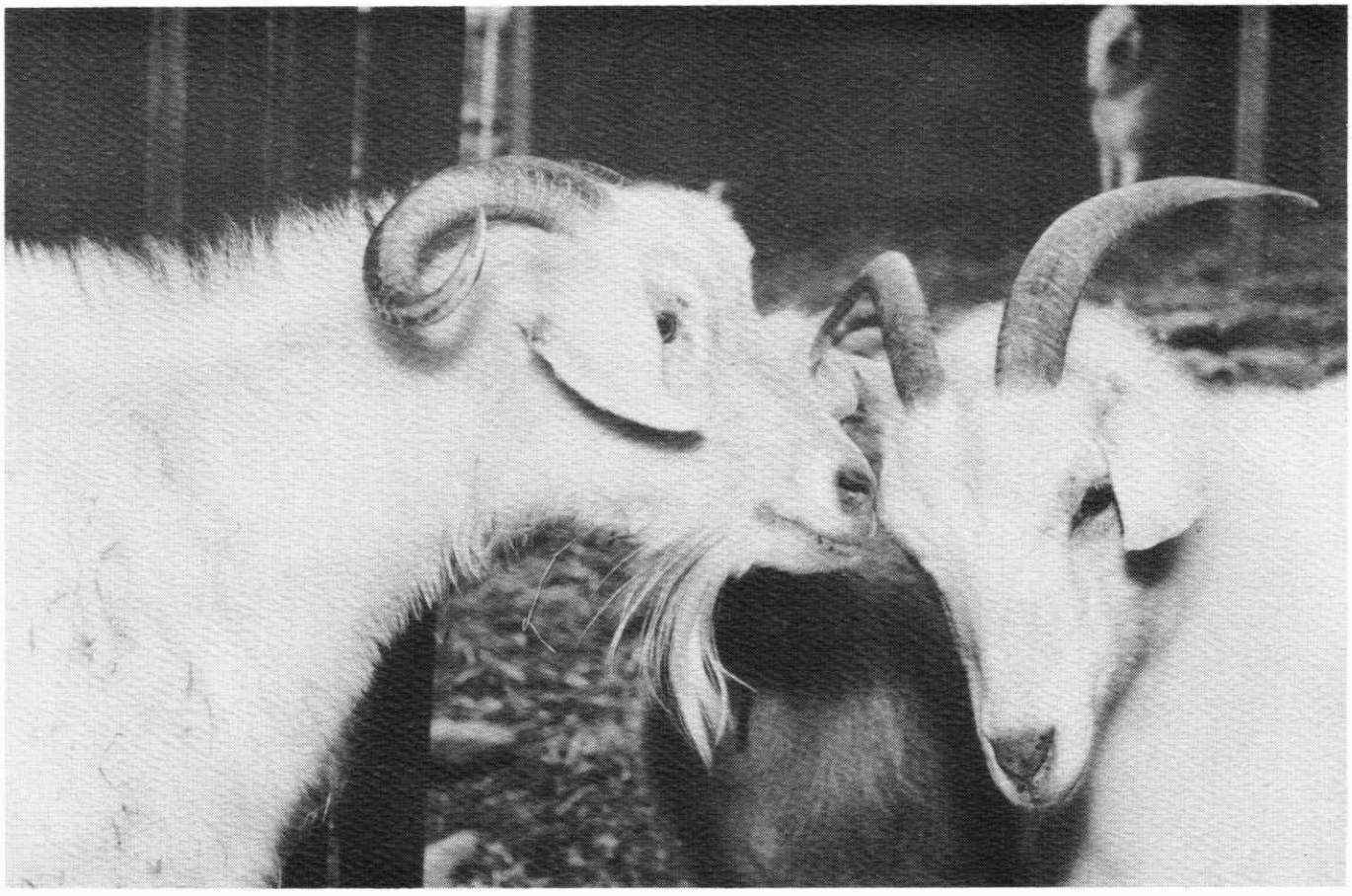
CASHMERE MIRROR

Volume 8, Issue 8 June 1997

The monthly magazine devoted to cashmere goats and their fiber



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Kay Keller, Kellers Kritters
Arlington, Washington

"Pssst...the bucks are coming!"

The Bucks Stop Here!

Breeders Showcase Issue

Coming August 1997

Deadline for ads, photographs and copy:
July 31, 1997

We will print lots of extra copies of the August 1997 issue and distribute them as promotional material at fiber and goat gatherings in the US and Canada. As usual, there will be a good deal on advertising—both display and classifieds. We can help you design and lay out an ad, usually at no additional charge.

Get the word out!

Let others breeders and new cashmere producers know what you have for sale or rent. This is the time of year when producers "shop for bucks" for purchase and for rent.

Special Advertising Rates for August 1997 issue

Display Advertising:

1/2 page	**$65**
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1/4 page	**$35**
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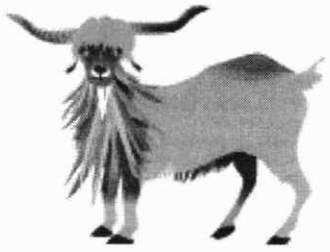


Reflections

by Linda Fox

Our does and young kids were out of food. They had a good-sized pasture, but after spending late winter and the spring there, had pretty well "licked it clean." On our place, this time of year, being out of food doesn't mean we go out and buy "town food;" it means we go to town and buy more fencing material.

We selected an area for their new pasture. We will call it a pasture because it is enclosed in fence—nothing else about the area qualifies it as pasture—no lush green grass, clover or alfalfa, no fertilizer, no occasional reseeding. It contained pretty much what God originally put there—a real mess of this and that—which had been growing undisturbed for who-knows-how-many years. However, we had decided that God wouldn't mind if we brought in a few goats to clean up the area a bit and possibly produce a bit of fluff for clothing in the process, so, over the Memorial Day holiday, we fenced it.

The area is full of tall oaks, scrub oaks, climbing and bushy poison oak, blackberry vines larger than most of the towns in this county and many other plants and woody bushes of indeterminate species. And it no doubt contains several varieties of poisonous plants. I had just finished editing Paul's article on poisonous plants so was now fully aware of the potential problems. I was afraid that we had all sorts of accidents just waiting to happen in our new pasture.

Even though the does had been dining on similar fare for two years without difficulty and I had some faith in their natural ability to select the proper food, I was nervous. They were going from a sparse food supply to a rather lush plate, but we had no choice unless we wanted to buy more hay, which isn't nearly as permanent as fence.

Ready to face any problem, I hauled Paul's poisonous plants article up the hill with me when I went to introduce the girls to their new pasture. They eagerly rushed the gate and disappeared into the brush while I tried to identify plants that I hoped they would not eat.

There was lots of new oak growth on the trees (which is poisonous in sufficient quantities) but I've seen them eat oak leaves in the past with no apparent ill effects. I knew that bracken fern was poisonous and there was lots of that. I wandered around identifying other potential problems: wild cherry, lupines, foxglove, buttercups, prune trees (whose, leaves, when wilted can be a problem) and probably many other poisonous plants which I couldn't identify. So, I decided to rely on the goats' good judgement because it would be impossible to eradicate all the poisonous stuff without the aid of agent orange.

I followed the girls and kids around and tried to observe what they were eating. They were having a great time, running from one new bush to another—a nibble of this, a taste of that. I soon came to the conclusion it was impossible to locate 70 goats in all that brush, let alone observe what they were eating so I sat down to enjoy the sunshine (carefully avoiding the poison oak—which is not poisonous to goats).

After an hour or so when I had come to the conclusion they could handle these eating choices on their own, I was ready to leave them to their instincts. Then one of the kids started choking and spitting up green slime. I panicked! What do I do now? Paul's article didn't cover what to do if you have a problem! Why didn't he get into antidotes!?

Rather than scan his numerous pages to identify symptoms or try to figure out what the little guy had consumed, I decided to go for herd damage control and check out the little one more closely later (if he was still alive). Finding 70 goats in their new lush brush and encouraging them to leave it and go back to their food-deficient compound is another story, but I eventually got them all chased/lured back to the other pasture.

By this time, the kid who had been spitting slime was fine. I couldn't even identify for sure which gray kid had been spitting, so I guess there was no permanent damage.

Since then, the goats have spent entire days in their new digs with no problems, so I guess they truly are food smart. Maybe eating a small amount of a forbidden food is how kids learn which plants to avoid. Or, perhaps, he just swallowed a bug and an overly-protective goat herder overreacted.

When Readers Talk...

Dear Mr. Johnson:

I am constrained to take exception to the photograph caption in your recent number in which I appeared while engaged in what, I assure you, was perfectly innocuous purely social intercourse with the delightful and witty Dick Gould. As one who has attended a score or more public gatherings of the cashmere industry since 1992, I am somewhat disappointed that my name remains, for some reason, still unknown. With my brothers Cloyd and McLeod, and my sisters Chloe, Claudia and Cloris, I have been professionally affiliated for several years with that undeservedly tiny knitting company which shares our name and that of our common natal State.

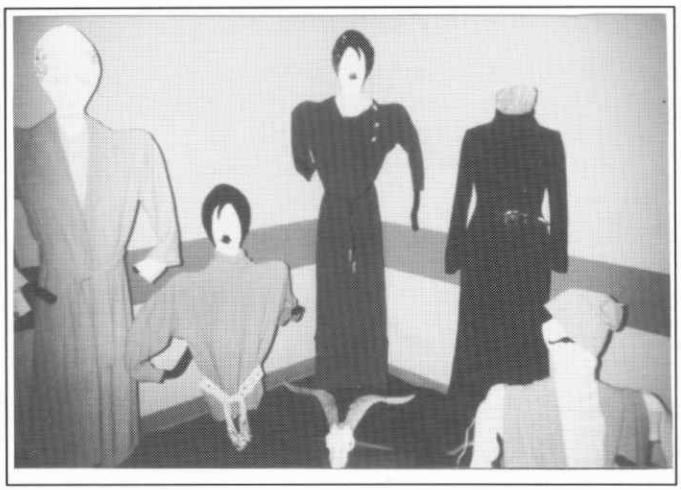
In Montana, unlike parts of Europe—especially Paris—and, perhaps, the West Coast, we take no pride whatsoever in gender ambiguity, which is why I, and my equally virile two brothers, proudly boast handlebar mustachios in the best cowboy—or should I say goatman—tradition. I was a little miffed, to say the least, that your caption writer apparently confused me with one of my dainty and totally feminine sisters.

I am considering lodging a mild complaint with the Vice President for Political Correctness of Mild Goat Men about your insensitive use of the word "thin." My and my siblings' admirable slenderness is the result in part of rigorous conditioning in the best tradition of the modeling business. In addition, it stems from a superb and fortunate genetic endowment akin to, albeit different from, that of the handsome and prolific cashmere goats with whom my siblings and I share a common employer.

Finally, of course I was clad only in cashmere. What else, I ask you, is worth wearing?

Sincerely,
Clyde,* Montana
Lead Manikin (and proud of it!)
Dillon, Montana
June 3, 1997

* Not a typo. My middle name is ","—C.,M.



Montana Knits manikens and girlikens - Bozeman, MT 1995

Dear Clyde, Montana:

Thanks for straightening us out about mannequins and thinness and names and other essential facts of life about the photograph on last issue's inside back cover of you and (the delightful and witty) Dick Gould.

However, to make sure we have things straight—here is another photograph which we came across in our file. We are somewhat confused. Here we have (from left to right) yourself, I assume, in your cashmere robe and masculine mustachio, half of Chloe (with no legs but sporting a very attractive belt), an entire Claudia, someone (maybe Cloris?) with no head whatsoever (or could it just be part of McLeod in drag not wearing his head so as not to tarnish his masculine image?) and finally Cloyd in the corner with a cashmere hat roguishly draped over his mustachio.

And, you haven't mentioned anything about the little white horned creature at Claudia's feet. Does this creature have a special significance to you models or is it just another one of those maudlin things which we, the general public, can not expected to understand?

Thank you for your correspondence. I'm surprised you could even type out a note with those thin little arms…

Editor

A Fiber Fair

Mt. Vernon, Washington
May 17, 1997

Cashmere Stuff:

A fleece contest
Cashmere booths
Cashmere animals

Above: Diana Mullins (left), Still Waters Cashmere, visits in her booth at the Fair with Carol Spencer, Foxmoor Farm.

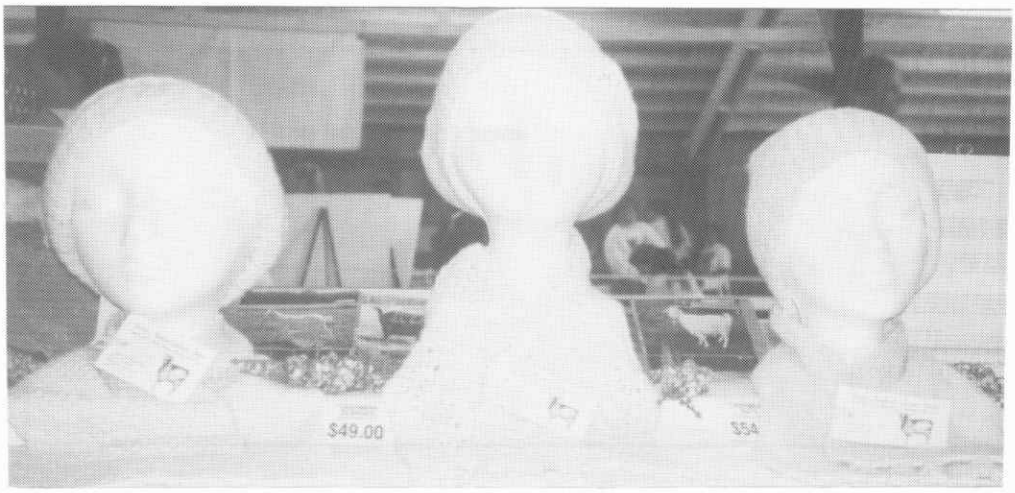
Above: Cliff Nielsen, Liberty Farm, surrounded by a bevy of beauties in the Northwest Cashmere Association booth. His wife, Mickey (who is over examining fleece on page 17), is not worried; these young women are all their daughters.

Right: Douglas and Roberta Maier, Breezy Meadow Cashmere Farm, man (and woman) their booth which was well stocked with a wide variety of cashmere products, including fleece, photographs, yarn, finished goods, soap, mineral feeders and headstalls—and customers! Talk about diversification! You need it—they have it!

Doug and Roberta

Three heads are better than one! Unlike the anorexic models on page 5, these proud but pale girls are pleasantly plump—although they do seem to be missing their bodies. What is is about these high-fashion types who seem to leave body parts laying around at all the better events?

These models keep their body parts warm and fashionable in beautiful handmade cashmere shawls and hats—for sale in Douglas and Roberta Maier's booth at the Fair.



POSSIBILITIES FOR CASHMERE PRODUCTION IN SOUTH AFRICA

By Merida Smuts

Centre for Animal Nutrition, Animal Nutrition and Products Institute,
Agricultural Research Council, Private Bag X2, Irene, 0062, South Africa

Cashmere production by commercial and small scale farmers using indigenous and imported cashmere producing goats, is fast becoming a reality in South Africa. The initiative for the development of a cashmere industry was started by a commercial feed manufacturer (Rumevite) in the earlier part of this decade, when they established a Gorno Altai goat herd at the Rondebult Research farm of Sentrachem, just outside Pretoria in March 1992. The idea was initiated by a similar project in Scotland where the Scottish School of Agriculture in Edinburgh decided to establish a cashmere industry in the United Kingdom. Both programmes were initiated in the wake of the extremely low wool and mohair prices internationally.

For the South African Gorno Altai herd, embryos were obtained by Edinburgh Genetics from the top Gorno Altai herd of the Scottish Agricultural College (which is constantly subjected to selection for functional efficiency), and implanted into 300 Boer goat receptor does in South Africa. The main objectives of this venture were: to establish and promote a cashmere industry in Southern Africa; to provide Gorno Altai breeding stock to farmers; to establish a viable industry for the use of the small farmer sector in particular; to establish a cashmere orientated cottage industry in the rural sector; and, with the aid of Grootfontein Agricultural Development Institute, to increase the cashmere production of indigenous goats through selection and cross-breeding.

The first Gorno Altai kids were born in September 1992. However, because of the very strict South African import regulations, Sentrachem was obliged to maintain the herd under quarantine until 1996 to avoid the introduction of exotic viral diseases to the South African environment. The first kids were naturally bred in April-May 1993 and the first kids from natural breeding were born in October 1993. The first Sentrachem kid crop was sheared at one year of age and the heaviest fleece produced 800 g of cashmere, where the herd average (n = 115 goats) was 620 g.

The Gorno Altai was released from quarantine in April, 1996, and were offered for sale at public auction on March 20, 1997. The average price of the does was R 2,500 ($550) and the rams sold for an average price of R 2,000 ($450), obviously proving to be prohibitively expensive for small holder goat farmers. The herd was acquired by 26 commercial farmers who will, in all likelihood, be the main proponents in establishing a formal market and infrastructure for cashmere in South Africa. This will, in itself, aid in the process of assisting small holder farmers to join the cashmere industry, if not with Gorno Altai goats, but with other indigenous goat breeds.

Further recent developments are; the registering of the Cashmere Goat Breeders' Society at Studbook (The S.A. Studbook and Livestock Improvement Association is the national association of Breeders' Societies. Studbook is responsible for the registering of all pure bred livestock and for managing the enormous Performance Testing Scheme and livestock registering computer database), and the development of a national Cashmere Goat Performance Testing Scheme which will be managed under the auspices of the Small Stock Performance Testing Scheme of the Animal Improvement Institute of the Agricultural Research Council. These developments are being accompanied by a Society Newsletter and the constant exchange of information between breeders, scientists and extension officers.

The Gorno Altai goats are however, only a small aspect of the entire South African cashmere development. Because goat keeping is practised widely by the small holder farmers of South Africa, the possibilities for the utilization of cashmere from indigenous goat species is also being investigated.

Boer goats, Savanna goats and other indigenous goat breeds are often found in the possession of rural communities. These animals have been shown to produce varying quantities of cashmere.

Continued on next page

South African Cashmere

Continued from previous page

There are approximately 2.5 million Boer goats, which produce approximately 50 g/year of Super White; 20,000 Savannas, which produce the same as the Boer; and, approximately 1 million indigenous goats, which produce from 5 to 40 g/year of various colours. Although this is the potential production of cashmere from these animals, none is harvested for use in either a cottage craft or an export industry. However, it must be stressed that this is not because of resource limitations associated with the practice, but rather an unawareness that this product is present in existing animals.

A further hindrance in the development of this industry, exclusively using indigenous goat types, has been that there are several major limitations to commercial cashmere production. Firstly, the practice is too labour intensive for commercial goat farmers. This is because it takes approximately 20 minutes to comb approximately 50 g of hair from a Boer or Savanna goat. Also, cashmere needs to be harvested in this manner throughout the shedding season, preferably fortnightly. For the commercial farmer, the extra time spent herding and kraaling and the extra cost of feeding the animals during the combing process does not warrant the low income per animal, especially with Boer or Savanna goats where cashmere would be a secondary product after meat.

However, the cashmere harvesting practice lends itself ideally to a small holder farming system or an entrepreneurship of a roving comber. Cashmere production has been scientifically proven not to be influenced by the animals' nutrition, thus little more than time and a comb (many different combs can be used) are the resources necessary to harvest the hair. Of course, enormous potential exists to earn extra income if the small holder farmer or entrepreneur processes the cashmere fibre into products by carding, combing, spinning, and weaving or knitting or felting the fibres. For these processes rudimentary home-made apparatus can be used. A cashmere cardigan can sell for as much as R 800 ($180) using roughly 200 to 400 g of cashmere. Products such as felt pictures (± 100 g) have been seen in curio shops selling for R 110 ($25). Potential exists to create other clothing (hats, gloves, socks, scarves) and accessories (handbags), as well as decorative items (wall-hangings, woven blankets or rugs, dream-catchers or other ethnic and culturally significant items) from this fibre. This form of value-adding would perfectly suit a cottage craft industry, employing women, pensioners and children, and taking advantage of the tourism influx of South Africa.

Although small scale processing and marketing of items from cashmere has immediate potential, the ultimate aim could be to create avenues for international cashmere export, either in the raw or processed form. For these purposes, it would be beneficial to obtain or develop a cashmere animal that produces larger quantities of high quality cashmere. Such endeavours are taking place at the Dohne Agricultural Development Institute, the Grootfontein Agricultural Development Institute, The Animal Nutrition and Products Institute, the Animal Improvement Institute, and on the farms of several of the recent Gorno Altai buyers.

Co-ordinating the development of the cashmere industry has, as can be expected, proved a daunting task. To this end, the Cashmere Working Group was developed. This group consists of several representatives of various organisations, from across the country. The CSIR Division of Textile Technology, the Agricultural Research Council, the National and Provincial Departments of Agriculture and various rural community representatives, function at these group meetings. This team have set up incentives to motivate farmers to comb and send the hair to the CSIR for analysis, so that the quality and quantity of hair which may be expected from South Africa's farmers may be determined. The Cashmere Working Group have also co-ordinated the release of literature, and radio and television programmes concerning the new industry and its possible impact on the agricultural industry of South Africa.

Every cashmere-carrying breed, all sectors of the agricultural industry and every research institution which has the potential, capabilities and desire to assist with the development of this industry have been harnessed to determine the feasibility of a cashmere industry. Whether we will be internationally competitive, and whether we will have the infra-structural and financial resources to present an environmentally sustainable product to the industry, still remain to be determined. Ultimately, the chances of success will depend solely on the acceptance of this product and its production and management by small holder as well as commercial producers.

Merida Smuts-Ayers attended the University of Pretoria from 1986-1993, where she attained a B.Sc.

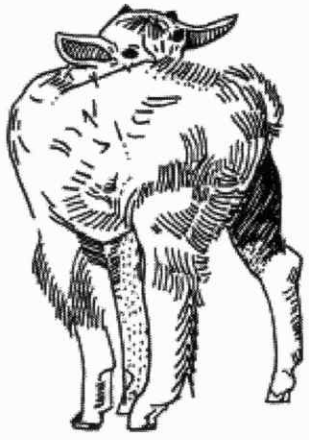
Continued on next page

South African Cashmere
Continued from Previous Page

(Agric) Degree, a B.Sc. (Agric) Honours Degree in Wool Science and Ruminant Nutrition and an M.Sc. (Agric) Degree (Cum Laude) in Ruminant Nutrition. During her studies, she served as a research assistant at the Department of Animals and Wildlife Sciences, Faculty of Bilogical Sciences, University of Pretoria. Merida spent three years at the E (Kika) de la Garza Institute for Goat Research, at Langston, Oklahoma where she studied various aspects of Angora, Spanish, and dairy (Alpine) goat nutrition for milk, mohair, cashmere and meat production and also conducted studies concerning the toxicity of Leucaena leucocephala.

Merida is currently the senior researcher at the Animals Nutrition and Animals Products Institute of the Agricultural Research Council and is responsible for the establishment of a Small Ruminant Research Programme for Small Holder Rural and Peri-Urban farms.

Merida is the editor of Anim.Sci, the newsletter of the South African Society of Animal Science. She has won awards for her research and has many scientific publications in international peer reviewed journals and has presented many abstracts at international congresses.



Interesting Facts
South African Cashmere-Producing Goats

Types of Cashmere-producing Goats in South Africa:

Savanna goat
An all-white, registered variation of the Boer goat. In the 1950's, all-white Boer goats were selected and bred to produce the Savanna goat.

Gorno Altai goat
A high-producing cashmere goat indigenous to Siberia. They originated in Russia and were named after the Altai Mountains which they inhabited. They are a hardy goat and can exist in poor grazing conditions and extreme temperatures. They are born black, but their color lightens as they age. Their cashmere averages 17.2 microns in diameter and 79 mm (3 inches) in length. These goats were imported to Scotland, and in the early 1990's, embryos were imported from Scotland to South Africa.

Indigenous South African goats
These goats are the ancestors of the Boer. They have many color, horn and ear variations and are found in rural villages and in communal range lands. They are mostly owned for ceremonial purposes by the South African rural people.

Australian feral goat
A white cashmere-producing goat indigenous to Australia. There are a few of these in South Africa—imported obviously.

Cashmere Production in South Africa

2.5 million Boer goats produce 50 gram/year (per goat) of super white cashmere.

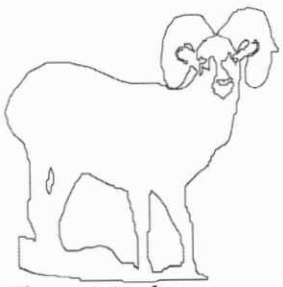
20,000 Savanna goats produce 50 grams/year of super white.

500 Gorno Altai goats produce 600 gram/year of a brownish cashmere—a color called "Afghanistan brown."

1 million indigenous goats produce 5-40 grams/year of various colors.

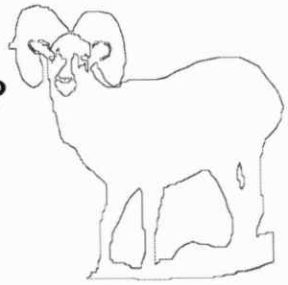
Less than 50 Australian feral goats produce 200 grams/year of super white.

Total estimated potential production from existing goats in South Africa (sounded like a story problem to me...) would be 1,285,560,000 grams or 283,163 pounds or about 142 tons. This is only the **potential** production of all cashmere-producing goats in South Africa and would be possible only if all cashmere on all goats was harvested, which it isn't. South Africa does not currently produce cashmere for the international market.



Can the Cashmere Goat Be a Competitor to the Hill Sheep?

Julian Smith, Kate Corcoran and Barry Dent
Institute of Ecology and Resource Management, University of Edinburgh, Edinburgh, Scotland



The original paper on this subject was produced as part of work carried out under a three year European Union research contract entitled "Research on the production of high quality cashmere from goats and its potential for agricultural diversification".

The focus of the socio-economic research section of the European Cashmere Project is to examine how cashmere goat production might provide a diversification option for farmers in the more peripheral or Less Favoured Areas (LFA) of the Community. Successful production in these areas revolves predominantly around livestock enterprises. However, profitability of current LFA sheep systems is questionable in the absence of support, with over three quarters of current farm gross margin coming by way of subsidies in Scotland. Hill farmers are given support for their breeding ewe enterprises in the form of the Hill Livestock Compensatory Allowance (HLCA) and the Sheep Annual Premium (SAP). At present no subsidy support is paid on breeding goats in northern Europe while subsidy is received in southern European countries, excluding mainland France, at 90% of the rate paid on breeding ewes. Cashmere goats have similar husbandry requirements to hill sheep.

Mathematical modeling was used to examine the economic competitiveness of cashmere goats as a farm enterprise activity. The linear programming technique permits optimal allocations of scarce resources to a range of competing activities.

The model was initially set up for a specialist hill sheep farm in the Highlands of Scotland on severely disadvantaged LFA land. In this case, the sheep attract the maximum subsidy per capita (HLCA - £6.39 and SAP - £25.35 per year). An average farm size was chosen of 800ha (1,976 acres); comprising 780ha (1,927 acres) of rough grazing (RG), 15ha (37 acres) of improved grassland (IMP) and 5ha (12 acres) of inbye grazings (INB).

Analysis of the results from the model show that as the level of support for goats increases, goat activities become increasingly competitive with those related to sheep.

The differing land types provided the carrying capacity resource to the model. (0.5 sheep/ha on RG, 5 sh/ha on IMP and 15 sh/ha on INB). Each mature ewe needs 1 unit of carrying capacity; lambs, 0.7; goats, 0.8; and kids, 0.56.

The activities can be divided into four main categories: goat related; sheep related; fibre related; general farming activities. The livestock were further dis-aggregated by sex and age classes. At each stage mortality losses were accounted for. Lambs were used for replacement or sold for meat/breeding stock. Each age class of animal produces specific wool or fibre output. It was considered important to keep shearing and combing as separate activities because of the different skills, technology and price which each activity demanded and commanded.

It has been widely reported that goats can have a beneficial effect on grazings. Goats graze different pasture components than sheep. To represent this, 1 goat was allowed for every 20 sheep in a combined activity. These goats do not deplete the sheep grazing resources but do provide returns in the form of meat and fibre production.

Each animal kept had some requirement for supplemental feeding. The livestock were given a range of supplemental feed: hay, sugar beet pulp, sheep concentrate, goat concentrate, and feed blocks. Most of these feeds had to be bought from off-farm suppliers. Hay could be made on the farm by using up the land resource.

Labour resources are provided by the farmer, spouse and family, or hired in. It was estimated that a full time farmer would have 2,000 hours of time to allocate to the enterprise activities; spouse provides 1,000 hours; and the family provide 500 hours. These hours were allocated between shearing, combing, shepherding, lambing/kidding, and general farm activities. The time required for each of these was calculated per head of livestock

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Hill Sheep vs. Goats
Continued from previous page

and included in the model. Other activities, such as hay making, were allocated hours from the available labour resources.

The objective function was set up to maximise the returns to the farm. Once the model had been run with zero goat subsidy and to explore the effects of increasing subsidy support for goats, incremental amounts of goat subsidy were used and the model re-run. The level of necessary increase in subsidy before the optimal activity mix will be changed is shown in the sensitivity analysis provided by the LP solver. This was used to determine the amount of increase in subsidy at each stage of the iteration. This process was repeated up to the point at which goat activities completely replace sheep activities.

The model has been designed such that data from other locations in Europe can easily be entered and comparisons made, highlighting the diversity of farming and socio-economic situations throughout the EU. Data are currently being analysed from Spain and information from Greece will be collected.

Analysis of the results from the model show that as the level of support for goats increases, goat activities become increasingly competitive with those related to sheep. This substitution reflects the fact that goats have a lesser impact on the carrying capacity resource of the land. However, returns from the goat enterprise in the absence of subsidy can not compete with the level of sheep support, which account for about 70% of the overall gross margin per head of sheep. If the model is run with zero subsidy for both sheep and goats, the modelled farm enterprise mix consists *entirely* of goat activities.

Those Fascinating Goulds and Their Goats

Dick and Dottie Gould

October Farm II

Baker City, Oregon

Dick and Dottie Gould live on their own chunk of paradise just outside Baker City in eastern Oregon, on the valley floor between the Elkhorn and Wallowa Mountains which are part of the majestic Blue Mountain range. Unlike the rainy, mild weather which most people attribute to the entire state of Oregon, Baker City is relatively dry, with hot summers and cold winters.

No matter which way you look from the Goulds' ranch, you have a panoramic view of the mountains. We could talk all day about the mountains, but I suppose you really want to hear about their goats.

History of the Farm

The Goulds moved to Baker City from Florida in October 1993, with two Arabian horses and three Jack Russell terriers. They had called their Florida farm October Farm, so their new place was christened October Farm II. Most life events of significance for the Goulds have happened during the month of October, so they were not surprised when they acquired their Oregon farm in October as well.

Since then, they have acquired a flock of commercial sheep, a flock of Shetland sheep and a herd of cashmere goats. They also have three Border Collies which Dottie trains. The Goulds have a wide range of interests and lead a busy life.

Their first introduction to sheep came in February 1994, when Dottie acquired 38 bummer lambs. The lambs came with hastily given instructions from the rancher. Acquiring the experience with the lambs came at a price as they lost quite a few of them. This experience taught them that some animals will die no matter what you do and some animals will live in spite of what you do. These lambs became the start of the commercial flock.

A year later, Dottie became interested in cashmere goats. She and a friend noticed a story about cashmere goats in the *Capital Press*, a weekly agricultural newspaper. They located several breeders and Dottie and her friend each bought three bred does. Dick hadn't especially wanted goats, but it was too

Dottie scratches a hard to reach spot for Ramington (her Shetland ram) while Greystoke (the other ram) and Charlie (Jack Russell terrier) wait for their turn.

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The Goulds

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The Goulds' chunk of paradise—Those mountains are the Elkhorns. If you have good eyes, you can see goats.

late...the adventure had begun. Dottie's friend became too busy to pursue her interest in the goats, but Dick's enthusiasm grew, so Dick and Dottie ended up with all six does plus the kids.

Since then, after two years of kidding and additional purchases of goats, their cashmere herd now numbers 78—probably more by now, as they still had three does left to kid when we left their farm.

They believe that it was important for them to diversify their farm beyond sheep. The market for sheep fluctuates dramatically where goats, over the long run, are a good "fudge" against the cycle of prices. They feel that the market for goat meat is fairly inflation proof. Their original goal for herd size was 350, but they have redefined their goal to top out around 150 goats.

Feed

The Goulds feed alfalfa/grass hay and cob to all the animals. This simplifies feeding and eliminates the need for storage of a variety of feed as well as complicated feeding chores. This is important when there is a need to be away from the farm and someone else is feeding the livestock.

Some hay is purchased, but most is produced from twenty acres on their place. They harvest three cuttings of hay from their field. This, plus an additional two tons purchased, fed all of the animals last year. They are reevaluating their hay crop use for this year, to calculate whether it is cost effective to have their hay cut and processed for their own use or whether it would be less costly to purchase hay for feeding.

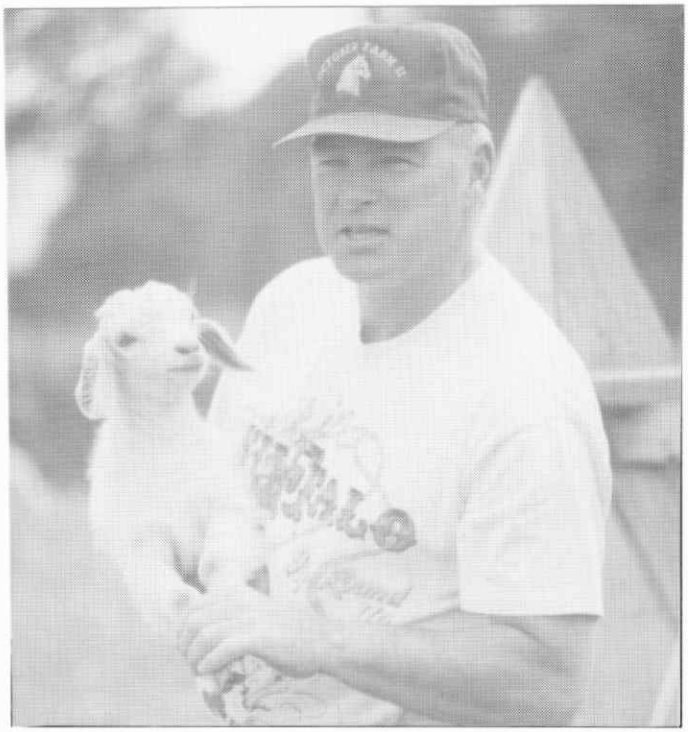
The cob (Cob-Oats-Barley—everyone knows that, right?) is purchased by the bag from a local mill which processes the mixture from locally-grown grains. Goulds would prefer to save money by buying the cob in bulk, but are weighing the cost of a bulk storage system. They feed cob containing molasses because all the livestock prefer it over dry cob. Also, the molasses encourages poor eaters and helps get young kids and lambs started on food.

They grain does during the last six weeks gestation to provide an adequate protein and energy level for the doe and her unborn kids. The doe's nutrition during the last six weeks of pregnancy is extremely important because of kid growth, cold weather and the stress of shearing during this time.

After kidding, they wait 24 hours before feeding grain to prevent an overabundance of milk and digestive upset in the doe. Kidders are continued on grain until pastures are producing adequate forage.

They did not feed grain or other increased feed to flush the does before breeding this year. As you need to change the level of nutrition significantly to have an effect, and because their goats are on a high level of nutrition anyway, because of the farm's bountiful pastures, they felt flushing was not necessary. They believe that they had a good kid crop this season considering the age of their does, without flushing.

A problem the Goulds have to guard against, due to one incredibly lush pasture, is bloat. They keep on hand an arsenal of bloat remedies including Mylanta, Therablood (from the vet) and Gax-X. They do not use Bloat Block as it contains copper. They turn out their stock on the rich pasture in the spring for limited amounts of time. They have found that bloating can be effectively treated if identified and treated immediately. The first five minutes can be critical. An animal can die in 10-15 minutes if not treated. Bloat medication can be swallowed by the animal if it can still hold its head up; if not, the animal must be tubed to medicate it.



Dick and his little buddy, Peanut.

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The Goulds

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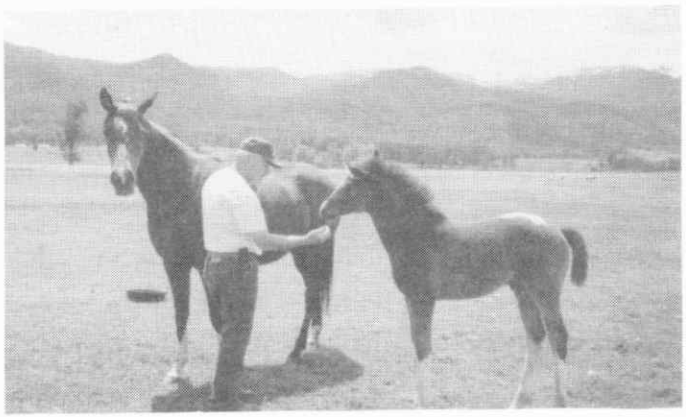


Dick and two of his Arabian horses. (Dick's the one in the middle.) The mare, Focus Shatina gave birth to the young colt, Panda's Eclipse, on the night of the lunar eclipse. They call him Clip.

Shelter

Housing provided for the goats is a 40' X 50' barn with three 12' X 24' stalls added for confinement of selected goats and the "buck heaven." Dick has built partitions which can further divide the three stalls in half again for smaller pens. Temporary jugs are constructed using moveable sheep panels inside the barn. The does are jugged for a few days after kidding and then they are let out with the herd or into small groups.

They have also constructed two small plywood/corrugated metal, three-sided shelters for goats and sheep in the pastures. For future small shelters they are considering the use of Quonset-type "port-a-huts." These galvanized huts take two hours to assemble and could be build up on a wood base (on skids), using the "port-a-hut" as a "lid" to provide for additional height to the building.

Worming/Vaccinations

The goats are wormed three times per year with wormers, rotated between Ivomec drench and Valbazen. They use the Valbazen as it treats for liver flukes as well as the usual suspects. Animals are wormed prior to breeding, after kidding prior to release from the jug, and at weaning. They warn that the Valbazen shouldn't be used 45 days before to 45 days after breeding. New mothers are wormed in the jug a day before they are released. Dottie has read that wormers are more effective administered when an animal is taken off feed before and after treatment. She is considering changing worming practices to integrate "dry land" confinement before and after worming.

The Goulds' goats are vaccinated with CD&T 2-3 weeks before the does kid. Kids are vaccinated at 30 days, with a second vaccination at 60 days. They have used a seven-way vaccine in past years and are contemplating changing back to it. Dottie believes that their goats are more at risk for diseases because they are buying and bringing in stock from other places at this time.

Unlucky buck kids are banded and all kids are ear tagged at 2-3 days of age. Kids are given no shots at birth. The Goulds do not give selenium (Bo-Se) shots to their goats or to the newborns even though they live in a selenium-deficient area as all animals have available a free-choice mineral/salt which contains selenium. This mineral/salt has been specifically designed for their area of the country.

Decox (a coccidiostat) is added to the mineral/salt prior to kidding to decrease the coccidia and provide some protection to the kids. This is continued for several months, sometimes year round.

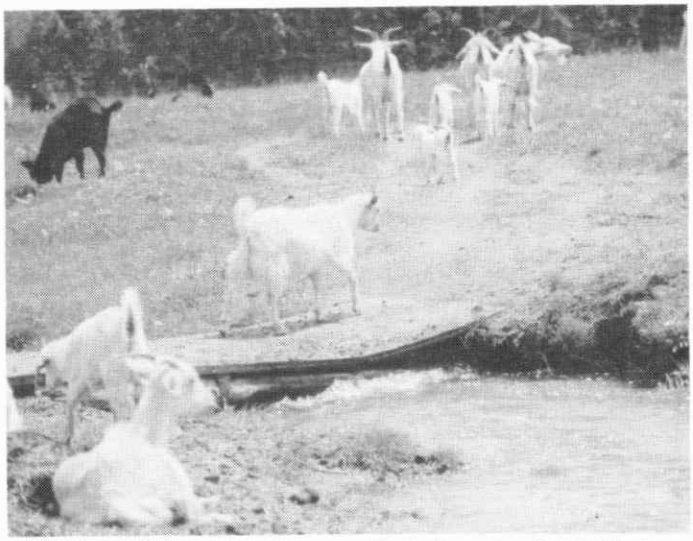
Other Management Issues

They trim hooves when the goats need it and, like most of our goats, they usually need it more often than there is time to get it done. Fencing is woven wire. No electric fence is used. They felt that the electric would be some advantage, but would not justify the cost. They admitted to having to unstick an occasional set of horns from the fence, but even this can be easily prevented with a little high-fashion headware for the goat.

Dottie sheared her own goats this year without difficulty. She feels that most shearing problems are caused by inadequate equipment. She uses Lister Laser sheep shears with a Wizard LR show comb. The tension on these shears is self-adjusting.

This year, they had some early kidders (January) and some later kiddings. Dottie feels that her early kids are doing better than the later kids. She intends to plan for kidding and shearing early in 1998.

The goats, sheep and palace are protected by Caesar, the great Pyrenees. Livestock is herded and moved effectively by Sweep, a well-trained Border Collie. Sweep and Dottie have won several awards at recent Sheep Dog Trials. It was fascinating to watch Sweep work the herd. Per Dottie, it is more challenging for a dog to work goats than sheep as the goats are more inclined to challenge the dog. Our only previous exposure to herding dogs had been the movie "Babe," so we were astonished at what a quick little dog can accomplish.



Watch out little goats—there may be trolls under that bridge!

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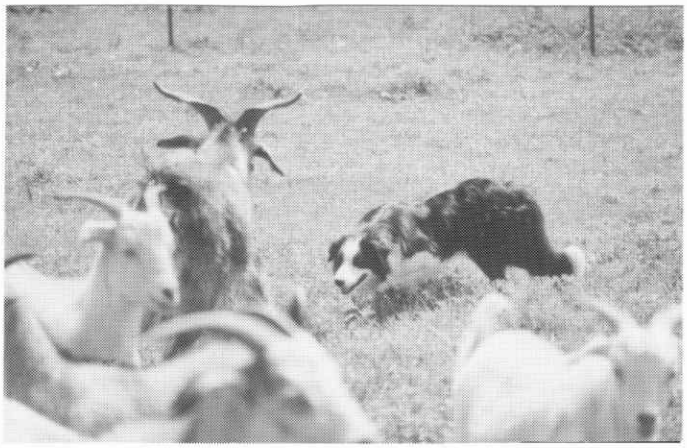

Sweep—in charge of "crowd control"

Markets

The Goulds are just beginning to test and research markets for their products. Per Dick, you need to be imaginative and aggressive to find the right markets for your particular products. Dick feels that an additional market is the application of goats to weed control, but there is a containment problem. (Leafy spurge is now becoming a problem in their area.) To demonstrate the usefulness of goats as a weed control tool, you would need to work with a local farmer. However, the typical non-goat farmer does not have fences adequate for goat containment and the cost of fence improvement may not justify the savings in weed control.

Goulds' Goals

The Goulds want to produce a good American cashmere of fine diameter with an adequate length. They prefer the colored goats to white. They are breeding and culling to accomplish these goals. As their herd size nears the desired maximum number, they intend to cull even more selectively. In addition to culling for fleece faults, they also cull for attitude, lack of kid production (missed kiddings or mothers of singles) and any health problems.

The Goulds believe that cashmere goat raisers must be realistic if they are intending to operate their farm as a business. Your expectations need to be in line with the reality of the business. Cashmere goats are not a "get rich quick" scheme and you shouldn't expect to make a profit in the first years of operation. The Goulds say they still have a lot to learn about the business of cashmere production.

They think that cashmere genetics is still a "crap shoot." You cannot predict, with certainty, the characteristics of offspring merely by selecting good parents. A goat may not produce good cashmere herself, but may produce kids who have fine fiber.

The Goulds believe that the fiber market could really take off and this would make a big difference to growers. There is still a need for public education about cashmere—specifically American cashmere. Many still do not understand that cashmere comes from a goat.

Hot Tips from October Farm II

Develop a system for "crowd control." You need to move your goats with a minimum of stress (to you and the goats) and individual handling. Goulds use a chute system by cleverly joining their jug panels. They've found that it helps to have a goat at the end of the chute system to encourage the next goat to follow after you are done with it. We observed that Sweep is an effective crowd control device as well.

Get things up off the floor to your level if possible. As you get older, this will become even more important.

Before you do something, think what might go wrong and protect yourself against it—plan ahead!

Each grower will need to develop systems that work well for them. Try different things. You won't know if something is going to work for you until you try it. Different management systems will be required for different climates. Ask others questions and read all you can.

Keep a calendar of your breeding, worming, vaccinations, trimming, etc. This will help you to develop your own style of management for your livestock and lets you plan ahead.

Take time to have fun and enjoy your animals! Let them teach you about their care and handling. You can learn much about an animal by observing it.

Albert and Charlie—Short dogs have fun in tall alfalfa

Now That I Got the Fuzz Off My Goat What do I Do With It?

By Paul G. Johnson

What do I do with my stash?

You've bought good cashmere stock, carefully fed and raised them, maybe bred them. You even figured out how to get the darned stuff off by shearing or combing. Now here you are with crop in hand. Congratulations on getting this far!

As you gaze upon the bags full of fuzz at your feet representing the year's crop, you may be wondering, "Now, what do I do with it?" If you already have a market, read no further. However, should you be undecided, we offer a few suggestions.

Major Buyers

The major buyers of cashmere in the United States currently are: The Cashmere America Cooperative in Sonora, Texas, and Montana Knits (The Doolings), in Dillon, Montana. Contact particulars for these buyers follow this article. The Cashmere America Cooperative is a grower owned and controlled cooperative of cashmere producers. Montana Knits is a privately held commercial enterprise.

Both of these major buyers will buy your fleeces, whether combed or shorn, without any other work required from you, other than mailing your fleeces to them. Prices range from $0 to $20 per fleece depending on the current price they are paying for cashmere and the volume and quality of the cashmere, as defined by them. There may be a premium paid for white or finer diameter cashmere and a lesser price paid for lower yields (less cashmere per volume of guard hair) and cashmere with poor style (referred to as cashgora).

Montana Knits

Cashmere prices announced by Montana Knits for fleeces purchased in the 1997 buying season, based on pounds PMY are:

White cashmere	$37.50
Gray and brown	$35.00
Cashgora	$ 7.50

Montana Knits' cashmere prices are based on Pound Marketable Yield (PMY) which is the Company's estimate of the amount of commercially recoverable cashmere contained in tendered fleeces. The producer is paid on the net yield of cashmere which will end up in the finished cashmere yarn. This includes losses incurred during dehairing and spinning.

Montana Knits encourages producers to individually bag fleeces with identifying numbers so that they can be individually classed. Accurately-classed uniform bale lines which meet the Company's standards will also be accepted.

Fleeces submitted must be free of burrs, nits, manure, polypropylene baling twin and other contaminants. Contaminated fleeces and fleeces with second cuts will be rejected.

Montana Knits purchases cashmere fleeces throughout the year.

Cashmere America Cooperative, Inc.

The Cashmere America Cooperative, established in 1991, is the only national cashmere marketing cooperative in the United States. The Co-op purchases raw cashmere and cashgora in any quantity from growers. Cashmere America's goal, per their literature is "to grade and process to international quality standards to maximize grower returns and establish a

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Fuzz Off

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quality reputation for American cashmere garments." The Cooperative is organized as a typical farm cooperative with members electing a Board of nine Directors who manage the affairs of the organization.

Over the years, in addition to providing a cashmere market for growers, the Co-op has conducted educational clinics, offered subjective fleece and goat appraisals and marketed American cashmere in the form of batt, socks, yarn and knitting kits.

Growers may sell their fiber directly to the Co-op without becoming a member or a they may choose to join. The one-time, non-refundable fee to join the Co-op is $50. In addition, members are assessed a small annual administrative fee. These two fees entitle the member to either consign fiber or join the Value Added Pool, buy batt at wholesale prices, vote and receive patronage refunds (a share of the profits of the Co-op). A member may also invest additional money in the Co-op as "First Preferred Capital" which is an interest-bearing contribution.

When submitting fleeces to the Co-op, a member has the option of consigning fleeces to the Direct Sale Pool or the Value Added Pool. Fleeces submitted should be separately bagged if the grower is not sure of his grading skills.

Fleeces submitted to the Direct Sale Pool are purchased by the Co-op based on the cashmere diameter, type, color, length and yield. Fleeces sent to the Co-op after May 15, 1997, will be accepted, but held for inclusion with the 1998 clip. Prices paid per pound for 1997 fleeces, submitted prior to May 15, 1997, were as follows:

Premium cashmere grades	**Under16.5 micron**	**16.5-18 micron**
Super White and White	$37.00	$35.00
Grey	$35.00	$33.00
Brown	$33.00	$31.00

Commercial cashmere - Poor style, all colors, 17.6-19 microns - $25.00
Cashgora - Poor style, all colors, over 19 microns - $12.00
Short low yield cashmere (SLY) - all colors, under 19 microns - $3.00

Short low yield (SLY) is defined as any fleece with cashmere less than 1-1/4" in length and/or with a down yield of less than 15%. If you have animals with long guard hair which might cause your fleece to be classed SLY, you may want to trim the guard hair before shearing the fleece, in order to increase your yield percentage.

Prices paid are based on amount of cashmere (yield) in the total fleece submitted—the amount of cashmere obtained after dehairing the fleece. Per the Co-op, 1995 and 1996 yields for sheared fleeces varied from 19-31% and yields from combed fleeces varied from 40-85%. Handling and testing charges are deducted from the member's total proceeds. In addition, members will have 5% of the gross value of their fiber remain with the Co-op. Per the Co-op, these retains will eventually be repaid to members.

Members electing to have their fleeces consigned to the Value Added Pool are assessed estimated fees for processing and handling their fiber. Later, the member is to be paid for the net value of the down, plus cash input, plus a percentage of profit.

In prior years, the Co-op sponsored a "return down service" program where members exchanged their raw fleeces for cleaned, dehaired cashmere. This program is no longer available, but has been replaced by a "batt buy-back" program where a member who consigns four or more fleeces may purchase, at wholesale prices, a limited amount of any type batt available.

The Hand Spinners?

"What of that almost mystical group referred to in hushed voices as the Hand Spinner market?" you may ask. We hear of them frequently. They are the clever craftspeople lined up outside your door willing to pay big bucks per cashmere ounce—if only...if only, we had it dehaired and were ready and willing to sell. The handspinner is a potential market for your cashmere, but in what form do they want your fiber?

First, did you shear or comb? Combed fleece requires less dehairing than sheared fleece. Perhaps your undehaired fleece could be sold "as is" (unwashed, undehaired) to a spinner who would be willing to dehair it himself. The spinner would, of course, pay less per ounce for your fleece, taking into account the added weight belonging to the guard hair and his work required for dehairing.

Or, if your quantity of fleece is not great, you can dehair it yourself. This is done by persistently picking out those pesky guard hairs. This can be fairly easy, if the guard hairs are few and distinctively different from the cashmere, in color, size and length,

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or it can be extremely tedious if there is little differentiation between the two fibers.

We have heard two distinct theories on hand dehairing. One, "I don't have time to mess with it!" and the other, "My hands have idle time anyway—while watching television, while waiting for the kids at soccer practice, or waiting for my Windows 95 to boot up."

Should you choose to have your fleece dehaired, assuming you can find a suitable dehairer at a reasonable cost, the value of your fleece to the hand spinner market increases substantially. We've seen prices for dehaired fiber range from $10 to $16 per ounce, depending on demand, length and style of fiber. It seems that hand-dehaired fiber commands a premium in the marketplace. Length is often an issue as well—"as long as we can get it" seems to be the spinning length of choice.

Finding a local market is not difficult. We were surprised to learn of all the spinning guilds (groups) in the northwest United States alone! Check craft shops, craft fairs and yarn and fiber shops and ask if they know of anyone interested in cashmere. Catalogs for spinners and specialty magazines like *Spin-Off* give you many good ideas for marketing your fiber. Or, if you're feeling a little subversive, learn to spin, join one of the Guilds and get them all hooked on cashmere.

For more detailed information on what hand spinners want, see Lorelie Moothart's article on page 18 of this issue.

Adding Value

A third option for your cashmere exists. This option entails producing something from your cashmere for sale. This would include spinning yarn to sell, knitting, crocheting or weaving a product from your yarn, or possibly felting your fiber to make a garment or work of art. For a creative person, with time and skills to add value, and an eye for marketing, the possibilities are endless.

Closing Thoughts

It is in all cashmere growers' best interest that a national market for our cashmere be developed. To develop a national market, enough fleeces (national clip) must be available for the major processors to become players in the world market. As Ann Dooling of Pioneer Mountain Farm puts it, "you can't market a national clip one ounce at a time."

Whether you sell your fleeces to a wholesaler, a Cooperative, a handspinner or produce something with your own cashmere to sell or for your own use, it is important to all producers that your cashmere make it to the consumer. If your cashmere is still stored on a shelf, it does nothing, but gather dust (and possibly moths).

As Dr. Joe David Ross, Cashmere America Cooperative President, said at the 1996 CaPrA conference in Wyoming, "It is important to get your fleeces out of the closet and into the commerce stream, whether it be to the Co-op or to other markets."

Contact information for cashmere buyers:

Cashmere America Cooperative, Inc.
Joe David Ross, President
210 South West College Street
Sonora, Texas 76950
915-387-6052
Email: goat@sonora.digicom.net
Wes Ackley (Maine), Director: 207-336-2948
Marti Wall (Washington, Director:360-424-7935
Bron Schuetze (Colorado), Director: 303-651-6639

Montana Knits
Tom and Ann Dooling
3299 Anderson lane
Dillon, Montana 59725
406-683-5445
Fax: 406-683-5567
Email: knits-pioneer@worldnet.att.net

Lisa Zietz (left), cashmere judge, and Mickey Nielsen, helper, examine cashmere fleeces at the Mt. Vernon, WA Fiber Fest May 17, 1997

The Handspinner Market

Who Are They? Where Are They? And What do They Want?

By Lorelie Moothart
Milton Freewater, Oregon

About nine months ago my daughter came to me with the brilliant idea that we should "get into goats". Being an avid animal lover, I wholeheartedly agreed. So began a knowledge quest into the goat world. After hours spent researching all types of dairy and fiber goats, we all agreed that Cashmere goats were it. Decision made! Wrong! Now we were faced with colors or white, do we shear or hand comb, does or wethers, etc. After doing much more reading and telephone pestering of Cashmere breeders, I decided the handspinner market would be my niche. I spoke with every spinner, weaver mid fiber artist in my area and here are the results of my "market research".

The first and foremost thing all spinners I spoke with wanted was good crimp in the fiber. Since most cashmere is spun into lightweight, fine yarn, crimp is especially important to hold the fibers together and give the yarn it's strength.

Length requirements varied with the skill level of the spinner. Novice to intermediate spinners preferred 2 inches or more, while a few I spoke with felt comfortable with 1 inch cashmere as long as the crimp was good. If you plan to have handpinners as your only market, the safest program would be to breed for length, as that would cover all skill levels of spinners.

Luster of the fiber was a 50/50 issue. One woman I spoke with stated she preferred cashgora "because you get the lustrous sparkle of mohair with the crimp and easy handle of cashmere" (there's that crimp word again). Most just pick a fiber because they like the look and feel of it, and for specific projects, but cautioned that if they were to order cashmere they would want good cashmere of standard style.

Colors were definitely a matter of personal preference, some wanting to spin natural browns and greys over white. If the person is very set on making dying a part of their art, they, of course will prefer white or very light greys. No one I spoke with wanted "dyed in the fleece" cashmere. The only complaints about color were not having enough of a particular color to work with. Think about blending your browns and greys before offering them to the spinner market

This brings us to processing. Some people said they would be willing to dehair their own purchased fleeces to get a reduction in price. The majority wanted the fleece dehaired with the remaining minority wanting it pre-carded, in rolled batts and ready to spin.

What do these spinners want?

Spinning Circle in Salem, Oregon at the May 10, 1997, Mission Mill Sheep to Shawl event.

The handspinner market is definitely open to cashmere, it is just a matter of matching spinner to grower. Most books on spinning and weaving list cashmere as a rare mid exotic fiber, usually imported, and a lot of the spinners I spoke with were surprised to know that it is readily available domestically.

The best way to locate the spinners in your area is to contact the local Spinning Guild. Most cities have a guild and most guilds have a newsletter. Ask if the publisher of the local Guild newsletter will let you submit an advertisement.. Find out who in the community teaches spinning and let them know what you have to offer.

The thing about Cashmere goats that has been so appealing to me is the variety of options available in the industry. From running large herds and shearing and shipping to selling your own finished cashmere garments, the sky is the limit as long as there continues to be increased awareness of U.S. grown cashmere.

Plants Poisonous to Goats

By Paul G. Johnson

Per the USDA, livestock poisoning attributed to common poisonous plants is an underreported but very real danger to livestock nationwide. Although unknown to many grazing animal farmers, common plants such as the Japanese yew, the red maple, and the wild black cherry, in addition to hundreds of less common plants, can be fatal to livestock. The Cornell University Poisonous Plants Internet Web Page answers approximately 1,200 electronic requests for information each work day (700 to 800 on weekends and holidays). This world wide web service of the University's Animal Science Department provides pictures of more than 100 species of toxic plants and extensive technical and clinical information. It also serves as the principal source of images for the Canadian Poisonous Plants Information System.

Lists abound of what plants are poisonous to goats. I have made an attempt to consolidate several separate lists into one useful format. Results of ingestion of poisonous plants vary including no effect, birth defects, photosensitization (see article on page 18 of May 1997 issue), and death. We have observed goats nibbling the leaves of a poisonous plant in passing while grazing a pasture with no (apparent) effects. However, even small amounts of some plants, such as hemlock or rhododendron, can be fatal within minutes.

My goal is to inform, not unnecessarily frighten you. For example, our property contains numerous oak trees. While ingestion of a great quantity of spring oak buds are considered toxic, we have experienced no problems. Many plants listed are not toxic unless eaten in a large quantity at one time. We count ourselves lucky that the goats like poison oak and, despite its name, it is not poisonous. As shown below, time of year plays a part in many plants. In the spring, our pastures abound with Buttercups, a poisonous plant, yet the goats (thankfully!) pass them by.

When in doubt about a particular plant, check with your county extension agent, State University, or local veterinarian.

Be thankful you have goats! Based on our research, they are hardier than almost any other critter, and have bad reactions to far fewer toxic plants than sheep, cattle, horses, dogs or cats. The ruminants themselves have a natural "immunity" against many poisons not available to the single-stomached animals. The microorganisms in their digestive system metabolize most of the naturally occurring toxins present in feeds. They change the toxins into substances which do not pose a threat to the animal's health. These internal microorganisms are thus considered the first line of defense against toxicity. However, some compounds are metabolized *into* toxic substances in the rumen or the compounds themselves inhibit the production of other essential compounds thereby causing distress in the animal.

Ruminants naturally acquire tolerance to increased concentrations of toxic materials in feeds. Increased tolerance to toxins is caused by a change in the microbial population in the rumen.

Contributing Factors

There are factors besides the goats' access to a poisonous plant which can contribute to poisoning. These factors include starvation, accidental ingestion and browsing habits of animals. Starvation is the most frequent contributing factor. Most swampy or forested land contains many species of poisonous plants. However, the goat normally will only eat these when they have nothing else left to eat.

Some plants are accidentally eaten by the goat as they graze. An example is water hemlock. This plant grows in wet areas in the early spring, a time when the animals are eager to eat fresh, young grass. They accidentally ingest the water hemlock along with fresh shoots of grass. A plant may also be consumed accidentally when it is baled in hay fed to the animals.

Poisonous plants are consumed due to the nature of the browsing animal. Goats like variety in their diet. Even if they have plenty of food in their lush green pasture, an ornamental (poisonous) shrub they can just reach over the fence may be sought as a variation in their diet.

The affect a poisonous plant will have on an animal once ingested depends on several factors including the amount of the plant ingested, which part of the plant was eaten, condition of the poisonous plant and the age, size and condition of the goat. Therefore, some animals may eat a poisonous plant and show no symptoms, while another animal, or that same animal at a different time, may eat the plant and die.

Cyanogenetic Plants

Plants may be "poisonous" to the animals for a variety of reasons. Some plants contain a harmful acid under certain conditions. This poison interferes with the oxygen-carrying ability of the blood and death is usually rapid with no outward symptoms noticeable. These plants include wild cherries, peaches,

Continued on next page

Poisonouse Plants

Continued from previous page

plums and other stone-fruited plants, sudan grass, sorghums, milkweed, horse nettle, black nightshade, mountain laurel and sorghums. Wilting of green leaves following a frost or other damage changes substances in the leaves to acid and sugar. These sweet, wilted leaves can be attractive as food to your little browsers. When completely dry, the leaves apparently lose their poison.

Deadly Alkaloid-containing Plants

These plants, as their title states, contain a deadly amount of alkaloids. Most of these plans are unpalatable for most animals, but, when eaten, they are deadly. These plants include water hemlock, poison hemlock, mayapple, bloodroot, pokeweed, nightshade and hellebore.

Photodynamic Plants

These plants cause a reaction in photosensitive animals. For a problem to occur, the animal must have unpigmented (white) skin, they must eat a sufficient amount of the plant, and then they must be exposed to bright sun. White goats may become severely affected.

Common photodynamic plants include rape, alsike clover, buckwheat, lantana, St. John's wort and ornamental Hypericum.

Plants Which Cause Mechanical Injury

Some plants have spiny coverings, long beards or fine hairs which may cause mechanical injuries or cause the formation of hair balls in the stomach and intestines of the goat. These plants include sand bur, downy brome grass, squirrel-tail grass, poverty grass, mesquite, cocklebur and clover.

Comparatively few poisonous plants grow in areas usually used as pastures, so for the most part, harmful plants may become a problem when goats are grazed in non-pasture areas (woods, swamps) or when the little darlings escape and eat the ornamentals in your or your neighbor's yard.

For the most part, awareness of your risk and good management practices will prevent most poisoning accidents. Good management practices include maintaining your goats' general health, providing an adequate selection of nonpoisonous food for their enjoyment and keeping them confined in areas of your choice.

Sources of Information

If you have internet access, checking these sites for identification of a particular plant is useful. The internet addresses are:

http://www.agnic.org/agdb/cuppp.html

http://www.ansci.cornell.edu/plants.html

The contact at the University for poisonous plants is as follows:

Daniel Brown
Cornell University
Department of Animal Science
123 Morrison Hall
Ithaca, NY 14853
Telephone: 607-255-44706
Fax: 607-255-9829
E-mail: dlb20@cornell.edu

Other good references about poisonous plants are:

National Goat Handbook, USDA/ University of Maryland, National Dairy Goat Data Base
http://www.reeusda.gov/agsys/adds/livestok/goats/ngd.htm

NetVet - Washington University, Division of Comparative Medicine
http://netvet.wustl.edu/smrum.htm

The Merck Veterinary Manual, 7th edition

List of Poisonous Plants

Name	Where found in North America	Season Most Toxic	Possible Effect on goats
Beargrass / *Nolina texana*	SW and Mexico	Spring	photosensitization, anorexia, lesions
Oaks / *Quercus spp.*	All areas	Spring	diarrhea (dark), anorexia, rumen problems, edema, death (must represent over ½ of diet to be toxic)
Cocklebur / *Xanthium spp.* (seeds)	All areas	Spring	anorexia, vomiting, convulsions

Continued on next page

List of Poisonous Plants (continued from previous page)

Name	Where found in North America	Season Most Toxic	Possible Effect on goats
Buckeye / *Aesculus spp.* (young shoots and seeds)	East & Calif.	Spring/ Summer	paralysis, twitching, inflammation of mucous membranes
Buttercup / *Ranunculus spp.* Crow foot	Various	Spring/ Summer	blisters,inflamed intestinal tract
Crow Poison / *Amianthium* Stagger Grass *muscaetoxicum* Fly Poison	East	Spring/ Summer	vomiting, salivation, respiration difficulties, can be fatal
Coffee Pod / *Cassia obtusifolia* Sickle Pod	Eastern US some in Midwest	Spring/ Summer	diarrhea, heart problems, liver problems
Coffee Senna / *C. occidentalis* Coffee Weed Wild Coffee	Eastern US some in Midwest	Spring/ Summer	diarrhea, heart problems, liver problems, heart failure
Larkspur / *delphinium spp.* (young plants and seeds most toxic)	West	Spring/ Summer (seeds in fall)	vomiting, constipation, bloat, heart/lung problems, falling down, can be fatal
Lantana / *Lantana spp.*	SE US, So.Calif.	Spring/ Summer	anorexia, jaundice, liver or kidney failure, photosensitization
Water Hemlock / *cicuta spp* (member of carrot family)	All areas	Spring/ Fall	convulsions, coma, death—all within minutes!
Pinque/*Hymenoxys richardsonii* Colorado Rubberweed	West high and arid	Spring/ Fall	vomiting, green nasal discharge, anorexia, abdominal pain
Dog Bane / *Apocynum spp.*	All areas	Summer/ Fall	dilated pupils, anorexia, can be fatal
Mesquite/*Prosopis glandulosa*	SW US, Mexico	Summer/ Fall	anemia, edema, rumen problems
Black Locust/*robiia pseudorcacia* Locust tree False Acacia	Eastern US	Summer/ Fall	anorexia, diarrhea, weakness
Nightshade/*Solanum spp.* Belladonna/*Atropa belladonna*	All areas	Summer/ Fall	upset stomachs (rumen), trembling, salivating, progressive paralysis, death
Rattlebox/*Daubentonia (Sesbania)* Purple Sesbane *punicea* (seeds)	SE US	Fall/ Winter	diarrhea, respiration problems, can be fatal
Cloak Fern / *Notholaena sinuata* Jimmy Fern *var cochisensis*	SW US, Mexico	Fall/ Winter	trembling, arched back, nervous, respiratory rate and pulse increased, can be fatal without rest
Bladder Pod / *Sesbania* Rattlebox *(Glottidium) vesicaria* Sesbane Coffee bean	All areas	Fall/ Winter	diarrhea, respiration difficulties, coma, death
Mescal Bean / *Sophora* Mountain laurel *secundiflora*	SW US, Mexico	Fall/ Winter	falling, trembling, stiff gait, laying down, mystical visions (all temporary)

Continued on next page

List of Poisonous Plants (continued from previous page)

Name	Where found in North America	Season Most Toxic	Possible Effect on goats
Chinaberry / *Melia azedaruch* (fruit most toxic part)	SE US	Fall/Winter Spring	vomiting, constipation, death within 24 hours
Guajillo / *Acacia berlandeieri*	SW US, Mexico	All year esp. Spring	prostration, excitation, can be fatal from starvation
Lechequilla/*Agave lechequilla*	SW US, Mexico usually during dry season	All Year esp. Spring	photosensitization, anorexia, listlessness, discharge from nose, coma, death
Corn Cockle / *Agrostemma githago*	All areas	All Year esp. Spring	diarrhea, vomiting, weakness, can be fatal
Milkweed / Asclepias spp.	SW US, Mexico dry areas	All year esp. Spring	convulsions, dilated pupils, staggering, bloating, can be fatal
Locoweed / *Asragalus spp. Oxytropis spp.*	West US, Canada, No. Mexico	All year esp. Spring	uncoordinated behavior, hair dry without luster, abortion
Milk Vetch / *Astragalus spp.* (pre-flower stage worst)	All areas (not all species)	All year esp. Spring	some paralysis, rough-looking coat, "goose-stepping," death
Poison Hemlock / *conium maculatum*	all areas	All year esp. Spring	dilated pupils, weak, slow irregular breathing, death
Crotalaria / *crotalaria spp.* rattlebox	East & Central	All year esp. Spring	bloody diarrhea, unthrifty-body & coat, edema, death can occur in days, weeks, or or even months after ingested
Jimson Weed / *Datura stramonium* (seeds worst, but rest is bad too)	All areas	All year esp. Spring	convulsions, dilated pupils, uncoordinated, coma
Drymary / *Drymaria pachyphylla* Inkweed	SW, Mexico	All year esp. Spring	diarrhea, coma, death
Evening Trumpet / *Gelsemium sempervirens* Yellow Jessamine, Carolina Jessamine	SE US	All year esp. Spring	convulsions, dilated pupils, coma, death within 48 hours
Broomweed / *Gutierrezia* Snakeweed, Turpentine weed	SW, Mexico	All year esp. Spring	anorexia, diarrhea, followed by constipation, listlessness
Smallhead / *Helenium* Sneezeweed	Southern US	All year esp. Spring	weakness, vomiting, restlessness, salivatiing
Goatweed / *Hyperium performatum* St.John's Wort Kalamath weed	All areas	All year esp. Spring	photosensitization, convulsions, blindness, diarrhea, can be fatal
Lambkill / *Kalmia spp.* Laurel, Ivybush	East , NW	All year esp. Spring	vomiting, bloat, coma, muscle spasm, can be fatal

Continued on page 26

Calendar of Events

June 20-21, 1997
Black Sheep Gathering
Eugene, Oregon, 503-621-3063

June 25-27, 1997
Fiberfest '97: The Forum
Lakeland Community College and Lake Farmpark, Kirtland, OH
70 workshops on all aspects of natural fiber industry
For information contact: Fiberfest '97, PO Box 508, Novelty, OH 44072, 212-256-3828

June 28-29, 1997
Fiberfest '97: The Festival
Vendors, animal displays, competitions, workshops
Location and contact information same as Forum above

September 27-28, 1997
Oregon Flock & Fiber Festival
Angora, cashmere, pygora–livestock and fiber shows and sales, Clackamas County Fairgrounds, Canby, Oregon. For information contact Brandy Chastain, Whistlestop Farm, 503-628-1205

September 29 - October 1, 1997
Virginia State Fair, Richmond, Virginia
Home of ECA's goat show and fleece competition.

October 24, 1997
Mild Goat Men - First (maybe annual, maybe not) meeting. Bozeman, Montana, at a saloon to be announced. More information? Contact Head Herder, Johnson, 503-623-5194.

October 24-26, 1997
PCMA Business of Cashmere Conference III
Bozeman, Montana, Holiday Inn Convention Center
For information, contact PCMA at 406-683-5445, fax 406-683-5567.

Association Contacts

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

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

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

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

Eastern Cashmere Association (ECA)
Ray Repaske, President 540-436-3546

North West Cashmere Association (NWCA)
Cliff and Mickey Nielsen, 509-658-2502

Professional Cashmere Marketers' Association
(PCMA), Tom and Ann Dooling, 406-683-5445
knits-pioneer@worldnet.att.net

Texas Cashmere Association
Dr. Don Huss, President
915-396-2920 or 915-396-2195
tca@webstar.net

Western Prairie Cashmere Association
John Harris, President
308-635-1579
JHarris@Hannibal.WNCC.CC.NE.US

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

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308-784-3312

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308-623-2627, 1-800-500-9688
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Fax: 360-758-7101

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email:103600.1332@compuserve.com

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Woodville, Ontario KOM 2TO
1-705-374-5527

List of Poisonous Plants (continued from page 22)

Name	Where found in North America	Season Most Toxic	Possible Effect on goats
Hedgeplant / Privet, Ligustrum *Ligustrum spp.*	All areas	All year esp. Winter & Spring	convulsions, diarrhea, hypothermia, can be fatal
Bluebonnet / Lupines (seed the worst) *Lupinus spp.*	All areas, most poisonous in West	All year esp. Winter & Spring	no appetite, convulsions, respiratory paralysis, death
Heavenly or Chinese Bamboo, Nandina / *Nandina domestica*	South (decorative)	All year esp. Winter & Spring	cyanide poisoning (if still alive after an hour, will probably get well!)
Oleanders / *Nerium oleander*	South	All year esp. Winter Spring	vomiting, diarrhea, weakness, death
Photina:/ Fraser's; Chinese; Redleaf; Redtip *photina-fraseri, p.glabra, p.serrulata*	South	All year esp. Winter & Spring	cyanide poisoning, death within 1 hour
Bracken fern / *Pterium aquilinum*	All areas	All year	blindness, anorexia, hemorrhaging, may be fatal
Cherry Laurel / *Prunus carolinus*	South	All year	bloat, convulsions, staggering followed by death
Peaches, / Prunus spp. Chokecherries, Wild Cherries	All areas	All year	convulsions, uncoordination, death by asphyziation within 15 minutes
Castor Bean / *Ricinus communis*	South	All year	salivation, vomiting, bloody diarrhea, uncoordinated gait
Johnson Grass / *Sorghum halepense*	South, North from NY to Iowa	All year	breathing difficulty, bloat, staggering, convulsions, can be fatal
Sorghum, / Sudan Grass, Kafir, Durra Broomcorn, Schrock *Sorghum vulgare*	All areas	All year	breathing difficulty, bloat, staggering, convulsions, can be fatal
Yew / *taxus spp.*	All areas	All year	diarrhea, dilated pupils, vomiting, tremors, may have rapid death

In addition to the above list, there are many ornamental or house plants which are toxic to goats—including rhododendron, which is very toxic.

Display Advertising Rates:

Ad Size	Price
Half Page	$75/Issue
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Special rates for 8/97 issue - See page 3

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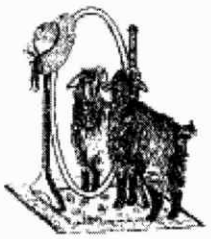
If you need assistance designing or laying out a display ad, or fine-tuning an article, earlier is appreciated.



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