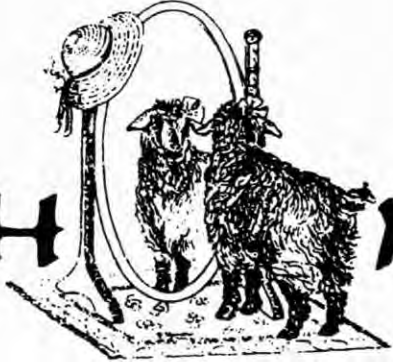




CASHMIRER

Volume 8, Issue 2

December 1996

The monthly magazine devoted to cashmere goats and their fiber



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Cover photo: Gerry and Pat Fuhr, Giant Stride Farm
Goats put on cashmere underwear to keep warm!

A Contest!

Designed by Diana and Steve (goat-kisser) Hachenberger
Castle Crag Ranch, Montana

Win Valuable Prizes!
Become the Envy of Intelligent People Everywhere!



How much do they weigh?

What are the relative weights? Pictured above are a gob of goat guard hair, one ball of white cashmere yarn, two balls of light brown cashmere yarn, a knitted cashmere scarf and a pile of dehaired cashmere.

The Contest:

The purpose of this contest is to promote awareness of cashmere yield and relative weights of cashmere products and by-products.

Pictured above are five (5) items. Whoever guesses the closest to the actual weight of each item wins one of the prizes. One person can win more than one prize. You may venture a guess on all five items, or you may guess on only the ones you choose. Make your guesses in ounces or grams.

The items pictured above are as follows (left to right):

1. Goat guard hair—it is on top of the scale.
2. One ball of white 2-ply 100% cashmere yarn
3. Two balls of light brown 100% cashmere yarn (guess the total of these two balls together).
4. One knitted cashmere scarf (knitted from handspun 2-ply cashmere yarn). Scarf is on top of the dehaired cashmere.
5. Dehaired cashmere (under the scarf).

Hints:

You must enter to win!

Each item has a different weight—they do **not** weigh all the same amount—that would be too easy!

The Rules:

Anyone may enter. You do **not** need to be a *CashMirror* subscriber or even over age 18 or even own a goat. (Hachenberger's are being really liberal on this!) You must be a person, however. Animals cannot enter. We've got to have **some** standards.

To enter, send your guesses to the *CashMirror* at the address in the back (or front) of the magazine. You may also enter by telephone or e-mail. Entries will be accepted until January 15, 1997, and the results will be published in the February issue. In case of a tie, the earlier entry will win. Contact Linda or Paul if you have questions.

The Prizes:

1. One ounce of dehaired cashmere (Donated by Steve and Diana Hachenberger)
2. One year subscription (or extension to your existing subscription) to the *CashMirror* magazine
3. Two 1997 *CashMirror* calendars
4. One pair of cashmere socks (Donated by PMF Cashmere Company)
5. One genuine wood (see picture in ad on page 26) cashmere goat napkin holder (Donated by Blue Spruce Quilts and Gifts)
6. The admiration of your friends and neighbors and people you don't even know!

Good Luck!

And if no one enters, Linda and Paul get to keep all the prizes (just kidding).

When Our Readers Talk...

Dear Cash Mirror,

You said that nobody became Junior Champion Combed Buck in Wyoming. But my owners told me repeatedly that I was the junior champ; they also told friends and relatives and all the does.

I hope nobody reads the competition results, that would be too embarrassing. My owners have a ribbon that claims I was the junior champ, and I was not the only entrant either, I beat my little half-brother and I think there was another guy a year older.

Check it out -- I can't stand all those does giggling about me!

BLF Hippomenes

Junior Champion Combed Buck (I think)
(With help from Yvonne Taylor)
Black Locust Farm
Washington, Maine
November 19, 1996

Dear BLF Hippomenes:

I'm really sorry about the discrepancy. I know how awful it must be to have does giggling at you (especially this time of year!). The official list didn't contain your name and the new CaPrA newsletter doesn't list you either. Although, as you are in possession of the award (and I'd certainly not want to disagree with a buck of your stature), I'm sure you are correct.

Also, if you have time, could you have your friend, Yvonne, take a picture of you with your award and send it to me in the next couple of weeks. I would love to put it in our upcoming calendar. You can then show that to those giggling does and I'm sure they will be suitably impressed.

Linda Fox
CashMirror

(Excerpt from e-mail from Pete Peterson)
...here's one last thought: Has anyone ever given any thought to putting on an informal seminar for the "beginner"? Maybe several breeders and experienced goat folks could get together and put on a "basics" class for folks like us. May take too much coordinating but the concept sounds like fun... (even a video??) The experience of those who have gone before is invaluable...Thanks again...

Pete Peterson, Waggin' Wheel Ranch
Thompson Falls, Montana
November 17, 1996

Cashmere America

P.O. Box 1126, Sonora, Tx. 76950 (915) 387-6052

To All Growers and Members of Cashmere America:

Hello Growers!

Some of you haven't heard much from me before. I am one of the behind the scene people of Cashmere America and Sonora Wool & Mohair. I mention Sonora Wool & Mohair because I prepare thousands of pounds of wool for them and the Cashmere America warehouse is also there. In other words, I see a lot of fiber year round. What I am going to be talking about pertains to ALL fiber growers not just cashmere growers. I would like to make some suggestions for fiber preparation. Before shearing, be sure the area is clean of mud, dirt, hay, manure or anything that might get into or mix with the shorn fiber. Separate your goats by color, white, white colored, gray, and brown. After shearing your white goats, sweep the shearing area. Do the same between each color so there isn't any color contamination between colors. Goats generally don't like being sheared. Therefore, you have to drag your goats in and out of the area, dragging in dirt also. Just be aware and clean or sweep the area. Make sure your combs and cutters are sharp. It will help prevent ragged cuts and second cuts. Doing all of this is a lot of trouble, but it will make you more money. This may be hard to understand. When we work your fiber, we clean it up as well as class it. The more time it takes to do this, the more it costs you. This is why all of this preparation is important.

When you ship your fiber, use heavy duty boxes and tape them well. Boxes that are 10-15 square feet or larger have a tendency to tear up in shipping. The shipping company takes great care of boxes while in route. Don't forget to include your fiber instruction papers with your fiber. We would like to know what to do with the fiber. Also, make sure your name is on the box.

If you have fiber that has been held for a year or two, check it or spray for moths. We can not accept any fiber contaminated for fear of contaminating everything we have. Therefore, any fiber received with moths will have to be returned.

It sounds like I have been on a soap box, but all of this is important. Helps yourself, as well as all of us. If you have questions, please call Cashmere America or one of your directors.

Thank you for your time,

James Barton
Vice-President Board of Directors
November 1, 1996

Reflections

By Linda Fox

I'm truly sorry...the following is yet another remake of "The Night Before Christmas." You're probably as sick of these remakes as I am. We weren't going to make you live through another one...But then we thought, "Heck! it's our magazine! We can do it if we want to!" So...here it is:

"Twas the night before Christmas and all through the barn

Not a creature was stirring - not even 65 goats, 13 chickens, 3 sheep, 2 cats or 2 dogs (or a mouse). The feedbags were all hung by the manger with care. In hopes that the man from the feedstore would soon be there.

The critters were nestled all snug in their beds
While visions of alfalfa and other expensive feed
danced in their heads.
And I in my robe and Linda in her gown,
In front of the computers, had just settled down.

When out in the barn there arose such a clatter,
We ran to the porch to see what was the matter.
The rain on the breast of the new fallen snow
Gave luster to the mud on the whole farm below.

When what to my wondering eyes did I see
But a whole herd of goats coming straight toward me!
With the chickens behind them, I knew right away
The barn was left open and sheep must be into the hay.

More rapid than eagles the goats came onto the lawn.
The dog barked and the chickens were gone.
"We must get these goats out of here!" said I.
"Yes," said she. "I agree. I'll give it a try."

"Now Twinkle, now Blackberry, now Flour and Bunny!
"On Fancy! on Princess! on Rosie and Annie!
"Back to your barns! Back to your stalls!
"Now dash away? Dash away! Dash it all!"

As dry leaves before the wild hurricane rush,
They just didn't listen; they kept eating a bush.
Now on to the roses and raspberries they flew.
With a crunch and a munch, they'd soon eaten those too.

And then in a twinkling I heard in the trees,
The chickens! "Get down from there please!
"I like your eggs all laid in the nest.
"Climbing trees for your eggs is not at the top of my list!"

And there were some goats all covered with hay.
"We've got to keep it out of their fleeces!" I heard
Linda say.
Their eyes how they twinkled! (They were chewing
their cud.)
Their noses were like roses. They stood knee-deep in
mud.

The dogs' mouths were drawn over their fangs like a
bow.
They had their eyes on the cats which they chased to
and fro.
The grass on the lawn, the sheep chewed off with
their teeth.
The chickens flew 'round their heads, circling like a
wreath.

The sheep had broad faces and big round bellies
That shook when they ran like bowls full of jelly.
The rooster was mad, and frightened were the hens.
The cats (while evading the dogs) were stalking all of
them.

We hunted for our boots, we hunted for our coats.
Said I, "You chase the chickens. I'll run after the
goats!"
We spoke not a word (that's printable), but went
straight to our work.
We caught all those animals and closed the barn door
with a jerk.

As we headed toward the house, our energy spent.
We wondered where our peaceful, quiet evening went.
We sprang to the porch and let out a sigh,
Took off our boots and went back inside.

And I heard Linda say as she stifled a yawn,
"If you'd closed that darn door, they wouldn't have
escaped from the barn!"



Avoiding Micron Madness

By Marilyn Ackley

This article is reprinted (with permission, of course) from the Fall 1994 ECA Newsletter. Shirlie Levy is one of the co-owners of Lismore Cashmere Breeders and the Stoag Partnership. As Marilyn points out, "Shirlie is the godmother (or some such thing) of all those LCB goats who are still smiling out of paddocks and pedigrees across America."

When we asked Marilyn if she still considered this old article pertinent to "today's cashmere goats," she told us that she would be delighted to see the article in print again and that she considers Shirlie a major source of goat wisdom

Last spring when I learned that renowned Australian cashmere breeder, Shirlie Levy, would not be coming to the U.S. and therefore would not do a presentation at our May seminar in Maryland, I began wondering if there might be a way to share some of the wisdom she offered during her 1991 visit. I found that, in a sublimely organized moment, I had filed the notes I jotted down as she spoke at Yvonne Taylor's home in Washington, Maine. I asked Shirlie about the accuracy of my old notes and received a 1994 update. The following is a patchwork of her central themes.

At the heart of her message was a list of priorities for selecting cashmere breeding stock. She explained that in the early days of Australian cashmere production, international processors encouraged growers to focus on a single fiber quality: fineness. Not knowing what else to do, Australians became preoccupied by micron measurement and spent small fortunes on AWTA objective lab testing. Inevitably they discovered a trade-off: many of the animals which grew fine fiber tended to be small and low-producing. In Shirlie's words, "There was little point to producing a handful of low micron cashmere on a needy little runt of an animal."

As Shirlie spoke to the fledgling U.S. growers in 1991, she proposed her six priorities to help us start, unfettered by the "micron madness syndrome." She recently asked me to preface her list with two additional thoughts. First, **in selecting animals, a breeder's own personal objectives are important.** For example, the processors' preference for white need not discourage the person who wants to specialize in colored fleece. Second, she wants

to remind us that **conformation is important.** She stresses selecting qualities that apply in all livestock breeding: "sound, well-grown, and fertile animals."

She stressed that her list was arranged in order of importance. At the top of the list is fiber **STYLE**, with emphasis that crimp defines cashmere. If the style is good enough, fiber can hover in the 19 micron range and still be classed with cashmere.

Second on her list is **DEFINITION**, which refers to the contrast between guard hair and down. The superior animal will have coarse guard hair, in excess of 40 microns. Good definition makes dehairing possible and also provides a genetic signpost for selecting against cashgora infusion. In contrast, fine guard hair can be a telltale sign of residual mohair influence.

Shirlie places **HANDLE** third. This is one of those hard to define but I-know-it-when-I-feel-it concepts. It includes softness and resilience. The fiber is a pleasure to touch. **LACK OF LUSTER** is fourth. Anyone familiar with the sheen of mohair can see that luster in cashmere can be another warning of cashgora infusion. However, Shirlie points out that all Australian and U.S. cashmere is more lustrous than Chinese fiber because of our insistence upon healthy, well-fed animals. Another interesting point is that Hugh Hopkins, in his written evaluations of our 1993 competition fleeces mentioned luster as a shortcoming in his "Handle" category. He clearly sees luster as a limitation to good handle.

Priority number five is **MICRON**. Many of her comments reveal acknowledgment that qualities like style and handle are often interlocked with fineness. Her point is that it is important to look for the other qualities *first*. **If an animal can produce fiber with great style and handle, don't fret about MFD.** Don't place too much emphasis upon objective testing. The low micron animal doesn't necessarily have the first four qualities.

The final item on her list is the goat's **BREEDING**. She found dozens of ways to urge us to base our purchasing decisions on the animal we see before us, not upon his pedigree. If an animal

Continued on page 22

The Bartons of the Bar Y Ranch Sonora, Texas



James Barton, cashmere model, at Wyoming Conference

Many people are familiar with James Barton, the cashmere judge. The story of how James and Glenda Barton became involved with cashmere goats has humble beginnings. Just a few weeks after their wedding, almost eight years ago, James was having coffee in a cafe with Dr. Joe David Ross. James asked Joe David if we would take a look at his meat goats to see if they had any cashmere on them.

It wasn't long after that James attended the first-ever classing clinic in the US

"I went with the idea that I just wanted to learn enough to judge my own goats," he said. It was then that he discovered he had a knack for judging the fleeces, and not just cashmere, but wool and mohair fleeces as well.

Glenda, who is also a good judge of fleece crimp in her own right, keeps track of the paperwork when she's not teaching special education classes at one of the State's first mentor schools.

The Barton Ranch (the Bar Y) is located near Sonora, Texas. At this time of year they are running about 350 head of goats. Most are Spanish meat goats crossed with cashmere-producing goats descended from imported Australian stock. James prefers the darker colored goats to white.

Nannies are grouped for breeding with specific billies in various pastures. Breeding is timed for kids to be

born to coincide with major Hispanic holidays. As the meat market is a big part of the Bar Y's income, they are experimenting with a 3/4 Boer billie who has good fiber. They are hoping that the offspring will be bigger than the Spanish kids, and have better fiber.

Per James, the soil on the Barton's spread is rocky so hoof trimming is not required. Soil in the area is lacking in phosphorus. This (expensive) mineral is provided "free-choice" to the goats. The Barton goats do not generally receive vaccinations or other medical treatments.

With the exception of drought years like 1996, the goats can get by several months of the year on forage alone, with little or no supplemental feeding. Barton's raise some hay by dry-land farming and they also use, as needed, peanut hay and alfalfa for their superior natural protein and vitamins.

The ranch is comprised of 640 acres and is laid out so that 160 acres is always set aside for re-growth. Billies are kept in a separate pasture downwind from the nannies, and from the house, we assume.

James uses an old jack as a guard animal. While they are usually not very good for guard duty, James reports this particular one does very well. They remove him from the does pasture and put him with the billies during kidding season.

James is vice-president of Cashmere America Co-op and currently serves on the Board of Directors of the Texas Cashmere Association as a CaPrA certified judge. James was the 1996 judge for the CaPrA Wyoming fleece competition as well as at the Texas State Fair this year.

In addition to being a classer and judge, James is extremely fast with a pair of shears. He was the national goat shearing champion three times. Unfortunately for growers, he no longer shears commercially.

James reports he has also prepared a book for the cashmere industry, with assistance from Texas A&M. This book covers the cashmere industry.

James and Glenda are devoting substantial time and effort to the long-term cashmere industry in the US. We wish them every success in their endeavors!

Hand Combing and Hand De-hairing Your Own Cashmere

by
Carol J. Spencer
Foxmoor Farm



Carol Spencer introduces one of her cashmere goats to Alan Harlan at the Black Sheep Gathering (June 1996)

Yes—You too can do it!

Success starts with the goat—feeding wheat germ oil and sunflower chips has eliminated 3/4 of my dandruff problem. Terry Sim said he felt dandruff was caused by a zinc deficiency, so this year I am also adding ground kelp and zinc powder to my supplements.

It is very important to keep your goats' coats clean. That means every time you catch them up for regular maintenance, take a soft brush and brush against the guard hair grain, then with the normal lay. When the cashmere begins to show, use a small pin brush instead. (This is

a wooden brush with long metal teeth imbedded in a rubber base - normally used for long-haired dogs, such as Huskies or Samoyeds.)

On males watch for knots along the legs and belly caused by urination—remove these with a wide-toothed metal comb.

How do I know when to comb and what do I use?

In March, Mother Nature tells you by loosening the cashmere near the ears and top of the neck. When you can easily pull a large piece with your thumb and first finger, it is time to catch the animal and comb.

During testing of the fleeces while I am waiting for the full shedding of the cashmere, I keep zip lock bags at the barn with each animal's name, so even the small samples aren't lost.

My experience is that the breeding does will shed their full fleece shortly after kidding. Last year my two yearlings went through the brush to remove their fleeces as they had been telling me for several days they were ready to comb—by lots of fence rubbing. I'd been too busy to watch closely and when I saw them with tufts sticking up every which way, they were caught and within 20 minutes both were done.

To comb, you need a paper grocery sack (labeled with the name and date for each animal), a large pin brush, and a 8" large-toothed metal comb. Use the large pin brush—starting along the backbone—brush in 6" strips down across the animal's ribs to the belly. This loosens the cashmere. Then take the metal comb and pull it out in handfuls. This leaves the majority of the guard hair still on the goat. Work down the animal doing one side then the other—usually 30 minutes is all the time it takes to comb the whole animal. This is done in one session.

The exception is my breeding buck. He sheds in two sections—neck to ribs, and ribs to tail. There is about two weeks between sheddings. I find, because of the urine, a metal rake (a metal comb with a handle—also used for long-haired dogs) is needed on his legs and belly. As he becomes

Continued on next page

Hand De-hairing

Continued from previous page

older and is used more in breeding, his fleece is so sticky and matted that most is thrown away.

How do I de-hair the fleece and what to do with it?

The only things you need to de-hair the fleece are a low box for your lap, a strong light, and the thumb and first finger of both hands. Take a small amount of raw cashmere (1/2 the size of your palm) and fold it over into a tight ball—this causes the guard hairs to stick out. Remove the hairs by pulling them out with your thumb and first finger—constantly turning the ball until as many hairs as possible are gone. Now pull the fiber apart and fold it back on itself several times. This constant working helps bring up more guard hairs while allowing dandruff and hay pieces to fall into the box. Leave the ball loose (It should be twice the size you started with.) and keep removing the guard hairs.

Now the fiber is fairly clean and free of long hairs—flatten it into a bar shape about two fingers wide and pull until the ends almost separate, then fold it back on itself. I call this the Taffy Pull—this brings the short hairs and foreign material to the surface. Take out as much as you can.

Now to finish, spread the fiber very thin until it looks like a Halloween spider web—look at it by putting it between you and a window. You should be able to see and remove anything that is left. You may have to repeat the Taffy Pull and webbing several times.

Pulling slowly and evenly on

the cashmere fiber during de-hairing does not damage your fiber. It is stronger than you think.

The clean cashmere is then put into zip lock bags to weigh, then it is run through a drum carder with fine teeth. To store the cashmere bats, put them into stackable cardboard boxes lined with tissue paper. Put in a half dozen cedar balls for bug protection. Fiber the same color and length should be put together and labeled. It is recommended that fiber only be stored 2 years as it tends to felt and lose its loft.

I know hand de-hairing is time consuming; however, the end results more than outweigh the disadvantages. Advantages: Your fleece isn't run through the machine 12 times, so there is no breakage. And, the yield is 1/2 the raw fleece weight. You have your own fleece that you raised and you know whose fleece is used for the items you make. Plus, you've been able to pick the fiber so clean it does not need to be washed until after spinning.

I keep a box and raw fleece by my chair—on rainy days or when I sit and watch TV I do at least a handful and before you know it, another fleece is done. De-hairing has now become so fast and easy that I actually find it relaxing. So do try it and if you need extra help—call me at (503) 873-5474. Bring your fleece and come on over.



XXX Breeding Types XXX

(Please Note: If you are a child or a "timid" adult, please ask your parents/spouse/less-timid friend if it is ok for you to read this!)

This breeding season, we've been experimenting by using several different bucks to breed our herd of does. During this process, we have observed that bucks have several different personality types which we have classed as follows:

The Professional. This is usually an older buck. He knows the drill and is pretty much a no frills type of guy. You put three does in his pen and he will systematically breed them all. No frills, no favorites.

The New Breeder. This may be his first time "out of the chute". He knows what he's supposed to do, but not exactly sure where. Perhaps it's the ears that are the goal, perhaps the side. He'll try them all in turn before he finally figures it out. It won't help him much that the doe in the pen would really rather have "the professional" waiting not-so-patiently on the other side of the fence.

The Eager Breeder. He has energy to spare. He wants them all, the whole herd, now, today. And, he probably could take care of them all today. He breeds the doe you had in mind and looks for others, breeds her again, tries to get through the fence to the rest of the doe herd, breeds his intended again, who by this time is frantically trying to get out of the pen because she has had enough! As you chase him back up field toward his own pasture, he attempts to mount every fence post he passes and looks longingly at the dogs.

The Once is Enough Guy. He's probably a "newbie" too. He bred her once, promptly, and would like to do so again. But, all the energy he can muster is to climb on and then fall off. Maybe next year he'll have more stamina. He certainly hopes so.

Interview with Mild Goat Men



The Unknown Mild Goat Man

I have been curious about this new group calling themselves the Mild Goat Men. Their membership seems to be increasing. I have noticed some "secret goings on" around my house, some secret correspondence and some password-protected files on my computer. Could it be that someone in my own household is responsible?

Who are these men and exactly what do they think they're doing? Without the women's permission, I might add. To keep the world safe and to ensure that they are not doing anything we want to put a stop to, I took the time to track down one of their members and ask him a few questions.

In case any of you are worried they are getting ready to take over the world (or anything else for that matter), don't be...

They're men, they like goats and they're not afraid to stand up and admit it (at least not after a few drinks). The interview below was conducted with the above member—who chooses to remain anonymous.

Ed: How many members do you have?

MGM: A whole herd.

Ed: (ha-ha) What are the requirements for membership in your group.

MGM: A prospective member must satisfy certain stringent requirements, but they're secret.

Ed: What is the purpose of your group?

MGM: Purpose? We're men, (beep) we don't need a purpose.

Ed: I see. What are your goals?

MGM: Goals? We don't need goals. We're men.

Ed: I see. What do mild goat men do?

MGM: Well, uh...we hang around with goats a lot.

Ed: I see. Does your group have any officers?

MGM: Sure. Everyone is welcome to take whatever title they want...for life. So far we have a Vice-president for life in charge of protocol, and a really nice guy who is the Head Herder for life.

Ed: What do you see in the future for this group?

MGM: Future?

Ed: Like tomorrow?

MGM: Uh, ask us tomorrow...

Ed: I see. Anything you'd like to share with our readers about your group?

MGM: The dues are cheap.

Ed: I see. Anything else you want to say?

MGM: Nope.

Ed: Ok. We'll check back later to see how long this group survives.

Zhongwei Goats

Zhongwei goats are produced only in the arid desert steppes of some counties in the Ninzia Hui Autonomous Region and Gansu Province (China). They live chiefly, if not solely, on salty or sandy plants or shrubs. The kids are slaughtered at 35 days of age for their pelts, which have white, lustrous staples and attractive curls.

Both sexes are horned with the male's horns stretching upward and twisted. The males average 39 kg (85 pounds) and females 24.5 kg (55 pounds).

These goats also produce cashmere. The males produce approximately 140 g of cashmere and the female 120 g. The percentage of cashmere in both sexes is 25% of the total fleece. The cashmere length is 7.0 cm (2-3/4 inches) and 12.5 microns.

The Zhongwei reach sexual maturity at five to six months and are generally mated at 18 month of age. The kidding percentage is 104-106 percent.

Information complements of Oklahoma State University from their internet web pages.

THE BUCK STOPS HERE or WHO ARE YOU KIDDING?

A true story by Pete Peterson

*Waggin' Wheel Ranch
Thompson Falls, Montana*

"YOU are out of your mind!!" was the initial response from my wife when I mentioned to her that we should raise cashmere goats. Semi-secretly, I had been doing research for almost a year on the prospect of such a venture and had decided that now was the time to "share the dream" with my beloved.

All the years we have been married, we have always discussed things with each other before investing any capital into a project and this was no exception, although I hadn't expected quite the response that I initially received. But now...Now the challenge lay before me, greater than ever before! Just how do I convince her that this just might work out for us, especially after such a definitive response? This could be a problem.

We live on 13-1/2 acres in Montana. My wife is retired from the retail business and I work in Alaska, two weeks on and two weeks off, so this means that I really need her cooperation if we are going to do this. SOMEBODY has to take care of these animals when I'm at work. I had done all the right things, I thought. Searched the Internet gathering all the information I could, had talked to others in the business, and was getting all my ducks in a row, so to speak. Now everything was different!! With her "ABSOLUTELY NOT!" attitude it looked as though I was sunk, so I retreated to form a plan of attack from a different angle..

Spotted Knapweed...The curse of western Montana...the noxious weed that has overrun our little ranch, turned out to be my first ally. We had slaved for almost four years developing several acres of raw land into our little piece of heaven. We had worked our fingers to the bone clearing the land, logging the excess timber and building our home, much like others have done in the past. We had this vision of making things "look like a park." We thinned the trees, leaving select big pines in strategic locations, tilled the soil and planted pasture grass. Things were looking pretty good until late Spring and early Summer...That's when the knapweed really reared its ugly head.

My wife HATES THIS WEED and will go to great lengths to try and get rid of it. She even spent hours on her riding mower in the hot summer sun, enveloped in dust, trying to destroy her nemesis.

Our neighbor spent hundreds of dollars spraying his fields with a terrible smelling chemical, but to no avail. The weed was here to stay. My wife came to me, covered in dust from mowing, tears streaming down her face, not from crying, but from frustration and anger.

"Can't we do something about this darn weed??"

she asked (more like demanded). I thought for awhile and then seized the moment!

"You know," I said "Goats love to eat knapweed." She looked at me with a look that wives give their husbands that shouts: "You Idiot!" and walked off, saying nothing. I knew at that moment, the tide had turned.

I let things ride for awhile, not mentioning the goats again. I did, however, leave an occasional piece of literature about cashmere goats "casually" laying around.

In July, I had arranged a visit to the PMF Cashmere Company in Dillon, Montana owned by Tom and Ann Dooling. I didn't really tell my wife "exactly" what we were going to do, but had suggested that we take a weekend ride to "see some of Montana." During the trip to Dillon, I mentioned to her that there was a cashmere goat operation in Dillon. To my surprise, she agreed to go there with the stipulation that we weren't going to buy any goats.

The Doolings were very gracious hosts and took the time from their busy schedule to show us around their ranch. Ann was very patient with us novices and started to explain the business end of things to my wife.

All of a sudden I saw a spark of interest in her. This made sense to her with her many years of retail experience. Now it was business, or maybe I was fooling myself. Maybe it was one of those "woman things" that men don't understand. But whatever it was it seemed to work.

Why is it when a man explains something to his wife, it doesn't make any sense and he's an idiot. But, let another woman explain the same thing to her, and it makes complete sense and you get the response, "Why didn't you tell me that??" Go figure...

The clincher during our visit to the Doolings was the trip to the "bucket kids" pen. My wife is a big softy when it comes to young animals and the sight of fifteen little kids running after her crying "maaaa...maaaa" was something to behold. Holding these cute little boogers and having them climb on her did wonders.

Except, I get the feeling that I am creating a monster. Her response now is, "You know if we ever get any of these, we could never get rid of them!" Oh, Brother!!

I just finished replacing all of the perimeter fence on our place. I took out all of the old rusty barbed

Continued on next page

Who Are You Kidding?

Continued from previous page

wire and replaced it with new posts and nice field fence.

My wife asked me, when she got the bill for the fencing, "Why are we spending so much money on this fence?"

I told her it was necessary to keep the goats in.

"Oh," was the response, followed by, "You know, we don't have any more extra money for this."

Geez, I haven't even done the cross-fencing yet.

So, now here we are, almost a year later and I finally am getting ready to negotiate with a breeder for my foundation does. I'm excited about this and I have visions...BIG visions!!

And my wife asks, "You're not planning on buying more than three, ARE YOU???"

What to do, oh what to do when you want goats and your partner doesn't...

Pete's story inspired us to come up with helpful hints on what to do when one partner is quite inspired about cashmere goats and the other is less than thrilled. Fortunately, Paul and I have always been both quite enthused (totally wacko, actually—in a totally businesslike sense, of course) about cashmere goats. Here is a list of ideas to help you enthuse the less-than-convinced partner:

1. Put a red bow around a goat's neck (preferably a young fluffy one—the goat, not the bow) and tie it to the Christmas tree on Christmas Eve as a gift for your spouse. In addition to playing on the "cute factor," you will demonstrate to your loved one, a goat's unique browsing abilities as, by morning, all of the tree needles (and some of the other packages) will be gone.

2. Subscribe to the *CashMirror* magazine and leave copies of it around the house. Select issues which are light on heavy genetic stuff and dread diseases and go for the ones filled with cute goat pictures and other meaningless trivia. The publishers will help you with this. You can pretend you didn't subscribe and that those crazy publishers must have rotten records.

3. Go visit friends who have cashmere goats. Early to mid spring is a good time. Pretend you're going to visit for reasons other than to look at goats. You want to catch up on "war stories" with good old Bill or check out Ethel's new remodeled kitchen. Clue in the goat people to help you with this. (They'll be delighted!) While there, insist that you go on a barn tour.

4. Concentrate on the "weed thing." Goats love weeds—most people hate weeds. Give those weeds names. The word "weed" is not nearly as irritating as the word "poison oak." On our place, the goats consume poison oak, scrub oak, scotch broom, blackberries and Canadian thistles. Elsewhere, they are also known for dining on leafy splurge. Pete says goats in his locale are connoisseurs of spotted knapweed. Concentrate on your own local "bane to existence" and point them out at every turn to the recalcitrant spouse. If you don't have noxious weeds, plant some. If your noxious weeds are under control, fertilize them. Be careful you don't get caught, of course.

5. Concentrate on end-user products. Does your love like to spin? Has she always wanted to make cheese? Does he like hand-knitted sweaters or caps? Play on their weaknesses. A goat isn't just a goat in the field; it is a source of many wonderful end products.

6. Use that "cute factor." There's no way to avoid it. Goats are cute. Some, however, are cuter than others. Choose the goats carefully that you want to use to ensnare your beloved. I got sucked in because of the colors. I could have resisted a field of white goats. Find out what your partner thinks is cute and make a plan to show off the prospective livestock to their best advantage. Avoid the buck pens, especially during the breeding season. Adult bucks are not cute. There are, perhaps, other flattering words to describe them, but cute is not one of them.

7. Select the season carefully to show off those goats that you must have. In the pacific northwest, avoid showing off a herd of goats standing knee-deep in mud. A herd of goats huddled in a barn while it's pouring rain also does not play well. It might make one think there is barn cleaning involved. To the less-enthused, goats will look best in a green field on a nice spring day.

Showing off goats right after shearing is not always the best time either. They tend to look kind of scraggly and bony and well, nude, after shearing. However, if your partner is the mercenary type, playing to "big money from crop just harvested" might work. Timing is everything.



Hi!
I'm cute.
Want to take me home?

Advanced Breeding Seminar—Homozygous White Cashmere

(In nine easy steps over 5 years)

Presented by Thomas A. Dooling
Pioneer Mountain Farm



I'm white-white, he's white-white.
Will our offspring be white?
Or will we even have any offspring because right now,
we're more interested in this hay than breeding!

(Based on a paper by Li Yuanchao and Zhu Hai, *Proceedings off the VI International Conference on Goats, Beijing. International Academic Publishers, Beijing, 1996. Vol. I, pg. 207.*)

W 0.5235

Y 0.2595

b 0.2171

The Li-Zhu hypothesis is that there are three multiple alleles. I have, for simplicity's sake, renamed the alleles W for white dominant, Y for yellow semi-dominant, and b for black recessive. There are 6 genotypes possible under the theory: WW, WY, wb, YY, Yb and bb. In all combinations, W is dominant to both Y and b, Y is dominant to b, and b is recessive to both W and Y.

Phenotypically, WW, WY and Wb are white goats, YY and Yb are "yellow" goats (including brown), and bb is a black goat. The reported frequencies of the gene in the study population of Xinjiang goats are:

For the purposes of this paper, I will assume that what we in the U.S. call the "badger" marking, typical of Toggenberg influence, is not relevant: i.e. it is a reflection of Y and b alleles and would not be present in a WW homozygous goat. I further believe that the presence of the Y subdominant or b recessive gene has some phenotypic results and a "white" goat with black lips may be a Wb cross, while a white goat with some "ginger" hairs along the spine may be a WY cross.

Clearly, it is necessary to eliminate from a herd selected to produce homozygous white any individuals that are not themselves white at birth. This will include gingers. But note, you have to maintain a selec-

tion of pure black (by definition, bb homozygous) goats for testing purposes.

STEP 1: PREPARATION (YEAR 1)

a. Recognize that over a five-year period you must retain absolute breeding control over the test herd. Prepare to fence and keep records so that no random breeding occurs.

STEP 2: IDENTIFY MEMBERS OF TEST-CROSS HERD (YEAR 1)

a. The test cross herd is pure black. Since bb blacks are double recessives, select test cross animals that are the offspring of black-to-black crosses. You will need at least one test cross black buck per 40 does in the nucleus and F1 herd, and at least 5 black does per nucleus or F1 buck.

STEP 3: IDENTIFY MEMBERS OF NUCLEUS HERD (YEAR 1)

a. All animals must be phenotypically white without colored guard hair. Look also for other pigmentation such as "black" or gray lips, eyelashes, etc. This also includes any "ginger" coloring (check along spine.)

b. If pedigree information or prior breeding records (offspring of candidate animals) is available, eliminate any animal:

1. that has ever thrown a colored kid
2. that had a colored parent

Continued on next page

Breeding for White
Continued from previous page

3. that had a colored grand parent (optional, but mandatory if 2, especially if brown, ginger or badger [Toggenberg] markings)

4. that had a colored sib (twin or triplet birth)

STEP 4: CANDIDATE TEST CROSS
(YEAR 1)

a. Breed candidate does to pure black bucks, candidate bucks to pure black does. Eliminate any animal that produces offspring of any color, including white with occasional colored guard hair or black/gray lip pigmentation.

b. Remember that you are looking for genetic purity as quickly as possible. Test crosses can be performed with candidate animals as young as 6 or 7 months.

c. Dispose of all test cross progeny.

STEP 5: BREED FOR F1 PROGENY
(YEAR 2)

a. Breed nucleus does to nucleus bucks. Eliminate any candidates where F1's show any color at all, and eliminate any colored offspring.

STEP 6: F1 TEST CROSS
(YEAR 3)

a. F1 offspring of surviving candidates should be test-crossed to pure black, and any producing offspring of color eliminated. If possible, eliminate both parents of F1's producing colored offspring on test cross.

b. Breed for second F1 generation with surviving candidate (nucleus) animals and eliminate any candidates that produce colored offspring. Also consider removing

their first F1 offspring from nucleus herd.

STEP 7: BREED FOR F-2
(YEAR 4)

a. Breed surviving first-year F1's to each other (or back to original nucleus survivors.) Again, eliminate any F2's that show color, as well as their parents. (You may be able to trace the colored gene back to a single parent and save the other: good record keeping will show whether that colored gene came from sire or dam by comparison to other offspring. If in doubt, eliminate both.)

STEP 8: F2 TEST CROSS
(YEAR 5)

a. Breed F2 kids to test blacks. Eliminate any F2's whose offspring show any color, again tracing back and culling parents.

STEP 9: CONTINUING TEST CROSSES

a. In subsequent years, all bucks should be bred to at least 5 bb-black does their first year, and any bucks producing colored offspring eliminated from the now 99+% WW homozygous herd. Again, you can breed these subsequent-generation buck kids at 7 months or so to a small group of black does without harm to the phenotypic white buck. In any event, it is assumed that the final decision to use the putative WW cashmere buck in a breeding program will not be taken until his second or third shearing, by which time the test kids from his adolescent philanderings will be on the ground.

b. Remember, this is almost certainly going to be a line-breeding program. In addition to looking for color, I would recommend that even animals that you believe to be WW homozygous animals should be culled if other undesirable characteristics show up.

PJ's Low-tech Tips

Hoof trimming tools

There are many traditional hoof trimming tools available including those designed for sheep and horses. However, some non-specific devices work well in certain situations as well.

Wire cutters or tin snips work great on hoofs that are too tough for traditional hoof trimmers. Such as an older buck's hooves in the summer, when his hooves are far from soft. But, be careful of your fingers and cutting too deep on the hoof.

Kitchen shears are just right for delicate kids' hooves. We like to begin trimming on the kids even before they really need it just to get them used to the system.

Portable field grade headstall

It's often easier for two people to work with goats in the field than to drag along a bunch of equipment. Especially if the goats are fairly well-mannered (and grain addicted). For a couple, the stronger person should hold the goat and the shorter, more agile person should trim the feet. For shots (especially those that sting like Ivomec), have the lighter (and smarter person) give the shot and the other person hold the goat. For an Ivomec shot, be ready to release quickly if there is a reaction.

Tips from Bea Bartle-Roberts Columbine Ranch, Colorado

Shots

Use shorter needles for shots, especially in the 20 and 22 gauge sizes as the longer ones have a tendency to bend.

Taxes

Work only with an accountant who is cognizant of agricultural businesses.

DEHAIRING 1997

The Little People

By Paul G. Johnson

Dehairing. It's the nemesis of cashmere producers who want to keep their dehaired fleeces for their own use, or to sell locally. For those who sell their fleeces on the open market to companies such as Cashmere America Co-op or Pioneer Mountain Farms, dehairing is not an issue. These fleece purchasers have the volume necessary to satisfy the minimum requirement of five hundred (500) pounds of one cashmere color that one must generally have before the giants of the industry, Forté and Amicale, will consider dehairing.

Although their minimum lot requirement puts Forté and Amicale's services beyond the small producers reach, following is a summary of their current requirements and dehairing prices:

The Big Boys

Forté Cashmere Company, Inc.

Forté's current processing fee schedule is:

Minimum lot size: 500 lb.

Lot fee: \$200.00

Scouring fee: For 500 to 1,000 lb., \$.75/ingoing lb. (Volume discounts over 1,000 lb.)

Dehairing (to 0.5% coarse hair content):

Yield	\$/net dehaired lb.
<10%	\$22.50
10-19%	16.00
20-29%	11.00
30-40%	9.00
>40%	8.00

Packing: \$15.00/bale or bag

Freight (both directions): Your responsibility.

Insurance during transit, storage and processing: Your responsibility.

As we understand the above schedule, 500 pounds of ingoing fleece (of one color) would cost \$1,950.00, not including packing, freight or insurance. This includes the \$200.00 lot fee, the \$375.00 scouring fee, plus \$1,375.00 for dehairing. For this example, we have assumed a 25% yield.

For approximately \$1,950, you would have back about 125 pounds of dehaired cashmere, which is only a cost of \$15.60 per pound or 98 cents per ounce. This is not bad. However, the ingoing volume is the problem.

Amicale

Woonsocket Spinning Company, a division of Amicale, also has a 500 lb. limit. However, on rare occasions, they indicated they would accept smaller lots. (Smaller lots does **not** mean ten fleeces.) As it is difficult and not commercially viable for them, they would rather not process the smaller lots. When they do accept lots smaller than 500 lb., it must be **pre-scoured**.

If you would like more information about this, contact Mr. Richard Perkins at the address and phone number listed at the end of this article.

For the most part, they dehair their own fiber. Besides cashmere, they also dehair camel. Their price for dehairing runs from \$6 to \$7 lb., based on the outgoing weight (final weight after dehairing).

At the opposite end of the dehairing spectrum, are those who hand dehair. This is accomplished, usually from a combed fleece, by picking out the guard hairs by hand, sometimes using tweezers. For additional information about combing your animal and hand dehairing, see Carol Spencer's article beginning on page 8.

The Rest of US

This article's primary focus is on the rest of us—the big gap between the above two extremes. If you have more than a few goats and want to get your own fleece back for your own use, what are your options?

Two parties, the Hachenbergers and the Pendergrasts, are working towards designing and building small, personal-sized dehairing machines.

Castle Crag Ranch (Hachenberger)

Steve and Diana Hachenberger of Castle Crag Ranch in Montana have the only United States (and world) patent on a dehairing device. However, they are not currently marketing their machines. Steve, who holds no grudge for last month's cover shot of him sharing an oreo with a buck, says, at this time, they are concentrating on educating the industry on the science of dehairing, including the realities vs. the expectations.

They are also considering selling their patent to someone who would use it to build personal-sized machines.

Recently, they have been asked by the University of Alaska,

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Dehairing

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Fairbanks, to consult on a large scale machine which would be able to dehair musk ox fleeces. Musk ox (qiviut) has two guard hairs, not just one, and one of the guard hairs is crimped, making it extremely difficult to dehair. Steve has completed a trial, and reports they can dehair it.

Steve's educational article, Yield and Recoverable Yield appears in this issue beginning on page 18.

Trickum Creek Farm (Pendergrast) - The "Hokie"

At Virginia Tech, engineering students are working on the "Hokie," a machine affectionately named after their student body. Gene and Rosalie Pendergrast of Trickum Creek Farm, Virginia, gave the school a grant to design and build a small dehairing machine. Three successive classes of senior mechanical engineering students have worked on the project thus far, resulting in the first prototype which was recently field tested at the Virginia State Fair.

This first machine is smaller than the final machine will be, but has fulfilled its mission. By the end of the 1997 spring semester, the next generation prototype, which will be at or near final form, is to be delivered to the Pendergrasts, along with the plans, operating manual, specifications, and parts list.

At this time, the Pendergrasts are considering manufacturing the final model on a limited basis, for spinning guilds. The machine is designed to be used as a personal machine, not to dehair fleece as a central processor.

The Pendergrasts report that there have been many inquiries about the Hokie from folks all around the country. This interest has encour-

aged them to proceed with development.

The criteria for the Hokie given to the students by Gene and Rosalie were:

1. Remove guard hair from raw fleece (**preferably combed**) without damage to the fiber. Objective=95% separation, 97% recovery of usable fiber.
2. Capable of dehairing from two ounces up to ten pounds of raw fleece.
3. Must be portable (under 200 lb.) and fit on a table top.
4. Operate efficiently in any interior environment with no need for special equipment to provide heat, moisture or humidity control.
5. Must be easy to operate and maintain.
6. Service life of 10 years and easy to repair from available industry components/parts.
7. Keep cost under \$2,000.

The prototype machine includes a motor, pulley and belt drive system, two counter-rotating drums (a loading wheel and a carding wheel) and a rotating nylon brush (collector). As the fleece is pulled between the loading and carding wheel, the coarse guard hair and foreign matter (wood chips, hay, etc.) is thrown to the bottom of the machine due to its mass and centrifugal force. The cashmere fleece flies off the carding wheel onto a rotating nylon brush, where it can be removed with a typical fleece comb, although most of the dehaired fleece is deposited on a screen at the back end of the machine.

Student test results accomplished a 48% collection rate and a 94% separation rate. Waste run through again resulted in a 70% collection and 95% separation. It was felt that more runs should improve the collection percentage.

Field test comments:

1. The prototype appears to satisfy functional criteria provided for

a dehaired.

2. Guard hair, dirt, etc. separate easily.
3. Clumpy raw fleece tends to stick to the loading wheel.
4. The Hokie needs a feeding device.
5. Some fleece attaches to the partitions and the axles of wheels and brush; some remains on the carding wheel hooks and some floats with the air current created by the rotating wheels.
6. The product which reaches the brush or screen does not appear to be damaged. In fact, the style seems to be improved by the process.
7. Experiments with some low-yield shorn fleeces produced a product that, after two passes, looked like a raw combed fleece. This indicates that the Hokie will dehair shorn fleece, but more effort would be required.

Plans have been made for improvements and modifications to address the above problems and improve the machine.

Virginia Tech does not plan to patent the machine as they say that the technology is available and nothing would be gained by securing patents. The University will not likely manufacture the "Hokie" for sale. When the prototype has been finished, they will prepare detailed plans and specifications, operating manual and a parts list which will belong to the Pendergrasts, along with the final prototype.

Two companies are, or soon will be available to dehair small lots of cashmere. They promise to dehair your fleeces, one or many, and return your cashmere (and guard hair if you request it). Prices are dependent upon such factors as (these differ between the companies): volume, whether shorn or combed, condition, etc.

Continued on next page

Dehairing

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Left:
Ajamu
and
Talibah
Al-Rafiq

They just purchased
a dehairing machine
from China.

Bartle's Columbine Ranch in Colorado operates the DH-2 Cashmere dehairing machine, while California Cashmere Company utilizes a dehairing machine imported from China.

California Cashmere Company (Al-Rafiq)

Starting January 1, 1997, California Cashmere Company will begin accepting both commercial clips and individual fleeces. They will also purchase fleeces. For dehairing, they will accept both shorn and combed fleeces, which must be free of burrs, dander and any other foreign matter, especially polypropylene baling twine.

Before shipping your fleece to them, you must first telephone them to obtain a customer identification number and instructions for shipping.

The company will record and provide the following information: Fleece colors, weight by color, average length, processed yield, fleece weight before and after scouring, fiber diameter (subjective), down weight after processing and hair weight after processing. They will also grade and class fleeces if requested to do so in advance.

They have procedures in place to ensure each clip is kept separate

with little or no contamination from other clips.

They say to expect 6-8 weeks turnaround time. Guard hair will be returned upon request. There is no minimum or maximum number of fleeces or weight required.

They report that you may expect 98% success rates of guard hair removal and that neither long or short guard hair is a problem.

At November 25, 1996, prices were not yet available, but the Al-Rafiq's expect to release a price list soon.

Columbine Ranch (Bartle-Roberts)

Bea Bartle-Roberts and Ray Roberts of the Columbine Ranch in Colorado offer dehairing using the DH-2 cashmere dehairing machine. Currently in operation, they are now accepting fleeces with no minimum or maximum fleece weight requirements.

Fleeces should be clean and separated by color. Unsealed plastic bags shipped together are best. Sealing fleeces in airtight containers can cause fibers to become brittle which break easily per Bea.

They may purchase your fleeces, or sell them for you if you want, but check with them first. They will not

class or grade your fleece for you.

Guard hair will be returned upon request and Bea has some tips on potential uses for it—stuffing dog beds, use for tied flies for fisherman, a binder in cement and insulation.

Per Bea, their eventual goal for fleece turnaround time is 2-3 weeks, but it will depend on the time of year and volume of fleeces received. They have processed up to 50 fleeces in one week.

Long guard hair is not a problem in processing. Bea reports that their process removes 95%-99% of the guard hair.

Bea cautions that "while shearing is the best harvesting method, take your time and avoid second cuts." She also agrees with those who say, "Get your fleeces out of the closet and into the commerce stream."

Current processing prices are \$15.50 per pound for sheared fleece and \$31.00 per pound for combed fleece.

Rocky Mountain Exotic Fibre

We reported in our July 1996 issue that Rocky Mountain Exotic Fibre, in Canada, was dehairing small lots of cashmere (20 pounds or more) on a "laboratory" machine to see if they wanted to "take the plunge" into large-scale dehairing of cashmere.

Although we had no response from Rocky Mountain Exotic Fibers for this article, other sources inform us that their experimental cashmere dehairing equipment may be for sale.

For further information on any of the above dehairing options, you

Continued on next page

Dehairing

Continued from previous page

should contact buyers and processors directly. A list of the companies and the contacts mentioned in this article follows:

Amicale

Woonsocket Spinning Co.
Attn: Richard Perkins
PO Box 31785
Charlotte, NC 28231
704-537-7011, ext. 101

Forté Cashmere Company, Inc.

James Coleman
148 Hamlet Avenue
PO Box 859
Woonsocket, RI 02895
401-762-2000

Bartle's Columbine Ranch

Bea Bartle-Roberts
PO Box 214
Jefferson, CO 80456
719-836-2539

California Cashmere Company

Talibah Al-Rafiq
PO Box 1030
San Andreas, CA 95249
209-754-5751
fax 209-754-1044

Rocky Mountain Exotic Fibre Co.

#7 - 5112 47th Ave.
Innisfail, Alberta
Canada
T4G1PG
800-909-9665

Castle Crags Ranch

Steve and Diana Hachenberger
894 Pheasant Run
Hamilton, MT 59840
406-961-3058

Trickum Creek Farm

Rosalie and Gene Pendergrast
RFD 1 Box 479
Eagle Rock, VA 24085
703-884-2098

LaCrosse Tweezers Co.

LaCrosse, WI.
(Did you know there is no singular for "tweezers"?!)

Yield and Recoverable Yield of Cashmere Fleeces

by

Steve Hachenberger
Inventor and Cashmere Goat Dehairing Researcher
Hamilton, Montana



Steve and Diana Hachenberger - Concentrating on education

This article is a paper presented by the Hachenberger's at the PCMA Business of Cashmere Conference in Bozeman, Montana in September 1996.

This discussion is offered to those that are looking for information on yield and actual recoverable yield of cashmere fleece. In order to begin the process of yield we must first look at the following topics:

1. Mechanical Losses
2. Length and Yield
3. Harvesting Cashmere
4. Natural and Mechanical Losses
5. Subjective and Objective Yield

Other areas that apply to cashmere processing such as diet, scouring, dehairing with large processors and spinning losses will be covered by other speakers.

First, let us look at the actual goat to be shorn or combed. There must be enough down fiber available for the grower to yield any reasonable return. The yield is based on actual down fiber density and weight to guard hair. If an animal produces very fine fiber at a very low MFD and the down weight is low the return to the grower will be low. The object is to produce a down fiber that is long but is also easily dehaired by your processor.

There must also be enough animal mass to produce the fiber. For individuals that are producing fiber the goal is to produce the most fiber on the largest goat. The result will be both a meat and fiber market. For some, meat market is the goal and fiber secondary. This areas will be discussed in seminars on marketing

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Yield!

Continued from previous page

goats and fiber.

There have been exhaustive studies done to try to find the "Ultimate Goat." The bottom line is that in as far as cashmere goats are concerned, we are just learning. The animals just don't breed as true as we would like them to. In some cases we have excellent results and in others we have poor results from our best animals.

You need to start with genetically fine animals. A genetically poor animal cannot be made better.

Diet plays a role in down fiber MFD, and American goats are, for the most part fed better than Chinese goats. I would like to see a Chinese goat on an American diet. There is a connection between diet and down fiber MFD, which is addressed elsewhere in the PCMA proceedings.

The diet would explain some of the luster found in American Cashmere. This luster is associated with a stronger fiber that withstands dehairing stresses that are applied. When dehairing forces are applied to remove the guard hair, the guard hairs are the one thing that separate you from your down fiber. To remove the fiber is a complex process and takes a toll on the yield.

In a letter to consignors from Montana Knits of Montana the topic was raised to their processor as to guessing the yield:

"I called our dehaier today to ask how he deals with yield. He said it is merely a matter of practiced guessing. Even core samples are inaccurate. Different labs will give different yields on the same core tests. Also there is the issue of scouring, which he says

affects yields, lowering it."

"When I asked him how he as a buyer and the seller he is buying from come to an agreement on yield, he said that each of them comes up with their own estimate, and they agree somewhere in the middle. He termed it an 'ongoing hassle,' but agreed that we should all be able to work it out over time with trial and error." (Ann Dooling, 3/26/96)

Now we will look at our next subject, Length and Yield.

Length and Yield

Of all the topics that have brought more controversy, length is the one area that seems to draw the most attention. To set the record straight, cashmere from China does not grow to a the length of 1.25 inches. Harvesting and dehairing methods reduce the otherwise long fiber.

Ann and Tom Dooling have first knowledge of the actual lengths of Chinese cashmere. It is true that some cashmere is grown at lengths of 1.25" or less. I will discuss length relative to United States cashmere.

First it is important to look at the fiber in a "relaxed" state. Stretching the fiber out to make it approach needed length is only fooling yourself. As the down fiber's length is reduced so is the yield of the fleece. "Produce animals with the highest quantity of down possible." (Hopkins, CaPrA, 1989)

As an example: A fleece has very fine down fiber. The coverage seems adequate and the length is at or near 1.25". The yield will be low. The same goat with a length of 2+" will be greatly higher in yield. If down length is increased to 3+" yields will be very high. The amount of fiber is

directly connected to the length and coverage.

The secondary factor is the MFD of the guard hair. Add fine guard hairs to these fleeces and both will suffer lower yields regardless of length.

"An efficient separation can only be achieved when a fourfold difference in fiber diameter exists between hair and down." (Ryder, 1987) Guard hairs will range in MFD from 60 mm to +120 mm. When the MFD is reduced, the ability to remove the hairs requires overprocessing. The length of guard hairs varies from one type of animal to the next, and is normally fine on young goats. Guard hairs should coarsen with age. Kid fleeces are not always your best example of the fleece to come.

To see why length plays such a major player in the production of cashmere we will look at several aspects. The first is harvesting.

When harvesting (shearing or combing) your goat you will reduce the length of the down either by second cuts or breakage during combing. After the fiber is removed the fleece must be scoured or cleaned, with some losses. After scouring, dehairing takes its toll on the length. (Dooling, 1996) The above losses are exactly why we need to start with high yielding animals prior to processing. Our next topic is Harvesting Cashmere.

Harvesting Cashmere

This is probably the single most important step to assure that the grower gets the most down fiber from his or her goats. In some areas of the world people comb their goats. This makes sense

Continued on next page

Yield!

Continued from previous page

when the person has only a few animals or is working for pennies per day.

If you have more animals than you can conveniently comb, this method does not make sense. Shearing your animals is the fastest and most economical way to remove all the fiber at once and guarantee the best yield.

The advantage to this type of harvesting is that you reduce losses that occur naturally due to shedding while you await the next combing session with the same animal. In addition, your fiber is cut at or near the skin in such a way as to yield the maximum length. Combing reduces yield due to stretching, pulling, tearing and ripping the fiber from the goat. Not all the fiber releases at the same time. Shearing guarantees a single time of removal for the best return. There will be plenty of the above abuse in the later processing of your fiber.

In order to shear your goat I recommend you use either electric shears designed for the purpose or inquire of someone who knows. I have met people who have used scissors to shear their goats. Good shearing technique and practice will assure you your best return.

Combing is done here in a variety of ways. The most widely used method is the use of a dog slicker brush. An actual comb is not advised for the removal of fiber. The down tends to bend and tear against the singular tines. Ann and Tom Dooling can describe the equipment and techniques they have observed in use in China.

Yields range from 10% to 40%

recoverable fiber. Most yields are in the 17% to + 25% range.

Principles of dehairing differ from one region of the world to another. **In all cases some guard hair is retained.** "It should be noted that when the dehairer processes cashmere some coarse hairs remain in the dehaired product. The amount of hair permissible varies with the end use of the fiber. Lower percentages are required for the knitting trade while weavers can generally accept higher (up to 3%) level." (Hopkins, 1989)

The amount of guard hair retained is based on how clean the fiber is prior to dehairing and the MFD of the guard hair. The guard hair will usually be the culprit. Adequate removal of the guard hair requires a mixture of card types and varied speeds. Force applied at specific areas allows the coarse guard hairs to eject due to their specific gravity and weight. Surface contamination on the fiber helps cut static and/or humidity is added to reduce the electrostatic energy produced by the process.

Guard hairs that are too fine remain in the process due to a lack of specific weight. Picking an animal with a wide difference between down and guard hair will help assure better returns on yield.

As your fleece is processed, some fibers are ejected due to forces applied. Others are broken due to weakness or short staple length and/or second cuts.

Fine down is always in demand, and it is our goal to strive to keep fiber at minimum MFD. **Remember that as the MFD is reduced so is the ability of the fiber to withstand dehairing forces.** Breakage occurs more frequently with a reduced MFD. The object

is to produce animals of high density and body size with fiber at acceptable levels. The trick is to not allow the breed to go too far in either direction to coarse or fine.

As an example: Cashmere ranges from 18.5 mm or less. Let's say we have animals that have fiber from 14.5 mm to 18.5 mm in our herd. The best animal would be in the intermediate range of 16.5 mm. Don't forget, fiber has definite weight. Why would we produce ultrafine fiber at very low weights? We do need these animals to have genetic stability, but remember we are being paid by the pound yield for the fiber.

Natural and Mechanical Losses

For some time now people have wondered just how the guard hairs are removed from the fleece of cashmere goats. The exact process has been for the most part kept secret and a variety of machines are used across the globe.

In order to better serve the industry, Steve Hachenberger of Castle crags Ranch developed the first patented dehairer in the United States. Several years of study into the needed characteristics of cashmere and the guard hair resulted in the patented process and machine.

My findings on cashmere are expressed within this article. They are directly connected to my personal experience, trial and of course failures in developing the process. My opinions are based on tests done on hundreds of fleeces of varied quality.

Of all the things I have encountered, none has been more important than the education of those raising cashmere goats. Ironically, I have spent more

Continued on next page

Yield!

Continued from previous page

time in this area than on the invention itself. And even more troublesome, the very people that I educate sometimes are unwilling to heed my or my colleagues' advice.

I will try to make as simple as possible a very complex array of processing problems and fleece types that affect your yield. Other areas of concern are addressed by the other speakers at this conference.

Dehairing is the term used to describe the removal of the guard hairs from cashmere fleeces. These fleeces have two parts: the down fiber and the protective, coarse guard hairs. There are several types of animal that have down fiber and guard hair. Each type requires special dehairing procedures. This presentation deals exclusively with cashmere goats.

First we must note that cashmere yield is expressed, not in pounds or half-pounds, but in ounces and grams. The down fiber is very light and makes up for its lack of volume by its luxury and warmth. It takes more than one animal to produce a garment. Processing plays a role when trying to determine how much processed cashmere can be returned to the grower.

Now that you have removed your fleece—hopefully without scissors—you will need to be aware of other factors that affect yield.

First, let's look at some of the things that reduce yield. Poor shearing technique, allowing many second cuts, lowers yield.

The length of the original fiber

plays a role: The shorter the fiber, the lower the yield. A short fiber goat eats just as much food as a long fiber goat at the same body weight. Short, fine, wispy fleeces are not going to net much money.

Another factor is stress. A stress point may affect the strength of the fiber. If the point is at an intermediate point, the result could render a lower yield.

Contamination of your fleece requires over-processing resulting in lower yields. Processors and buyers of cashmere are setting standards for the fiber they buy. The result for poor fiber is a very low estimated return from the processor.

Standards for cashmere are changing. Today, buyers of cashmere prefer longer fiber with less dander and foreign material.

Natural losses that affect yield are sometimes beyond our control. Weather conditions do not always give us the needed window of time for shearing. The sun damages the tips of cashmere that extend past the guard hair and premature shedding accounts for the largest loss.

Areas you can control have been listed herein, and the only other area would be feeding. Feed in such a way that the feed is not thrown over the back of the goat. On the ground is the best or in controlled bins. I once had a person tell me that I would get lots of worms from feeding on the ground. I worm as needed and the goats eat on the ground all day in the pasture. The worms are there, everywhere.

I am always available to reply to questions concerning cash-

mere goats. I would also encourage interested people to join the P.C.M.A. and help develop a stable cashmere industry for the United States. My last topic will be objective and subjective yields.

Objective and Subjective Yields

Subjective yield is the yield that is observed while the fleece is in its raw state. A subjective yield is only an educated guess as to the approximate yield. It plays a role for an estimate of the down fiber. The actual yield will not be known until processing is completed. Processors use subjective yield and then apply other criteria to further reduce the estimated yield.

As an example: A bale of cashmere that is estimated at 35% yield subjective, may result in 25% actual yield. The bale may have problematic fleeces contained within that have reduced the overall percentage of return.

An objective yield is the actual tested yield that exists under tests by an approved laboratory. Several labs test for MFD and yield. This test should be used only as a guide for yield.

The tests are only as accurate as the random samples taken by the grower. If samples are taken from the sides of the goat only, the test will assume that the overall coverage is of the same density and MFD. This will cheat yourself as a grower and the buyer of your goats.

Follow the lab's direction for proper test results. The yield is the overall yield based on fiber to guard hair. It does NOT allow for any processing losses and does not mean that a 30% yield will mean 30% returned to the grower.

Micron Madness

Continued from page 6

doesn't meet a buyer's expectations in the first five categories or doesn't meet a buyer's standards for conformation or other breeding goals, it is foolhardy to base a purchase upon faith in a superior grand-daddy. **I believe she is urging us to read pedigrees, to identify superior sires, to look for bloodlines that successfully repeat desired traits, but ultimately to put our money on the table only when we see robust animals which produce the fiber we want.**

I wish that I could present Shirlie in person to share her wisdom and enthusiasm. Can't right now, but I can conclude with a Shirlie quote: "My aim—my dream—was to produce tonnes of beautiful cashmere with excellent style, good definition, wonderful handle, on a majestic-looking animal that I was proud to feed!! Nothing has changed."

Fibre News* Becomes *The Goat Farmer

Geoff Minchin, Managing Editor of *Fibre News*, announced that the magazine's name will change from *Fibre News* to *The Goat Farmer* beginning with the October-November 1996 issue.

Fibre News is a magazine, published seven times a year in New Zealand, which, in the past, has focused on fiber goats, including cashmere.

"With the increasing number of readers committed to the Boer/goat meat sector of the industry, it is time we took a name that fairly encompasses all goat farmers," Geoff reports. Current subscribers will have already noticed the increased coverage for Boer goats in the magazine's contents.

Indeed, with the increase in interest in Boer and Boer-crossed meat goats, the transition in names is timely. As *The Goat Farmer*, the magazine will report on general goat health, mohair, cashmere, cashgora, and meat goats.

Also, various industry groups will be allowed space in each issue to address and promote topics of interest in their areas of specialty.

The address, telephone number and e-mail address for the magazine remain the same.

Fibre News has recently added e-mail at: fibrenews.nz@xtra.co.nz.

They have also recently added an internet page at: <http://www.xtra.co.nz/fibrenews/>

CASHMERE/MEAT GOAT SHOW AND SALE BROWNWOOD, TEXAS DECEMBER 6-7, 1996

When is a meat goat more than a meat goat? When it also produces cashmere says the Texas Cashmere Association in announcing its Seventh Annual Show and Sale on December 6-7, 1996.

An objective of the Association is to develop a dual purpose cashmere/meat goat breed. Cashmere results in added value if harvested and according to some outstanding Spanish goats producers, animals bearing cashmere perform better than those that do not.

The event will be held at the Brownwood County Association Barn, HWY 377 South, Brownwood, Texas.

The judge will be Joe David Ross of Sonora, Texas, who is one of the most renowned judges in the nation.

A Show for Sale involving animals to be considered for sale will at 1:00 P.M. Friday, December 6th. Only superior goats selected by the judge based on (50% meat/50% cashmere) characteristics will be offered for sale.

The sale will begin at 10:00 AM Saturday December 7th, and will be followed by a Show for Show and Jackpot Show which will begin at 1:00 PM December 7th.

The event's Chairman, Ruben Ortegon, Vice President of Texas Cashmere Association, expects more than a hundred entries from the top herds in Texas, New Mexico, Colorado and Wyoming. This is the only Cashmere/Meat Goat sale in the U.S. and it is a great opportunity for producers to obtain prime animals for genetic upgrading for meat and cashmere.

For further information contact:

Texas Cashmere Association
PO Box 506
Savoy, Texas 75479
Telephone: (930) 965-9956
Fax: (903) 965-7229
E-Mail: tca@webstar.net

Calendar of Events

December 6

Texas Cashmere Association annual meeting, Gate 1 Motor Inn (one block from Fairgrounds)
Brownwood, Texas, 915-396-2920

December 6 -7

Texas Cashmere Show and Sale - Brown County Association Barn, Brownwood, TX
More detail in article at left (page 22).

December 6 or 7 (probably the 7th)

Cashmere America Co-op annual meeting - Gate 1 Motor Inn (one block from Fairgrounds above),
Brownwood, Texas, 915-387-6052.

December 25, 1996

Christmas followed shortly thereafter by New Year's Day. Ho-Ho-Ho!

January 8, 1997

Linda Fox/Paul Johnson's 2nd wedding anniversary
Happy Anniversary Sweetie!

January 11 - 26, 1997

National Western Stock Show - Denver, Colorado
For information call 303-297-1166.

January 18, 1997

Oregon's 3rd Annual Pygora Goat and Fiber Frenzy
Washington County Fairgrounds, Armory Building,
Hillsboro, OR. For information contact Lisa Roskopf
503-985-3331, email HAWKSMTN@aol.com

June - July 1997

Goat Production Workshop - Technology for Fibre and Meat, University of Queensland, Department of Agriculture, Australia, (07) 3365 2062, Only \$6,000 for six week course. Plus \$6,000 for living allowance. Plus air fare. Plus souvenirs for your mother. No worries, this may not be as costly as it sounds because the price quoted is probably in Australian currency. Take the family.



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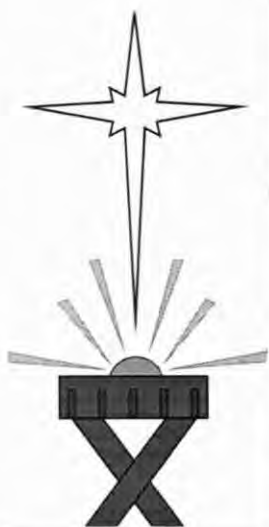
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