CASH MIRROR

November 2003

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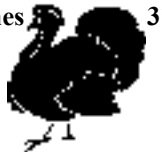

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Just the Facts

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Opinions expressed in this magazine are not necessarily those of the publisher or of the attractive staff, although some of them might be.

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

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

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

Cover photo:
Faith Hagenhofer, Tenino, Washington
Nora White and Gemma
Thurston County Fair, Washington

Hunks with Goats! (The Calendar)

They're coming— Watch your mailbox!

We've had a wonderful response to our solicitation for hunk photos, so the December CashMirror issue will be a 2004 calendar, full of attractive goats with men—or is it the other way around?

We chose this topic for the calendar for two reasons—1) to amuse the editor, and 2) to present pictorial evidence that goats are not just for girls.

It seems that goats are often viewed as a women's activity. Men raise the cows, hogs and sheep, but goats are left to the women. You might think this is true because cows and pigs are bigger and more difficult to handle than smaller ruminants, but male shepherds with their flocks of sheep blow this theory. Sheep may be less intelligent than goats, but they are not normally larger.

Is it because goats are more pettable than sheep or pigs? Is it because women might be more inclined to make pets of their livestock and they prefer the pettable? We're certainly not going to solve this delusion here, so we will settle for presenting evidence for your wall that this is not necessarily true.

Watch your mailbox for the calendar. You're going to like it! We're certainly having a good time putting it together!

A Couple of Photos
That Won't Be in the Calendar

This is one of Grumble Goat Farm's resident hunks, Walter. We agree with Linda Cortright that he is indeed a hunk, but not quite the species we had hoped to find in a prospective calendar photo. And, even if we were inclined to bend the species rule, we don't see any goats in this photograph.

Here is another of Linda's submissions for the calendar. This is Ollie. Linda, please take note: Dogs are great, but hunks generally walk upright on two legs. Also, do try to get some goats in there!

Photographs from Grumble Goat Farm, Union, Maine.

Reflections

by Linda Fox

So, it's Goodbye (sort of)

CashMirror is moving to a new home—in Union, Maine. It will live with Linda Cortright starting with the January issue. This November issue will be the last "wordy" one. The December issue will be a calendar. In January, watch your mailbox for something new and wonderful! It will be called *Wild Fibers* and it will be in (gasp!) color!

This piece is difficult to write, and as Linda C. emailed me last night, turning over *CashMirror* to a new owner feels somewhat like kicking your only child out of the house. However, we know that our "child" will have a very good home and will have new adventures and be taken places that we could not take it. We are very excited about that.

And *CashMirror* isn't exactly our child anyway. Judith Richardson (Haralson) gave birth to it fifteen years ago, in October 1989. I wouldn't dwell on this concept as it is not an attractive mental picture. The busy Judith wisely brought on Wendy Paulin as Editor a year later and Wendy and Michel Paulin, took over *CashMirror* in February 1991. They faithfully published—gathered material, wrote, formatted, printed and mailed—for over five years, through June 1996.

We started our adventure in July 1996 and have traveled the cashmere trail with you for the last 7-1/2 years. We've had a great time and the things we've learned could fill a book, and someday they may. In typical Fox/Johnson style, we purchased the magazine and then figured out how we were going to accomplish the mission. We knew what we wanted to do with it, but hadn't a clue how to accomplish the task. We worked hard and developed the tools as we went along. We soon became knowledgable in laying out articles, dealing with those pesky halftone photos and choosing fonts to fit our whims. Later on the trail, we purchased printing equipment and brought the actual printing in house. That has been a whole wild adventure on its own.

We feel that we've added to the body of cashmere goat knowledge out there—or at the very least, collected a bunch of it for you to find in one place. A lot of the subjects we presented for you are not new concepts to you seasoned goat owners. However, we've always felt that important subjects deserve a periodic review, perhaps from a different angle, to remind us of their importance and to drag the stuff in front of our noses so that we remember them when the need for the information comes along. Also, even us seasoned folks do not know it all. An example of this is in Joe David's tip for a quick, low-tech method for checking for a goat's worm load, which you will find in Marilyn Ackley's article on Rhinebeck in this issue. Either we had never heard of this method before, or had heard it and forgotten it.

Speaking of Marilyn Ackley, we have greatly appreciated her assistance along the way. Marilyn was consistently there to help us—in our first issue, with the article "Skin Diseases" and in this last issue, with an article about the ECA doings at Rhinebeck. In addition to her witty words, she has graced us with amazing photos. Thanks, Marilyn! We appreciate your help!

Thanks to *all* of you for your help! The photos, stories, ideas and words of encouragement coming in were a constant inspiration to us. It really felt like *your* magazine which was just placed under our care for a while. Don't forget this! Continue to send your ideas, photos, articles and words of encouragement to Linda C.

We're not going away; we're not going to disappear. We will remain in Dallas with our cashmere herd following the path with the rest of you goat/fiber enthusiasts. We will have a new website soon where we will continue to sell *CashMirror* back issues, Paul's semi-wildy-popular Buster book and perhaps a CashMirror anthology someday. You will hear about all this when/if it develops in *Wild Fibers*.

I have a couple of articles in process which I will finish and submit to *Wild Fibers*. Stay tuned!

Notes from the Publisher

It was a dark and stormy night (NOT!—Ed.) in July 1996 that we published our first issue of *CashMirror*. We had decided to try our hand at writing about goats, cashmere goats—a subject about which we had a lot to learn. It has been our goal to share our experiences as we began our journey in the wonderful world of capra hircus fuzzius, a journey that is far from over.

Since we began our adventure with *CashMirror*, we have made many new friends, and enjoyed seeing and hearing about diverse farming methods (and opinions) and substantially added to our own herd. We will continue to raise goats and occasionally write about them. After all, it is a lifelong learning experience, with much more to learn.

We are excited with the new direction the magazine will be taking with Linda Cortright at the helm, and know you will be, too. We eagerly await the next evolution of *CashMirror*.

The only thing I will not miss is the grammar checker in Word and its insistence that I use fragmented sentences. I won't say anything about the Editor ~~hacking up~~ improving my stuff.

A special thanks to Dr. Chris Lupton, Texas A&M, for his willingness to share his vast knowledge. He is a real friend. And a great bass fisherman. I wish I had space to list all of you who have been such a great help, and such good friends.

Will Mild Goat Men Int'l continue? Only the Shadow and Mickey T. Katt know for sure. And then there has been the ever-present "Associate Editor," Mickey. One cat to rule them all...

Happy Trails to all! See you on the fiber trail.

Growing Cashmere in Pixels and Print

By Linda Cortright

Would you rather have goats or goldfish? Precisely. Whoever stayed warm wearing goldfish? Interest rates are dropping, our President's popularity is declining, but the love of our goats continues to grow. And with good reason, the exotic fiber industry in this country has built considerable momentum in the last decade and for some who once found cashmere only on the department store shelf are now finding it in their own backyard. Fiber festivals formerly frequented by spinning divas and weaving wizards are now meccas for urban artisans and fantasy farmers. Take the farmer's or rancher's passion and products, and combine it with consumer demand and you have Wild Fibers Magazine, for curious and concerned fiber farmers.

When I began raising cashmere goats in 1995 under the exemplary tutelage of Wes and Marilyn Ackley I studied CashMirror as if it were the Talmud, okay, maybe just the New Testament. CashMirror was my opportunity to learn and laugh about a way of life (and goats are a way of life) to which I was a complete novice. Questions such as how often do you worm? Do you shear or comb? Where do send your fiber? Not to mention the unbridled enthusiasm and fear at the approach of the first kidding season. If it wasn't in the magazine, or the Ackley's weren't at home, my next step was to dial 9-1-1.

Somewhere over the course of time, probably during a harsh winter spell when temperatures in the 20's are reason for sunscreen, I began writing for CashMirror. This was not an alien concept. For several years I had written a newspaper column, "The Pet Set" before graduating from pets to livestock. Linda Fox graciously gave me the august title of East Coast Correspondent and I enjoyed marvelous perks including a lifetime subscription to CashMirror. What none of us knew back then, and only a few of us have known up until now, is that one day CashMirror would emerge into an expanded format and become Wild Fibers Magazine. Instead of an East Coast correspondent, I have become both the editor and publisher—and it wasn't even winter!

Think of all the lessons learned within these pages, the endless laughs and helpful hints, but now when you go to your mailbox, you will enjoy a magazine that's in bold, living color! Something like the NBC peacock who eventually must have died of old age.

Wild Fibers seeks to blend our passion with the opportunity for profit. Advertising for both animals and products is encouraged, for many the two go hand-in-hand. The magazine has an enjoyable balance between education and entertainment looking at issues that include conservation, nutrition, and medicine. Additionally, there will be the regular features such as The Urban Pasture, Practical Wisdom, and The Stubborn Farmer.

I want to commend and thank Linda and Paul (OK, Mickey too!) for their incredible commitment to CashMirror. No other publication has consistently connected the cashmere industry at such a valuable level. We have been blessed more than we know for the teachings, hand-holding, and averted emergency calls as a result of their efforts. I know we are all profoundly grateful. I also know that we have grown accustomed to reading their great editorials, Reflections and Refractions, and that many may not like this change at first. I hope you will stay with Wild Fibers while it grows into the publication that will encourage everyone to learn and contribute. (Read: send articles, pictures, letters, ads, today!) This is a great opportunity to voice what you know and what you don't while there's still time before we go to press.

Early next year, when you walk out to your mailbox, there will be a brand new magazine waiting to come in from the cold. Take it home, read it, enjoy it, pass it around and keep it, but ask yourself one little question—aren't you glad you have goats and not goldfish?

One final point: Existing CashMirror subscribers will automatically be continued as Wild Fibers magazine subscribers for the duration of their current subscription and though Linda and Paul will continue to provide good goat guidance, they will not be responsible for either content or distribution of the new magazine.

When Readers Talk...

One and All,

My name is Barbara Fiorica. I have cashmere goats in Sacramento, Ca. I am in need of good genetic diversity. I have a semen tank with 3 bucks in it and they need company. Does anyone have any to sell? It is difficult for me to get to the shows on a regular basis. Like never. But I can make a 2 or 3 day trip to get the boys and maybe buy a warm walking buck if I can get some information on the fellows. The usual stuff; fiber quality, conformation, get history. I will be gone for the holiday and as you will probably be busy also, this can wait until after next week. Please let me know. I would enjoy the trip.

Thank you,

Barbara
Caprette Cashmere
Wilton, California
ROFIORICA@AOL.COM
November 21, 2003

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More on the McNab Family Goats...

Oh, just received your latest magazine. I wish I had had the dates it was coming out. I need to express our thanks to you which I have done, but to the wonderful couple of people who donated goats. One from Washington, Margot Grimm, who has given us 5 females and 4 wethers and a gal from Sacramento area (Jennifer Tryggvason) who is giving one and suggests that if everyone donates one goat we will be in great shape. She is right, if they are close enough to go get them. We are planning to put the pens together, one at our place to keep them and one on (coincidently) the new landowner of the original owner who had the first herd killed off, to put them for "bait" for the boys, so that they get acquainted before turning them loose.

We will pick them up, or Margot will deliver if we pay her expenses, so will figure out which is best. Have my husband and Mike who are desperate for "some days off". What a cool thing. If you can be here, will keep you posted, so that things can be documented for your magazine. I have read each copy from cover to cover and have learned a lot about these guys and they are even more neat that I thought. I am going to keep the wethers at our place and make them pets and use them for browsing off the weeds and thistles each spring for fire protection, and I must admit, I miss my goat Squirt, so they will be fun to have.

Once again thanks for what you have done for us.

Lorie Egerer
Ukia, California
October 14, 2003

Photograph provided by Lorie Egerer: "Just one more photo that came—from an old guy who cuts wood up here. This is from a very high location that shows more of the guys' territory."

Feeding for Two (or Three)

By Miriam Jeswine

Reprinted from *CashMirror*, January 1990 (Vol 1, Issue 4)

Mongolian herdsmen say there are four seasons. In summer animals get fat, in fall they maintain their weight, in winter they lose, and in spring they die. The "treat 'em rough" school of goat management gets the same results because of malnutrition.

Pregnant does, contrary to popular belief, do not rob their bodies to supply their developing young. Undernutrition can result in a weak doe, weak kids and difficult birthings. Optimal nutrition can result in easy kiddings and strong, healthy kids. It makes good sense, then, to give does the best opportunity to do their jobs well.

One of the main nutrient needs is for sufficient calories, or energy during the pregnancy. Does eat more, to provide for developing kids, maintain body heat in the winter when pregnancy is the norm and to lay in body stores for lactation. Undersized, weak kids can result from a diet deficient in energy, especially in the last six weeks of pregnancy, and in does carrying twins. Uneven birth size in twins, one much larger than the other, indicates an energy deficiency. The disadvantage continues after birth as the larger kid may monopolize both teats and deprive the smaller one of milk. Another result of underfeeding late in pregnancy can be pregnancy toxemia. The signs are depression, unsteady gait, lack of appetite, grinding teeth, coma and death. It is much easier to prevent than to cure.

High energy feeds include cereal grains such as corn, oats, barley, wheat, and sorghum, especially if coated with molasses. Goats do better than other livestock at using whole grains efficiently, so if you can locate a grain grower to buy from direct, you can save some money on energy supplements. Most grains will provide 8 to 12% protein as well.

The other major nutrient need during pregnancy is for protein. Any time you have rapidly developing tissue, you have a high need for protein. The kids put on about 75% of their final size during the last six weeks. Timing kidding for warm, spring weather when pastures are growing rapidly is the most economical way to provide protein for late pregnancy and lactation. Other sources of protein are legume hays; clover, alfalfa, ladino, and trefoil, and meals such as soybean, linseed, and cottonseed. A good feeding plan if does are not too fat might be free choice grass/clover hay and a pound of 14 to 16% grain mix, or alfalfa hay and a pound of rolled grains with molasses. Vitamin and mineral supplementation may also be necessary.

Certain vitamins and minerals are important for successful pregnancies. Forages such as pasture, browse, grass and especially legume hays tend to be fairly low in phosphorus. Grains, on the other hand, are high in phosphorus, and can be used to help balance the calcium-phosphorus ratio of the diet. Generally speaking, the ratio should not be more than about 2 parts calcium to 1 part phosphorus. Grass hays will be about 3 parts Ca to 1 part P, but alfalfa will be more like 4 or 5 parts Ca to 1 of P, and much more.

Phosphorus supplementation may be a good idea for grass hays or pastures, and essential if you use alfalfa. Corn is about 33 parts P to 1 part Ca and oats is about 6 to 1. If does get too fat to think of grain as supplemental phosphorus, Manna Pro makes a good high phos mineral mix.

I have noticed that when the livestock act like beavers and start doing serious damage to wood, it is time to get out the phosphorus mineral supplement. After a week or so of eating the mineral they quit eating wood.

Other basic minerals are iodine and selenium in some parts of the country such as the Northwest, the East Coast, Great Lakes region, New England, and Florida. To find out if you live in an area of deficiency or excess, contact your local extension office or state agricultural university. Inadequate selenium intake has been associated with retained placentas and difficult births. Sources of selenium include whole grains, if grown on selenium-rich soils, brewer's (not baking!) yeast, wheat germ and bran. Injectable selenium is available through veterinarians. Studies at Oregon State University indicate that selenium is used or excreted in about three weeks. Frequent, small injections would be needed. Mineral mixes with selenium are helpful, and there are selenium/vitamin E powders to sprinkle on feeds.

The other trace mineral is iodine. Inadequate iodine causes goiter, hypothyroidism, slow growth, and coarse, thin hair. Good sources of iodine include kelp and iodized salt. Goats like kelp which also provides magnesium, B-vitamins, and vitamins D, E, and K.

Certain vitamins are particularly important in pregnancy. B complex can help a doe through a period of stress. Diets heavy in corn can produce deficiencies of some B vitamins, especially niacin. Vitamin A can help prevent dead or weak kids, retained placenta, and abortions as well as vision problems and poor quality fleeces and hooves. Bright green forages are sources of carotenes, precursors of A, but drought conditions or heavy nitrogen fertilization can inhibit the conversion of carotenes to vitamin A.

Vitamin D is essential to the appropriate use of calcium and phosphorus. Animals kept indoors, or living in areas of long, sunless periods can deplete body stores of D. Finally, vitamin E works with selenium in preventing white muscle disease. Feeds which have been heated by steaming, rolling, or pelleting may be deficient in E, even if it was added during the milling process. A friend lost several kids to white muscle disease even though they showed adequate selenium levels. E may have been the deficient one. Supplemental injections of A, D and E can be helpful to pregnant does and their kids.

So far, emphasis has been on preventing undernutrition in

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Feeding for Two
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pregnancy because goats usually do not lay on the fat the way meat-bred livestock do. Overfat animals will also have reproductive problems, so the important thing is to be observant. Pounce on them and feel their ribs, behind their elbows, and along the flanks. Goats put fat around the elbow and flank before they do along the back or ribs. If a doe has flab wads, restrict her calories so she doesn't get fatter, but don't make her lose a lot of weight just before kidding. The time to adjust fat condition is before breeding season.

Beware of moldy feeds, no matter how wonderful they may be otherwise. Mold will cause abortions. Moldy grains look moldy and clump together. Moldy hay may not clump, but it has gray dust which will poof up in your face when you open the bale. A bale may look good on the outside but be moldy throughout, and bales which sit directly on the ground, even in a barn, may mold on the bottoms. Don't be tempted. Just say no to mold.

Finally, make sure your animals get the benefit of the good feed you are giving them. Deworm them before breeding, and delouse them if necessary. There's no need to be feeding a bunch of freeloader parasites.

Goats so rarely have problems reproducing that they have become a symbol of sexuality and fertility. If your animals are not reproducing well, look to your management and feeding before you blame them. Don't expect them to do well in spite of you. They shouldn't die in spring. Give them what they need. Your management can make or break the productivity of your flock.

USDA Cooperates with Alabama, Georgia and Tennessee To Stop Spread of Raccoon Rabies

Press Release—APHIS USDA, November 7, 2003
On November14, Alabama, Georgia and Tennessee officials will begin rabies vaccine bait drops in an effort to stop the westward spread of raccoon rabies by orally vaccinating raccoons against the fatal disease.

The program is coordinated by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service's wildlife services program, which will distribute approximately 400,000 vaccine baits across portions of northeastern Alabama, northwestern Georgia and south central Tennessee near Chattanooga. In Tennessee USDA distributed 261,000 vaccine-loaded baits throughout seven northeast Tennessee counties earlier this fall.

Approximately 233,000 vaccine-filled baits will be disbursed across a 1,447 square-mile area in Alabama; 93,000 baits will be distributed across a 566 square-mile area in Georgia, and 69,000 fishmeal vaccines will be sent to Tennessee to cover 390 square-miles. The majority of the lures for Tennessee raccoons will be distributed by hand in the Chattanooga, Tenn., area beginning Nov. 15. Low-flying planes will dispense the bulk of the fishmeal vaccine baits in forested and rural areas in Alabama and Georgia through mid-November, with dispersal by hand in northeastern Alabama's populated areas and in Georgia towns.

The bait distribution area includes five counties in Alabama: Cherokee, DeKalb, Etowah, Jackson and Marshall. Four Georgia counties will receive oral rabies vaccines for raccoons: Catoosa, Chattooga, Dade and Walker. Three Tennessee counties are involved in the November vaccination effort: Hamilton, Marion and Sequatchie.

People and pets cannot get rabies from coming into contact with the baits and are asked to leave the cubes undisturbed should they encounter them. For additional information concerning the oral rabies vaccine program, please contact USDA's wildlife services toll-free at 1-866-4 USDA-WS (1-866-487-3297).

Rabies in raccoons was virtually unknown prior to the 1950s when it was first described in Florida. Four laboratory-confirmed cases of raccoon rabies were seen for the first time north of the Coosa River in Alabama within the last 14 months. Recently, Georgia reported 35 raccoon rabies cases in Walker County alone. Tennessee had no cases of raccoon rabies until this year, when it became the 20th state to document raccoon rabies. Five cases have been identified in the easternmost tip of Tennessee in Carter and Johnson counties—east of the baiting area.

Raccoon rabies is caused by a virus that attacks the brain. Symptoms include unusual behavior, an inability to eat or drink, balance problems, circling, seizures, coma and finally

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Ehtan Bell, Keedysville, Maryland, the youngerst of eleven junior handlers in the Rhinebeck goat show.

Raccoon Rabies

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death. By vaccinating raccoons against rabies, USDA and its state cooperators are working to significantly reduce the number of animals that can serve as reservoirs of the disease and infect other wildlife, domestic animals or humans. USDA currently works with 15 states to distribute oral rabies vaccine baits. They include: Alabama, Florida, Georgia, Maine, Maryland, Massachusetts, New Hampshire, New York, Ohio, Pennsylvania, Tennessee, Texas, Vermont, Virginia and West Virginia.

Officials with the Alabama Department of Public Health and with the state's Department of Agriculture and Industries are partners in the November raccoon rabies vaccination effort. Northwest Georgia Public Health's Environmental Health division is helping implement the baiting program at the local level in the four northwest Georgia counties included in the program, along with the state's Department of Human Resources Division of Public Health, Department of Natural Resources and Department of Agriculture. Tennessee's Department of Health, in tandem with regional health departments, the Tennessee Department of Agriculture and the state's Wildlife Resources Agency is also partnered with USDA to halt the spread of raccoon rabies.

ECA Goats Shine At the New York Sheep and Wool Festival

Story and Photographs by Marilyn Ackley

"The kids were the stars of the show!" I realize that is what we always say after a cashmere goat show. Of course we usually are referring to irresistible baby goats, but the real stars of ECA's 2003 show at Rhinebeck, New York, were the junior handlers. From six year old Ethan Bell, our youngest competitor, to the most experienced teen-age goat handlers, the human kids were, in a word, awesome. They were poised and confident with the animals they handled, and the goats responded appropriately. Junior handlers appeared in the ring with goats, often unfamiliar goats, in class after class; and almost always the goats seemed to be on best behavior when they were performing with the seasoned young exhibitors.

Judge Joe David Ross is dedicated to the idea that agriculture is a commitment to be passed from generation to generation. He is at his best when he's teaching youngsters, so it took him no time to begin eliciting opinions from the junior exhibitors. As he moved about the ring, he often took a helper. He asked his assistant to look for strengths and weaknesses in the competing goats, and he took the comments seriously. Midway in the judging he stopped to tell us a story: after he had announced his placements at the end of one class, Russ Baker of Moodus, Connecticut, approached him and said that he hadn't placed the goats the same way. With pride Joe David continued, "He looked me in the eye and explained the reasons for his placements. That alone made the trip here worthwhile for me."

Show chairman Wes Ackley asked 17 year old Diana Holder to share some of her handling wisdom with the assembled and very insecure adult handlers. Diana agreed and put on an impressive impromptu clinic before the show. She reminded us of the cardinal rules. Never get between the judge and your goat. Keep an eye on the judge at all times. Never cross behind your goat; switch sides by stepping in front of the animal. She showed us how to immobilize a goat so that it can't dance away from a judge's handling. Simply reach over and fold the opposite side foreleg up next to the goat's ribs. It works! It even works if the judge decides to lift the corresponding rear leg to check for teat defects. A goat standing only on its two left legs is remarkably cooperative.

Diana reluctantly offered another bit of magic, along with a disclaimer. Sometimes—just sometimes—it is possible to make a goat step back by touching a pressure point in front. Slide your hand downward from the goat's throat in the groove beside a foreleg and apply a bit of pressure. When the cosmic forces are properly aligned, the goat will daintily move the opposite rear foot backward.

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Rhinebeck Goats

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Diana wasn't our only teacher. Joe David had noticed Gloria Rubino exercising her buck Ralph. Ralph was obviously in a hormonal tizzy at the smell of the female goats. At that point he would have been equally happy to have dated a mohair or a cashmere lovely, but he dutifully walked along with Gloria. Joe David was eager to hear how she had enticed such a spirit of cooperation from a fellow addled by hormones. The result was another segment of mini-clinic before our show.

Gloria described bringing horse and dog training experience to her goats. She believes that one of the key concepts in encouraging goat cooperation is bringing the right attitude to the barn. If you scurry among animals, thinking you can push through a task in fifteen minutes, it will take an hour. The wise animal handler will move gently, behaving as though the job is supposed to take an hour, but it will be done in fifteen minutes. Ralph cooperated graciously with the demonstration and went on to greater glory as the show's grand champion buck.

Yes, that last paragraph really did refer to buck goats. For years the cautious organizers of the New York Sheep and Wool Festival had resisted welcoming our gentlemen goats to their classy event. They had heard about buck goats in rut, dancing, prancing, snorting, and sending forth all manner of hormone laden scents. They didn't want any part of that. However the gentle but pushy Wes Ackley kept begging for buck space and even made the seven hour drive to one of the organizational meetings. It finally seemed easier to accept buck goats than to put up with any more Wes Ackley. So they rented a tent for us, and the lads acquitted themselves with class.

On the Saturday of Rhinebeck weekend, a warm autumn sun glinted from the orange and flame colored trees. It was splendid, and ECA exhibitors almost certainly were envisioning themselves looking spiffy in black and white for the Sunday show. However autumn in the Hudson River Valley is whimsical. By Sunday a cold rain was falling. By Sunday afternoon that old CaPrA vision of cashmere exhibitors in black and white was lost in a splash of rain slickers, Polar fleece, earmuffs, mufflers, mittens. Perhaps a few cashmere sweaters were lurking discretely inside the raincoats, but the general impression was expedition gear rather than spiffiness.

In spite of the weather the show went well. Jodie Richards and Heather Corson kept flawless records at the judge's table and delighted the winners by presenting ribbons with the information filled in the little blanks. Ellen Hanson Anderson did a remarkable job of directing humans and goats to the show ring and getting the appropriate exhibitor numbers on each body. The ring stewards made sure that the judge always had access to each goat's previous complete fleece. ECA has always considered it important for goats to appear at the show ring with the last year's fleece so that late-blooming goats can compete fairly with the early fuzzers. The bags are a bother but provide

Junior handler, Diana Holder of Slatington, Pennsylvania, following her own advice: "Keep your eyes on the judge."

the judge with an important tool in comparing goats.

Most people who make their way to the Rhinebeck fairgrounds that third weekend in October are fiber addicts there to shop. And shop they (we) did. As I made my way around the vendors' booths, checking out wonderful things to spin and knit, I spotted Marilyn Merbach in her gorgeous cashmere booth, mobbed by shoppers. Was it my imagination, or was her adding machine beginning to smoke as it tallied up the sales? She later confirmed my impression: it was a great sales weekend for her and most other vendors.

OK. Now it's time for me to ease into a paragraph that is painful for me to write. If it had its own title, it would have to be something like, "Yes, dear, you were right." My husband hates clips, buckles, metal fasteners of any sort. As an old Boy Scout, fire fighter, and master of stage rigging, he loves knots, trustworthy, predictable knots. He would love to explain that there is a perfect knot for every situation. They can't be broken or snapped. He is not impressed by the tidy little click of a quick and efficient metal fastener snapping shut.

As the boss of the Rhinebeck cashmere goat events, he en-

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Rhinebeck Goats

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couraged exhibitors to practice their knot-tying skills in order to keep their goats safe on the fairgrounds. He would have banned collars and clips entirely if he thought he could have survived the uproar. In fact there were collars and clips, and, in fact, a collar buckle did snap, as did another piece of hitching hardware. The safest and most secure goats were those who were neatly tied where they couldn't pound or be pounded by their stall mates and couldn't jump into the oblivion of the fairground. His message to the goat world: "If you can knit, you can tie a bowline."

Our judge Joe David Ross brought wisdom, humor, and his son David Lee Ross. Both of them were wonderful sports about being chilled half to death. One of the important ideas that Joe David shared with us relates to intestinal parasites. His warning is to avoid worming unless it is necessary. The indiscriminate use of wormers is quickly creating populations of parasites who are resistant to all the families of poisons, and there are no new anthelmintics coming along. Joe David mentioned one easy way to avoid over-using the important wormer, Ivermectin. Don't use it for lice. There are plenty of products that kill lice. Save the atomic bomb of wormers for situations where it is the best remedy.

Andrew Brooks of Bremen, Maine, with his buckling Mufasa and their blue ribbon.

He showed us a technique for determining if goats have a worm load. It's the eyelid test. Apply a bit of pressure at the top edge of a goat's eye. The pressure on top makes it really easy to roll back the lower lid to see the color of the skin. If it is pink, the goat is in good shape. If it is pale or white, the goat is feeding a population of parasites and needs wormer. When it is time to worm, be sure to use enough to completely kill the parasites. With a safe product like Ivermectin, use twice the amount recommended for sheep. If you're unsure about goat dosages of other wormers, talk with your veterinarian.

Joe David also devoted some time to a discussion of Cashmere America. He shared a history of the Coop and the dedicated volunteers who have made it work. He explained some of the complications that arose in the past few years, including the departure of Forte from the U.S. and losing James Barton as the primary fiber classer. In spite of the setbacks, Joe David is committed to the idea that a Coop is crucial for growers who need a place to sell their fiber. The Coop will continue to buy North America fleece. For cashmere growers who market value added products or American grown yarn, the Coop now has a new cashmere/merino yarn available along with the amazing white 100% cashmere yarn.

The topic of marketing raw fleece led to the topic of skirting fleeces prior to processing. Whether a grower sells to the Coop or chooses to have his own fiber processed at a Mini Mill or other dehairer, it is important to divide each fleece into its

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One of the Springtide Farm goats accepting the attention of festival-goers. Note the large bag. It's impossible to leave Rhinebeck without large bags.

Rhinebeck Goats
Continued from previous page

component parts. For a combed fleece this obviously must be done as part of the combing process. Evaluate the goat before combing. If the neck fleece is coarse, comb and bag it separately. If the cashmere growing on the thigh is short (less than 1.25"), discard it or save it for a felting project. The idea is to gather the raw material for a top-end product, not to create a great big bag of fleece.

Shorn fleeces get the same attention, but the skirting can come at any time. Lay out a shorn fleece, and it will immediately be clear if there are coarse or short parts or different colors to be separated. Don't waste your money paying postage to ship the skirtings to the Coop, and don't allow the skirtings near a processor who will combine everything you send into your product. If your fiber ultimately will carry the name of your farm, you have an obligation to yourself to ensure quality.

With our heads filled with information and our goats proudly flaunting their ribbons, we gathered for our final meal together. As if we hadn't eaten enough 4-H lamb chili on the fairground, we headed to a restaurant which features its own home grown lamb. At the end of the meal, when Brian Bell rose to thank everyone for contributing to a wonderful weekend, it was like a benediction. We knew we had shared a special time together. As for next year, we'll try to remember everything we learned from our young teachers, and we'll all be certain to pack long johns.

They're adorable, but ECA can't claim them. The little girl is a festival shopper, and her goat grows no natural fiber.

How Much Hay?

We have all struggled with how much hay to stock up for our goats for the winter. Per an article entitled "Hay Anxiety" written by Linda Cortright in the August 1998 CM, she quoted a "reliable source" that you would need 26 bales of hay per goat per winter. She noted that she had some questions about this seemingly simple calculation as there was no mention of what size/age of goat, what kind of winter, what kind of hay or what size off bale.

In a recent article in Meat Goat Monthly, Connie Reynolds states that 4-5 big adult does (she's talking Boers, no doubt) will eat as much hay as one horse, and one horse, during a mild winter in northern West Virginia, will eat at least 100 45-50 lb bales. Calculating for her goats, this would translate to 20-25 bales per goat.

Report on the 4-H Year

By Nora White
Giddy Goats, Tenino Washington

Nora White and Comet
Giddy Goats
Tenino, Washington

Photographs by Faith Hagenhofer

This year in 4-H was, let's say, SUPER FUN. My mom, Faith Hagenhofer is our 4-H leader for our club "Fiber Fun". During our meetings this year we did things like needle felting angels, making felted Christmas stockings, and knitting socks. As we got closer to Thurston County Fair we began working with our animals. I decided I'd show one of this year's twin wethers, Comet. One of our club members said she would show the other twin, Orion. Daringly another member took on our BIG wether, Gohan, and last but certainly not least, one of the girls said she'd show our doeling, Gemma.

Well, as we got closer and closer paper work got mixed up. It ended up that two girls did not want to show but I took them anyway and showed them in type. I did very well in Showmanship and took a reserve champion with Comet. Our friend did ok with Gohan but he's not a great show goat and did much better in type. In the type ring Gemma got Grand champion in her class and was followed by Orion and next by Comet. In his class Gohan got a blue. We also entered fleeces and Gohan's got Grand champion. All in all we did pretty good and I'm looking forward to showing cashmere at state fair!

While I was at the fair I noticed other things—like lots of people wanted to know about them and how we took care of their fleeces, what we did with the fiber, and other questions about goats in general. Because of

Continued on next page

Closest to farthest: Kimberly Levine with Gohan, Felicia Alvarado with Orion, Nora White with Comet, Megan Batten with Gemma.

The 4-H Year

Continued from previous page

our presence and information about cashmeres we attracted potential club members for the up coming 4-H year. It no doubt helped that cashmeres are so cute! When we showed they had us show without collars and with the sheep. We were also housed with the sheep and are going to be housed with the sheep again at state fair so wish me luck!

At state fair I took Gemma and Orion. In showmanship I was in a class by my self because I had the only cashmeres, and got a grand champion. In type both got grand champion.

The next fair that I will be in is the Spring Youth fair at the Southwest Washington fairgrounds in May. Our 4-H year was really fun and I'm looking forward to another great year!

Judge Linda Maston checks out Gohan, shown by Kimberly Levine.

Felicia and Orion and a curious sheep.

Nora (left) showing Comet and Felicia showing Orion.

The Electronic Guard: A Tool in Predation Control
USDA Wildlife Services January 2002

The Electronic Guard helps reduce wildlife damage to agricultural resources. Developed by the Animal and Plant Health Inspection Services' (APHIS) Wildlife Services (WS) program, this device combines two scare tactics, sound and light. Although it was created by WS National Wildlife Research Center (NWRC) to protect sheep from coyote predation, the Electronic Guard can be used to protect other livestock and commodities from wildlife damage.

A light-sensing device activates the Electronic Guard at nightfall and turns it off after daybreak, thus operating the machine when predation is most likely to occur. A timer regulates a siren and a strobe light—sometimes just flashing the light, sometimes just sounding the siren, and sometimes doing both at once. This random arrangement helps keep potential predators at bay. NWRC's tests have shown that using the Electronic Guard can temporarily reduce predation an average of 80 percent in range and pasture situations and 60 percent in mountain grazing areas.

Frightening Predators
For centuries, livestock producers have used frightening devices to ward off potential predators. Most predators are initially fearful of unexpected disturbances and keep their distance. Over the years, the devices have changed from simple scarecrows and bells or other noisemakers to more modern devices like the Electronic Guard.

The Electronic Guard should be used only when necessary because most predators eventually learn to ignore the periodic light-and-sound show. This device is not a cure-all for predation problems but is one tool in a comprehensive approach to controlling predator damage. It may help producers complete the lambing season with minimal loss by stopping predation until sheep can be moved or until other control methods can be used.

Other Uses
A survey of users of the Electronic Guard by WS found the device to be successful in keeping black bears out of vineyards and white-tailed deer out of gardens and cornfields. Customers also report that they use the Electronic Guard to prevent damage to haystacks and orchards by elk and deer, discourage beavers from building dams, and frighten birds away from commercial fish farms.

Using the Electronic Guard
The Electronic Guard should be hung from a tree or a post on a high area near where predation has occurred. When possible, one guard should be placed in the center of the bedground with other guards around the edge, especially when the bedground is near a coyote pathway.

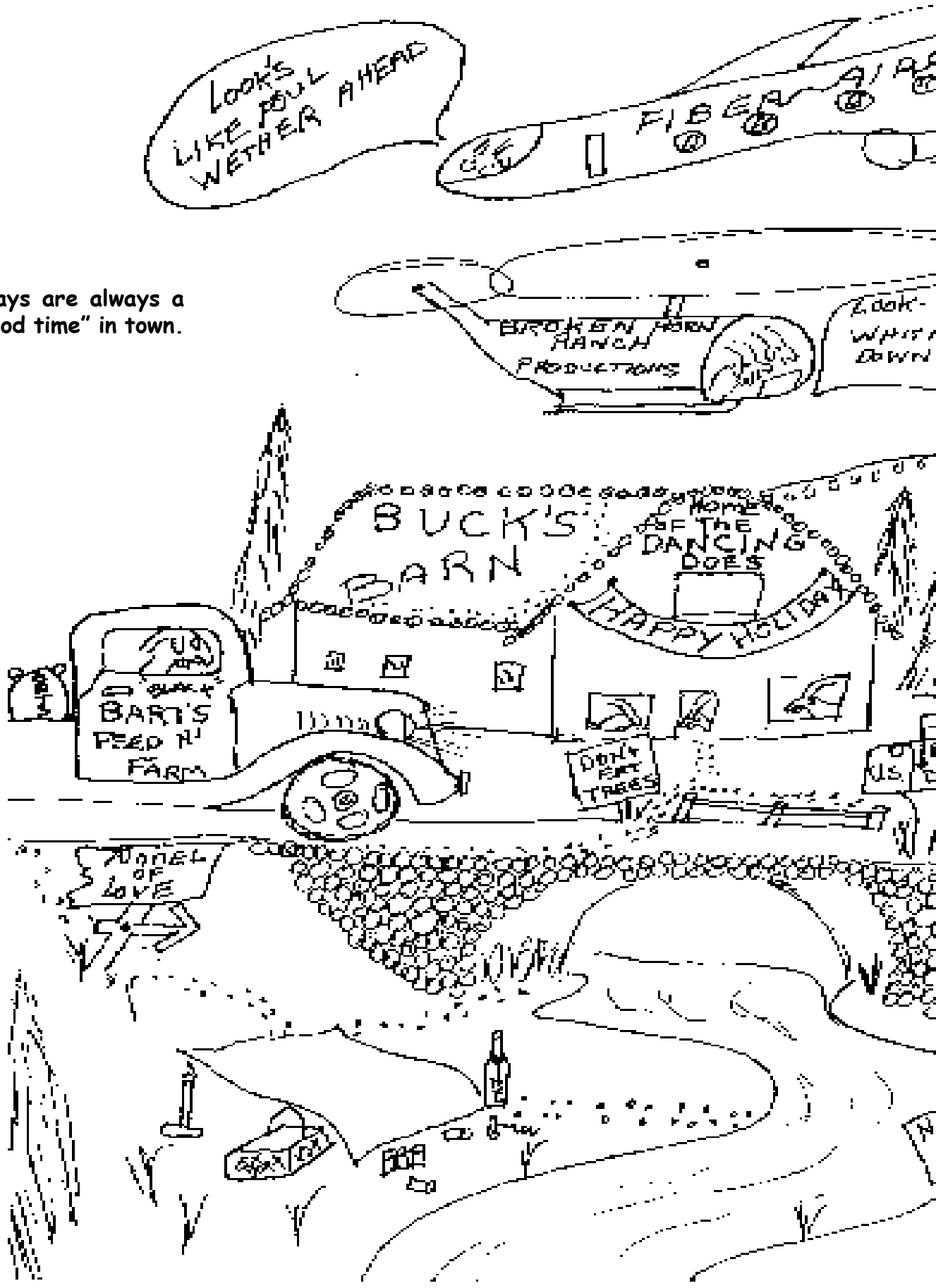
The number of Electronic Guards needed to protect sheep will depend on the size of the pasture, the vegetation in or around

it, and the terrain. In general, at least two units should be used in small, fenced pastures (20-30 acres) or in level pastures with short grass. Three or four units should be used in large, fenced pastures (31-100 acres), hilly or wooded pastures, or those with tall grass. In open-range conditions, the number of Electronic Guards depends on the number of sheep and the size of the bedground. NWRC testing shows that at least 4 guards should be used with a band of 1,000 ewes and their lambs.

How to Order
The WS program manufactures the Electronic Guard, which is a self-contained, 11-pound cylinder that can operate for approximately 60 days on a 12-volt alkaline battery. The Electronic Guard costs about $250, not including the battery, and can be ordered through your State APHIS WS office listed in the blue pages of most telephone books under "U.S. Department of Agriculture." The device also may be obtained directly from WS' Pocatello Supply Depot, 238 E. Dillon St., Pocatello, ID 83201. Each unit is shipped with a complete set of instructions.

Additional Information
You may obtain further information about WS from any State APHIS WS office. For the address and telephone number of the office in your area, call the WS Operational Support Staff at (301) 734-7921. You can also find information on WS programs by visiting the Web site at http://www.aphis.usda.gov/ws.

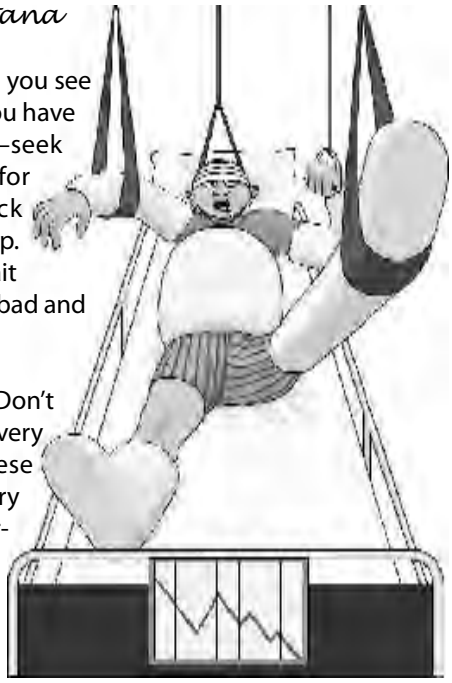
The Holidays are always a "kicking good time" in town.




HOW'S THE WETHER UP THERE?
HEY LOOK! GOAT KNOLL'S FLY IN -IN!
K-- I SEE ITING YN THERE!
BUCK'S
G
R
THE
SHEARING
RACK
SALOON
IN
NO CHEWING
OPEN
BUCK + DOE
CLEAN HOOFS ONLY
STAY OFF ROOF
FIBERVILLE 2 MILES
NO EATING FROM BRIDGE
HAPPY HOLIDAYS
CHEVONLET

Falling with Grace

By Steve Hachenberger
Castle Crags Ranch, Hamilton, Montana



Have you ever noticed how slowwwww time passes when you are being tossed in the air by a large animal? The world spins and the brain begins to realize that perhaps your handling method was somehow flawed. You realize that there could have been another way of doing this to avoid the spectacle that you are now performing!

Bull riders look for this kind of excitement and get paid for their risks. At home you pay for the event and your wife and kids get to watch for free. There are no ribbons or trophies for the event. Then, your reward is slowly revealed as PAIN and sometimes MORE PAIN! Screaming, yelling, cussing, and then the pitiful "crawl" back to the home (where everything feels better). The family begins to describe in detail the event...how awful it was to watch, and of course their advice of how you could have avoided all this. Lastly, you are informed that if you had done it their way, this would not have happened at all!

This is true for most of these ill-conceived events. I now know this for sure because I have done this not once—but TWICE! Which proves yet again that we do not listen to our spouse's advice. We continue to believe that "our way" is still the best way to handle the situation.

I can affirm this because last year I was thrown in the air and thrashed by a really angry buck. Three days ago I was reminded (again) just how powerful these big boys are. This time I was thrown down a hill (with the goat over my head) and ended up with a twisted, torn, broken ankle. The only good thing about the accident is watching the wonderful colors develop that I never knew could exist on the human body.

As the body begins its healing process, the moaning and groaning of how painful everything is begins. This is generally followed by, "Perhaps you should see the doctor" and as any typical male knows, this will never happen unless you see parts of your body never seen before. And so the suffering continues on the road to recovery. I know I'll be all right. I don't see anything poking out of my body! I don't think they can do anything for me anyway and I'm sure it will just cost lots of money for them to tell me that I'll be OK.

My family has always been understanding of any of my personal tragic events. I must admit that whenever my wife has been injured I speed her to the hospital despite any arguments she might offer! This generally results in stitches and huge bandages for what seemed like a small cut. As for myself, cuts are never stitched and each has its own story behind the scar!

For some reason the "Suck-It-Up" policy seems to generally apply only to we stubborn men, while a more logical approach applies to the women and children. I have to admit this policy is dangerous and is not advised. Anytime you feel you need medical attention, or you see parts of your body you have never seen before—seek medical advice. As for me, I asked my Jack Russell if I needed help. He said "No" and "wait and see if it gets real bad and then go."

My simple advice is: Don't do as I have done. Be very careful handling these big boys. They are very strong and are generally in a panic. Here's a few tips that may help avoid some of the common mistakes I have made:

1. Wear gloves. This protects your hands from horns, fencing, wire, nails, etc.

2. Wear jeans. These protect you from "road rash" while being dragged.

3. Limit your pen size. Limiting the area in which animals are allowed to move reduces their ability to gain speed. Also, it is easier to catch a goat if they are bunched up in a group of goats.

4. Have a plan. Don't just grab-N-go. Goat handling is not a "drive-thru" operation! Plan how you are going to move the animals the shortest distance. Limit your personal handling of the animals. Watch your face! These things often jump too!

5. Have a First Aid Kit handy. Although, chances are if you need this, you will most likely also need a doctor.

6. Write it down. If you fail to follow any of the other good advice, after the event, write it down. The CashMirror is always looking for a good story.

ECA 2003 Goat Show

State Fair of Virginia, Richmond, Virgina

Grand Champion Doe "Nalla", left, Reserve Champion Doe "Mattie", right. People from left to right: Samantha Vailes, Lisa Vailes, Judge Kris McGuire, Chuck Vailes and McCawley Vailes.

Judge Kris McGuire and Ring Steward Gloria Rubino examining spring fleece from goats in the show ring.

Judge: Kris McGuire, Laramie, Wyoming

Grand Champion Doe
SBF Nalla, Lisa & Chuck Vailes

Reserve Champion Doe
THV Mattie, Lisa & Chuck Vailes

Does Born in 2003 (14 in class)
1st PG Daisy, Michael Loelzer
2nd CMP Eowyn, Carol Prudom
3rd SBF Tinker, Lisa & Chuck Vailes
4th SF Pachelbel, Roy & Anne Repaske
5th CMP Hope, Carol Prudom
6th HSC Princess Alice
7th SF Arietta Roy & Anne Repaske
8th TNBL Dureka, Cindy Crisp
9th SBF Pebbles, Lisa & Chuck Vailes
10th SBF Matilda, Lisa & Chuck Vailes

Does Born in 2002 (6 in class)
1st TMV Matte, Lisa & Chuck Vailes
2nd SF Concertina, Roy & Anne Repaske
3rd CMP Angela, Carol Prudom
4th CMP Amanda, Carol Prudom
5th TNBL Weezy, Cindy Crisp
6th RHF Ginger, Jane McKinney

Does Born in 2001 (4 in class)
1st SF Daisy, Jane McKinney
2nd SBF Belle, Lisa & Chuck Vailes
3rd PG Missy, Michael Koelzer
4th SF Violet, Jane McKinney

Continued on next page

The show had a large kid class. Handlers here are getting the goats "set up" with legs square and aligned for the judge to view.

Richmond Goat Show

Continued from previous page

Does Born in 2000 (7 in class)
1st SBF Nalla, Lisa & Chuck Vailes
2nd TNBL Tameka, Cindy Crisp
3rd THV Matrix, Lisa & Chuck Vailes
4th SF Fanatasia, Roy & Anne Repaske
5th SF Harmony, Michael Koelzer
6th SF Wilma, Jane McKinney

Does Born Before 2000 (2 in class)
1st SF Corelli, Roy & Anne Repaske
2nd SF Emmy, Lisa & Chuck Vailes

Dam and Daughter (9 in class)
1st SF Concertina and SF Pachelbel, Roy & Anne Repaske
2nd TNBL Tameka and TNBL Weezy, Cindy Crisp
3rd CMP Angela and CMP Eowyn, Carol Prudom
4th PG Missy and PG Daisy, Michael Koelzer
5th CMP Amanda and CMP Arwen, Carol Prudom
6th SBF Belle and SBF Tinker, Lisa & Chuck Vailes
7th THV Matrix and THV Mattie, Lisa & Chuck Vailes 8th SF Wilma and SGF Alyssum, Jane McKinney
9th SF Betty and SGF Viola, Jane McKinney

Get of Sire (1 in class)
1st CCK Michael, Carol Prudom

Wethers (1 in class)
1st Edward the Black Prince, Kathleen Oliver

Grand Champion Buck
SF Franz Liszt, Roy & Anne Repaske

Reserve Champion Buck
THV Ralph, Gloria Rubino

Bucks Born in 2003 (7 in class)
1st BBS Stanley, Lisa & Chuck Vailes
2nd TNBL Hyme, Cindy Crisp
3rd CMP Zorro, Carol Prudom
4th SBF Blitzen, Lisa & Chuck Vailes
5th BVF OtisRedding, Kevin & Amy Hoschar
6th SBF Nemo, Lisa & Chuck Vailes
7th SBF Martin, Lisa & Chuck Vailes

Bucks Born in 2002 (3 in class)
1st SF Franz Liszt, Roy & Anne Repaske
2nd THV Ralph, Gloria Rubino
3rd RHF Edelweiss, Jane McKinney

Bucks Born in 2000 or 2001 (4 in class)

Continued on next page

Michael Koelzer giving his buck "Boogie" a pre-show pep talk.

Sometimes it takes more than one person to handle a big buck. Jim, Cindy and Sherry Crisp prepare "Elrod" for the show.

Richmond Goat Show

Continued from previous page

1st PG Boogie, Michael Koelzer
2nd SF Monteverdi, Jane McKinney
3rd SF Greybeard, Roy & Anne Repaske
4th TNBL Elrod, Cindy Crisp

Photographs by Lisa Vailes

Junior Exhibitors accepting Junior Showmanship awards sponsored by Wendy Pieh of Maine. Left to right: Samantha Vailes, Jessica Koelzer and McCawley Vailes. Not pictured: Geoffrey Oliver.

Breeds of Livestock

Information from the Department of Animal Science
Oklahoma State University

What is a breed? The classic definition of a "breed" is usually stated as a variation of this statement: Animals that, through selection and breeding, have come to resemble one another and pass those traits uniformly to their offspring.

Unfortunately this definition leaves some unanswered questions. For example, when is a crossbred animal considered a composite breed and when do we stop thinking about them as composites? Perhaps this definition from The Genetics of Populations by Jay L. Lush helps explain why a good definition of "breed" is elusive:

> A breed is a group of domestic animals, termed such by common consent of the breeders, ... a term which arose among breeders of livestock, created one might say, for their own use, and no one is warranted in assigning to this word a scientific definition and in calling the breeders wrong when they deviate from the formulated definition. It is their word and the breeders common usage is what we must accept as the correct definition.

As you can see from Dr. Lush's definition it is at least in part the perception of the breeders and the livestock industry which decides when a group of individuals constitutes a "breed".

The development of the breeds takes different routes also. In some breeds you can see the amount of change that can occur as the result of selection for a small number of traits. As an example, Holstein cattle have been selected primarily for milk production and are the highest milk producing cattle in the world. Other breeds have traits that result from natural selection pressure based upon the environment in which they were developed. An example of this might be the N'dama cattle from west Africa. These animals have, through the centuries, developed a resistance to trypanosomiasis or sleeping sickness spread by the tse-tse fly, which is fatal to most other breeds of cattle.

Why are we concerned about preserving information about minor, or relatively unknown, breeds of livestock? Is there a reason for the preservation of minor breeds of livestock? Couldn't more improvement be made if there were fewer breeds? Well, let's go back to our Holstein example again for a moment. While the Holstein clearly has an advantage over other breeds in the production of whole milk, this advantage is based on feeding high levels of cereal grains and pricing that favors low milk-solids content. A drastic change in either of these factors could result in a decrease in the advantage of the Holstein. Given these conditions perhaps a breed that is currently rare or endangered, such as the Dutch Belted, which displayed excel-

Continued on next page

Breeds

Continued from previous page

the production of whole milk, this advantage is based on feeding high levels of cereal grains and pricing that favors low milk-solids content. A drastic change in either of these factors could result in a decrease in the advantage of the Holstein. Given these conditions perhaps a breed that is currently rare or endangered, such as the Dutch Belted, which displayed excellent milking ability in a grass-based dairy situation in trials in the early 1900's, would find itself on the forefront. In Australia, composite breeds, such as the Australian Friesian Sahiwal, have been developed which have higher milk production levels than Holsteins in the tropical regions of that country. Another example might be an increased need for natural resistance to diseases or parasites should a current antibiotic or other treatment become unavailable or ineffective. An example of this type might be the natural resistance of some breeds of sheep have to internal parasites. Should anthelmintics become restricted or uneconomical then a breed such as the critically endangered Gulf Coast Native, with the parasite resistance it has developed through natural selection, could be of critical importance in the sheep industry. In many areas, genetic diversity should be maintained to help meet the potential challenge resulting from changes in production resources and market requirements. We hope that this project will serve as an information resource for the potential of some of these breeds.

Why do we have livestock at all? Don't they just eat the food that would be better utilized by being given directly to people. Agricultural animals have always made a major contribution to the welfare of human societies by providing food, shelter, fuel, fertilizer and other products and services. They are a renewable resource, and utilize another renewable resource, plants, to produce these products and services. In addition, the manure produced by the animals helps improve soil fertility and, thus, aids the plants. In some developing countries the manure cannot be utilized as a fertilizer but is dried as a source of fuel. Food is, by far, the most important contribution of agricultural animal, although they rank well behind plants in total quantity of food supplied. Plants supply over 80 percent of the total calories consumed in the world. Animals are a more important source of protein than they are of calories, supplying one-third of the protein consumed in the world. Meat, milk and fish are about equal sources of animal protein, supplying, respectively, 35%, 34% and 27% of the world supply of total protein. There are many who feel that because the world population is growing at a faster rate than is the food supply, we are becoming less and less able to afford animal foods because feeding plant products to animals is an inefficient use of potential human food. It is true that it is more efficient for humans to eat plant products directly rather than to allow animals to convert them to human food. At best, animals only produce one pound or less of human food for each three pounds of plants eaten.

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Table 1. Characteristics of Agricultural Land in Various Geographical Regions.

Geographical Region	Total Land Area	% of Total Land that is Agricultural	% of Agricultural Land that is Cultivated Land	% of Agricultural Land that is Permanent Pastures
	(1000 sq.mi.)	(%)	(%)	(%)
World	50,495	35	31	67
Developed Countries	21,176	36	33	66
Developing Countries	29,319	34	29	69
Africa	8,994	37	19	79
Asia	10,334	38	45	53
Europe	1,826	49	55	38
Oceania	3,254	61	9	91
N. America	7,084	27	46	53
S. America	6,771	31	15	81
U.S.A.	3,524	47	43	56

Source: FAO Production Yearbook

The Quantum Dichotomy of Goats

http://www.wamoz.com/goatons.asp

Introduction

In 1994, my article "Sheep as Chaos Theory" (Appendix A) revolutionised perception of both these humble creatures and the place of mathematics in the natural world. With pleasure I present an even sillier idea: the quantum dichotomy of goats.

Quantum behaviour as a defense mechanism

Sheep, refusing to become observers, play upon Heizenberg's principle of indeterminacy to confound would-be predators. The primary text on this topic is reproduced in Appendix A.

Subsequent research has turned up material that, while it does not completely invalidate current wisdom, makes it clear that the model is not a complete representation of the nature of things.

As has frequently been observed, goats may be characterised as sheep that are armed and dangerous. Goats are undeniably stupid. They often eat things that could not be remotely described as food. I have personally seen a goat eat the—semi-rigid and entirely synthetic—seat of a ride-on lawnmower.

Their powers of discrimination fail monumentally in other arenas. Goats have often been known to confuse cars with trampolines. This phenomenon is well-documented, both in the annals of human levity and (more permanently) in the panelwork of unfortunately parked cars.

All of this is in accord with the material in Appendix A, yet there is also sharp evidence to the contrary. Anyone who has ever tried to restrain a goat will attest to their diabolical intelligence, including the ability to disconnect electric fences and open gate latches.[1]

Goats frequently juxtapose remarkable intelligence with profound stupidity. To complete an earlier example, the goat—tied to a ride-on lawnmower with ten metres of chain—immediately galloped clock-wise around the mower until the chain was wound so tight and close that the daft creature, still straining tight against the chain, was gasping for breath. Even with the moderate demands of such a tiny brain, the goat soon passed out from oxygen starvation. Only then did it stop straining. Breath flowed once more, and presently the creature woke, whereupon it divined in the lawnmower seat a wholesome and tasty morsel. This it devoured with astonishing gusto, finishing off with a motor oil chaser (lawnmowers have other plastic bits—fuel and oil lines, for example) before returning to the important task of strangling itself.

Goatons

Are goats clever or stupid? Empirical evidence supports both conclusions, and yet by all appearances they contradict. As our sheep (Appendix A) emulate the indeterminacy of electrons, so it seems that goats emulate the duality of photons.[2] Is a photon a wave or a particle? This depends (literally) on the way you look at it. Even not observing the goat has an effect. Without observation the probability wave can remain uncollapsed, allowing the goat to be simultaneously clever and stupid. Interestingly this allows us to estimate both speed and location: immediately behind you, head down and at a full gallop. This is both clever (I am not expecting it) and stupid (I have a shotgun in the cruiser).

Lending credibility to the quantum indeterminacy hypothesis are the following observations.

* Goats do not behave like this in front of a camera.

* When unobserved they pass through fence-breaks too narrow to physically admit a goat.

There is also anecdotal evidence that, unobserved, goats can teleport directly into the lower boughs of trees (clever) and when so observed they jump down the wrong side of the bough (profoundly stupid).

Definitions (Just for the title...)

For the rest of it, you're on your own!

Quantum: An elemental unit of energy, according to the quantum theory.

Quantum Theory: A theory that in the emission or absorption of energy by atoms or molecules the process is not continuous but takes place by steps, each step being the emission or absorption of an amount of energy called the quantum.

Dichotomy: Division into two subordinate parts; hence, a cutting into two; a division.

Appendix A

The Woolly Fractal (Sheep as Chaos Theory)

The other day I went to Waterpark Creek with two very pretty girls and a mate. This was pretty gripping on its own, but on the way back I sat in the back seat with Jenny, watching the world go by. The presence of a sheep on the roadside sparked a train of thought I'm sure you'll find intriguing.

Watching sheep and their erratic attempts to cross a paddock, I was minded of quantum particles in unresolved states. It occurs to me that this may be why sheep are creatures of Very Little Brain.[3]

Were they conscious and acutely aware of the world around them, they would qualify as observers. This would collapse the cloud of unresolved probabilities in which they obviously live, and render them vulnerable to premeditated attack by intelligent, aware creatures like wolves and men.

The attention of a competent observer fixes the locus of a particle's existence to whatever vector it occupies at the mo-

Continued on next page

Quantum Dichotomy
Continued from previous page

ment of observation. Unfortunately for anybody in the midst of a mob of sheep, there is an upper limit to the number of particles one can simultaneously maintain as foci of attention. For a single man this is about five, and for any other predator (other than the specially bred sheepdog[4] it is two or three.[5]

Thus, unless superb discipline is maintained and the attention focussed and maintained by tracking a single sheep, it is impossible to know the location of any of the sheep at any given moment.

Evolution has plainly selected for dumber and dumber sheep in a playoff between a need to distinguish grass from rocks, and the quantum defence mechanism of the largest possible cloud of ambiguities.[6]

Notes:
1. Sadly this talent for opening gates does not extend to closing them again, much like visitors and grandchildren.
2. Though further investigation is required, at this stage it seems appropriate to postulate the existence of goatons, high-speed massless particles of stupidity that under appropriate observation flip-flop between the idea of doing something profoundly stupid, and the reality. If this line of investigation bears fruit it may explain both boardroom decision-making practices and much of human history. It is interesting to note that at many of the more unfortunate cusps in human history large numbers of goats have indeed been present.
3. I believe that proper analysis will reveal sheep brains to be composed of dense clouds of massless particles called submorons.
4. The sheepdog does not attempt to know the position of any particular sheep. Instead it deals with a mob as a collective single entity, enabling the dog to resolve and manipulate the net locus of the mob.
5. Wolves employ a simple response to the sheep's evasion—they bring enough observers to resolve all of the sheep whereas the great cats bring to bear the discipline required to track one and only one sheep despite the antics of the rest of the mob.
6. I don't claim to know God's plan for the universe, but evidently it involves very dumb sheep and quite a lot of beetles.

Nora White's wether Gohan contemplates Goatons and wonders why he has to wear those do-dads on his horns. Photo by Faith Hagenhofer.

Calendar of Events

February 6 - 8, 2004
Rowdy Outlaw Texas Fiber League's MidWinter Festival, near Austin, Info: Michelle Walden, michelle_walden@yahoo.com

February 7, 2004
Fleece-to-something, Neilson Park Creative Center, Toronto, Canada
Non-competitive team & individual event for spinners, weavers, knitters, felters, crocheters and other fiber artists. Info: Elizabeth Evans, 416-767-7543, cetkovskievans@rogers.com

April 9 - 10, 2004
11th Annual Fleece Fair, Putnam County Fairgrounds, Greencastle, Indiana, workshops, vendor booths, competitions, animals
Info: Pat Fender, 812-829-4501, rpfender@bluemarble.net

April 15 - 19, 2004
The Shepherd's Extravaganza, Western Washington Fairgrounds, Puyallup, WA.
Information: Lin Schwider, 21420 204th Ave. SE, Maple Valley, WA 98038.
425-432-3455
lin@shepherds-extravaganza.com
www.shepherds-extravaganza.com

April 24, 2004
Mid-Ohio Fiber Gathering
Info: Susie 937-585-5161, Leellama@bright.net

June 25 - 27, 2004
Black Sheep Gathering, Lane County Fairgrounds, Eugene, Oregon.
Info: www.blacksheepgathering.org

June 27 - July 3, 2004
Convergence 2004, Denver, Colorado
Biennial conference of Handweaver's Guild of America
Workshops, studios, seminars, vendor hall, tours, exhibits—this is one of the major fiber-related events in the country. They almost have it all (no animals). Register online after 12/16: www.weavespindye.org

July 7 - 11, 2004
Creative Strands, Bucknell University, Lewisburg, PA
A conference featuring beading, dyeing, embellishment, surface designe, knitting & more. Info: 570-473-8278, www.creativestrands. com

Association Contacts

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Wes Ackley (Maine) 207-336-2948
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Roy Repaske, President
540-436-3546, cashmere@shentel.net

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509-997-2204, 509-429-0778, dmullins@methow.com
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Club website: http://www.nwcacashmere.org

Pygora Breeders Association (PBA)
Inga Gonzales, Secretary
PO Box 565, Knightsen, CA 94548, 925-625-7869
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Texas Cashmere Association (TCA)
William (Bill) Nagel, President
4625 Sandy Fork Rd., Harwood, TX 78632
830-540-4707, email: bnagel@bvtc.com

Guess who has the upper hand (or should we say hoof?) at this farm? Vindsval tolerates a playful doeling Fatima. Yvonne says that he was not always this compliant. Photo by Yvonne Taylor, Black Locust Farm, Washington, Maine.

Breeders Directory

CALIFORNIA

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MARSHALL'S ORGANIC ACRES
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Internet listing of these breeders and a link to their email addresses and homepages, can be found on the internet at:

http://www.cashmirror.com/breeders.htm

PREDICTION OF WOOL BASE, VEGETABLE MATTER BASE, FIBER DIAMETER, AND PRICKLE FACTOR OF GREASY WOOL WITH NEAR-INFRARED SPECTROSCOPY

C. J. Lupton, J. W. Walker, B. S. Engdahl, and F. A. Pfeiffer
Texas Agricultural Experiment Station, Texas A & M University System, San Angelo, Texas

Introduction

Following the successful development by USDA scientists of near-infrared reflectance spectroscopy (NIRS) methods for quantitative analysis of cereal grains (3) and animal feedstuffs (2), numerous attempts were made to adapt the technology for the prediction of commercially important characteristics of greasy wool (4-7, 9-13, 15-17, 19-23, 26, 27, 35,and 43) and mohair (31, 38, and 40). Direct prediction of wool base (WB) and vegetable matter base (VMB) of greasy wool by a rapid, non-destructive, inexpensive, instrumental method have been the ultimate goals of multiple research efforts since the mid-1970's. Current wet chemistry methods (45 and 47) require duplicate subsamples of greasy wool cores to be washed, dried, and weighed after which subsamples of the cleansed cores are further gravimetrically analyzed for residual grease, inorganic ash, and vegetable matter. The methods are time consuming, labor intensive, and quite expensive. The expectation was that NIRS would provide a non-destructive, faster, less expensive alternative. There was also an expectation that other valuable data might be generated concurrently with the yield data.

After 30 years of research and development, NIRS continues to (only) "show promise" as a test method for WB and VMB since to date, calibration equations that are sufficiently accurate, precise, and robust to accommodate grease wools from different regions and across production years have yet to be developed. That is not to say the technology has not been usefully employed in some wool technology applications. Since the mid-1980's, NIRS technology developed in New Zealand for monitoring residual grease and moisture (41, followed later by medullation (24,28, 29), color, fiber diameter (37) and bulk (33)) in freshly washed wool has been a standard fixture in many scouring plants. A NIRS technique (9,20, 32,and 34), has been elevated to a standard method as an alternative to the solvent extraction method for determining residual grease as part of the standard yield test. Similarly, the ash determination part of the standard yield test also has a proposed NIRS counterpart that is under examination (44). Although the NIRS technology has been available for some time to provide rapid, relatively inexpensive measurements of moderate accuracy for WB, VMB, and average fiber diameter (AFD), it has generally not been used even though it would be quite satisfactory for guidance reports used for animal selection or for lot building.

Numerous factors have prevented NIRS techniques from attaining the accuracy required of a test method for WB and VMB. The earlier instruments (optimized for measuring moisture, protein, starch, and lipid in cereals and animal feed) were designed to measure reflections at a relatively few (5-7) specific wavelengths. Two different instruments were required if reflections in the visible spectrum were also to be considered. As instruments capable of measuring at more wavelengths came to be used, the computing power was not available to conduct the necessary complex calculations in an acceptably short time. Heterogeneity of the product (within a sample) that could not be corrected by the normal homogenizing procedures of grinding (cf, other products that are now routinely measured with NIRS, e.g., forages, grains, etc.). Small sample size measured because the infrared rays only penetrate ~ 2mm into the exposed sample. The high cost and investment in time of scanning and analyzing the vast numbers of greasy wool samples that are undoubtedly required in the calibration equation to represent the complete ranges and all permutations of breed, fleece portion, WB, VMB, vegetable matter type, AFD, medullation, crimp, region, season, year, etc., so that "unknown" wools can be accurately predicted. And lastly, the inability to transfer a calibration equation from one instrument to another.

So, what has changed? For some time, spectrometers have been available that are capable of measuring and recording reflections at all wavelengths in both the visible and near-infrared ranges of the spectrum in a few minutes. Fast computers are now available that permit the almost instantaneous solution of very complex calculations. Relatively large surface areas of a sample can now be analyzed because of the development of sample transport mechanisms and larger sample holders. New methods of calibration (e.g., WinISI Local) have been devised that require thousands of samples in the calibration data base though relatively few spectrally close calibration samples might be used to predict an unknown. And finally, methods have been developed for successfully transferring calibration equations from one instrument to another. So all that is now required is a commitment to scan and measure a large number of greasy wool samples that represent the very broad cross-section of U. S. wool types. That commitment has been made by this research group. This report represents progress to date.

Methods

A near-infrared reflectance spectrophotometer (Feed and Forage Analyzer Model 6500M, Foss North America, Eden Prairie, MN) fitted with a transport mechanism and using a customized sample holder (scanning area = 82 cm^2) was used to obtain spectra (at 2 nm intervals in the range 400 to 2498 nm) of 427 core samples (in duplicate) of greasy wool. Twenty-five scans were averaged for each of the duplicate subsamples. The core samples were supplied and had previously been subsampled and analyzed using standard methodology (45 and 48) by Yocom-McColl Testing Laboratories, Denver CO. The samples represented a broad cross-section of U.S. wool production. WinISI II software (version 1.04, Infrasoft International, Port

Continued on next page

Near-Infrared Spectroscopy

Continued from previous page

Methods

A near-infrared reflectance spectrophotometer (Feed and Forage Analyzer Model 6500M, Foss North America, Eden Prairie, MN) fitted with a transport mechanism and using a customized sample holder (scanning area = 82 cm^2) was used to obtain spectra (at 2 nm intervals in the range 400 to 2498 nm) of 427 core samples (in duplicate) of greasy wool. Twenty-five scans were averaged for each of the duplicate subsamples. The core samples were supplied and had previously been subsampled and analyzed using standard methodology (45 and 48) by Yocom-McColl Testing Laboratories, Denver CO. The samples represented a broad cross-section of U.S. wool production. WinISI II software (version 1.04, Infrasoft International, Port Matilda, PA) was used to transform spectral data and calculate prediction equations and expected levels of precision for wool base (WB), vegetable matter base (VMB), average fiber diameter (AFD), SD and CV of fiber diameter and prickle factor (PF, % of fibers > than 30 microns). The SEP and R^2(P) values for the predictions of the validation set were obtained by using a randomly selected half (~200) of the spectra to calculate a calibration equation that was then used to predict constituent values of the other half (actually 207) of the samples.

Results

The means, SD and SE and r^2 values for calibration (SEC) and prediction (SEP) are presented in Table 1. The SEP contains error that results from both lack of accuracy and lack of precision. Errors involved with the manual or laboratory method are embedded in the NIRS result. Consequently, SEP will always be higher than SEC. The SEP of WB for the commercial wool core samples (1.92%) is approaching the SED (~1%) for duplicate subsamples (150 g each) washed in the lab. The SED determines the upper limit of precision (i.e., r^2) of NIRS analysis. The slope of the line between the predicted and lab measurements for WB is actually 1.00 indicating that the NIRS procedures have a good degree of accuracy. NIRS may soon provide a low cost, rapid estimate of WB. However, with the current method, VMB is not being accurately predicted. The other four variables being measured using NIRS' ability to distinguish particle sizes (i.e., AFD, SD, CV, and PF) are being predicted quite well but not with the degree of accuracy that is being attained using instruments and methods (46 and 48)developed specifically for making these measurements. However, a less accurate estimate of fiber diameter parameters that is obtained inexpensively and concurrently with an accurate wool base estimation would have some utility, e.g., in animal selection.

Three approaches are being investigated to reduce SE, increase r^2 values, and generally obtain more accurate predictions: 1) repeating some of the lab analyses on a selected population of subsamples that were actually scanned, 2) further homogenizing samples before scanning using a mini-corer (2mm diameter) and 3) when enough calibration samples have been measured, using the WinISI Local method of calibration. The potential is present for the precision of the NIRS technique to exceed that of the standard lab methods. When the accuracies between NIRS predictions and lab values are equivalent, the limit of NIRS will have been reached.

Constituent	N(C)	Mean	SD	SEC	R^2(C)	SEP (N=207)	Slope	R^2(P)
WB, %	199	45.8	4.07	1.45	0.87	1.92	1.00	0.77
VMB, %	195	1.84	0.75	0.65	0.25	0.87	1.38	0.22
AFD, um	202	23.5	3.09	0.66	0.95	1.31	0.90	0.83
SD, um	202	5.34	1.15	0.31	0.93	0.50	0.90	0.83
CV, %	204	22.4	2.18	1.10	0.74	1.34	0.89	0.66
PF, %	200	14.0	14.5	3.28	0.95	6.36	0.93	0.83

Table 1. NIRS calibration and validation statistics for commercial greasy wool cores.

Breeds

Continued from page 22

deserts, swamps, snow, etc. Of the 35 percent that can be devoted to agriculture, less than one-third (or about 10% of the total land area) can be cultivated and produce plant products that the human can digest. The remaining two-thirds of the world's agricultural land is covered by grass, shrubs or other plants that only ruminant animals can digest.

Thus, the inefficiency of animals is not a major concern since they represent the only way these plants can be converted to human food. As the human population of the world increases, it is likely that we will be forced to depend more and more on ruminant animals to meet the increased demands for food. Thus far, nothing has been said about monogastric animals. It is true that swine and poultry can be competitors with the humans for food if they are produced by the intensive confinement systems widely practiced in the developed countries. In fact the highest proportion of feed grains and other concentrates, such as oilseed meals, fed to livestock in the United States are fed to swine and poultry. Current grain prices make this profitable. This obviously could change if grain prices increase in the future. However, the high reproductive rate and favorable feed efficiency of swine and poultry would keep them as important contributors to the diets of humans.

http://www.ansi.okstate.edu/breeds/

Aussie Research—RIRDC

Rural Industries Research & Development Corporation

Start Date: 9-Jan-02
Finish Date: 9-Jan-04
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Objectives: This project will facilitate the sustainable economic development of the cashmere industry, by developing new preparation and processing procedures based on objective benchmarks, determining and verifying current production levels of flocks of cashmere goats and determining the current economic potential for harvesting flocks of crossbred Australian cashmere flocks.

Current Progress: An Advisory Committee was established to oversee the establishment and running of this project.

Following the advertising of this project, 17 cashmere producers indicated interest and 12 committed to begin work. Producers have been measuring the live weight of yearling and other goats from December 2002 until shearing in mid 2003. The extensive drought has impacted on the operations of most cashmere producers with many animals being culled and some weighings being delayed or missed. Producer State of origins are NSW, Vic, WA and Qld.

A progress report was circulated to participants with a graph of live weight changes determined for each property. The first shearing data will be collected on June 2. Work on processing benchmarks has been delayed due to the establishment of a new dehairing company in Australia. The new company has indicated a strong desire to be involved. Samples of processed cashmere are being collected as benchmark samples prior to more controlled studies later in 2003.

http://www.rirdc.gov.au/comp03/rnf1.html#_Ref45522323

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"They tell you that you'll lose your mind when you grow older. What they don't tell you is that you won't miss it very much."

...Malcolm Cowley

"Always be nice to those younger than you, because they are the ones who will be writing about you."

...Cyril Connolley (1903-74), English writer, critic

"Keep the faith. Have a vision. Dream the dream. Know where you are going and what you hope to accomplish. Customize your vision to fit your personal life style and its requirements."

...Sylvia Tomlinson, Meat Goats of Caston Creek

"The authors of national development plans and international aid projects are not so starry-eyed today as they were ten years ago; the cow dairy farm in the desert and the steel mill in the jungle are giving way to reality and goat improvement schemes.."

...David Mackenzie, Goat Husbandry (1965)

The Deadlines:

Articles, photographs, advertising and other information submitted must be received by the 25th of the month prior to magazine issue date.

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

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