PRESIDENT’S MESSAGE

Dear ABLA Members:

I hope you had a successful and bountiful lamb crop and your pens are full of healthy lambs.

A new season brings new opportunities within our breed to grow and expand. Now is the time to share your enthusiasm about your Border Leicesters with your friends and neighbors and tell them how easy and fun they are to raise. I have been around sheep all my life and have lambed several different breeds. None of them compares to the ease and mothering ability of the Border Leicester. A Border Leicester ewe knows how to get the job done and is a beauty to behold as she nurtures her lambs toward maturity.

I’d like to encourage you to participate in several up-coming activities. May 7 & 8 is the famed Maryland Sheep and Wool Festival. There is always an excellent show and a nice crowd of breeders on hand to visit with. Nancy Weik of Virginia is organizing a social gathering following the show near our breed display. Come on over for good fellowship and to talk the Border Leicester business.

This is northeast Nebraska, about 70 miles from South Dakota and the same distance to Iowa. It’s corn and soybean country plus cattle feed yards. Sheep are kind of scarce so I get quite a bit of slow-moving traffic when the flock is close to the road.

I retired last July after more than thirty years as a loan officer and then a real estate appraiser for USDA. Now I have a home office and do part-time real estate appraising. The best part of retirement is not having to do chores in the dark twice a day.

After living in town for a number of years, I bought the first 160 acres of this farm in 1989. I started with a small flock of sale barn ewes and just kept increasing the commercial flock and converting cropland to pasture until every acre ended up in grass, including an adjoining 40 acres I purchased later. I’ve always used my own replacement ewe lambs and selected from good milkers, easy lambers, multiple births, and some conformation. I try to run a low-cost operation. The pastures are divided into ten to fourteen acre paddocks which are watered with a cheap watering system. I like rotational grazing for better grass management. My fences are all woven wire so I can leave and know they’ll be not escaping while I’m gone.

The flock has been built up to 240 ewes. Additionally, I kept back 50 ewe lambs, which is contrary to the main criterion for being a successful shepherd. That is, when they’re high priced sell them and when they’re cheap build up your flock. I made up a couple of excuses to get around that rule!

My program is to cut about 45 acres of prairie hay each year for winter feed and keep the ewes in condition with shelled corn, if necessary. My turn-out date for rams is December 4th, which makes lambing begin about the last of April or a couple of weeks after grass starts. The only time I use a barn is when I have a ewe with problems. The lambs stay on until fall when they are weaned and fattened to about 140 lbs on corn and soybean meal. Corn this year cost me $0.033/lb and they ate free choice prairie hay.
Greetings from northern Vermont, where spring is really trying to take hold! The spring peepers have been singing for nearly a week now; the paddocks are drying out; and lambs are once again running races up and down the barnyard.

In this issue, we have gathered an assortment of articles, including several on health topics which are relevant to this season. Be prepared for weaning time by reading Susan Schoenian’s article on Mastitis. The knowledgeable vets at Pipestone Veterinary Clinic have again supplied us with important information - watch for signs of dirt-eating and, for your health, don’t be kissing those cute lambs!

Linda Koeppel shares some ideas for keeping those special old girls going and Nancy Barnett pays tribute to one of hers.

After you’ve read Linda’s article and are ready to jump into the show ring, consider entering the National Western Stock Show next year. Archie Murray says it is a great show and “beats NAILE 10 to 1! You’ll find the show results from this year’s National Western on page 12.

Please note the details about the National Sale in Springfield, IL, June 17-18 and plan to attend. It should be a great time! And it’s never too early to start thinking about the National Show. That event will take place September 9-11 at the Wisconsin Sheep and Wool Festival.

The ABLA Board of Directors has voted to make money available to shows which include Border Leicesters. Fill out a request form on the back page and send it in!

On the scrapie front, there has been a recent focus on “breeding for resistance”. In this issue, we offer some articles representing different opinions on that topic. Our own Di Waibel shares information on genotyping; Dr. Goelz gives a genetics primer; and Stephen Shafer asks us to consider the cost of manipulating white-faced genetics. Please do the research and decide for yourself whether it is a reasonable option for scrapie eradication.

And lastly, in response to members’ requests for information on OPP, Dr. Cindy Wolf shares her well-written article on OPP testing and control.

Future newsletter plans include an issue focusing on ways to make money from our sheep. We would like to include stories and ideas from those of you who have had some success. Please consider contributing your stories, even if it is just a long phone call with one of us taking notes.

On another note...last year Sue wrote about her best ram that had his vermin appendage snipped off (see Spring 2004, page 8). We are happy to report that his success breeding ewes far exceeded any expectations of vets and other seasoned shepherds. He bred 6 of the 7 ewes he was given. He probably would have even bred the 7th if he had been left in a little longer. Unfortunately, this winter he was injured by another ram and had to be put down. Out of his nine lambs this spring, there are three very nice ram lambs to ensure that his genetics will continue in the flock.

We hope you enjoy this issue and that you will be a better shepherd for having read it. Please be thinking about things you might share in a future issue so we can all continue to learn. We welcome your opinions and ideas.

Hope to see some of you in Maryland!

~ Nancy Smith & Sue Johnson
Mastitis
By Susan Schoenian
University of Maryland Cooperative Extension

Mastitis is one of the more common health problems affecting sheep and goats. Severe cases can result in death of the ewe, but more often it takes its toll in the form of treatment costs, premature culling, and reduced performance of lambs and kids.

Mastitis is an inflammation of the mammary gland (udder). It can be caused by physical injury or stress or by bacteria which invade the mammary gland. The bacteria which are known to cause mastitis in cows, sheep, and goats are Streptococcus sp., Staphylococcus sp., Pasteurella sp., and coliforms, such as E. coli.

Mastitis is usually observed shortly after lambing until the post-weaning period. It can take on several forms. Clinical mastitis (chronic or acute) involves physical changes in the udder. The udder becomes swollen and warm, sometimes painful to the touch. In severe cases, blood supply to the udder is affected and a blue discoloration may result, hence the name "blue bag". Ewes affected with mastitis become feverish, go off feed and become depressed. They may hold their rear foot up, as if they are lame, and refuse to allow their lambs to nurse.

Ewes with sub-clinical mastitis usually appear quite healthy, but there is a reduction in their milk supply and development of lumps (scar tissue) in their udders, hence the name "hard bag". This is probably the most "serious" form of mastitis to the producer, since it often goes undetected. Keen observation is necessary to pick out these cases and prevent the potential damage.

Ewes which show signs of mastitis should be separated from the rest of the flock and treated with antibiotics. It may be necessary to bottle feed their lambs. Treatment usually involves intramammary infusions of antibiotics and systemic antibiotics. It is helpful to collect milk samples from affected ewes to determine the main bacteria involved and the correct medication to use. Treatment should be continued for several days until the clinical signs have gone away.

The udders of ewes should be examined after weaning and before breeding. Ewes with hard lumps in the udders should be culled, as these ewes will become increasingly poor producers of milk. Ewes that can only nurse one lamb should be culled from the flock. There is some evidence as to a genetic component to mastitis.

Mastitis can be controlled with good management and sanitation. Bedding in drop pens, mixing pens, and lambing jugs should be clean and dry. There should be good drainage around the barn and lots. Animals should not be overcrowded. The incidence of mastitis is greater in closely confined flocks.

Preventing respiratory disease in lambs may help to prevent mastitis, as Pasteurella hemolytica, the bacteria that causes baby lamb pneumonia, is a major cause of ewe mastitis. Soremouth is another contributing factor, as lambs with mouth lesions can infect their dams and any other ewe they may nurse. The OPP (ovine progressive pneumonia) virus may be involved in cases where both halves of the udder are affected.

Weaning lambs from ewes whose milk production has not declined sufficiently puts severe stress on the udder; therefore proper management at weaning is also necessary to prevent mastitis. After weaning, it is advisable to restrict the feed and water of ewes for 1 to 2 days to rapidly decrease their milk production. Some producers will reduce water and all feed 1 to 2 days before weaning. Others will remove grain from the ration 3 to 7 days before weaning. Delaying weaning until after milk production has decreased sufficiently will lessen the occurrence of mastitis.

~ © 2002 Maryland Small Ruminant Page. Reprinted by permission of the author. Susan Schoenian is a Sheep & Goat Specialist with the University of Maryland Cooperative Extension.

Submission deadline for the Summer issue: June 15, 2005
This time of the year we frequently get phone calls about lambs eating dirt along the edges of the barn. This is not uncommon in lambs that are 4 to 10 weeks of age, and is most likely due to either Overeating Disease (Type D Clostridium perfringens) or a lack of minerals in their diet. I have seen an entire row of lambs lined up along a fence or edge of the barn where there is a good supply of fresh black dirt. Most commonly, these lambs are craving the dirt because the mucosal lining of their intestinal tract is irritated from the combination of a high grain diet and bacteria in the digestive system. The typical history is that the flock has fast growing lambs on a high concentrate diet. This is also very common in feedlot lambs that are being fed a high percentage of grain.

We see more Type D overeating and cases of polioencephalomalacia (lack of vitamin Bl) every year as sheep producers feed higher levels of grain rations and less amounts of roughages such as hay. You must remember that the sheep is a ruminant animal that evolved over the centuries by eating grass and roughages. When we feed grain-based rations to lambs, they cause the bacteria in the rumen to change to bacteria that can live in a more acidic environment. Grain diets lower the pH of the rumen due to the fermentation of the starches and sugars found in the grain. By contrast, the feeding of roughages like hay tends to raise the pH and buffer the rumen. Also, the fiber in the hay tends to stimulate rumen and intestinal movement to help aid in the digestive process. The reason we see more polio in grain fed lambs is due to a combination of the lower pH destroying the enzymes that are part of the thiamin (vitamin Bl) pathway. Green leafy material is the best source of vitamin Bl.

Lambs that are fed high grain diets will, over a 3 to 4 week period, become acclimated and their rumen pH will become more acidic. The higher level of acid will decrease both rumen motility and movement in the intestinal tract. Type D overeating occurs when the fermented grain and sodium Clostridium perfringens bacteria flow from the rumen into the small intestine releasing a toxin, which damages the mucosal lining of the small intestine.

One of the most effective tools producers can use to prevent losses to type D overeating and polio is to offer fresh, high quality green alfalfa to the lambs on a daily basis at the rate of 1/4 to 1/2 pound per day.

The other critical tool is vaccination with a Clostridium perfringens Type D bacterin toxoid at 5 weeks, 8 weeks, and 10 weeks of age. All type D vaccines will recommend only two shots, but due to the real world and timing of the shots, I find it is much more successful to give a series of three shots. The majority of the lambs will receive two of the shots within the correct age bracket. The vaccine is fairly inexpensive. The actual labor involved with catching and handling the lambs seems to be a limiting factor.

For problem flocks, other things that will help in reducing death losses are using yeast in the feed, which is an excellent source of thiamin, and using a flavored rumen buffer such as sodium bicarbonate.

Lambs that have Type D are found dead. They can be normal in the morning and dead within 12 hours. Necropsy lesions can be obvious or very subtle. All sudden-death lambs should be posted by a veterinarian. Lambs that have polio are often found lying on their sides, paddling their feet much like they are running a race. Treatment of polio lambs with 10cc's of vitamin B complex and 5cc's of Predex 2x daily can be very rewarding. Polio lambs require removal of the brain for a necropsy diagnosis.

If you are going to “push” your lambs with high concentrate diets:

1. Have a good vaccination program.
2. Change rations slowly over a 2 week period.
4. Work with a nutritionist.
5. Necropsy all sudden deaths.

A lamb’s rumen activity begins to develop at about six weeks of age. Feed them like a ruminant. Many producers are feeding lambs only high concentrates and wonder why they have polio and Type D deaths. If you feed your lambs high concentrates you need to have a high quality program and a solid understanding of rumen nutrition.

Zoonotic Diseases
By J. L. Goelz, DVM
Pipestone Veterinary Clinic

A zoonotic disease is a disease that can be transmitted from animals to humans. Generally speaking, the occupation or hobby of raising sheep is quite safe. Certainly we, who raise sheep, do not suffer the danger or injuries as cattle or horse owners risk. However, there are a handful of diseases which you can acquire from sheep. It is important that you have knowledge of these diseases to protect yourself and your family. Additionally, the medical profession often is not well informed about these diseases, as they rarely encounter them. The following is a list of diseases and circumstances that lead to human infection.

Soremouth (Contagious Ecthyma, Orf)

This viral disease causes lesions on the lips of naive sheep. It can infect humans through a break in the skin. Typically, the area will be reddened and inflamed with painful swelling around the lesion. It is critical that if you suspect human infection from the soremouth virus that you inform your medical doctor. I often recommend bringing information along to the medical doctor since some doctors have never heard of soremouth, and some may only know it by the name orf, contagious ecthyma or sheep parapox virus.

Cryptosporidia

Cryptosporidia is a very small internal parasite of the intestine that causes diarrhea in lambs 1-4 weeks old. The ability of Cryptosporidia to cause disease is directly related to the immune system of the animal or person. Young or immuno-suppressed shepherds are at greatest risk. Human infection occurs by ingestion of the oocysts that are present in feces. Washing hands in warm soapy water is the easiest and best way to prevent infection with cryptosporidia.

Salmonella

While Salmonella is not as common in sheep as it is in poultry it can occur. Salmonella can infect humans in the same manner as cryptosporidia. Salmonella produces high fever and diarrhea in both sheep and humans. Shepherds can get infected by handling or treating infected sheep. Washing hands in warm soapy water or in disinfectant after treating sick animals will prevent infection.

Toxoplasmosis

Toxoplasma gondii is a small internal parasite of cats. Young cats can shed the parasite in large numbers in their feces. Sheep become infected by eating feed or water contaminated with cat feces. Infected sheep do not become visibly ill; however, if pregnant they can abort. The fetus and placenta contain high numbers of Toxoplasma and should be handled with gloves. Generally, infection in humans results in a mild illness, but Toxoplasma can cause abortion in humans. Keeping cats from using feed as a litter box is the easiest way to prevent Toxoplasma abortions in sheep. Keeping pregnant women out of the lambing barn and away from cat litter boxes is critical for pregnant women.

Q-Fever

Q-Fever is a disease caused by Coxiella burnetti. This is a very small reckettsial organism that is harbored by normal, healthy sheep. Infection in humans is generally mild, causing flu-like symptoms; however, serious sporadic heart or respiratory complications can occur. Q-fever is an occasional cause of abortions in sheep and aborted lambs and placenta contain high numbers of organisms. Care should be taken during lambing season by wearing plastic sleeves when assisting ewes lambing and handling dead or aborted lambs.

Campylobacter

Campylobacter infection in humans is the number one cause of food-borne illness, generally from consuming undercooked meat. Many species of mammals and fish can carry Campylobacter asymmetrically in their intestine. Campylobacter infection in pregnant sheep is one of the major causes of ovine abortions. Infected lambs and placenta contain high numbers of the organisms and shepherds can be infected if they are not careful in handling aborted feti and placenta.

Tetanus

Tetanus is cause by a toxin produced by an anaerobic bacterium called Clostridium tetani. Clostridium tetani is present in high amounts in soils where herbivores (including sheep) are housed or pastured. Infection in humans is by contaminated wounds, particularly puncture wounds. Human vaccination is very effective in preventing tetanus. Tetanus is not contagious. Infection in humans cannot occur from contact with an animal infected with or dying of tetanus. It must come from contaminated wounds.

Ringworm (Dermatophytosis)

Ringworm is a fungus that can infect sheep and humans. Infection in sheep is common in show lambs and is often referred to as club lamb fungus. Ringworm can be present in low levels in normal sheep. Infection in humans comes from contact with sheep or with sheep equipment such as brushes, blankets, etc. Human infection will generally be on the hands or arms, but is also possible on the face and neck. The lesion in humans appears as a red, thickened rash. Young and immuno-suppressed humans are most susceptible.

Obituary for Sandra J. Russell

Sandy Russell, 60, of Cazenovia/Willow Township, Wisconsin, died peacefully at her home on Thursday, February 17, 2005. Born July 3, 1944 in Aurora, Illinois, she was the daughter of Arthur and Edith (Marquardt) Benson.

Sandy was formally educated at Northwestern University in Chicago, but considered herself a student of life. She will be remembered as a farmer, a shepherd, an artist, a teacher and a friend.

She started raising sheep as a youth in Illinois in 1956 and for the past 25 years raised and managed one of the premier flocks of Border Leicester sheep in the country. Sandy was a director of the Wisconsin Sheep Breeders and the recipient of the Wisconsin Master Shepherd Award—Purebred Division in 2000. She was also an advocate and mentor for both new and experienced shepherds, many of whom relied on her wealth of knowledge and expertise. She was a member of the Madison Area Technical College Sheep Production Program for many years and brought her 'sheep sense' and thoughtfulness to monthly classes in Columbus, WI. Her sheep earned numerous championship awards at top fairs and sheep shows all over the country.

In addition, Sandy was as accomplished artist who was a forerunner in the revival of Scandinavian decorative painting in this country. She felt she was entrusted with lovely homes all over the country and lucky to "embellish them with decorative painting of pretty much my own choice."

Homes she decorated have been featured on the covers of Country Living, Better Homes and Gardens, Architectural Digest and a book describing the Loran Nordgren Swedish residence complex in Wisconsin, The Scandinavian Look.

She taught classes in Scandinavian painting at Nordskedalen’s Skumrus Heritage Farm in Coon Valley, Wisconsin, and was a featured exhibitor at the Swedish American Institute in Minneapolis.

Sandy owned and managed several arts and antiques shops in Wisconsin and Illinois, including the Guild House in Blue Island, Illinois. She excelled in furniture, art and antique restoration.

She is survived by her son Erik of Montana, her mother Edith Benson of Richland Center, a brother David (Marsha) Benson of Houston, Minnesota, a sister Nancy Niles of Sandwich, Illinois and many nieces and nephews. Sandy leaves behind many good friends and was very appreciative of those who stood by her during her final year. She was preceded in death by her father in 2001.

A memorial service celebrating Sandy’s life was held Saturday, March 5, 2005 in Richland Center.

Sandy would like us all to remember Loran’s Rule—"The first thing is to last."

~ Greg Deakin, ABLA President

In June, our breed will host its first National Sale. We will be joining eight other breeds holding National Sales on the Illinois State Fairgrounds. They include Lincolns, Cotswolds, Polypays, Shropshires, Oxfords, Montadales, Cheviots, and St Croix. Information about our National Sale can be found on page 13 of this newsletter. Approximately 30 head of white and black Border Leicesters will be offered in the sale.

Many other shows will be held throughout the United States which I encourage you to attend. Whether you compete with your animals or just go to watch, be a participant and support our breed.

Plans are in the works for our National Show to be held in conjunction with the Wisconsin Sheep and Wool Festival, September 9 & 10 in Jefferson. Details about the warm welcome being given to us by the Wisconsin Sheep and Wool Association to attend their event will be forthcoming.

Our breed is growing and one of the real testaments is our growing numbers of Border Leicesters being registered and transferred by Associated Registries. Our number of registrations increased from 491 in 2003 to 642 in 2004 - a 31% increase. The number of Border Leicesters transferred increased from 177 in 2003 to 208 in 2004 - a 17.5% jump. These are healthy numbers which I hope continue.

Keep your paperwork up, stay active, and let the public know how you feel about Border Leicesters!

~ Greg Deakin, ABLA President

Late Breaking News

ABLA is now officially recognized as a non-profit organization by the IRS.

Sandy Russell with her Grand Champion Ewe at NAILE 1995.
Unique Offer Made to Border Leicester Breeders by Super Sire Limited

A limited number of Border Leicester breeders will be offered free AI services, as well as semen from some of the top Australian and New Zealand rams under Super Sires Limited offer.

To qualify, the flock must be enrolled in the USDA Volunteer Scrapie Program. In exchange for the free AI services and semen, a producer would have to agree to have some of their Border Leicester ewes inseminated with semen provided by SSL. The lambs resulting from the AI would become the property of SSL at weaning.

For more details, please contact Martin R. Dally by telephone at (707) 678-4942 or by e-mail at mdally@toprams.com.
Shepherds and Old Sheep

By Linda Koeppel
Cape House Farm

We have all been faced with the problem of aging sheep, particularly ewes. For many shepherds, economic and space considerations require aggressive culling as ewes reach middle age to optimize the productivity of the breeding flock. Others, like ourselves, have relatively small flocks and become attached to specific animals as they age. Our first sheep arrived in 1990, and over the last few years we have found ourselves dealing with the aging difficulties of sheep born in 1990-1993. We decided that we would make a commitment to animals that had been productive for us for a decade. Some of the things we did worked, others failed. We offer the following advice for those inclined to establish an assisted living corner in their barns.

First, there is the natural selection process. Not all sheep are created equal. As much as we try to make good decisions in selecting lambs as replacements or in purchasing new ram or ewe bloodlines, some sheep are productive, affectionate, good mothers, and easy to manage, while others are not. Sheep with bad traits simply don’t stay in anyone’s flock for ten years. Those who stay have the good traits and the flock is likely populated with their daughters, granddaughters, great granddaughters, great-great … you get the idea. Those who do not stay have the bad traits and the flock is likely populated with one’s daughters, granddaughters, and great-granddaughters. Sheep with good traits are not. Sheep with bad traits usually don’t stay in anyone’s flock for ten years.

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Many older sheep often lose most or all of their teeth. They are no longer able to graze effectively. Nor can they chew hay provided in feeders. Even when soft, leafy alfalfa is provided, they cannot compete with younger, more aggressive ewes at the feeders. If you have several who need special care, they can be housed and fed in a separate pen. If there is only one, we set up a hinged lambing pen at feeding time to keep the younger ones away from the old one’s food.

We give the old one our regular lamb feed mix, top-dressed with cracked corn and/or 15% lamb pellets. We also try to give alfalfa hay leaf – we take a flake of hay and pull it apart and shake it in a wheelbarrow to separate leaf from grass. We feed the leaf to the old one and the remainder to the lambs. Amounts vary – observe the rumen and check the fat covering over the spine and adjust feed as necessary.

Fresh water is important. We put a bucket of clean fresh water in the pen with the old one at each feeding.

Vitamins and Minerals

As with all sheep, free choice vitamins and minerals are important to the older ewes. We add ZinPro 40 to our mineral mix, and extra A and E to our lamb grain mix. Cost is minimal; a 50# bag of zinc lasts a long time and can be shared with other sheep.

Mobility

Arthritis affects sheep as well as people. Achy joints (as well as bad teeth) mean older sheep spend less and less time moving around the pasture and more and more time lying around the barn. Trimming feet monthly reduces pressure on arthritic joints. For one animal with especially advanced arthritis, our vet prescribed a reasonably inexpensive medication that we inject about every 7-10 days to reduce pain and inflammation.

Our efforts to care for a nearly 15 year old ewe who has always been a family favorite ended recently. Even at that age, her fleece, conformation, and breed type amazed us. She was bright, beautiful and made me smile every day. This past April she gave us a handsome ram lamb who made me smile every day. This past April she gave us a handsome ram lamb who we will show this spring in Maryland. Her genetic qualities, and those of ewes like her, will keep the Border Leicester breed going strong for the future in our flock and many others. Shouldn’t we, as shepherds, spend a little extra time now so that future breeders can enjoy the benefits of these beautiful sheep? When the time came we let her go and will be ever grateful to have had the opportunity to care for her. Her name? “Baby” … Of course.

A much loved and appreciated ewe, Baby was the mother, grandmother, and great-grandmother of many champions.

Happenings at Maryland Sheep and Wool Festival
May 7 & 8, 2005

Bill and Linda Koeppel recently purchased a treasure on Ebay - a copy of the 1949 Flock Book of the British Society of Border Leicester Breeders. They will bring it with them to Maryland Sheep and Wool Festival and will be happy to share it.

They will also have a copy of The World of Coloured Sheep, published in conjunction with the 6th World Congress on Coloured Sheep that was held in New Zealand in November of 2004. The book includes articles that provide a world-wide perspective on all breeds of colored sheep. Bill Koeppel is the author of the article on Border Leicesters. Please stop by their sheep pens at Maryland and say hi.

There will be an informal gathering of the ABLA membership and other interested people after the show on Saturday, May 7th. Most likely we’ll gather at the ABLA Breed Display. Refreshments will be served. This is a great time to meet other breeders and share your thoughts about the organization. Greg Deakin, president of ABLA, will be there to participate in the discussion. Hope to see you there!
**In Memory of Queenie**

by Nancy Barnett  
Barakel Farm

Queenie, or Queen Bee as she affectionately became known, was our first registered Border Leicester ewe. She came to us through a complicated set of circumstances and spent her last years with us.

We decided on Border Leicesters after visiting with Jim and Avelene McCaul from Potosi, Missouri back in 1985. Jim and Avelene had a large flock of Border Leicesters and we purchased a purebred white ram lamb we named Beau. While there, Avelene offered to sell us a white yearling ewe named Freckles. We decided to buy her and would return for her later in the year. I got a letter from Avelene asking me to let her keep Freckles and instead buy Mollie a 3/4 Border Leicester yearling ewe. How little did we know that we had made a very good decision.

We took Mollie home and bred her to Beau and sold her first colored lamb, a ram to some people in Brookfield, Missouri. These same folks later purchased Freckles with her ram and ewe lamb in 1987 after the McCaul’s decided to thin out their flock. I contacted the buyer and tried to buy the colored ewe lamb, but couldn’t afford the $350.00 asking price.

As time went on, Mollie produced lamb after lamb, many twins. Freckles met an untimely death with the birth of her second set of twins and the first colored ewe lamb was sold to a large Border Leicester breeder in Cuba, Missouri.

Meanwhile, we had moved to the panhandle of Florida, working for the Air Force. The sheep all went with us, Mollie included. We still wanted to purchase a registered Border Leicester ewe, but they were not available at that time in Florida.

In 1996 we went to the World Sheep Festival in Bethel, Missouri as a vendor and brought along three Great Pyrenees puppies for sale. We did not know it, but the owner of the colored ewe lamb (now a ten year old ewe) ran her through the sale barn and turned down $50 for her. They wanted a puppy, so we traded one of the puppies for the registered ewe and also got one of their registered Border Collie puppies as part of the trade.

At that time we were living in the mountains of North Georgia and the colored ewe became known as Queenie and came home to live there. She was bred to a very good white ram, originally from Canada, known as Alexander. Alexander was registered and we saved him from being shot by his previous owner’s husband, who did not like him. I was able to purchase him for $50 and saved him from being dog food. The next spring Queenie produced white twins; a ram and a ewe, but they lived only three days. The next year she produced triplets, a colored ram and ewe, and a white ewe. The little ram did not survive, but the ewes did and were named Ebony and Ivory. These were her last lambs. She never did breed again.

Queenie’s fleece was always in demand from my hand spinning friends (I spin also) and she lived a pampered life in Georgia. In 1998, we sold the Georgia farm and purchased a small farm in the Missouri Ozarks. Again, all the sheep went with us. Queenie became known for her escape tactics and if there was a way out of a fence, she could find it.

As she became older, Queenie lost one eye due to injury, and then the other went blind also. She was housed in her own small enclosure with a crippled ewe named Ruthie. Ruthie was her seeing eye sheep. As time went on, she became more and more dependent upon Ruthie and she was losing weight. Meanwhile, Mollie died in the summer of 2002.

We had one more move to make for Queenie and she and Ruthie came to live with us in a large old barn south of St. Louis on a farm we are leasing while Bill worked at a new job. We still have the little Alton, Missouri farm (a little rock schoolhouse on 12 Ozark acres). In the winter of 2003, we made a trip back to the old farm to do some clean up work before winter set in. We hired someone to feed and water the stock while we were gone. We returned home that Saturday and found that Queenie had just gone to sleep lying on her side (like she always liked sleeping) and had gone home to her forever pasture.

She leaves behind her daughters, Ebony (whose fleece has won several blue ribbons) and Ivory, grandsons Elmer and Isaac, and granddaughters Babe, Isabella, Emily, and Baby Beatrice. All colored except Babe.

So from one old used up ewe and ram, we now have a flock of eight registered Border Leicesters and are looking forward to the 2005 lamb crop.

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**Lambing 101??**

By Nancy Smith

Recently, I helped my children prepare for their first-ever 4-H Sheep Quiz Bowl. As I read through a list of practice questions, I looked for easier ones that I could direct at the younger children.

“To prevent infections, a newborn lamb should have its navel dipped in what solution?” I asked my 7-year old, Lydia.

She scrunched up her brow and thought hard. “Hmmm, now what was that called?” She struggled to remember. “I know!!” she exclaimed, “Worcestershire sauce!” 😊

Lydia Smith is looking forward to learning more about sheep and showing her first lamb this summer.
What About Showing Sheep? ~ Pros & Cons

By Linda Hansen
Dayspring Farm

Current debate about whether or not to show sheep leaves some shepherds feeling as if no matter what side of the issue they’re on, it’s the wrong side. In the interest of balancing the discussion, let’s consider both sides.

A triangular graph might illustrate the general principal of sheep showing, putting best quality sheep at the top, and the larger population of sheep toward the bottom.

Those few at the top are arguably the best quality of a given breed, competing to be placed by qualified judges at the top of their classes. Ideally, this affirms their characteristics (and themselves) as the best genetic representatives of their breed, and they and their offspring can improve and enhance the larger population.

The positive influence flows down the triangle graph and spreads out at the bottom to improve not only purebred flocks, but commercial crossbred flocks, too. Of course, it doesn’t mean that all other sheep are necessarily inferior. One may safely assume, however, that the consistent winners are high quality.

With that larger picture in mind, following are some of the advantages and disadvantages of showing sheep.

Advantages of Showing

- The shepherd becomes better educated about the dynamics of showing, judging, and their own sheep.
- Some of us have the need to feed our competitive impulses. The resultant satisfaction of doing well is undeniable. As we are challenged to a higher standard - personally and as regards our livestock - we grow.
- Show sheep become tamer with the handling they receive in and out of the ring.
- Assuming a good showing, your breed, registry, farm, sheep, and even your name are showcased. This is a powerful marketing tool. Notice in almost any sheep magazine how many of the ads list the accumulated wins - a sheep resume.
- Showing sheep saves work in other ways, such as finding markets and helping educate because of the built-in publicity it affords.
- Not only is the judge enlightened by your showing, the public and your fellow shepherds are, too.
- For prospective buyers, a show is a prime place to find information about breeds, producers, and breed associations.
- Showing can be fun!

Disadvantages of Showing

- If you suffer from performance anxiety, showing may be an unpleasant experience at best.
- The preparation and the showing require time, hard work, skill, patience, and practice.
- Not only can it be tense for the shepherd, it can be even more stressful for the sheep.
- Assuming you don’t show well, your sheep’s breed, registry, farm, sheep, and even your name are showcased negatively. Although the negative publicity is rarely as potent as positive publicity, it’s important to acknowledge that there is some risk to showing.
- Probably the most common reason for not showing sheep is the stress and health risk to animals. Stress can translate to an animal’s increased susceptibility to disease. It is not uncommon for otherwise healthy sheep to return home with a cough, runny nose, sore mouth, parasites, etc.

Good Sportsmanship

There's a phenomenon about showing that keeps others from wanting anything to do with the ring - the disgruntled loser. Have you known one of them? The judge places Sasha Whiner’s sheep lower than she would like and offers comments that Ms. Whiner can and does vocally and frequently take exception to.

Yes, judges are “judgmental”! Every show ring placing can, however, be an educational event for the wise shepherd. Especially the shepherd who isn’t afraid to ask the top competitors how they prepare for and show. Most are flattered to be asked and generous about sharing their knowledge.

Overall Flock Fitness

As for health issues, there are common sense ways to minimize the risk.

Lessen stress for the sheep:

- Be patient with your animals.
- Be very careful about them overheating (or chilling) when traveling.
- Take the feeders and buckets that they are used to.
- Handle them a lot before the show date and halter train them.
- Get them used to being groomed. Don’t put them on a blocking stand at the show for hours trying to get the pasture off of them - start your grooming at home.

Minimize disease risk:

- Keep your sheep current on vaccinations, de-worming, and recordkeeping.
- Do not take even mildly or suspiciously sick animals to a show!
- When possible, reserve two extra pens on either side of yours so that you have open space between your sheep and those next to you.
- Cover the back (and sides) of your pens so that there is no contact with their sheep neighbors.
- Request that your pen be away from the main walkway to the show ring where other sheep will come into contact with yours.
- When you return home, put your sheep in a quarantine area for ten days before returning them to the flock.

For breed organizations, the “pros” of showing are obvious - the public’s increased interest and knowledge of the qualities of their breed - but the “cons” are more complex.

For example, in 1995 the American Kennel Club installed the Border Collie dog as an AKC recognized breed. Many
trainers and breeders were adamantly against it because it put “physical trait” requirements on a dog that has been known for centuries as a working dog. Up to that point, no one was particularly concerned about the dog’s size, color, or shape. They simply had to be naturally excellent working dogs. The fear was that a working breed would be ruined when its herding ability was no longer the determining factor.

It was not a baseless concern, as this has happened to similar animal breeds over the decades, sheep breeds being no exception.

Original breeds have been “tweaked” to a different size or conformation. Characteristics of a breed that were once highly prized have been bred nearly completely out of some breeds, while characteristics that were once undesirable became quite acceptable. Growers of wool-producing sheep may worry that show standards which focus primarily on size and conformation of the animal will encourage development of a good-looking sheep with an inferior fleece. Breeds that were once renowned for their lambing or milking ability may have that characteristic minimized because it doesn’t show in the ring. (Keep in mind, however, that not all of the changes are detrimental - sometimes they really are improvements!) This, in order to create an animal that shows well?

Surprisingly, many of the general trends in show ring judging are largely dictated by the consumer, albeit indirectly.

While most breed registries encourage the competition of the show ring, still others are ambivalent about it, and yet others, such as the North American Clun Forest Association, have adopted a “No Show” policy in hopes of maintaining the pure goals of their group and the original qualities of their sheep.

Effects of Competition

Competition does interesting things to folks who show, too. Awards - especially money prizes, the hope of increased future income, or fame (even local) - bring out the worst, as well as the best.

The worst side is the occasional unethical breeder who will crossbreed the stock out to another breed in order to “improve” his show flock, registering them as pure-bred. This results in the quick loss of valid qualities of the original breed in order to conform to a show ring standard. Don’t blame the judge or the show; it’s on the breeder who uses this underhanded tactic.

The antithesis is that the show ring standards challenge breeders to grow and show their best. Without shows, some breeds may have simply disappeared, as they would not have had any notoriety.

Seeing that there are points to be made on either side of the debate, it would be narrow-minded to decide that a breed association or a producer is wrong in their decision about showing. There are valid reasons on both sides of the rail, and it should remain an open and informed choice.

~ ABLA member Linda Hansen recently retired from 12 years of livestock judging. She and her husband, Don, have raised sheep for 20 years and currently have a small flock of Border Leicester, Cormo, and colored crossbred sheep. These days, besides being a private music teacher, she keeps busy as a spinner, textile artist, freelance writer, and co-owner of a fiber business - www.bellwetherwool.com.

This article first appeared in the September/October, 2004 issue of sheep!.

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### Easy Lamb Riblet and Onion Soup

*from Sheep Industry News, January 2005*

**A Publication of the American Sheep Industry Association**

1 ½ - 2 lbs. of riblets  
flour  
2 Tbsp. oil  
1 box (2 packets) dry onion soup mix  
6 cups water  
¼ tsp. cumin  
¼ tsp. coriander  
1 can (15 oz.) garbanzo beans (chick peas), drained  
3 medium carrots, diced  
¼ cup chopped parsley

1. Dust riblets in flour.
2. In a 5-quart pan, brown riblets in oil. Drain
3. Add both packets of dry onion soup mix, 6 cups water, and spices.
4. Simmer, covered, 1 ½ hours.
5. Add beans, carrots, and parsley.
6. Continue to simmer 15-30 minutes or until carrots and lamb are tender.
7. Remove meat from bones before serving, if desired.

Serves 6-8. Freezes well.

Recipe and photo courtesy of ASI.
Class #001 - Yearling Ram
1. LL Murray 06-03 Lamar Leicesters of Lamar, NE
2. Tecker 218 Tecker Ranch of Parks, NE
3. LL Murray 2-03 Lamar Leicesters of Lamar, NE
4. Krogman 37K03 Jim Gall of Scottsbluff, NE
5. LL Murray 04-03 Jim Gall of Scottsbluff, NE
6. LL McKinney 16-03 Lamar Leicesters of Lamar, NE
7. Krogman 11K03 Ronald Krogman of White River, SD
8. Krogman 06K03 Ronald Krogman of White River, SD

Class #002 - Winter Ram Lamb
1. LL Murray 8-04 Lamar Leicesters of Lamar, NE
2. LL McKinney 17-04 Lamar Leicesters of Lamar, NE
3. LL Murray 6-04 Lamar Leicesters of Lamar, NE
4. Krogman 04K69 Ronald Krogman of White River, SD
5. Krogman 04K67 Ronald Krogman of White River, SD

Class #003 - Spring Ram Lamb
1. LL Murray 23-04 Lamar Leicesters of Lamar, NE
2. Krogman 04K82 Ronald Krogman of White River, SD
3. Krogman 04K81 Ronald Krogman of White River, SD
4. LL McKinney 20-04 Lamar Leicesters of Lamar, NE

Class #004 - Pair of Ram Lambs
1. Murray, Lamar Leicesters of Lamar, NE
2. Ronald Krogman of White River, SD
3. McKinney, Lamar Leicesters of Lamar, NE
4. Ronald Krogman of White River, SD

Class #CRC01 - Champion & Reserve Champion Ram
1. LL Murray 8-04 Lamar Leicesters of Lamar, NE
2. LL Murray 23-04 Lamar Leicesters of Lamar, NE

Class #005 - Yearling Ewe
1. Tecker 243 Tecker Ranch of Parks, NE
2. LL McKinney 17-03 Lamar Leicesters of Lamar, NE
3. Tecker 223 Tecker Ranch of Parks, NE
4. LL Murray 7-03 Lamar Leicesters of Lamar, NE
5. LL McKinney 10-03 Lamar Leicesters of Lamar, NE
6. LL Murray 15-03 Lamar Leicesters of Lamar, NE
7. Krogman 12K03 Ronald Krogman of White River, SD
8. Krogman 49K03 Ronald Krogman of White River, SD
9. Kinsel E130 Jim Gall of Scottsbluff, NE
10. Gall 20 Jim Gall of Scottsbluff, NE

Class #006 - Winter Ewe Lamb
1. Gall 38 Jim Gall of Scottsbluff, NE
2. LL McKinney 1-04 Lamar Leicesters of Lamar, NE
3. LL Murray 13-04 Lamar Leicesters of Lamar, NE
4. LL McKinney 2-04 Lamar Leicesters of Lamar, NE
5. LL Murray 5-04 Lamar Leicesters of Lamar, NE
6. Gall 27 Jim Gall of Scottsbluff, NE
7. Tecker 411 Tecker Ranch of Parks, NE
8. Tecker 404 Tecker Ranch of Parks, NE
9. Krogman 04K70 Ronald Krogman of White River, SD

Class #007 - Spring Ewe Lamb
1. LL Murray 19-04 Lamar Leicesters of Lamar, NE
2. LL McKinney 21-04 Lamar Leicesters of Lamar, NE
3. Gall 50 Jim Gall of Scottsbluff, NE
4. Rester 29 Cody Rester of Bennett, CO
5. Krogman 04K84 Ronald Krogman of White River, SD
6. Rester 28 Cody Rester of Bennett, CO
7. Krogman 04K94 Ronald Krogman of White River, SD
8. Gall 43 Jim Gall of Scottsbluff, NE

Class #008 - Pair of Ewe Lambs
1. McKinney, Lamar Leicesters of Lamar, NE
2. Murray, Lamar Leicesters of Lamar, NE
3. Cody Rester of Bennett, CO
4. Tecker Ranch of Parks, NE
5. Ronald Krogman of White River, SD

Class #CRC02 - Champion & Reserve Champion Ewe
1. Tecker 243 Tecker Ranch of Parks, NE
2. LL McKinney 17-03 Lamar Leicesters of Lamar, NE

Class #009 - Best Four Head
1. Tecker Ranch of Parks, NE
2. Murray, Lamar Leicesters of Lamar, NE
3. McKinney, Lamar Leicesters of Lamar, NE
4. Ronald Krogman of White River, SD

Class #010 - Flock
1. Tecker Ranch of Parks, NE
2. McKinney, Lamar Leicesters of Lamar, NE
3. Murray, Lamar Leicesters of Lamar, NE
4. Ronald Krogman of White River, SD
Plan Now To Attend!

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Border Leicester
Sale

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JUNE 17
Judge: Larry Mrozinski
Kouts, Indiana

SALE:
Saturday Afternoon
JUNE 18
Auctioneer: Gary Saylor
Belle Center, Ohio

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National Cheviot Show & Sale
National St. Croix Show & Sale

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Border Leicester Association
Di Waibel, Secretary, Canby, Oregon
Making Sense of Genotyping
By Di Waibel
Mist O’Morn Farm

I just finished reading an article written by Mary Castell of the UK for the book prepared for the World Congress of Coloured Sheep, held in New Zealand in November. A friend of mine was able to attend and brought back wonderful photos and stories of the folks she met there and the sheep she saw. She also brought me a copy of this wonderful book which was prepared for the convention and includes articles from folks all over the world about sheep, wool, and their producers. [This is the same book that Koeppels will be sharing at MSWF, see page 8.]

The article by Mary Castell is about scrapie in sheep….primarily the genetics of scrapie susceptibility. I would guess that anybody who has been raising sheep for any length of time has heard about scrapie. For those of you new to the sheep world, scrapie is a transmissible spongiform encephalopathy found in sheep. A spongiform encephalopathy is a disease in which the brain becomes sponglike. In sheep it is transmissible from one sheep to another sheep. There are no known cases of transmission to man.

The problem with scrapie is there is no known cure for this disease. It is believed that scrapie is most commonly spread from the ewe to her offspring and to other lambs or ewes through contact with the placenta and placental fluids. Signs or effects of the disease usually appear two to five years after the animal is infected but may take even longer for clinical signs to be noticed. The cure in some countries where a case has been diagnosed as positive, is complete disposal of the entire flock.

With more and more information being printed about scrapie and the actual cases being identified, I have become increasingly worried about identification of scrapie carrying animals and protection for my own flock since I sell purebred stock and that is where the main problem lies….breeding animals.

The United States has had the voluntary scrapie program for some time now and just in the last couple of years, the required flock identification program by the USDA. This is all well and good, but still leaves me with an uncomfortable feeling…do I really know where my flock is when it comes to such a nasty disease?

It would appear that the best way to deal with this is to identify those in your flock that are the most resistant to contracting the disease in the first place. It is now possible to do this by genotyping the animals. Since I was still somewhat overwhelmed by all the information I had been gathering, I decided to call the state vet’s office and was referred through them to Dr. Howard H. Meyer, who is a Professor in the Animal Sciences Department, College of Agricultural Sciences at the Oregon State College. His research/teaching areas are Animal Breeding and Sheep Production.

Dr. Meyer kindly supplied the following information which helped me to understand why it is beneficial to genotype our breeding animals to determine scrapie susceptibility. He clarified the biochemical genetics as follows:

“DNA is comprised of nucleotide bases. Each set of three bases comprise a codon which then ‘codes’ (hence the name) for an amino acid. The sequence of bases creates the sequence of codons which, in turn, creates the sequence of amino acids to form a polypeptide chain (i.e. a specific protein). So generally speaking, one gene (comprised of a long string of nucleotide bases) codes for the formation of a specific protein. The protein involved with scrapie is 254 amino acids long (i.e. coded for by 254 codons thus the gene is 766 nucleotide bases ‘long’). Some of the sheep carry altered forms (alleles) of the ‘normal’ gene – specifically alterations at the locations of codons 136, 154 or 171.

For ‘normal’ (resistant) sheep, codon 171 codes for the amino acid Arginine (R) as the 171st amino acid in the chain. For sheep with a specific alteration in codon 171, the amino acid glutamine (Q) is the amino acid placed at the 171st position in the chain. The incorrect amino acid makes the protein susceptible to abnormal folding—this misshapen protein is the ‘prion’. It seems that the triggering mechanism causing the abnormal folding to occur is the presence of other abnormally-folded proteins—hence, scrapie susceptible sheep have no problem unless they come in contact with sheep that already have the abnormally folded protein.

It appears that sheep are susceptible only if they have two copies (are homozygous) for the Q gene which produces the protein susceptible to abnormal folding. Thus both RR and RQ sheep are ‘resistant’ to scrapie. The genetic makeup at codons 136 and 154 also appears to play a role, but one of lesser importance. So, current understanding is essentially that sheep with at least one R allele are quite resistant, but a breeder would like to have RR homozygous sheep so that sale animals cannot ‘insert’ Q alleles into a client’s flock.”

The above information from Dr. Meyer has, for me, presented a good reason to have at least my rams genotyped. If the ram I use has tested as an RR, at least his offspring will be an RQ regardless of what the ewe might be. Some may chose to have all their animals tested immediately, but for others, the expense might be prohibitive to do them all at once. The average cost for the testing is about $15.00 per animal. By good recordkeeping you can eventually have your entire flock in good standing.

Dr. Meyer also gave a web address for a more detailed accounting of the genotyping situation: www.aphis.usda.gov/vs/nahps/scrapie - click on “PowerPoint Presentation on the Use of Genetics to Control Scrapie”.

I have just received a notification from the Oregon Department of Agriculture that Oregon sheep producers have additional funds available for the genotyping of rams. They have also included a list of approved genotyping laboratories, giving the following information:

“Genotype testing for susceptibility to scrapie is a key element of the Scrapie Eradication Program. Consequently, the Animal and Plant

Continued on page 19
A specific gene in the sheep's DNA determines if the sheep will be resistant or susceptible to scrapie. The location of this gene has been labeled codon 171.

There are two different genes or sequences that can be found at codon 171. These have been labeled Q and R. Each sheep has two codon 171's, one from its dam and one from its sire. Therefore, the only possible genotypes are QQ, QR or RR (QR and RQ are considered the same). A sheep will pass one of the codon 171's to its offspring. Which one that it passes is a totally random event. On average it will pass on one of the codons 50% of the time and the other 50% of the time. The presence of at least one copy of the R gene will result in a sheep that is resistant to scrapie. The presence of QQ means that the sheep is susceptible to becoming infected with scrapie if it is exposed. Remember, this is a test for genetic susceptibility to scrapie not presence of infection. There are many QQ sheep that do not have scrapie. They are susceptible, but have not been exposed to the scrapie agent.

Let us run through the possible breeding scenarios:

1. Both of the parents are QQ: All offspring will be QQ. Each offspring will get one copy of the Q from its dam and one from its sire.
2. Both of the parents are RR: All offspring are RR. Each offspring will get one copy of the R from its dam and one from its sire.
3. One of the parents is QQ and the other is RR: All offspring will be QR. Each offspring will get one copy of Q and one copy of the R.
4. One of the parents is QR and the other is QQ: One half of the offspring will be QR and one half will be QQ. All of the offspring will get one copy of Q from the QQ parent and one half will get an R and one half will get a Q from the QR parent.
5. One of the parents is QR and the other is RR: One half of the offspring will be QR and one half will be RR. All of the offspring will get one copy of the R from the RR parent and one half will get a Q and one half will get an R from the QR parent.
6. Both parents are QR: One forth of the offspring will be RR, one forth will be QQ and one half will be QR.

As you can see, sheep that are RR have great value because all of their offspring will be resistant to scrapie. Many seedstock producers have been testing a portion of their flock to determine their genotype. Herd rams are the most important sheep to test as they have the most impact on next year's lamb crop. If all of the herd rams are RR, all of the offspring will have at least one copy of the R gene regardless of the genotype of the ewe flock. In black-face sheep, the evidence is clear that codon 171 is responsible for scrapie resistance or susceptibility. In white-face breeds there may be other codons that may be important as well. The cost of the test is about $17 per sample.

Thank you, Border Leicester breeders, for letting me share my personal opinion about “breeding for resistance to scrapie” at “codon 171” +/- “codon 136.” I do not speak for any breed association or government agency or national organization, only as a Romney breeder with a background in epidemiology of human brain diseases.

I strongly believe the United States should eradicate scrapie within the next 12-15 years. This effort needs the active participation of every single American sheep-breeder, sheep-raiser and sheep-handler. A national animal identification system will grow out of premises identification. For sheep in many circumstances, federal IDs are now mandatory. Breeders who volunteer to exceed that requirement can elect the Scrapie Flock Certification Program or “breed for resistance at codon 171” or both, or other paths (closed ewe flock).

“Breeding for resistance” aims to alter a breed’s gene pool to prevent 171QQ individuals. Where a certain breed or type of sheep will get a benefit from that (I do not dispute lower scrapie occurrence) the cost -- restriction of the gene pool -- can be accepted. When a certain breed has an extremely low occurrence of scrapie it gets no benefit. It just pays the cost. Scrapie is truly rare in American white-faced sheep; nearly all American cases are in black-faced or mottled-faced sheep. (There has been one case identified as a Border Leicester; several white-faced breeds have one or a couple of cases out of the several thousand recognized.)

We breeders of pure white-faced breeds like the Border Leicester or the Romney (“white-faced” includes natural colored BL’s or Romneys) do not need to “breed for resistance” to help the country toward the national goal. My reasons for saying this to you are laid out in detail in an article that I wrote entitled “The Utility of ‘Breeding for Resistance’ to Scrapie Varies by Type of Sheep”. The article first appeared in the February 2005 Banner and can be read on the magazine’s web site (www.bannersheepmagazine.com) or at my own farm’s web site (www.americanromney.org/archagefarm).

In summary: “Why manipulate white-faced genetics when we don’t have to; when we won’t change scrapie occurrence thereby; when we don’t know what else rides with the genotypes we would prize or shun?” I recommend that we breeders of a pure white-faced breed weigh “scrapie genotype” no more than other statistics calculable about a ram with ease (fertility potential of three nearest ewes) or difficulty (estimated progeny difference or 120-day weight).

To bypass “breeding for resistance” needs to be a collective decision by many members of a breed association. The majority is going to rule. Caution: this is not Judgment Day material. For someone in a white-faced breed, the pros and cons of ignoring codon 171 are not clear enough to risk sundering an association or letting a good program go down in flames at the sale. Last month the USDA announced expansion of previously state-by-state programs to cover the cost of genotype testing a few rams per flock first-come, first-served. This seems to me a tilt by the agency toward genotype testing regardless of breed or type of sheep. I think that money should be spent where the risk and the return are highest. That is not in the purebred white-faced breeds.

I would welcome your questions by email to sqs1@columbia.edu or by U.S. mail at 8 Mynderse Street, Saugerties, NY 12477.
The small ruminant retroviruses, Ovine Progressive Pneumonia virus (OPPV) and Caprine Arthritis Encephalitis virus (CAEV), have confused producers and practitioners for many years. The nature of these viruses has been the source of this confusion. While these viral infections persist for life, few animals in a flock or herd actually show clinical problems. The subclinical manifestations probably occur with a higher frequency, but in a practical farm setting their effects are difficult to quantify. Literature references exist that document the economic relevance of OPP infection in flocks. Most producers who seek veterinary assistance in controlling and even eradicating these viruses do so because they either raise a breed of sheep that has more documented clinical problems with OPPV, or they recognize that both viruses have significant effects on productivity through reduced levels of milk production or longevity. In both control and eradication programs, producers must be seriously committed to the long-term effort, understand how the virus is spread, and use the test results correctly. These viruses can be costly to control because of semi-annual test related fees, the lost opportunity cost related to premature culling, reduced productivity, and increased cost of replacement breeding stock which includes the cost of artificial rearing. The cost of milk replacer alone to rear a lamb to twenty-five pounds body weight is a minimum of twenty-five dollars. An estimate of all other costs such as creep feed, Clostridial vaccines, labor, and facilities is ten dollars assuming less than 2% mortality.

Presently, veterinary diagnostic laboratories use the agar gel immunodiffusion test (AGID) for OPP testing. Its sensitivity and specificity have been reported to be 91.5% and 100% respectively. Based on these parameters, this test can best be used in control programs if the sheep are tested every six to twelve months. While the test only requires 0.1 ml of serum, it is advisable to send 1 ml of serum. The cost ranges from $3.50/sample on up depending on the lab. The test takes forty-eight hours from the time that it is set up to a final reading. For unknown reasons some samples may be difficult to interpret so these are generally set up and read a second time. No major sheep diseases are recognized to cause false positives or negatives. My experience has been that when the same individual in the same lab runs the same samples repeatedly, the repeatability of the results is 100%. We have also found at the University of Minnesota Diagnostic Lab that seroconversion is permanent. In other words repeatedly drawn blood samples on a seropositive ewe reliably test positive when run in the same lab.

It is difficult to recommend an optimal control program to a flock owner until the seropositive rate in the flock is determined. Most flocks can be re-arranged into two groups on a farm, an infected group and a test negative group. These groups or sub-flocks are maintained for a finite period of time. This arrangement is generally not workable nor advisable for the long term unless the flock owner already has access to two farms. Several scenarios should be considered with no one approach to control being the only appropriate one without the owner embracing the proposed plan.

Purebred flocks and those flocks where the sheep have emotional value are the more difficult ones to set up short-term eradication programs. The flock owners will invariably want to salvage genetics from some of their seropositive sheep. These select sheep need to be placed in the infected flock and kept isolated from the seronegative sheep as soon as possible. The sheep should either be synchronized for natural or artificial breeding purposes or breeding dates should be recorded on a daily basis based on breeding marks that result from the ram’s marking harness. Because parturition in ewes is more difficult to induce compared to goats, lambing must be closely monitored and lambs snatched at birth to be reared artificially. If there is any suspicion as to whether or not the lambs have nursed, then they should be left on the ewes and considered infected. However, DNA from ovine lentivirus was found by PCR in 11% of 117 neonatal lambs tested prior to Colostrum ingestion. Seropositive sheep that do not carry an elite genetics designation can either be sold for slaughter, sold as breeding stock with their OPP status disclosed, or managed in the infected group and their progeny sold as feeder or slaughter lambs.

Heavily infected purebred flocks are faced with a tremendous challenge as to how to stay financially solvent while trying to change the percentage of the flock that is infected. With aggressive marketing, breeding stock from uninfected flocks can be worth more than the same genetics derived from infected sheep. Several years ago, a producer group formed the OPP Concerned Sheep Breeders Society. This group provides educational material upon request and also publishes an annual directory of members stating member flocks’ OPP status, flock numbers and breed(s). This group is a valuable resource for any flock owner that is trying to purchase OPP-free breeding stock. Potential buyers should review the OPP test results from flocks in which they are considering purchasing sheep. The tests should have been conducted within the past six months and within the past thirty days preceding purchase is ideal. The tests should have been run at a lab that the veterinary community trusts regarding OPP test validity.

Commercial flocks that have a low seropositive rate, arbitrarily defined here as <25%, may consider immediate separation of the test positive sheep, followed by culling when cull prices are at a reasonable level. Again sound sheep from this group could be offered for sale as long as their OPP status is transparent even to potential buyers who are unaware of the potential impact of OPPV. When commercial flocks have a seropositive rate that exceeds 30% the owner may decide that it is not economically feasible to cull all of the sound, seropositive sheep at one time. Remember that the flock owner ought to be culling between 10-15% of his/her flock each year for reasons relating to poor production that might include the availability of genetically improved replacements, mastitis, bad mothering traits, poor weaning weights, unsoundness due to chronic disease or age. Again, these seropositive sheep must be managed as a separate group from the time that they test positive to the point that they are culled.

Continued on page 18
Testing and Control of OPP

For any of the above scenarios, the test negative sheep should be re-tested every 6-12 months, depending on the owner’s wishes and financial situation. If only testing every 12 months, then the sheep should be tested 4 weeks prior to lambing. Test positive sheep should be identified and removed prior to lambing. If any sheep are lacking individual identification at the time of blood sampling, these sheep should be ear-tagged so that they can be found later when the test results are available. Once the flock is found to be less than 5% seropositive, the flock can be tested on an annual basis. Once the rate is less than 1%, the flock could be tested every two years unless the seropositive rate starts increasing again. Flocks that have had no test positive sheep in a three year time period have usually declared themselves OPP-free and stopped testing.

Management of two groups on the same farm can be practical because of the labile nature of the OPP virus in the environment. This characteristic of the virus is advantageous regarding OPP control. It means that the infected and test negative sheep do not have to be kept on two different farms in order to manage a two-flock system. They cannot share a building, fenceline, waterer, or feed space that has nose to nose contact between the two groups. But they can use these same areas if a time gap exists in between usages. For example, a barn can be used for lambing the test negative sheep first, followed by lambing the seropositive sheep 34 days later. There is nothing scientific about 34 days regarding the OPP virus except that is a reasonable target length for a breeding and subsequent lambing season. The same rotation could be used for pastures. The virus has been shown to die within minutes after being discharged from an infected sheep. Equipment, such as automatic syringes, drench guns, ear tags, tattoo pliers and water buckets can be used in between the two groups if cleaned and disinfected first.

Not testing means the status of those sheep or that flock is unknown. The statement that producers have not noticed clinical signs is meaningless to producers and veterinarians versed in the nature of how this virus naturally behaves. Serologic testing or histologic examination of biopsies or tissues collected at necropsy is the only means commercially available to confirm the presence of OPPV infection.

References:


5. OPP Concerned Sheep Breeders Society
   Holly Neaton, DVM, Secretary
   11549 Highway 25 SW
   Watertown, MN 55388
   952-955-2596
   Email: hollyneat@juno.com
   Web site: www.OPPsociety.org

~ A founding director of the OPP Concerned Sheep Breeders Society, Dr. Cindy Wolf currently serves as chair of the U.S. Animal Health Association’s Sheep and Goat Committee and is the immediate past chair of ASI’s Health Committee. She and her husband, Kelley O’Neill, run cattle and 1,900 commercial ewes in southeastern Minnesota.

This paper was initially presented at the 2000 meeting of the Minnesota Veterinary Medical Association and is reprinted here with permission of the author.
**Making Sense of Genotyping**

Health Inspection Service (APHIS) has approved the following companies to perform sheep genotyping for the prion protein gene at codons 136, 154 and 171 in an official capacity for the National Scrapie Eradication Program (NSEP)."

Biogenetic Services, Inc.
605-697-8500
www.biogeneticsservices.com

BioServe Biotecnologies, Ltd.
301-470-3362
www.bioserve.com

Diagnostic Center for Population and Animal Health
517-353-2296
www.ahdl.msu.edu

HAP Typing Facility
Genaissance Pharmaceuticals
203-786-3546
www.genaissance.com

GeneCheck, Inc.
800-822-6740
www.genecheck.com

GenMARK
608-846-0580
www.genmarkag.com

GeneSeek, Inc.
402-435-0665
www.genesseek.com

Veterinary Genetics Laboratory
School of Veterinary Medicine
University of California
530-752-7383
www.vgl.ucdavis.edu

At the present time, genotyping is still an individual preference. All sheep producers are required to keep track of their breeding animals by some method of identification, be it the government identification number given to each producer or the voluntary scrapie program. It is simply a way of tracing scrapie back to the flock where an infected animal was born. I think it is our job as breeders to make sure our flocks are as "clean" as possible when it comes to such a nasty disease as scrapie.

**IMPORTED BORDER LEICESTER SEMEN FOR SALE**

<table>
<thead>
<tr>
<th>Ram</th>
<th>Country</th>
<th>Price Per Straw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retallack Super Seven</td>
<td>Australia</td>
<td>$50.00</td>
</tr>
<tr>
<td>River Gum Ranger</td>
<td>Australia</td>
<td>$40.00</td>
</tr>
<tr>
<td>Studleigh 68/98</td>
<td>New Zealand</td>
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<tr>
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<td>New Zealand</td>
<td>$32.50</td>
</tr>
<tr>
<td>Flaxton</td>
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<td>$36.00</td>
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**2005 Upcoming Events**

**May**

7-8 Marylland Sheep & Wool Festival
Friendship, MD
www.sheepandwool.org

14-15 New Hampshire Sheep & Wool Festival
Contoocook, NH
www.yankeeshepherd.com

28-29 Massachusetts Sheep & Wool Festival
Cummington, MA
www.masheepwool.org

**June cont’d**

18-19 Estes Park Wool Market
Estes, CO
www.estesnet.com

24-26 Black Sheep Gathering
Eugene, OR
www.blacksheepgathering.org

**July**

16-19 New England Sheep Sale & Northeast Youth Show
West Springfield, MA
Info: 413-624-5562

**August**

18-21 NCWGA National Show
Missouri State Fair
Sedalia, MO
www.ncwga.org/show.htm

20-21 Michigan Fiber Festival
Allegan, MI
www.michiganfiberfestival.org
At its March meeting, the ABLA Board of Directors voted to allocate up to $500 in premium money for North American sheep shows that include Border Leicester sheep. If your local fair or festival would like to have a $25.00 premium to be used for a special Border Leicester award, please contact Sue Johnson. You’ll need to provide information about the date and location of the show. Sue will send you the check and you will be responsible for passing the check to show officials. They may use the money any way they wish, as long as it goes toward a Border Leicester (i.e., Best BL Fleece, Grand Champion BL Ram, etc).

In return for receiving the $25.00 premium money, the Board asks that you take a photo of the recipient and write a short narrative about the show and the winner to be published in the newsletter. Please take advantage of this opportunity to promote our great breed of sheep.

Questions? Contact Sue Johnson, 802-482-2507 or sujohnsn@together.net.

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Mail to: Sue Johnson, ABLA Treasurer
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Hinesburg, VT 05461

ABLA HAS MONEY FOR YOUR SHOW!!