—whenever you get tired of goats. (Bring a lunch or there's fast food close by.)
How: Contact Linda or Paul to reserve your spot and get directions:503-623-5194
Cost: Nothing

The Schedule: There will be hands-on lessons on goat care, including vaccinations, hoof trimming and worming. You will get to practice your skills on real live goats.

There will be new kids everywhere, possibly some even born the day of the event. If kids are born, we'll stop and watch.

There will be sessions on goat care, goat conformation, cashmere spinning, fiber preparation for spinning and more.

Although the sessions are designed for beginners, seasoned goat people are also welcome. You can come give advice, debate important issues or just hang around and bond.

If you have ideas or want to help out, call us.

Y'all Come!

Reflections

by Linda Fox

My First Cashmere Socks

One of my first goals after I learned to spin was to make myself a pair of cashmere socks. I'm a new spinner, but an old knitter. I've knit most everything one can knit over the years, including hats, scarves, gloves, sweaters and afghans. I even knit a swimsuit once. (Don't ask!) But, I've never knitted a sock. I watched my mother turn out socks, doing magical things to them so they neatly encased the foot she had in mind when they were completed. She talked confidently of turning the heal and grafting the toe and about ribbing and reinforcements.

Besides wanting to participate in the magic of it all, I also have extremely cold feet. So, two years ago, I hand-dehaired some of Annie's dark gray-brown, combed fleece and spun a batch of fine singles for my socks. I plyed it with handspun dark green, dyed Tussah silk. It was gorgeous. I found a basic sock pattern, wisely avoiding any fancy stuff on my first attempt. On smallish double-pointed needles, I boldly knit the ribbing and traveled down toward the heel. Then it got ugly. The pattern no longer made sense. I couldn't figure out what it was doing and kept knitting and ripping out until my yarn was all fuzzy.

I yelled for help. I enlisted the help of my sister to help me with the dreaded heel. With her assistance, we began turning the heel. We decided this task was one of those things that you can't follow logically; you just have to blindly, trustingly follow the pattern and all will become clear at the end. (I have trouble with this.) We seemed to have mastered the task and more important matters drew our interest, so half way done, we put the sock aside.

Two months later I went back to my heel, which, of course, no longer made any sense and I had no idea where I'd even left off on the pattern. I set the work aside and went back to my scarves.

A few months ago, I took a sock class at a spinning store. At the first class we learned to do the ribbing. No problem. I knit ribbing for four socks while the rest of the class struggled through their one sock. During the second class, we turned the heel. I learned the tricks and proudly turned four heels to reinforce the skills. The next class was to learn grafting the toe, but I skipped that one. I decided that any moron could do a toe. Well...I did the toes, but they don't look quite right...but who looks at toes anyway?

So, I now have a beautiful pair of cashmere and silk socks which keep my blue-toned feet a rosy pink. I know they will probably not wear well as I didn't add anything for reinforcement in the heel and toe, but I will only wear them for very special occasions.

We had very cold weather for a week just before Christmas—for almost a week, it didn't get above 10^0. In our part of the country, we are not properly prepared for cold weather as it doesn't happen often. We have no heaters in our water tubs or heating tapes wrapped around pipes. When it freezes for a day or two, we just break ice, haul water, complain a bit, and make do while we wait for the weather to return to normal.

On the second frozen day, for making the lengthy water-replenishment rounds for the herd, I decided I needed cashmere to make it through the trip. I wrapped my neck in my cashmere scarf and pulled on my cashmere socks. The socks were so warm that only these thin little socks and my tennis shoes kept my feet quite toasty.

I ended up wearing the socks for barn chores for the rest of the week. They are stretched and dirty and full of hay pieces, but they seem to feel at home in the barn. I'm sure that, at this rate, the socks will not last long. The heels seem to be getting thin already, but on the last trip to the barn I noticed that Annie is shedding a bit early.

For my next pair of Annie socks, I think I will add a lacy pattern, a bit of reinforcement in the toe and heel, get my sister to help me properly graft the toe and maybe not wear them out to the barn.

When Readers Talk...

To the Editor of CashMirror Magazine,

Dear Linda,

I would like to report a very grave error that was made in your magazine's last issue by a member of your staff. I believe his name was Paul Johnson.

He reported that Thelma Johnson was very impressed with a new book he has just released! This is completely wrong!!

I would like to clarify at this time, that I never made such a statement! In fact I have never read or even seen this book!

Please correct this misinformation in your next issue!!!!!

Sincerely,

Thelma Johnson (Paul's Mother)
Wood River, Nebraska
December 19, 1998

Dear Mrs. Johnson,

Consider the erroneous quote retracted. I have had problems with this particular staff member before and will watch him more closely. Thank you for letting us know.

Linda Fox
Editor

Paul,

Sorry to hear that you were deposed as Chairman (for life) of the Mild Goat Men. I don't remember much about the vote and/or discussion, but I do remember it was unanimous (after we got the stripper to quit voting).

Den Rehberg
Billings, Montana
October 17, 1998

Heh! Everybody's got political problems these days! Just wondering--did the illustrious group elect a new leader after deposing the old, or are they just running around leaderless? And does this matter? Just wondering...Ed.

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Dear CashMirror

We got our first issue of CashMirror and were delighted with the article by Angus Russel on the Feasibility of Cashmere Production. It was an excellent article. YOU DID GOOD!

...Jim and I will be married soon and then all the different addresses won't be so confusing.

This undertaking has proven to be one of the most enjoyable parts of our lives. Because we have brought the Cashmeres into an area where no one had even heard of such a critter, we have gotten a lot of mixed reactions. Everything from "GOATS, THEY ARE NOTHING BUT TROUBLE!" to "OH HOW CUTE, WHAT ARE THEY?" But the more we are around our little darlings the more we have grown to love them and the more they have proven to be exactly what we hoped they would be. I'm trying to figure out a way to involve them in our wedding. (Maybe I could let them eat the bouquet!)...

Kathy Sumter and Jim Haman
J & K Cashmeres
Park City, Montana
December 1, 1998

Llama Kissing Back in Vogue At Barn to Yarn VII

The last Saturday in January each year brings the return of a unique, traditional contest to untraditional Texans. Rita Rothenberg of Cooke County owns a spoiled rotten llama that even has his own recliner on which he loves to watch television. Another of Chopp's favorite things to do is to kiss humans. The Barn to Yarn Festival each year caters to the whims of this eccentric pet by conducting a Llama Kissing Contest, as one of it's many offbeat attractions.

The lure of this activity, which escapes some, but appeals to a surprisingly large number of people, kids and adults included, always convenes at high noon in center court of the event. A tip for those obsessed with winning contests, this humanoid ruminant prefers breaths that smell like mint.

Llama kissers will find Chopp in Fredericksburg this year for the very first time. The event which has been held in McKinney for the past three years, has been moved to Fredericksburg for the January 30, 1999 festivities to allow the promiscuous cousin of the guanaco a broader range of virgin lips.

Llama kissing won't be the only unusual activity at the fiber arts gathering. A dog in sheep's clothing contest invites family pets to try to disguise themselves as sheep for another odd competition. Sam Lewis, of San Angelo and Luckenbach fame, will be bringing his racing armadillos for interested contestants to coax toward the finish line. The dancing goat contest is another misnomer in that it permits any farm animal the opportunity to show off their unusual skills at dancing or other strange feats of dexterity.

For those reserved patrons not interested in such shenanigans, there will be plenty of spinning, weaving, knitting, felting, hooking and other activities to observe, as well as numerous articles produced from the various animal fibers. Other arts & crafts related to the barn to yarn theme or paralleling the rural atmosphere, will also be displayed on the grounds and in the buildings of the Pioneer Museum Complex in downtown Fredericksburg from 10 AM to 5 PM.

The best way to describe this one of a kind event is to warn visitors that they will probably see things they have never seen before. And if wary of being kissed by the llama, steer clear of the funny looking sheep with long legs and neck.

The museum is located at 309 W. Main Street in Fredericksburg and street parking surrounds the complex. For information on other activities and attractions in town for this super weekend, contact the Fredericksburg Convention & Visitors bureau.

Portable Weed Eaters A Hot New Business?

Land Whisperers, Inc. is a new corporation formed in 1998 by Jay and Sarah Harris and Lani Benz. Between them, they own about 1,000 cashmere goats which they lease out for weed control as an alternative to weed control with traditional herbicides.

Jay and Sarah Harris have been raising cashmere goats for some time. Lani Benz holds a Master's degree in weed science from Colorado State University. Benz's degree included work in research on weed control in sensitive areas.

During the summer of 1998, the company leased animals throughout northern and western Colorado and in central and southern Wyoming.

Rine Duran lives north of Greeley, Colorado, along the Poudre River. Being close to the river, he is limited in his use of herbicides by law. He is also concerned about potential damage to the environment, including wildlife, caused by chemical control of weeds. Duran has 50 weed-infested acres behind his home. Duran hired Land Whisperers' goat to eat his weeds. Cashmere goats, in groups of 196 and 176, were placed on parcels with the heaviest infestation of weeds. The goats first ate the leafy spurge and then moved on to the thistles and other weeds.

Per Duran, it cost him about the same amount of money to lease the goats as it would have for buying and applying chemicals for weed control.

Per Harris, it would take the goats about two weeks to clean up the 50 acres of weeds. After the area is cleared, Duran will seed the area with a mixture of native grasses. The goats will be brought back again this spring. As the weeds emerge, the goats will graze them down. At the same time, they will work the grass seed into the ground and fertilize it as they move across the field.

Harris explains that the success of the program depends on management. Once the weeds are cleaned from an area, the goats must be moved to another area until the entire parcel is cleaned up. Allowing the goats to graze the weeds again the following spring is important as they will be nipped in the bud as they start to grow and flower.

Harris explains that the goats eat the heads off thistles by turning them outward once they have them in their mouth, before they chew and swallow them.

Information from The Greeley Tribune newspaper, Colorado

Edens' Weed Control Project Update
Helena, Montana
Story and Photographs by Dan Edens

Dan and Sheryl Edens of Helena, Montana received funding for a project designed to demonstrate, document and evaluate the control of leafy spurge by grazing cashmere goats in environmentally sensitive areas. The introduction of their project was presented in the May 1997 CashMirror with a report of the results obtained after two grazing seasons presented in the December 1997 CashMirror. The following is Dan and Sheryl's update for the current status of the project.

Our leafy spurge project continued to grow and prosper the past year. We decided to focus our efforts on public education last year, as I was satisfied with the baseline data we gathered the first year. Through our grant sponsor, the Lewis & Clark County Weed District, a tour of our project was organized and held the first week in July 1998. The local Conservation District also took an interest and became a co-sponsor. Several dozen people were invited and attended. The attendees included a good cross-section of government and private land managers from the area.

All were very surprised at the effectiveness of the use of goats in controlling leafy spurge. In fact, some commented that how did they know I didn't spray these areas. It was great! I offered any soil or vegetative samples for analysis if they wanted to check for themselves. Also, equally impressive to the group was how easy the goats (and I'm talking the bucks) we are using in this project were to manage. After training to electric fencing we use Bayguard electric tape to manage the grazing.

While at the project site, I showed the group how goats will eat leafy spurge right out of our hands when offered. Some commented on how much grass was left and how well the area benefited and looked by co-grazing goats. One individual felt that this was easily the most significant weed control project in the county—very nice to hear and we do agree!

An offshoot of the tour, was that I was invited to speak at the Governor's Range Tour in September 1998. This tour is a three day event featuring some of finest cattle ranches in Montana, or anywhere for that matter. I was honored, and agreed to go of course. It was an excellent opportunity to get cashmere goats and weed control in front of some very open-minded and innovative land managers. I gave my presentation during the lunch break while the tour was at the Ox-Bow Ranch, truly a spectacular setting. It was the kind of exposure that money can't buy. Afterwards I was introduced to many well-known ranchers in the area and felt well received.

Continued on next page

Contrasts: Left side of fence has been grazed by goats, right side is the pasture we were hired to graze.

This is the tour under progress—I took a walking tour with this group and explained the basics of cashmere goats and what the results of grazing goats on spurge look like first hand.

A shot of the billy-bucks grazing an environmentally sensitive area, a riparian zone—note the solid leafy spurge and Bayguard electric fencing.

Weed Control Update
Continued from previous page

This part of the tour was written up in other Ag publications so, all in all, we are very happy with the past year's efforts.

Our neighbors have been watching our goats eating the leafy spurge for a while now and with one particular man I've been dodging his question "What's it going to take to get your goats on my place?" for a year or so. Well, this year I wrote down an amount and handed it to him. He told his wife to write me a check immediately before I changed my mind. I would never have guessed that anyone would pay me to graze my stock on their place!

We cut half of the pasture for hay and grazed the goats on the rest. We had to use some cows and horses to clean up the grass the goats left behind. This fall he mentioned another 40 acres that he would like to get cleaned up.

Yes, I do believe the future of Cashmere Goats is assured as long as there are weeds to be controlled.
The only shortcomings we presently see is the lack of available goats for use. We project this will become a very competitive business in the near future. In the last few months, advertisements looking for goats to buy are getting common, a first in this area.

Another shot on the creek—note how goats ignore tall grass and focus on the spurge. We were pleasantly surprised at how well this fence has worked, going on 3 years now.

About Leafy Spurge

By Dan Edens

Here is a bit more detail on leafy spurge for the uninformed:

Of the 10 or so noxious weeds in Montana, leafy spurge is considered to be the most serious even though it infests only 450,000 acres compared to the 6 million acres infested by knapweed. The reason for this is because leafy spurge has a 30 ft. tap root that makes it nearly impossible to kill. Other characteristics include exploding seed pods that send the seeds out approximately 15 ft. and a white sticky sap that is toxic to cattle or horses. All this combined with the plant's ability to excrete herbicides from the root system make for one tough-to-control plant.

The Montana Department of Agriculture estimates each year agricultural producers in Montana and surrounding states spend approximately 37 million dollars on herbicides in trying to control leafy spurge while losing twice that amount in production capacity. This is a very serious problem that costs everyone involved. Some compare it to a slow moving fire, only nothing grows back behind a leafy spurge invasion.

A serious spray program will set a spurge infestation back—at a cost of around 30 dollars per acre, per year. An effective plan involves five years of spraying. Each year the per acre cost diminishes, with the total bill being in the area of 75-100 dollars per acre after five years. This is for control, not eradication, which has found to be nearly impossible. The herbicides do some unintended damage to desirable grasses and this is hard to put a figure on, but it is quite noticeable. In the sensitive riparian areas where leafy spurge flourishes and spreads fast, the most effective herbicides are restricted from use, making spraying out of the question—at least without substantial legal risks.

A spread sheet analysis shows goats will provide a very positive cash flow while providing equal or better control than herbicides.

Our goats thrive on spurge. Nutritionally speaking, it is the equivalent of alfalfa without a bloat risk. Last year we delayed breeding by 60 days in order to graze the pregnant does on newly emerged spurge. The first noticeable effect of this was a birth weight increase of 32% with a average of 8 lbs. per kid. Only two maiden does needed minor assistance, the rest managed fine. The other effect noticed was very dense coats—we'll have an objective view of this come shearing time. It was an interesting experiment but we won't utilize the practice due to timing conflicts with other operations on the farm.

Disposing of Dead Goats

by Mark J. Estienne, Ph.D.
University of Maryland Eastern Shore

In a typical meat goat operation, 10% of the kids born live die before weaning. A death loss of 5% in the breeding herd is considered normal.

For a 25-nanny goat farm, producing 1.8 kids per female per year, these percentages translate into the following annual mortality estimates: five pre-weaning goats and one nanny goat. Using average weights of 30 pounds for a pre-weaning goat and 125 pounds for a nanny goat, the amount of mortality produced by the typical 25-nanny goat operation is approximately 275 pounds per year. Still-born kids, mummified fetuses and afterbirth add to this estimate.

In order to protect the health of herds and farm personnel, avoid air, soil and water contamination, and avoid problems with both agricultural and non-agricultural neighbors, biologically and environmentally safe methods of dead animal disposal must be employed on meat goat operations.

A sound herd health program dictates that goats dying from unknown causes be transported to a Department of Agriculture Diagnostic Laboratory for autopsy. This in turn places the burden of carcass disposal on the state. Producers are charged a fee, however, for an autopsy and subsequent carcass disposal by incineration. It is obvious that some dead goats must be disposed of by the farmer. Current options for disposal of carcasses include burial, incineration, and composting.

Disposal by burial
Burial is the most common and perhaps least expensive method of dead animal disposal. A pit is dug, into which carcasses are placed. Deep burial (i.e. 4-8 feet) is generally recommended. The practice of covering dead animals with lime retards decomposition and is not recommended. Dead goats should never be buried in areas where leaching can occur.

Problems with burial as a method of dead animal disposal include odor from and the accessibility of scavengers to "dead pits" that are not properly covered. There is also the possibility of significant ground and surface water contamination, for which producers may be held liable. Finally, goats do not die only when the ground is soft. Burying dead goats in frozen earth may be difficult.

Disposal by incineration
Incinerators completely eliminate carcasses and destroy pathogens. The capacity of many incinerators is limited, so this method of disposal works best for goats weighing less than 50 pounds.

In general, incinerators are expensive to buy and to operate. For example, purchase price of an incinerator with 600-pound capacity has been estimated at $2,500 and annual operating costs (i.e. fuel, maintenance, etc.) may approach $1,000. Certain types of incinerators may generate air pollution and objectionable odors.

Disposal by composting
The action of thermophilic, aerobic bacteria converts nitrogen rich (e.g. dead animals) and carboniferous (e.g. straw, sawdust, etc.) materials into humic acids, bacterial biomass and organic residue (compost). During the composting process, heat, carbon dioxide and water are generated as by-products. The resulting product is free from harmful pathogens, is nutrient-rich and can be used as fertilizer. The poultry and swine industries have adopted composting as the method of choice for ridding farms of dead animals.

In a typical system, carcasses are placed in a bin containing sawdust, creating an ideal environment for the growth of the aforementioned bacteria. The optimal carbon to nitrogen ratio for bacteria is approximately 30:1. Bacterial action rapidly heats compost piles to temperatures as high as 160^0F and within several weeks carcasses are reduced, leaving only brittle bones which are easily crumbled. "Turning" the compost pile by moving it to a new bin (i.e. secondary bin) after two weeks helps maintain high temperatures and promote even further decomposition.

Composting system for a 25-nanny goat operation
A bin was situated over a concrete floor and was constructed of pressure-treated lumber. The three sided bin was 3 feet tall, 5 feet wide and 5 feet deep. Four, 4 x 4 posts and several 1 x 6 boards were used. (When sizing composters, it is typical to provide 100 ft^3 of sawdust per 100 pounds of carcasses to be composted). The unit was covered with an inexpensive tarp. Total cost (excluding labor) for construction of this composter was less than $200.

Sawdust is layered on the floor to a depth of 12-15 inches. A goat is placed on its back in the layer of sawdust. The thoracic and abdominal cavities are opened with a knife and deep incisions are made in the muscles. Intestines are cut and organs dissected. The animal is then covered with a 12-15 inch layer of sawdust. A second goat can be placed and dissected as previously described. A final layer of sawdust is added and a minimum covering depth of 12-15 inches is ensured. Baby goats and afterbirth can be added to the composter by forming a V-shaped trough in the sawdust. The mortality or afterbirth is then covered with 12-15 inches of sawdust.

Sawdust is dampened with water as needed. The ideal moisture content in a composting pile employing sawdust is 50-60 percent. The moisture content of sawdust or a composting mixture can be judged somewhat by its appearance and feel. Sawdust that has a damp appearance and feel is probably near the proper moisture content for composting. Very dry sawdust may require the

Continued on next page

Dead Goats

Continued from previous page

addition of 1 to 1.5 gallons of water per cubic foot of sawdust to obtain proper moisture content.

Under this system, mature goats have been completely decomposed in several weeks. Baby goats and afterbirth are almost completely decomposed within 24 hours after placement.

Active (as opposed to newly started) compost piles continue to function through the winter regardless of ambient temperature. Cold or frozen carcasses placed in newly started compost piles during cold weather may not begin composting immediately, but will start as the ambient temperature rises.

All composting units should be situated on well-drained soil and provide all-weather capability access roads and work areas. If properly managed, composting units are aesthetically "invisible" and there is little or no risk of air, soil or water contamination.

References:

"Composting Dead Birds" by D.W. Murphy and L.E. Carr, Univ. of Maryland Cooperative Extension Service Fact Sheet No. 537.

"Disposing of dead swine" by D.W. Murphy, M.J. Estienne, C.N. Dobbins, Jr. and K.A. Foster, Pork Industry Handbook Fact Sheet No. 133. Perdue University Cooperative Extension.

Source: Presentation given at "Practical Goat Farming" seminar, February 1998, Salisbury, Maryland.

Coming Attractions (Next Issue-February)

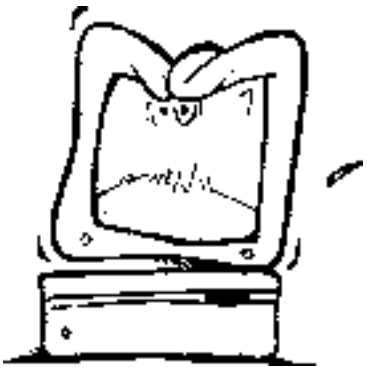
Farm Feature - Breezy Meadow Cashmere Farm
Doug and Roberta Maier
Bellingham, Washington

More Medicine Cabinet - Vitamins, Vaccines

A great article by Yvonne Zweede-Tucker on marketing and selling meat goats - her thoughts, her experiences

Behavioral principles of livestock (including goats) handling

The winners of the Guard Hair Contest!



Computer "Wisdom"

Experiences of Computer Technical Support Personnel, courtesy of University Of Texas, http://www.bus.utexas.edu/~iexpress/humor.html#tech

An exasperated caller to Dell Computer Tech Support couldn't get her new Dell Computer to turn on. After ensuring the computer was plugged in, the technician asked her what happened when she pushed the power button. Her response, "I pushed and pushed on this foot pedal and nothing happens." The "foot pedal" turned out to be the computer's mouse.

A Dell technician received a call from a customer who was enraged because his computer had told him he was "bad and an invalid". The tech explained that the computer's "bad command" and "invalid" responses shouldn't be taken personally.

AST technical support had a caller complaining that her mouse was hard to control with the dust cover on. The cover turned out to be the plastic bag the mouse was packaged in.

Compaq is considering changing the command "Press Any Key" to "Press Return Key" because of the flood of calls asking where the "Any" key is.

Medicine Cabinet for Sheep and Goat Producers

Drugs and feed additives used by sheep and goat producers worldwide
From the Maryland Small Ruminant Internet Pages

Editors Note: If you have computer internet access, these internet pages are an excellent resource. They can be found at: http://www.intercom.net/user/sschoen/meds.html The author of the pages has an extensive list of drugs, biologicals and feed additives with links directly to the sources of the information at the FDA, drug manufacturer or a University. Of course, as the author notes, all products should be used under the advice of your Veterinarian.

Extra-Label Drug Use

Extra-label drug use is defined as use or intended use of any drug in an animal in a manner that is NOT in accordance with the approved labeling. This includes use in a species not listed in the labeling, use for an indication (disease or other condition) not listed in the labeling, and use at dosage levels, frequencies, or routes of administration other than those stated in the labeling. It also includes deviation from the labeled withdrawal time. Extra-label drug use is only permitted by or on the order of a licensed veterinarian within the context of a valid veterinarian-client-patient relationship.

Due to the limited number of drugs labeled for use in sheep and goats, extra-label drug use is often necessary. Sheep and goat producers and veterinarians need to work together to ensure that all livestock drugs are used in a safe and legal manner.

There are two classes of drugs: Over the Counter (OTC) and Prescription Drugs. Over the counter drugs can be purchased and used as directed on the label by producers without establishing a relationship with a veterinarian. Prescription drugs can be used only on the order of a veterinarian within the context of a valid Veterinary Client Patient Relationship.

Extra-label drug use is permitted if there is a rational medical basis for the use and all requirements of the Animal Medicinal Drug Use Clarification Act (AMDUCA) are met. Extra label use is not permitted for nontherapeutic uses such as for production purposes or for improved reproductive performance.

Disclaimer: This article has been compiled for informational purposes only and is not intended to replace professional veterinary advice or care. The author disclaims any liability in connection with the use of this information.

Anthelmintics - Anti-parasitic

Ivomec® Drench
Ingredient - Ivermectin.
Availability - over the counter.
FDA approved use - for the control of gastrointestinal nematodes, lungworms, and nasal bots in sheep. Not approved for goats.
Route of administration - oral drench.
The injectible, paste and pour-on formulations of Ivermectin are not approved for use in sheep.
Recommended dosage - 3.0 mL (2.4 mg ivermectin) per 26 lbs body weight or 200 mcg ivermectin per kilogram of body weight.
Withdrawal - 11 days before slaughter.

Levasole - Levamisole
Ingredient - Levamisole Hydrochloride - *same active ingredient as Tramisol.*
Availability - over the counter.
FDA approved use - Use as an anthelmintic effective against stomach worms (Haemonchus spp, Trichostrongylus spp, and Ostertagia spp), intestinal worms (Trichostrongylus spp, Cooperia spp, Nematodirus spp, Bunostomum spp, Oesophagostomum spp, and Chabertia spp), and lungworms (Dictyocaulus spp). Not approved for goats.
Route of administration - oral, drench or bolus.
Recommended Dosage - bolus: 1 tablet/50 lb body weight; drench: mix the 544.5 g bottle in 3 liters of drinking water and administer as a single drench at 1 ml (0.365 g)/50 lb body weight.
Precaution(s) - Narrow margin of safety - follow recommended dose carefully.
Withdrawal - 3 days before slaughter.

Panacur® - Safeguard
Ingredient - Fenbendazole 10% suspension.
Availability - over the counter, vet license required for goats.
FDA approved use - for the removal and control of stomach and intestinal worms, Haemonchus contortus and Ostertagia circumcincta, in goats.
Not approved for sheep.
Route of administration - oral drench.
Recommended dosage - 5 mg fenbendazole per kg of body weight. Goats should be given 2X the sheep dose (Virginia Tech, 1995).
Precaution(s): Not for use in lactating goats.
Withdrawal - 6 days before slaughter.

Rumatel
Ingredient - Morantel tartrate.
Availability - over the counter.
FDA approved use - for the removal and control of mature gastrointestinal nematode infections of goats including Haemonchus contortus, Ostertagia (Teladorsagia) circumcincta, and Trichostrongylus axei.
Route of administration - oral feed additive.
Recommended dosage - Use a single therapeutic treatment. Medicated feed is to be fed at the rate of 0.44 grams morantel tartrate per 100 lb of body weight.
Withdrawal - 30 days before slaughter; no milk discard.

Strongid® -T
Ingredient - Pyrantel Pamoate.
Availability - over the counter.
FDA approved use - in horses and ponies for the removal and control of infections from the following mature parasites: Large strongyles (Strongylus vulgaris Strongylus edentatus, Strongylus equinus), small strongyles pinworms

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(Oxyuris), and large roundworms (Parascaris).
Not approved for use in sheep and goats. Refer to extra-label drug use.
Route of administration - oral suspension.
Dosage - equivalent of 3 milligrams pyrantel base per pound of body weight. 6 ml Strongid T per 100 lb body weight. For goats, 4.5 mg/lb has been recommended (Virginia Tech, 1995).
Withdrawal - none established.

Synanthic
Ingredient - Oxfendazole.
Availability - over the counter.
FDA approved use - for use in cattle for the removal and control of lungworms, stomach worms and intestinal worms. Not approved for use in sheep and goats. Refer to extra-label drug use.
Route of administration - oral, paste or suspension.
Dosage - administer 4.5 mg/kg body weight (2.05 mg/lb). Goats should be given 2X the sheep dose.(Virginia Tech, 1995).
Withdrawal - 11 days before slaughter.

TBZ - Thibenzole
Ingredient - Thiabendazole.
Availability - over the counter.
FDA approved use - for the control of infections of gastrointestinal roundworms in sheep and goats.
Route of administration - oral, drench or bolus.
Recommended dosage - sheep, 2 grams per 100 pounds of body weight;
Goats - 3 grams per 100 pounds of body weight.
Withdrawal - 30 days before slaughter; 96 hour milk discard.

Tramisol
Ingredient - Levamisole Hydrochloride - *same active ingredient as Levamisol/ Levisol.*
Availability - over the counter.
FDA approved use - anthelmintic effective against stomach worms (Haemonchus, Trichostrongylus, Ostertagia), intestinal worms (Trichostrongylus, Cooperia, Nematodirus, Bunostomum, Oesophagostomum, Chabertia), and lungworms (Dictyocaulus). Not approved for goats.
Route of administration - oral drench or oblets (tablets);
The injectible, gel, paste and pour-on formulations of Tramisol are not approved for sheep.
Recommended dosage - dissolve the contents of 13 g packet in 1 qt (32 fl oz) container and fill with water. Swirl briefly until dissolved. Administer as a single drench dose at 1/4 oz (0.365 g)/ 100 lb of body weight, or dissolve in water to provide 8.75 fluid oz of concentrate solution and administer as a drench at 2 ml (0.365 g)/100 lb body weight as a single oral dose by syringe. Oblets - 1 tablet (0.184 g)/50 lb. body weight.
Precaution(s) - Narrow margin of safety - follow recommended dose carefully.
Withdrawal - 3 days before slaughter.

Valbazen®
Ingredient - Albendazole.
Availability - over the counter.
FDA approved use - for the removal and control of liver flukes, tapeworms, lungworms, stomach worms and intestinal worms in sheep. Not approved for goats.
Route of administration - oral drench.
Recommended dosage - Seven and one-half (7.5) mg of albendazole per kg of body weight (3.4 mg/lb) administered orally with a suitable syringe or dosing gun. Goats should be given 2X the sheep dose (Virginia Tech, 1995).
Precaution(s) - Do not administer to ewes during first 30 days of pregnancy or for 30 days after removal of rams.
Withdrawal - 7 days before slaughter.

Antibiotics

Baytril©
Ingredient - fluoroquinolone enrofloxacin.
Availability - veterinary prescription.
FDA approved use - treatment of bovine respiratory disease (BRD) associated with Pasteurella haemolytica, Pasteurella multocida and Haemophilus sommus. Any extra-label use of fluoroquinolones, including Baytril 100, in food animals is prohibited under Title 21, Part 530.41, of the Code of Federal Regulations.
Dosage and directions for use - subcutaneous injection. Single-dose therapy: 7.5 to 12.5 mg/kg of body weight (3.4 to 5.7 mL/100 lb); multiple-day therapy: 2.5 to 5.0 mg/kg of body weight (1.1 to 2.3 mL/100 lb). Repeat at 24-hour intervals for three days. For animals that are clinically improved but still exhibit some signs of disease, additional treatments may be given on Days 4 and 5.
Withdrawal - 28 days before slaughter.

Aureomycin Premix
Ingredient - Chlortetracycline.
Availability - over the counter.
FDA approved use - in sheep, as an aid in reducing the incidence of vibrionic abortion; for growth promotion and improved feed efficiency; and as an aid in the reduction of losses due to enterotoxemia. Not approved for goats.
Route of administration-oral feed additive.
Dosage - 20 g to 50 g/ton for growth promotion and feed efficiency; 20 g/ton to reduce losses to enterotoxemia; 80 mg/ head/day to reduce incidence of vibrionic abortion (feed continuously during pregnancy.) Withdrawal - none.

Erythromycin - Gallimycin©
Ingredient - Erythromycin.
Availability - over the counter.
FDA approved use - in sheep, for the treatment of upper respiratory pneumonia and lamb dysentery.
Not approved for goats.
Route of administration - intramuscular (IM) injection.
Recommended dosage - for the prevention of dysentery; administer 5 mg/lb, given as a single dose as soon after birth as practicable; for upper respiratory infections; administer 1 mg/lb once a day.
Withdrawal - 10 days before slaughter.

Garacin Pig Pump
Ingredients - Gentamicin Sulfate.
Availability - other the counter.
FDA approved use - treatment of colibacillosis caused by strains of *E. coli* in neonatal pigs 1-3 days of age.
Dosage and directions - 1 full pump (equivalent to 5 mg gentamicin) orally per pig one time.
Withdrawal - 14 days before slaughter in pigs.

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Liquamycin LA-200
Ingredient - Oxytetracycline.
Availability - over the counter.
FDA approved use - for cattle in the treatment of pneumonia and shipping fever complex, foot rot, bacterial enteritis (scours) caused by E. coli, leptospirosis, wound infections and acute metritis, and infectious pinkeye.
Not approved for use in sheep and goats. Refer to extra-label drug use.
Route of administration - intravenous (IV) or intramuscular (IM)injection.
Dosage-IM 3 to 5 mg/lb body weight/day.
Additional information - long-acting - one shot last three full days.
Withdrawal - 28 days before slaughter.

Naxcel® Sterile Powder
Ingredient - Ceftiofur Sodium.
Availability - veterinary prescription.
FDA approved use - for treatment of sheep respiratory disease (pneumonia) associated with Pasteurella haemolytica and/or P. multocida.
Route of administration - intramuscular (IM) injection.
Recommended dosage - 0.5 to 1.0 mg/lb body weight (1 to 2 mL reconstituted sterile solution per 100 lb body weight).
Withdrawal - none.

Neomycin
Ingredient - Neomycin sulfate.
FDA approved use - for the treatment and control of colibacillosis (bacterial enteritis) caused by Escherichia coli susceptible to neomycin sulfate.
Availability - over the counter.
Route of administration - oral water additive.
Recommended dosage - Add to drinking water or milk to provide 10 mg neomycin sulfate/lb bwt/day in divided doses for a maximum of 14 days. Prepare a fresh solution daily.
Withdrawal - sheep, 20 days; goats, 30 days; no milk discard.

Nuflor® Injectable Solution
Ingredients - florfenicol.
Availability - veterinary prescription.
FDA approved use - treatment of bovine respiratory disease (BRD) associated with Pasteurella haemolytica, Pasteurella multocida and Haemophilus sommus.
Route of administration - intramuscular injection only.
Dosage and directions - 20 mg/kg of bodyweight (3 ml/100 lbs.) A second dose should be administered 48 hours later.
Withdrawal - 28 days before slaughter for cattle.

Penicillin G-Procaine
Ingredient - Penicillin G (procaine).
Availability - over the counter.
FDA approved use - indicated for the treatment of bacterial pneumonia (shipping fever) caused by Pasteurella multocida.
Route of administration - Intramuscular (IM) injection.
Dosage - 3000 units per pound of body weight or 1.0 mL for each 100 lbs. of body weight once daily. Continue treatment at least 48 hours after temperature has returned to normal and other signs of infection have subsided. Treatment should not exceed seven consecutive days.
Withdrawal - 8 days before slaughter; 48 hour milk discard.

Pen BP-58© - Long-acting Penicillin
Ingredients - 150,000 units Penicillin G benzathine; 150,000 units Penicillin G procaine.
Availability - over the counter.
FDA approved use - treatment of the following bacterial infections in beef cattle due to penicillin-susceptible micro-organisms bacterial pneumonia (Streptococcus spp., Corynebacterium pyogenes, Staphylococcus aureus), upper respiratory infections such as rhinitis or pharyngitis (Corynebacterium pyogenes) and blackleg (Clostridium chauvoei).
Dosage and directions - 2 ml per 150 lbs. of body weight given subcutaneously only (2,000 units penicillin G procaine and 2,000 units penicillin G benzathine per lb. of body weight). Treatment should be repeated in 48 hours. A single treatment maintains 48-hour penicillin blood levels.
Withdrawal - 30 days before slaughter for cattle.

Sulmet - Sulfamethazine
Ingredient - Sulfamethazine.
FDA-approved use - for the treatment of bacterial pneumonia and bovine respiratory disease complex (shipping fever complex) bacterial scours caused by Escherichia coli, foot rot, calf diphtheria, acute mastitis and acute metritis and coccidiosis caused by Eimeria bovis and E. zuernii.
Route of administration - oral, oblet.
Dosage - single dose 100 milligrams of sulfamethazine per pound of body weight the first day and 50 milligrams per pound of body weight on each following day.
Withdrawal - 10 days before slaughter.

Terramycin soluble powder
Ingredient-Oxytetracycline hydrochloride.
Availability - over the counter.
FDA-approved use - for the control and treatment of bacterial enteritis caused by E. coli and bacterial pneumonia (shipping fever complex) caused by Pasteurella multocida susceptible to oxytetracycline. Not approved for goats.
Route of administration - oral, water additive.
Recommended dosage - mix in drinking water to provide 10 mg/lb bwt/day. Administer up to 14 days. Prepare a fresh solution daily.
Withdrawal - 5 days before slaughter.

Today® - Cefa-Lak®
Ingredient - Cephapirin Sodium.
Availability - over the counter.
FDA approved use - treatment of lactating cows having bovine mastitis caused by susceptible strains of Streptococcus agalactiae and Staphylococcus aureus. Not approved for use in sheep and goats. Refer to extra-label drug use.
Route of administration - intramammary infusion.
Dosage - administer one dose into each infected quarter immediately after the quarter has been completely milked out. Do not milk out for 12 hours. Repeat once only in 12 hours.
Withdrawal - 4 days for slaughter; 96 hour milk discard.

Tomorrow® - Cefa-Dry®
Ingredient - Cephapirin benzathin.
Availability - over the counter.
FDA approved use - in dry cows for

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treatment of mastitis caused by susceptible strains of Streptococcus agalactiae and Staphylococcus aureus. Not approved for use in sheep and goats. Refer to extra-label drug use.
Route of administration - intra-mammary infusion.
Dosage - infuse contents of one syringe into each infected quarter.
Withdrawal - 40 days before slaughter; 72 hour milk discard.

Tylan Injection 50/200
Ingredient - Tylosin. Tylan 200 - 200 mg tylosin per ml; Tylan 50 - 50 mg tylosin per ml.
Availability - over the counter.
FDA approved use - for use in the treatment of bovine respiratory complex, foot rot, calf diphtheria, and metritis in beef cattle and nonlactating dairy cattle.
Not approved for use in sheep and goats. Refer to extra-label drug use.
Route of administration - injectible, intramuscular (IM) use only.
Dosage - 8 mg per pound of body weight once daily (1 ml of the 50 mg product per 6.25 pounds or 1 ml of the 200 mg product per 25 pounds).
Withdrawal - 21 days for cattle.

Coccidiosis - treatment and control of coccidiosis

Albon
Ingredient - Sulfadimethoxine.
Availability - over the counter.
FDA approved use - treatment of coccidia and scours; pneumonia and misc. bacterial infections in cattle and poultry.
Not approved for use in sheep and goats. Refer to extra-label drug use.
Dose rate: 25 mg of sulfadimethoxine per pound (55mg/kg) day one, 12.5mg per lb (27mg.kg)days 2-5.
Drug forms - 12% solution, bolus, soluble powder.
Withdrawal - 7 days before slaughter.

Bovatec®
Ingredient - Lasalocid Sodium.
FDA approved use - in non-lactating sheep for the prevention of coccidiosis caused by Eimeria ovina, E. crandallis, E. ovinoidalis (E. ninakohlyakimovae), E. parva, and E. intricata.
Not approved for goats.
Availability - over the counter.
Route of administration - oral, feed additive.
Dosage - for sheep maintained in confinement, feed continuously in complete feed to provide not less than 15 mg nor more than 70 mg of lasalocid sodium activity per head per day (depending on body weight).
Precaution(s) - Do not use this product in breeding animals. Do not allow horses or other equines access to lasalocid, as ingestion could be fatal.
Withdrawal - none.

Corid®
Ingredient - Amprolium.
FDA approved use - treatment of coccidiosis in beef animals. Not approved for use in sheep and goats in the U.S. Refer to extra-label drug use.
Availability - over the counter.
Route of administration - oral, drinking water.
Dosage - Add 16 fluid ounces of the 9.6 percent solution to each 100 gallons of drinking water; or 4 ounces of the soluble powder to each 50 gallons of drinking water; at the usual rate of water consumption, this will provide an intake of approximately 10 milligrams per kilogram (2.2 pounds) of body weight; offer this solution as the only source of water for 5 days.
Withdrawal - 1 day before slaughter (Beef calves).

Deccox®
Ingredient - Decoquinate.
FDA approved use - for non-lactating sheep and goats for prevention of coccidiosis.
Availabilty - over the counter.
Route of administration - oral, feed additive.
Recommended dose - thoroughly mix Deccox into the ration at a rate to provide decoquinate at a daily dose of 22.7 mg/100 lb (0.5 mg/kg) of body weight and feed for at least 28 days during periods of exposure or when experience indicates that coccidiosis is likely to be a hazard.
Precaution(s) - Do not feed to sheep or goats producing milk for food.
Withdrawal - none.

Rumensin®
Ingredient - Monensin Sodium.
Availability - over the counter.
FDA approved use - for non-lactating goats for the prevention of coccidiosis caused by Eimeria crandallis, E. christenseni, and E. ninakohlyakimovae.
Not approved for sheep.
Route of administration - oral, feed additive.
Dosage - Feed at levels of 20 g rumensin/ton. Feed continuously in Type C feed as monensin sodium.
Precaution(s) - Do not allow horses or other equine species access to formulations containing monensin. Ingestion of monensin by these species has been fatal.

Sulfaquinoxaline
Ingredient - Sulfaquinoxaline.
FDA approved use - in sheep, for the control and treatment of coccidiosis caused by Eimeria ovinoidalis and E. ninakohlyakimovae.
Route of administration - oral, drinking water.
Dosage - Mix in the drinking water to attain a final concentration of 0.015% for 3 days to 5 days. As a generalization sheep will consume approximately 1 gal/100 lb bwt/day.
Withdrawal - 10 days before slaughter.

Reproductive (Endocrine) control of reproduction

CIDR®
Ingredient - progesterone.
Use - synchronization of the estrus cycle for fixed-time insemination or controlled breeding; out of season or in-season breeding of sheep and goats.
Route of administration - vaginal pessary.
Not licensed for use in the U.S. Not commercially available in the U.S.
Dosage - Day 1, insert CIDR in vagina of animal. Day 14, remove pessary.

FSH-P
Ingredient - Follicle stimulating hormone.
Availability - veterinary prescription.
FDA approved use - used as a supplemental source of follicle stimulating hor-

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mone where there is general deficiency.
Route of administration - injectible.
Dosage - 5-25 mg. FSH-P should be added to sterile water for injection or sodium chloride injection.
Withdrawal - none.

Lutalyse® - Prostaglandin F2
Ingredient - Dinoprost tromethamine.
FDA approved use - for luteolysis to control timing of estrus in estrus cycling and clinically anestrous cattle that have a corpus luteum. Not approved for use in sheep and goats in U.S. Refer to extra-label use.
Route of administration - intramuscular (IM) injection.
Dosage - 5 ml (equivalent to 25 mg of dinoprost).
Precaution - Do not administer to pregnant animals, as abortion may result.
Withdrawal - none.

MGA® - Melengestrol acetate
Ingredient - Melengestrol acetate.
Availability - over the counter.
FDA approved use - for increased rate of weight gain, improved feed efficiency, and suppression of estrus (heat) in heifers. Not approved for use in sheep and goats in U.S. Refer to extra-label use.
Route of administration - oral feed additive.
Dosage - Feed at levels of 0.25 mg to 0.50 mg melengestrol acetate/head/day for 10 days. Withdrawal - none.

P.G. 600®
Ingredients - Serum gonadotropin (PMSG) and chorionic gonadotropin (HCG).
Availability - over the counter.
FDA-approved use - induction of estrus in prepuberal gilts and and weaned sows. Not approved in the U.S. for use in sheep and goats. Refer to extra-label drug use.
Route of administration - subcutaneous (SQ) injection.
Dosage - 400 IU serum gonadotropin with 200 IU chorionic gonadotropin/5 ml dose/animal.
Withdrawal - none.

Syncro-Mate (Chronogest®
Ingredient - Flurogestone acetate.
FDA approved use - for synchronizing estrus/ovulation in cycling adult ewes during their normal breeding season.
Availablity - over the counter.
Route of administration - intravaginal sponge.
Dosage - Using the applicator provided, insert sponge (45 mg) into ewe's vagina 13 days before desired start of breeding.
Precautions: use plastic or rubber gloves when handling large numbers of sponges to minimize exposure to the drug. Do not leave the sponge in the vagina for more than 21 days. Do not use in young ewes that have not had lambs.
Withdrawal - 30 days.

Syncro-Mate-B®
Ingredient - Norgestomet.
Availability - over the counter.
FDA approved use - use for the synchronization of estrus/ovulation in cycling heifers.Not approved in the U.S. for sheep and goats.
Route of administration - ear implant.
Dosage - insert 1/2 or one 6 mg implant SQ in the ear.
Withdrawal - none.

Lambing - Kidding

IV Dextrose
Availability - veterinary prescription.
Indications - for use in treatment of pregnancy disease and as a source of carbohydrates.
Dosage and directions - for intravenous (IV) administration. Solution should be warmed to body temperature prior to administration.

IV Calcium
Indications - to use as an aid in the treatment of milk fever (low blood serum calcium) in cattle.
Dosage and directions - administer intravenously or intraperitoneally. Solution should be warmed to body temperature and administered slowly.

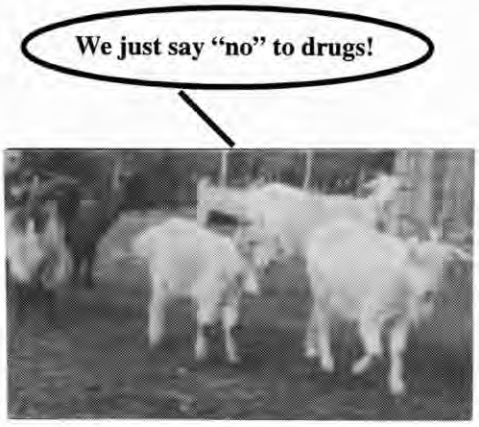
Oxytocin
Ingredient - Oxytocin.
Availability - veterinary prescription.
FDA approved use - as a uterine contractor to precipitate and accelerate normal parturition and postpartum evacuation of uterine debris. Will contract smooth muscle cells of the mammary gland for milk letdown if the udder is in the proper physiological state. Not approved for goats in U.S.
Route of administration - intramuscular (IM) or subcutaneous (SQ) injection.
Dosage - When using for obstetrical purposes in ewes, administer 1.5 ml to 2.5 ml by IV, IM, or SQ injection.
Withdrawal - none.

Propylene Glycol
Indications - for prevention and treatment of ketosis in cattle and sheep. In sheep, ketosis is called pregnancy toxemia, twin lamb disease or lambing paralysis.
Dosage and directions - oral drench 4 oz. per 100 lbs. twice daily.

Other

Epinephrine
Indications - for treatment of anaphylactic shock in cattle, horses, sheep, and swine.
Licensed for veterinary use only.

Ralgro®
Ingredient - Zeranol.
Availability - over the counter.
FDA approved use - for increased rate of weight gain and improved feed conversion in feedlot sheep. Not approved for goats.
Route of administration - subcutaneous (SQ) implant.
Recommended dosage - implant one 12 mg pellet SQ on the back side of the ear, in the middle part of the ear. Can be implanted in baby lambs.
Withdrawal - 40 days before slaughter.



Goat gadgets

Construction Notes for the Famous Wes Ackley Hay Feeder

By the famous Wes Ackley

This feeder design evolved through a process of trial and error. It provides a safe and efficient feeder for animals of all ages. Waste and contamination of fleeces are minimal with the vertical 4" welded mesh panels. Cleaning is easy: each of the steel panels can be slid out the end of a side frame after removing one wing nut and bolt. And the whole unit is relatively light. I should add that, in addition to these free-standing feeders which work as room dividers in open spaces within the barn, we have a single-face version (15" deep by 12 ft., 1 ½" long) attached to an outside wall of the doe barn. It is under a "porch" overhang on the protected east side where less dominant does can eat without confronting the more assertive goats inside. The area under both feeders works as a refuge for kids.

I apologize for my drawing, folks. This is kitchen table drafting, using crude tools and old eyes. Let me give some explanation of what you are looking at. First, for clarity, the welded panels are removed from the front side. You can imagine them in place seated on the 1x4 rail and each secured at the center stile with a bolt. Second, the plywood divider/slide is shown cut away at front right to illustrate construction: that's right, there is no floor other than the 1x6 at each side and two 2x4 cross braces (one hidden by plywood on left side) to give some support and rigidity. It is those plywood divider pieces, with their perfect factory edges fastened to the ends of the floor boards, which hold the finished unit square without adding a lot of weight.

I got lazy in drawing those stiles on the side frames which project below the bottom rail. In actuality they are two inches longer with their bottom ends cut rounded to prevent harm to goat faces. Why did I leave those stiles long? I wanted to be able to add on another board beneath the rail to discourage larger animals from crawling under. If one wishes to reserve the crawl space as a refuge for kids only, 1x 4 x 28" rails should be fastened to the legs on each end about five inches off the floor. That leaves a 7" high opening for the kids to dive through, and they will treasure this haven.

The height of the plywood divider differs on all my units according to what was lying around the barn. On my most recently constructed feeder I found I had a full length piece of ½" plywood 32" wide, and I ripped it into two 16" strips. That is what I used for the drawing, as it worked best for showing the whole unit. But Marilyn points out that the feeder with 24" divider sheets provides a steeper incline and so prevents the hay from hanging up.

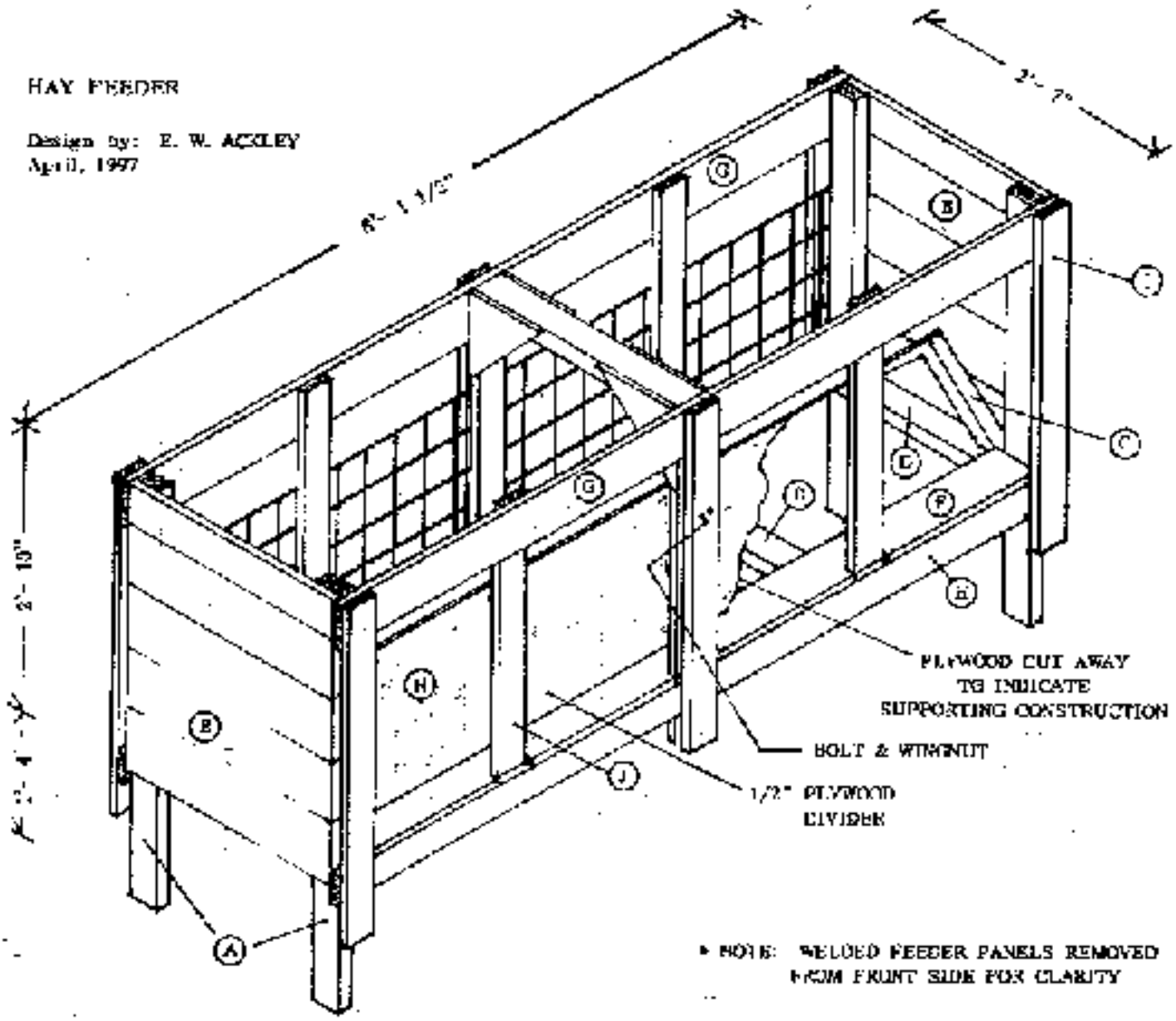
Note that in the drawing there is an open space of 6" between the top of the welded panels and the top rail. Marilyn likes having the open space so she can reach in to rearrange the hay. I like the model where I've filled that space with scrap lumber to keep does from reaching over. It seems easy enough to pull the security bolt and slide out a panel if you need to reach in.

Materials. The four legs, the center cross brace, and the cross braces on which the floor strips and the divider rest are 2x4's; pick straight ones to avoid troubles. The boards for the end panels are shown as 1x8's but other widths are fine. All other lumber, except some 2x2 blocking, is either 1x4 or 1x6 planed, but use up what you have in the scrap pile wherever possible. I advise using galvanized sheet rock screws for all fastening; they allow more accurate assembly and easy disassembly, if need be. The 48" x 20" welded mesh panels are available from Premier, PO Box 89, Washington, Iowa 52353. Telephone 800-282-6631.

Construction. It's simple. Build the two 28" wide ends first, complete with the 2x4 floor support notched around the legs and the 2x2 divider supports in place. Then stand them up and join them together with the two 1x6 floor boards and then the two plywood divider pieces, squaring up the unit before final fastening. Cut notches in each floorboard for three inside frame stiles. Then add everything else.

Cutting List

Item	Quantity	Description
A	4	Legs – 2x4x50"
B	10	End boards – 1x8x28"
C	4	Divider supports – 2x2x variable (see text)
D	5	Cross braces – 2x4x28"
E	2	Bottom rails – 1x4x8 ft, 1 ½"
F	2	Floor boards – 1x6x7 ft., 9 in.
G	2	Top rails – 1x6x8 ft, 1 ½"
H	2	Divider pieces – ½" x variable x 8 ft. DCX plywood



I	8	Stiles – 1x4 x 41 ½"
J	4	Stiles – 1x4 x 36"
	4	10" plywood gussets for center brace

New Test for Scrapie

Secretary Glickman Announces New Test to
Diagnose Scrapie in Live Sheep
By Kathryn Barry Stelljes
April 9, 1998

USDA scientists have discovered that sheep eyelids hold the key to an easy, relatively inexpensive test for diagnosing scrapie, a fatal brain disease in sheep, Agriculture Secretary Dan Glickman announced recently.

"This test will allow producers and veterinarians, for the first time, to easily detect scrapie in sheep before the animals show signs of the disease," said Glickman. "Until now, scrapie could only be confirmed by examining the brains of dead animals. Clearly, this is an important step toward controlling this disease."

Scrapie is a fatal, degenerative disease affecting the central nervous system of sheep and goats. There is no cure or treatment for scrapie and scientists do not fully understand how it is transmitted. Sheep can harbor the disease for up to five years before they show signs such as trembling, incoordination or scraping against objects.

Under USDA regulations, producers with confirmed cases of scrapie in their flock often must destroy animals in an effort to eliminate the disease.

USDA estimates that the new eyelid test will be performed for about $25 per animal once it is commercially available. Current tests require biopsies of internal organs, which is more risky and can cost up to $500 per animal.

In developing the test, researchers at USDA's Agricultural Research Service discovered that the third eyelid in sheep collects prions, a type of protein believed to cause scrapie. They also designed a new antibody to identify prions in a sample of eyelid tissue. USDA has applied for patents on both discoveries.

"This is another good example of the tremendous impact that long-term investments in research can have on some of the toughest problems facing American agriculture," Glickman said.

ARS microbiologist Katherine I. O'Rourke led the Pullman, Washington-based team responsible for this important work. Others on the team include Donald P. Knowles, who leads the Pullman lab, Timothy V. Baszler and Steven M. Parish with Washington State University in Pullman, and Janice M. Miller at the ARS National Animal Disease Center in Ames, Iowa.

Scrapie-Washington Flock Destroyed

In Olympia, Washington, on November 18, 1998, State veterinarians destroyed a flock of 300 sheep in Franklin County after a ewe in the flock tested positive for scrapie.

The sheep, which were mostly commercial-grade Suffolks, belonged to Duane Moffatt of Pasco, Washington. Before the discovery, Moffatt had sold 250 lambs from the flock, including about 50 4-H club lambs. The lambs were sold in 1997 and 1998. Moffatt did not keep records of where he purchased sheep or who he sold them to, so tracking of potentially-infected livestock was impossible.

The case was discovered by the State when a veterinarian had been called out to observe one of Moffatt's ewes. Since Scrapie is a reportable disease, the veterinarian was required to inform the State Veterinarian, Robert Mead. Mead contacted Moffatt and quarantined his flock while attempting to trace animals purchased and sold from the flock. Under Washington's law regarding TSE's (transmissible spongiform encephalopathy), only infected or high-risk animals in a flock must be destroyed. The remaining animals in the flock are required to be entered into USDA's Voluntary Scrapie Flock Program, which requires regular screening of the remaining sheep. Because Moffatt had inadequate records to determine which animals were high-risk, destruction of his entire flock was required by the State.

Under Washington's indemnity program, Moffatt received 75 percent of the appraised value of his flock as compensation from the State. Moffatt will not be eligible for future indemnity payments unless he meets stringent conditions required by the State.

Per Mead, "At this stage, we can't say scrapie is a major public health or animal health threat, because economically it doesn't take many animals, but the perception that the sheep industry is living with a TSE is not tolerable anymore."

COMMON SKIN DISEASES IN GOATS

By Suzanne W. Gasparotto & David Goll
Onion Creek Ranch, Rt. 1, Box 13400, Buda, TX 78610
Phone/Fax 512-282-6073

Skin diseases in goats can be classified into four general categories: fungal, parasitic, viral, and bacterial.

Fungal Diseases

Ringworm is the most recognized fungal disease in goats. It is not a worm, but rather a fungus which usually appears during prolonged periods of very wet weather, often when it is difficult to keep the pens clean and therefore disease free.

Ringworm can be located almost anywhere on the goat's body; its appearance is that of a rounded patch of hair surrounded completely by a hairless ring. Left untreated, it gets bigger and bigger. Ringworm is contagious both to goats and to humans.

Treatment involves donning disposable gloves and thoroughly washing the area with a topical skin disinfectant like Betadine Surgical Scrub. Then wipe the cleansed skin surface dry and apply 1% Clotrimazole Cream to the affected area. Repeat this treatment daily for at least two weeks and possibly longer, until the ringworm is gone.

While ringworm doesn't bother the goat or interfere with its habits, it can take up to a month to cure.

Parasitic Diseases

Ticks and Mange (mites) are difficult to eradicate, requiring topical treatment with the appropriate approved insecticide every two to three weeks until evidence of infection is gone.

Lice infestation is not uncommon in goats. Oftentimes, only one or two animals have them. If a goat has a scruffy coat and has been recently wormed, it is a good bet that lice are the culprits. There are two types of lice, biting and blood-sucking, and microscopic examination is necessary to determine which kind is present on the goat. Treatment, however, is similar, so assume it is the blood-sucking kind that will cause anemia if left uncontrolled and treat immediately with Synergized De-Lice or similar product topically. For lactating goats, choose one of several products on the market (permethrins) that has no withdrawal time.

Keds are wingless blood-sucking flies that burrow into the skin of the goat. Insecticides used for louse control are also effective against Keds.

Screw Worms are fly maggots that are deposited into body openings or wounds. Usage of fly repellents and insecticides cut down on the likelihood of screw worm infestation. A screw worm deposit should be cleaned out with a mild solution of pine oil or similar product and a topical antibiotic like Triple Antibiotic Cream applied until the infected area is healed.

Viral Diseases

Soremouth (contagious ecthyma) is a common viral disease afflicting goats. In most cases, it is not debilitating. However, the appearance of soremouth in a herd when young kids are nursing can be disastrous. Soremouth (sometimes called Orf) affects mucous membranes such as lips and teats, making nursing difficult and sometimes causing the dam to reject her kids because nursing is painful to her. In such situations, the death of kids can occur. Blisters appear, usually on the goat's lips, and when they scab over and ultimately drop off, the ground becomes infected. Recent evidence reveals that some goats may be carriers of the disease. The good news is that once a goat has had soremouth, it will not catch the disease again. The bad news is that once a producer's property is infected with Soremouth, it is there forever.

Treat Soremouth with topical application of Gentian Violet, an old-time remedy that is both cheap and effective. Ask for it behind the pharmacy counter. Wear disposable gloves, since Soremouth is zoonotic (contagious to humans) and Gentian Violet stains purple. Some producers use Tea Tree Oil, WD-40, and a variety of improvised products to dry up the blisters so that they scab over and the goat can eat without discomfort again.

A live virus vaccine exists to prevent Soremouth. The downside is that if a herd doesn't already have Soremouth, the vaccine will introduce it to them. Producers will have to decide for themselves whether they wish to vaccinate against Soremouth. This writer chooses not to do so.

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Skin Diseases
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Caprine Herpesvirus is occasionally seen in goats and generally has to run its course. Be aware that this virus, if present in pregnant does, is likely to cause abortions. In these cases, high fever accompanies the Herpesvirus infection. There is a genital form that is believed to be venereal, but bucks do not have to show obvious signs of infection in order to spread Herpesvirus. Oddly enough, neither the goats' ability to reproduce nor their conception rates are negatively affected by this disease.

Bacterial Diseases

Staphylococci bacteria often invade skin lesions on goats. Infection can be generalized over large areas of the goat's body or localized in the form of pustules on a doe's udder. Generalized infections should be treated with long-lasting Benzathine Penicillin (five cc's per one hundred pounds of body weight for five consecutive days), in combination with cleansing the affected area thoroughly with chlorhexidine shampoo or Betadine Surgical Scrub. Then apply an antibiotic cream topically. For localized infections such as the surface of the udder, the antibiotic treatment can be eliminated and the cleansing/antiobiotic cream regimen can be solely used.

This article is by no means a complete list of all the skin diseases which can affect goats. It is intended to provide producers with an overview of the most commonly seen caprine skin diseases.

Remember Doug Maier and this hairball?
It's not from his goats—he's just holding it for a friend.
Here's the scoop

Who Gets Hairballs?

Cats—Of course, Angora Rabbits—Definitely!
Cashmere goats—Occasionally...

Late last summer, a young cashmere goat in Washington died. It was later determined that the goat had died from impaction and bloat caused by numerous hairballs in its digestive system. We could find no information on hairballs in goats in our references, so we contacted the Veterinarian who treated the goat, Dr. Paul Schwab of the Rulshan Veterinary Clinic in Washington.

Dr. Schwab said that goats, like any animal can get hairballs, but it is very sporadic. Hairballs are not common in goats, even fiber goats, and their occurrence is very random.

The cashmere goat that died was around six months old. It's mother had just died and Dr. Schwab felt that the goat may have been stressed due to the loss of its mother. The goat appeared healthy. It had a nice coat and did not have lice.

When the Dr. Schwab observed the goat, he noticed that it appeared that its digestive system had shut down. He did not suspect hairballs as the goat was young, lice-free and appeared to be healthy.

After the death of the goat, upon autopsy, they found that the goat had 15 melon-sized hairballs in its system which had caused impaction.

Per Dr. Schwab, if they had suspected that the goat had had hairballs, they might have shown up in an X-ray. However, if a treatment of feeding oil to assist the animal in passing the blockage does not work, it is difficult to remove them surgically and usually not economical to try.

Usually only severely stressed goats develop hairballs; they normally have lice and are itching. Symptoms of hairballs include stomach pain, colic and bloat. The animal may go off food, lay on its side and roll or kick at its stomach.

Dr. Schwab said that hairballs are not common in most animals. If he autopsied 10 calves, he might find one with hairballs.

An animal can get hairballs from ingesting its own fiber, other animals' fiber or from other fibrous substances such as extremely fibrous plants or foreign matter.

Goat Feet and Legs

By G. F. W. Haenlein and R. Caccese; University of Delaware, Newark
Reprinted from the United Stated Extension Goat Handbook

Structure

Feet of goats are pair-hoofed (ungulates) as in other members of the zoological order of artiodactyla. The fore-knee of goats is called the carpus joint, resembling the wrist of people. Below it follows the cannon or metacarpus bone (people's hand bones) while above are, in vertical alignment, the radius and ulna bones (lower arm), almost totally fused into one. This is the extent of the visible part of the foreleg of goats while the part resembling the upper arm of people above the elbow, the humerus bone, is not a free apendage in goats, similar to sheep, cattle or horses, for example. Yet, the humerus must be tightly attached to the ribcage so to provide the goat with maximum support. A loose attachment gives the appearance of "wing shoulders", i.e. a visible distance between elbow and body proper, resulting in weakness and fatigue on standing and thus shortened feed intake and reduced milk production.

The bones of the goat's hindleg (pelvic limb) are similar to those of the foreleg (thoracic limb) in a number of details. The invisible upper hindleg bone is called femur ending in the knee joint called "stifle" which is also not free from the body proper. Then follow the fused tibia and fibula bones into the hock joint or tarsus. Below it is the cannon or metatarsus bone. As in the case of the foreleg, it is very important for productive goats to have the hindlegs in overall perpendicularly vertical alignment with the legs parallel flat to the body and strongly attached. Evidence to this desirable condition is that the legs are not "sickle hocked", not walking "under the belly", the forelegs are not "buckled" in the knees, and the feet are not toeing in or out.

The feet of goats, as in sheep and cattle resemble fingers and toes of people. The third and fourth fingers or toes, called digits of goats, are fully developed, while the second and fifth are vestigial. The digits consists of three phalanx bones, in line each, starting from the cannon bones, metacarpus or metatarsus, respectively, and are externally marked by the fetlocks or dewclaws. The phalanges are placed ideally at a 45 angle to the cannon bones, for optimum support of the goat. This is known as "correct pasterns". They should not be "post-legged" which is too straight, nor "bear-pawed" which is a weak pastern.

The hoofs of goats are derived from the skin, along with hair, horns and claws. The horny material that covers the end of each digit is also referred to as the claw of goats as on other artiodactyls such as deer, sheep and cows. The claw is composed of three basic segments: wall, sole and periople.

The wall of the claw is the part that is visible when the foot stands flat on the ground. The inner area of the wall, the sole, is made up of closely spaced plates of horn (lamellae). The horny lamellae fit into the sensitive lamellae that are produced by the connective tissue (corium). Both the sensitive and the horny lamellae have secondary fibers (laminae) on their surfaces

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Feet and Legs

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which interlock among themselves. It is in this area that the nutrition of the wall of the hoof take place.

The actual growth of the claw begins at the coronet border region, the uppermost area of the external foot, just at the hairline of the leg. The outer part of the coronet is covered by a brown layer of horn, the periople. The horn grows out from the coronet. The wall of the foot joins the sole by a type of horn that is both lighter and softer textured than the rest of the horn. This white line is known as the zona lamellata. The periople is fairly extensive in goats, covering not only around the top of the claw, but also the entire surface of the heel, blending in with the sole. There is no clearly visible breaking point between the periople and the sole of the foot.

Foot Care

Foot care in goats is a fairly simple matter that one can readily learn, although a conscientious effort must be made in order to insure that the required work is done on a regular and consistent basis. Many foot and leg problems that goats develop are either directly or indirectly caused by a lack of or improper trimming techniques.

The amount of time between trimmings depends on several factors, such as the type of ground on which the goats walk, their age and level of activity. Generally, foot trimming should be done at least every three months, although once every 6 weeks may be considered ideal and should be the goal of the goat herd owner. All goats in the herd, including kids that are over two months of age should be trimmed regularly. To allow more than 3 months between trimmings is an invitation for the development of chronic leg problems, especially in the pastern area, because the toes are getting too long and the vertical alignment of the legs and the proper angularity of the feet are changed.

It is always easier to trim feet after the goats have been outside in the wet grass of a dew laden or rain soaked pasture, as the moisture is taken in by the hoof walls, making them softer and easier to trim. There are also commercial preparations that may be used to harden or soften the hoof if one feels that this is necessary.

The essential tools for the trimming job are relatively few, with the best items a set of hoof shears and hoof knives, both with a sharp edge; a rasp, some iodine, turpentine, copper sulfate, formalin and gloves.

There are several ways of holding or restraining a goat in order to care for the feet, the best method being whichever works well in a particular situation. One method is to place the goat on a milking stand, perhaps offering a little grain or hay for a cooperative attitude. One may best work from the side of the goat on which she is used to being milked. Doing first the front, then the back feet reduces the goat's fright and resistance. The front feet can be done by drawing the leg straight out in front of the goat or by bending it at the knee so that the foot is brought back under the goat. The hind feet may also be extended straight back, away from the goat or picked up and lifted under the belly for trimming. One advantage of working off of a milkstand is that the trimmer does not have to bend over in order to get the job done. He may even sit down. In this way, the milkstand can be a real back saver, which indirectly helps the regularity of the hoof care and the health of the goats.

Another method is to merely tie or have someone hold the goat while the feet are being done from the ground, in the same fashion as a farrier works on a horse.

Another method involves placing the goat between one's legs in the same position used for shearing sheep; that is, the animal is in an upright sitting position. This method has the advantage that if the trimmer must work alone without the aid of a milkstand, he still can restrain goats better than when they are tied somewhere but do not like to stand still.

The first step in trimming is to clean off the foot, so that it will be free of dirt, stones, rot and manure. Besides being easier to see and more pleasant to handle, a clean foot will not dull a knife's edge as fast as a dirty foot. The next step is to remove any rim or excess growth from the walls of the foot. The wall may have grown and folded back under the foot, in which case first some of the toe will have to be cut back so that the rim of the wall can be removed properly. The trimming of the wall and toe should be done with the shears, while the heel and sole can best be cut with a hoof knife. In using a hoof knife, care must be taken to cut in the direction away from the goat and the operator. The sole should be trimmed down in thin slices until the heel, sole and wall form a flat surface upon which the goat should stand at a correct angle of about 45°. Caution must be exercised in cutting, to stop as soon as the sole begins to take on a pinkish color. Any further trimming goes into the "quick" and the foot will begin to bleed. In that case, a disinfectant such as iodine should be used. Turpentine will harden the sole and may also be helpful.

If the goat's feet have been neglected for some time and the toes are very long, it is usually not prac-

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Feet and Legs
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tical to try and bring them back to normal in one trimming. It is generally better to trim the feet then more often, gradually getting back to a proper shape, size and angle. A general rule to keep in mind about trimming goat's feet is that the hoof's hairline should be almost parallel to the ground and the more often trimming is done the less time and energy per trimming it takes, and the more well behaved the goats will be during the trimming. Also, there is a smaller chance of the goat developing foot problems such as hoof rot if the owner is working with the goat's feet regularly and frequently.

Foot Rot

One of the most common problems with goat's feet is the development of foot rot. This disease is caused by the bacterium Fusiformis nodosus, which is brought into an area by way of contaminated feet, and is capable of surviving in an open field for about 2 weeks. Generally, this problem starts as an inflammation between the toes of the foot, later spreading under the horn. As it continues, it causes a separation between horn and skin, causing varying degrees of pain and lameness.

In order to correct this problem, the hoof must be trimmed back to the point of separation from the skin. The foot should then be treated with an antibiotic spray (chloramphenicol or tetracycline), or soaked and then the animals should be kept off contaminated fields or muddy yards for at least two weeks to avoid reinfection. A walk-through a foot bath filled with lime or saturated copper sulfate solution aids well in maintaining sound, healthy feet of goats; provided the foot bath is kept free of contamination from manure, rain and run-off. Spreading superphosphate fertilizer around the wet spots of the barn yard, near the feed bunk, waterer and buildings also may help. Sharp crushed stones and cinders should never be used on the ground of goat yards since they injure too easily the soft parts of the goat's hoofs. In wet regions or areas with frequent rainfall it is best to provide goats with stone or concrete walks, pens with wooden slatted floors, and solid aprons around the feed rack, trough and waterer so that the goats can walk and stand as much as possible on dry ground, especially during feeding.

Corrective Measures

Some foot and leg problems can be "cured" by corrective foot trimming. If the hindlegs are postlegged or too straight, it may give the foot a better, less than 45^0 angle by cutting the toe not too short. Vice-versa, a sickle-hocked leg will benefit from frequently trimming the toes short to a greater than 45^0 angle. If the legs toe out, trimming the total inner claw shorter and lower on each foot will help. If hooves have spread claws, then cutting the inner walls more than the outer walls on each claw, is good corrective hoof trimming, provided it is done frequently and in short intervals.

A conscientious effort in a good foot care program will keep goats better looking, more healthy, happy and more productive. Experience in the care of feet of horses, sheep or cattle should benefit the needs of goats since the principles in foot care of either species are close to the same.

Three goats, twelve sets of legs and twelve sets of feet.
"Is it spring yet?"

USDA TO TEST
ANIMAL HEALTH EMERGENCY MANAGEMENT SYSTEM

WASHINGTON, Oct. 8, 1998—The U.S. Department of Agriculture's Animal and Plant Health Inspection Service will conduct a test exercise this fiscal year of its Regional Emergency Animal Disease Eradication Organization (READEO) system.

"If an exotic disease such as hog cholera or highly pathogenic avian influenza were to breach U.S. borders, our READEO teams would be called into action," said Craig A. Reed, administrator for APHIS, a part of USDA's marketing and regulatory programs mission area. "Regular practice ensures that the system is working and ready."

If a foreign animal disease became established in American livestock or poultry, the economic consequences to producers and consumers would be severe. For example, APHIS' eradication of a highly pathogenic avian influenza in the United States, following an outbreak in 1983-84, resulted in the destruction of more than 17 million birds and cost taxpayers nearly $65 million.

"In recent years we have seen animal diseases wreak havoc on other parts of the world: bovine spongiform encephalopathy in Great Britain, foot-and-mouth disease in Taiwan, and hog cholera in the Netherlands and the Dominican Republic," said Reed. "Again and again, we are reminded of how important it is to be prepared."

READEO team members are highly trained and ready to fight exotic diseases and parasites anywhere in the United States. READEO personnel confirm the presence of exotic disease, inspect infected and exposed animals, and appraise the value of animals that may have to be destroyed.

These employees conduct vaccination programs and epidemiologic studies and are trained to dispose of animal carcasses, clean and disinfect premises, set and enforce regulations against disease spread, and control disease carriers.

Responding to a disease outbreak requires cooperation among APHIS personnel, state animal health officials, industry, and the public. APHIS takes the lead in coordinating the efforts of these groups and ensures that the methods for eradicating an outbreak remain current as new technology and research become available.

A recent enhancement to READEO is a three-member Early Response Team. The ERT can be deployed anywhere in the United States within 24 hours to assess a disease situation that may lead to the activation of READEO. In the event of an activation, team members can quickly set up field operations to lead an eradication effort.

"When we initiate the READEO exercise, we notify state animal health authorities, industry representatives, international trading partners, and other federal agencies to assure them that it's a practice test, and not a real disease outbreak," said Reed.

Did You Know?
You can no longer get cows (and goats) from Liechtenstein!

On December 24, 1998, the US Department of Agriculture added Liechtenstein to the list of regions where bovine spongiform encephalopathy (BSE) is known to exist. This action prohibits or restricts the importation into the United States of live ruminants and meat, meat products, and certain other edible products of ruminants that have been in Liechtenstein.

"This action is consistent with USDA's efforts to protect our domestic cattle population," said Craig A. Reed, administrator for APHIS, a part of USDA's marketing and regulatory program's mission area.

Liechtenstein's Ministry of Agriculture reported and confirmed that BSE was diagnosed in two bovine animals born in Liechtenstein.

"Based on this information, we acted immediately to reduce the risk of introducing BSE into the United States," said Reed.

I've never thought about Liechtenstein much. In fact, I had to look it up to find out something beyond it was in Europe someplace, was real small and it's supposedly a "tax haven." So my research was not conducted in vain: Liechtenstein, which has been an independent country since 1719, is 62 square miles located in the mountains between Switzerland and Austria. It has low taxes and bank secrecy. Foreign workers make up between 1/3 and 1/4 of the 27,500 population.

They speak German, are tied to Switzerland and women weren't given the vote until 1986. And, they apparently have a few cows.

Calendar of Events

January 9 - 24, 1999
National Western Stock Show & Rodeo, 4655 Humboldt St, Denver, Colorado 80216-2818, Phone 303-297-1166.Website for detailed calendar of events: http://www.nationalwestern.com

January 13, 1999
National Western Stock Show, Goat Shearing Contest, 6 PM, Stadium Hall, Level 1, see address and telephone above.

January 13, 1999
Cashmere America Co-op membership meeting Denver, Colorado at National Western Stock Show.

January 14, 1999
National Western Stock Show, Cashmere Goat Show, 10 am, Stadium Hall, Level 1, see address and telephone above.

January 16, 1999
5th Annual Pygora Goat Show & Fiber Frenzy
The Armory Building, Washington County Fair Complex, Hillsboro, OR. Fun, fiber, fleeces, vendors, goat show, demos. 10 am - 5 pm. Free admission. For more info: Lisa Roskopf: 503-985-3331, Jackie Liner:503-623-2376.

January 30, 1999
Barn to Yarn VII, Pioneer Museum Complex, 309 W Main, Fredericksburg, Texas, 512-440-1025
Festival showcasing fiber production and different ways in which wool, cotton, mohair, camel hair, etc. can be transformed into useful products. Demonstrations: Spinning, weaving, hooking, felting, lacing, etc. More inforrmation on page 6, this issue.

March 20, 1999
Farm Field Day, Goat Knoll, Dallas, Oregon
10:00 am - 4:00 pm or so. Hands-on lessons on goat care, goat conformation, fiber preparation, spinning and other cashmere-related stuff. More information on page 3, this issue.

May 29, 1999
Back of the Wasatch Fiber Festival, Summit County Fairgrounds, Coalville, Utah, Featuring llamas, alpacas, sheep, stocksdogs and everybody's favorite: goats! More info: Heide Smith 435-649-3856 (evenings).

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)
Kris McGuire, President, 970-493-6015
email: krisvadale@aol.com
Membership info: Marilyn Burbank, PO Box 2067, Rogue River, OR 97537, email: burbank@cdsnet.net

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)
Guy Triplett, President, 541-388-1988
harvest@empnet.com

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

Pygora Breeders Association (PBA)
Darlene Chambers, President
phone: 541-928-8841, fax: 541-928-0246
email: dchambers@proaxis.com

Texas Cashmere Association (TCA)
Dee Broyles, President
806-489-7645 office, 806-489-7959 home

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

Breeders

CANADA

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

UNITED STATES

CALIFORNIA

HENRY LOWMAN
PO Box 2556
El Granada, CA 94018
650-225-1171
email: hlowman@
compuserve.com

SUNRISE CASHMERES
Melody and Jeremy Driscoll
PO Box 245
Blocksburg, CA 95514
707-926-5430

COLORADO

MARSHALL'S ORGANIC ACRES
9217 N. County Rd. 7
Wellington, CO 80549-1521
970-568-7941
email: PLCMARSHAL@aol.
com

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

IDAHO

SHREFFLER TARGHEE & CASHMERE
Ken & Loyce Shreffler
589 Center Valley Road
Sandpoint, ID 83864
phone & fax: 208-263-5038
email: loyce@micron.net

KENTUCKY

OCTOBER FARM III
Dick and Dottie Gould
764 Shacks Branch Rd.
Jackson, KY 41339
606-666-4878
email: octfarm3@se-tel.com

MAINE

BESSEY PLACE CASHMERE
Wes and Marilyn Ackley
319 Brock School Road
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

GRUMBLE GOAT FARM
Linda N. Cortright
574 Davis Rd.
Union, ME 04862
207-785-3350
fax: 207-785-5633
email: grumble@midcoast.
com

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

MARYLAND

MIDDLETOWN FARM
George and Barbara Little
8123 Old Hagerstown Rd
Middletown, MD 21769
phone & fax: 301-371-8743
email: glittle640@aol.com

MINNESOTA

THE WINTER FARM
Vicki Biggs
122 Caspers Hill Rd.
Grand Marais, MN 55604
218-387-1913
email: momsuper@boreal.org

MONTANA

CASTLE CRAGS RANCH
Diana Hachenberger
894 Pheasant Run
Hamilton, MT 59840
phone & fax: 406-961-3058

**EDENS,
DAN AND SHERYL**
1825 Sierra Rd E.
Helena, MT 59602
406-458-5317
email: edensdan@initco.com

J & K CASHMERES
Jim Haman & Kathy Sumter
604 2nd St. S.W.
Park City, MT 59063
406-633-2210
fax: 406-633-9157

SMOKE RIDGE CASHMERE
Craig Tucker
Yvonne Zweede-Tucker
2870 Eighth Lane NW
Choteau, MT 59422
406-466-5952
Fax: 406-466-5951
email: smokeridge@marsweb.
com

NEBRASKA

AIRY KNOLL FARMS, INC.
Richard & Harriet Jensen
76460 Road 424
Cozad, NE 69310
308-784-3312

HI-PLAINS CASHMERE
Julie and Alex Becker
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
fax: 308-588-6236
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
fax:908-852-1336 (call first)
email:blackfen@juno.com

Directory

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: tamarack@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

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

CHEHALEM CASHMERE
Heidi and Paul Sullivan
21605 McCormick Hill Rd.
Hillsboro, OR 97123
503-538-9791

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

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

HARVEST MOON FARM
Guy and Karen Triplett
63300 Silvis Road
Bend, OR 97701
541-388-8992
email: harvest@empnet.com

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

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

K-T CASHMERE GOAT FARM
Kitty and Tom Hanczyk
33758 Totem Pole Rd.
Lebanon, OR 97355
541-258-5857
email: toolguy@dnc.net

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

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

NORTHWEST CASHMERES
Carole Laughlin
21935 SW Lebeau Rd.
Sherwood, OR 97140
503-625-8816

ROARING CREEK FARMS
Arlen and Cathy Emmert
27652 Fern Ridge Road
Sweet Home, OR 97386
503-367-6698
email:cashmere@proaxis.com

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

SUNSET VIEW FARM
Jean Ferguson/Carolyn Bowser
4890 Sunset View Ln. So.
Salem, OR 97302
503-581-9452
email: carolbow@open.org

WILLOW-WITT RANCH
Suzanne Willow and Lanita Witt
658 Shale City Rd.
Ashland, OR 97520
541-890-1998

PENNSYLVANIA

PHEASANT HILL FARM
Ralph, Jan, Ryan & Steven O'Banion
5935 Pidcock Rd.
New Hope, PA 18938
215-598-7627
email: phcashme@voicenet.com

SANDRA ROSE CASHMERES
Jim and Sandra Rebman
RR 2, Box 279
Palmyra, PA 17078
717-964-3052

UTAH

HEIDI'S FARM
Heidi J. Smith
7980 Long Rifle Road
Park City, UT 84060
801-649-3856
email:3smiths@xmission.com

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

FOGGY BOTTOM FARM
Marilee and John Williamson
Rt. 2, Box 223AA
Buchanan, VA 24066
540-254-1628
email: mhwabc@juno.com

RANEY DAY KIDS
Craig and Lucy Raney
3627 Va. Ave.
Goshen, VA 24439
540-997-1121
Fax: 540-997-1124

Continued on next page

Breeders Directory
Continued from previous page

MORE VIRGINIA

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

BREEZY MEADOW CASHMERE FARM
Douglas and Roberta Maier
810 Van Wyck Rd.
Bellingham, WA 98226
360-733-6742
email: Fibergoat@aol.com

BROOKFIELD FARM
Ian Balsillie/Karen Bean
PO Box 443
Maple Falls, WA 98266
360-599-1469 or
360-715-1604

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
email: Cnielnlf@aol.com

RAINFLOWER FARM
Sue Lasswell
37003 Mann Rd.
Sultan, WA 98294
360-793-9590
email:
Rainflower@compuserve.com

STILL WATERS CASHMERE
Moon and Diana Mullins
PO Box 1265
Twisp, WA 98856
509-997-2204/509-421-3107
email: dmullins@methow.com

WALLFLOWER FARM
Dan and Marti Wall
16663 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

Internet Site
That only the French
Can fully understand

http://www.world-goat-centre.com/UK/Goatlink/World.htm

Per the internet page of
Le Centre International Caprin:

"The alone French Website on goat"

"You can contact enterprises and French organisms!"

This page will:
"Inform you on events!"
and
"Update all Monday!"

Better not try to link up on Mondays-they'll be updating.

Good Places to Order Goat Stuff

Caprine Supply
3300 W. 83rd St., PO Box Y
DeSoto, Kansas 66018
913-585-1191
fax: 913-585-1140
toll free: 1-800-646-7736
internet: http://www.caprinesupply.com/

Excellent goat supply catalog. Comes out once a year around the first of the year. Filled with good stuff and good advice.

Hoegger Supply Co.
160 Providence Road
Fayetteville, Georgia 30215
1-800-221-4628

Catalog of goat supplies, comes out once a year.

Premier
2031 300th Street
Washington Iowa 52353
319-653-7622 or 1-800-282-6631
fax: 319-653-6304 or 1-800-346-7992

They have two catalogs—one with sheep supplies and one with fencing and other equipment.

Valley Vet Supply
East Hwy. 36, PO Box 504
Marysville, Kansas 66508-0504
1-800-360-4838
internet: http://www.valleyvet.com/

Catalog of equine, pet, farm and ranch supplies for animals and home. Catalog comes out a couple of times per year.

All of the above have toll free telephone numbers and free catalogs. For a rainy-day-low-budget event, call them all up and order free catalogs. Don't blame us if you find something your goats can't live without.

The above companies are the ones we use and have seen their catalogs. There are certainly many other good ones around. For you computer nerds, there is a list of goat supply houses with links to the ones who have sites at CyberGoat at: http://www.cybergoat.com/Linksfldr/spply_goat.html

Cashmere Research Projects

ACCESSION NO: 0175600
SUBFILE: CRIS PROJ NO: OKLX-9703206
AGENCY: CSRS OKLX
PROJ TYPE: SPECIAL GRANT PROJ.
STATUS: NEW CONTRACT/GRANT/AGREEMENT NO: 97-38814-4150
START: September 1, 1997
TERM: Through August 31, 2000
GRANT YR: 1997
INVESTIGATOR: Litherland, A.; Sahlu, T.; Coleman, S.
PERFORMING INSTITUTION: Agricultural Research Langston University, Langston, Oklahoma 73050

PROJECT TITLE: Seasonal manipulations to improve cashmere and meat returns in goats

OBJECTIVES: To quantify the natural seasonal cycle of cashmere growth. To quantify the response, in fiber growth and breeding cycles of two methods of melatonin treatment applied in April in the US. To determine whether shedding, following the cessation of spring melatonin treatment, can be prevented by the suppression of plasma prolactin concentration.

APPROACH: Eighty cashmere producing does will receive in March either no treatment or melatonin treatment orally at 3 pm (3 mg) or by a single continuous release melatonin implant (18 mg, Regulin, effective for 6 weeks). Plasma concentration of prolactin and melatonin will be determined by radioimmunoassay. Stretched down and guard hair fiber length will be measured on four sites of the goats at two weeks intervals. Skin samples collected at the start of melatonin treatment, at the cessation of treatment and at monthly intervals for three months will be processed for histological measurement. Data will be analyzed using SAS procedure of repeated measure in time.

ACCESSION NO: 0177810
SUBFILE: CRIS PROJ NO: TEX08559 AGENCY: CSRS TEX PROJ TYPE: HATCH PROJ.
STATUS: NEW START: March 9, 1998
TERM: Through March 8, 2003
INVESTIGATOR: Lupton, C. J.; Huston, J. E.
PERFORMING INSTITUTION: SAN ANGELO-TAMU AGR RES CNTR TEXAS A&M UNIV COLLEGE STATION, TEXAS 77843

PROJECT TITLE: Concurrent production of high value fibers and meat using lambs and kids

OBJECTIVES:
1. Determine if the genetics are available in the U.S. for production of exceptionally high value wool, mohair, and cashmere.
2. Establish the breeding, feeding, housing, animal and range management, fiber preparation, and marketing practices required to produce and sell exceptionally high-value wool, mohair and cashmere.
3. Establish the economics of producing exceptionally high-value wool, mohair, and cashmere under various management regimes.
4. Determine if high-value animal fibers can be profitably produced concurrently with highly desirable, lean carcasses for the U.S. meat market.

APPROACH: The objectives will be met by first surveying U.S. Rambouillet and Merino sheep, Angora and Cashmere goat flocks to identify and subsequently obtain livestock having the genetic capability of producing superior, high-value fibers. Male offspring from these superior animals will be evaluated in two production systems (on range and housed), with and without protective coats, to establish the numerous genetic, management nutritional, and financial variables required for profitable production of high quality fibers and lean carcasses.

This project is older and done, but it's interesting:
It was reported in the Proceedings of the New Zealand Society of Animal Production, 1991.

Four methods of harvesting cashmere from breeding does were studied by researchers A. J. Litherland, D. J. Pateron, G. Hamilton and K. O'Neill. The research was conducted in New Zealand.

The effectiveness of hand combing, machine combing and body stocking covers relative to shearing were compared as methods of harvsting cashmere. Cashmere does were shorn on August 4th and combed on August 4th, August 29th and October 3rd. Goats were covered and shorn on one side on August 4th and on the other side on October 3rd. Only 9 of the 40 goats retained their covers until October 3rd. Machine combing was the least effective method of harvesting cashmere and produced a half fleece of 18 +2 grams down while shearing was the most effective and produced a half fleece of 40+4 grams of down. Hand combing and body stocking covers were intermediate and both produced a whole fleece of 46+5 grams and a half fleece of 27+4 grams respectively. Cashmere wastage in dehaired guard hair was greater in combed fleeces than shorn fleeces. Despite the higher yield of combed fiber there was no reduction in the speed of dehairing. Harvest method had no effect on goat liveweights at October 3rd.

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Dallas, OR 97338

Annual Subscription is only $25 for 12 monthly issues! ($35 Canada, $40 Mexico, $50 overseas).

Breeders Directory listing for full year $30.

Notable Quotes

Cashmere and mohair are as different as chalk and cheese.

...David Mackenzie's Goat Husbandry, 1993

Marketing/selling is very hard for most people.

...Yvonne Zweede-Tucker, January 1999

If a herdsman has a sound knowledge of genetics, has patience and the will to improve his stock, is willing to cull his animals rigorously, and wants to be a pioneer in a new industry for the United States, cashmere goats may be the animal for him.

...Sue Drummond

The Deadlines:

Articles, photographs, advertising and other information submitted must be received by the 25th 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 97701
541-388-1988, email: hokulani@bendnet.com

Once upon a time, in a place called Goat Knoll, there was a little goat named Buster...

New Children's Book Available—
About cashmere goats!

Buster

The Cashmere Goat

By Paul G. Johnson

An exciting tale of a young cashmere goat's adventures with bad weather, big coyotes and the fearless guardians who save them all.

66 pages (8,400 words) of education and **fun for all ages**.
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Educational material included about goats, cashmere, fiber harvesting and fiber use. Guaranteed only happy endings!

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Classified Advertising

CashMirror back issues 7/96 - 12/98 $3 each or a whole dozen for $30. Back issues 10/89-6/96 $2 each or $15 for a dozen. We'll pay the shipping. About 2/3 of old issues still 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. 7/97-6/98 in July 1998 issue. Index after that, ask us.

Maremma Livestock Guardian Dogs, puppies, purebred, registered, working parents guarding sheep & goats. $350. 360-733-6742.

Maremma Sheepdog Club of America, Maremma Livestock Guarding dogs, PO Box 546, Lake Odessa, MI 48849, 616-374-7209. Free information and Breeder Directory.

Shearing Stands: 360-733-6742.

Yocom-McColl Testing Laboratories, Inc. for individual animal and core testing. Ph: (303) 294-0582
Fax: (303) 295-6944
Email: ymccoll@ix.netcom.com
Website: http://www.ymcoll.com

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