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Late Summer 2007

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Photo by Trista Toman

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J-DSANA is the official publication of the Dairy Sheep Association of North America

www.dsana.org

Editor's notes

Pat Elliott
Late Summer Issue

It is exciting to get copy for the newsletter--to hear the passion of each person I talk to and what is important to them right now. Weather gets top billing from all over for the dryness. We don't have anyone in Texas or I guess we would be hearing an opposite story. I have had to feed hay since June--very expensive since I buy hay and usually have enough grass until October.

The dairy sheep people seem to be growing and never run out of markets. Sheep cheese is such a good cheese that with one taste by a potential buyer it practically markets itself, whether fresh as the Jensens are doing or aged as are most of us.

I hope you will enjoy the information we have for you this month. George Haenlein brings some difficult issues that need to be addressed. One of them is how to promote sheep dairying. I would like to hear your ideas for the next issue.

Plan for the symposium: we need you and you need the material and networking. Remember Canada requires a passport for entry if you are driving. I am not sure about flying - check it out and be prepared!



Photo by Trista Toman

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DSANA welcomes all current or future sheep dairy producers, artisanal farmstead cheese producers, sellers, suppliers, industry professionals, and academic researchers with an interest in sheep dairying, dairy genetics, sheep milk cheese production, and sheep milk based product development. DSANA also welcomes any individual who is a friend of the sheep dairying industry.

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- March (Winter/Spring issue)**
- July (Summer issue)**

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the ewes with the highest EBVs and about 45 ram lambs distributed across the sires were saved. These ram lambs were kept until any sisters and half-sib sisters had completed one lactation so that those records could be used to estimate new EBVs upon which to select five replacement rams to breed to the ewes in the flock with the highest EBVs to produce a new set of young replacement rams.

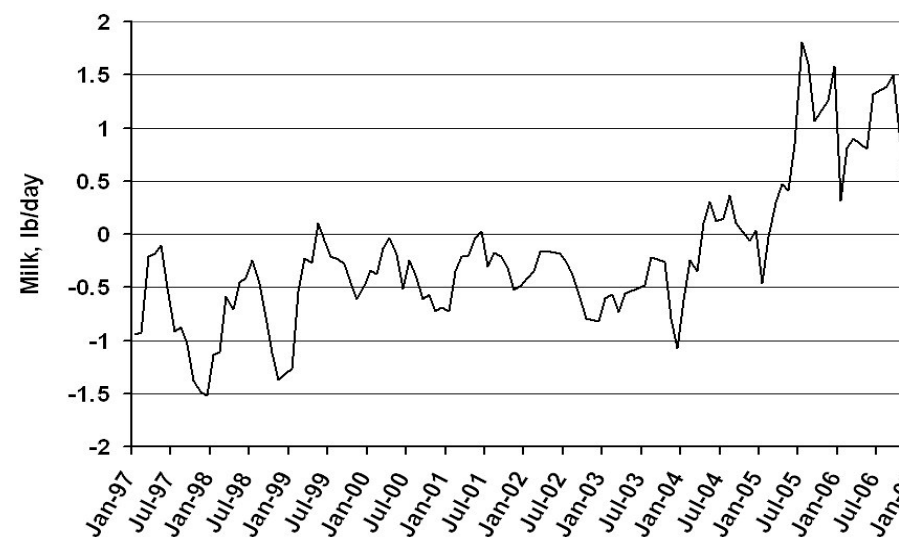


Figure 1. Year-month milk production trends in the Old Chatham Shepherding Company flock

The test-day model computes month-year solutions during the process of estimating the breeding values for each animal. These are shown in Figure 1. Note the season effect; milk production is highest near July and lowest near January each year. Beginning in 2004, milk production started to rise. Part of this was due to diet and other management changes, but part of the change has been genetic.

The effect of the recently-implemented breeding program is shown in Figure 2 where individual ram EBVs for milk production per day are plotted against year of birth. Because the improved trend started gradually about 2004, a curved line was fitted to the data to represent the predicted EBV for the flock in a given year.

The equation to estimate the flock EBV at any given year is shown in Figure 2. For 2006, the average EBV is predicted to be increasing by 0.0837 lb/day or 16.7 lb per year for a 200-day lactation. Although this may seem like a small increase compared to the overall flock increase shown in Figure 1, it is quite fast genetic progress.

We expect this progress to continue in coming years. Note in Figure 2 that there is a large range of EBV for the 2006 rams. Furthermore, the distribution is skewed such that there is a longer "tail" at higher values with a few much better rams. It is those rams that will be used to sire the next set of lambs and from which the next group of young sires will be selected.

Another way of looking at the results is by comparing the genetic merit of the Old Chatham Shepherding Company rams born in 2006 relative to the average genetic merit of the rams used prior to 2000 (which we can regard as the average genetic merit for milk in the dairy sheep population at large). As genetic progress is cumulative and permanent, it means that the daughters of these rams will produce at least 81 pounds more milk per lactation relative to the ewes born in the flock in 2000. The value of this additional milk is essentially all profit because fixed costs are the same and the additional feed cost to produce the additional milk is minimal.

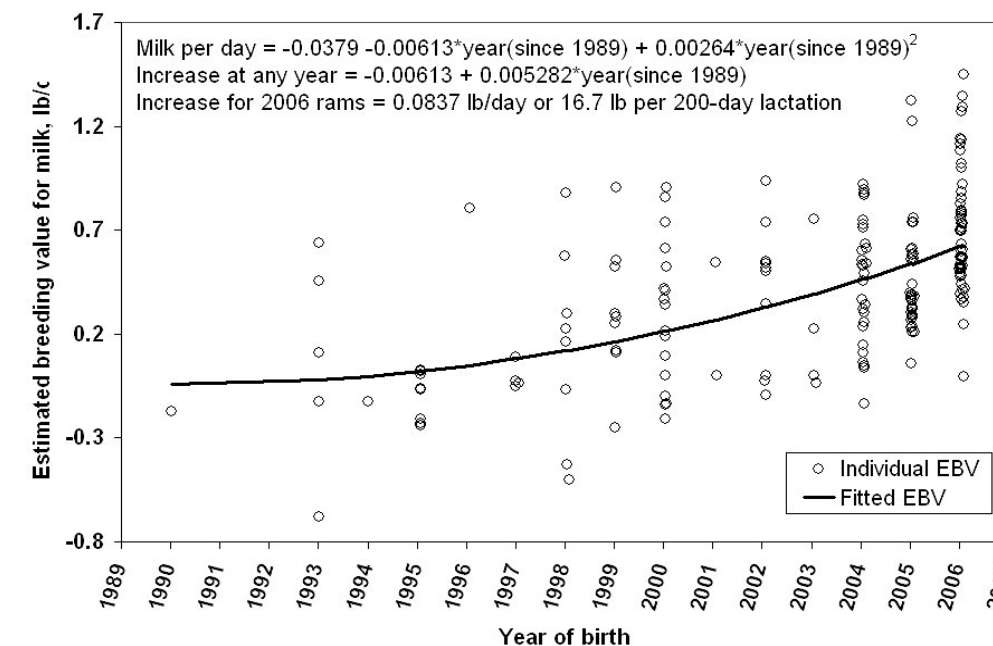


Figure 2. Genetic trend in the Old Chatham Shepherding flock. The quadratic equation was calculated using years since 1989 as the data. For example, 1990 was year 1 and 2006 was year 17 since 1989.

Ltd., Wellingborough – Northamptonshire, U.K.) advised on pages 112-113 in the 1st edition and pages 152-153 in the 2nd edition, that in the absence of a sensible udder conformation in ewes you can use an udder hook, called "Sagi hook", which lifts up the "pendulous" udder during milking resulting in an increased machine milk yield by 40-6-% and eliminating after-stripping.

Obviously such hook use is a real step backwards in trying to improve dairy ewe milk yield and management success. Olivia admitted in her book, that a few breeds have succeeded by genetic selection over years to arrive at sensible udder conformations, but this seems to be not widespread not only in America but also not in the U.K.

Actually dairy ewes seem to be still widely absent from annual dairy show contests at county and state agricultural fairs here in USA, where this could stimulate through the placement of blue ribbons in judging classes to arrive at better udders. I have been a certified dairy cattle and dairy goat judge for years here in Delaware, Maryland and Pennsylvania, and I know the general excitement, which is generated by the competition for the ultimate "Best Udder Trophy across Breeds". Just imagine the tremendous applause, when e.g. a Brown Swiss or Guernsey breed succeeds in beating a Holstein breeder in this contest and carries off the big silver trophy.

Question: What do we have in the annual country fair show rings and judging contests in terms of dairy ewes? There are hundreds of wool and mutton sheep shown instead and judged, as seen this year again in Delaware, while generally admittedly there is little money in wool or in mutton or lambs!! So why promoting through these fair activities an enterprise, which is not profitable? Why not promote the only profitable use of ewes by milking them and cheese and yoghurt making? And why not promote milking ewes with better udders and teat placement through fair activities? 4-H and FFA are great vehicles to accomplish this; instead 4-H and FFA are directed towards wool and mutton sheep. Why not push for dairy sheep projects?

Question: Does the North American Dairy Sheep Newsletter appear often enough for educational benefits to our dairy sheep breeders? What other trade or scientific source of information is read by our breeders? In our farm magazines here I see very little about dairy sheep. Why not push this more? Even in our scientific journals (American Dairy Science Journal, Small Ruminant Research Journal) dairy sheep and their milk products have an infrequent appearance. I have

discussed milking of ewes and dairy sheep milk production in detail together with Dr. William L. Wendorff from the University of Wisconsin-Madison in my new book: *Handbook of Milk of Non-Bovine Mammals* by Y.W. Park & G.F.W. Haenlein, 2006, Blackwell Publ., Ames=Iowa, on pages 150-155 within the chapter on sheep milk, pages 137-194. I would like to recommend that our Sheep Newsletter start a reader discussion about these urgent topics, how to implement known steps or progress in udder conformation, and how to start a sire and dam evaluation program for udder traits to be used in buying replacement ewes or lambs.

Question: What is the lowest point of your ewe's udders and in how many of the ewes in your flock? What emphasis in your breeding program do you place on udder conformation and teat placement? Do you know the udder conformation of the mothers and the rams of the lambs that you are keeping?

Ed. Note. These are important issues. Please send comments to Pat Elliott, Newsletter Editor at everona@vabb.com for the next issue or to George at haenlein@udel.edu.

Breeding program at Old Chatham Shepherding Company

M. L. Thonney and P. A. Oltenacu
Cornell University

Cornell University is collaborating with Old Chatham Shepherding Company on a project to seek genetic markers for increased milk production. Part of the project requires genetic evaluations to determine the estimated breeding value (EBV) for milk production for each animal in the flock. The "test-day-model" is used to account for known sources of environmental variation, such as ewe age, day of lactation and season effects. All the relationships among all the animals in the flock are used to compute the EBVs so that an EBV for a ram would include records weighted for the closeness of the genetic relationships from its mother, daughters, aunts, half-sibs, cousins and all other female relatives. The EBV values are the genetic deviations in milk production per day from the average milk production over all the years.

As a secondary objective to the project, the estimated breeding values are being used to select replacement rams in the Old Chatham Shepherding Company flock. Initially, this information was used to select from among the best possible sires on-hand, but more recently a young-sire evaluation program was implemented. The sires with highest EBVs were mated to

Symposium news

Eric Bzikot

It's time for an update on this year's symposium. Things are developing quite nicely and we now have the program settled.

The symposium will take place on the first three days of November and it will be in Guelph, Ontario, Canada. Guelph is a short distance from Toronto and just off the 401 highway. The Ramada Inn is easy to find. As there seems to be a lot of interest from people considering dairy sheep, we made the theme for the first day "Getting started". The farm tours will take place on Friday and feature two farms. Keith Todd's farm is a larger enterprise, milking about 500. It is a very well designed unit with lots of good ideas incorporated in it. The Todds are long time shepherds and the knowledge and experience shows at every step. We will then go to my farm, much more modest than Keith's, but I think interesting from the aspect of a rapid exit parlour, and one that pays its way with quite modest sheep numbers. Definitely a working and not a "show" farm, it also has the unique breed of sheep called British Milk Sheep. To include a processing plant, we will stop at Best Baa Dairy Ltd's newly built facility in Fergus. This plant has been making cheese from sheep milk supplied by members of Ewenity Dairy Co-op since early June. On returning to Guelph we will have time for DSANA's AGM before our annual banquet. For the final day of the meeting we are very happy to have secured a speaker who is considered an expert on small ruminant mastitis, Dr. George Fthenakis. Dr. Fthenakis comes from the University of Thessaly, Greece but having resided in England, speaks excellent English. We were greatly assisted in securing Dr. Fthenakis by Dr. Paula Menzies of the Ontario Veterinary College and in view of the conference venue being very close to the college we decided to open the Saturday session to students so they can benefit from the Fthenakis lecture. They will be admitted free of charge except for the lunch cost. We feel that having better trained veterinarians will pay us back over the next 30 or more years.

We are also admitting others, mostly veterinarians for the Saturday lectures only but they will have to pay \$100. The whole conference registration will be \$185 which includes the DSANA membership. The Saturday only fees will not buy a year's DSANA subscription, but this can, I

hope, be acquired from Claire Mikolayunas if someone so wishes. The registration will be handled by the Agricultural Information Contact Centre (part of Ontario's government) but as they do not touch money, payments will go through OSMA (Ontario Sheep Marketing Agency). OSMA has Visa and M/C ability. I have to tell you of the wonderful support that we have had from these two organizations (OSMA and OMAFRA). Helga McDonald of OMAFRA has been coordinating all our planning and keeping us on track and on time. She also enabled us to use conference call facilities, so important with our dispersed committee members. We formed a symposium committee at the end of last year and organizing the symposium has been a team effort, definitely not just Eric doing it.

For program and registration information, visit www.dsana.org.

Leader of the flock: Wisconsin is number one when it comes to sheep milk

Anita Weier

Reprinted with permission from the Capital Times

The Dairy State has one up on its California competitors. Though California has stolen the lead in cow milk production from Wisconsin, we outrank California and - apparently - all other states in sheep's milk. Proponents of milking ewes say sheep's milk, which is higher in protein and butterfat than cow's milk, tastes richer and creamier while also being easier to digest. But most often the milk, which tastes more like cow's milk than goat's, is used to make artisan cheeses, available in Madison at some grocery stores and occasionally the Farmers' Market.

National statistics on sheep milk production so far are not available, but University of Wisconsin experts on the subject say the state ranks No. 1. Although some northeastern states also are building dairy sheep herds, a leader of the New York industry agrees that Wisconsin is in the lead. Other areas in North America where sheep milk is produced include Vermont, New Hampshire, Quebec and Ontario.

"We know how many producers there are in other states, and when we say Wisconsin leads, I don't think

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anybody argues that fact," said Dave Thomas, a UW-Madison professor of animal science who oversees the university's dairy sheep program at the Spooner Agricultural Research Station. Tom Clark, who owns the Old Chatham Shepherding Co. in New York and buys sheep milk from Wisconsin, said, "Without a doubt, Wisconsin has more dairy sheep than any other state, though New York may be growing faster."

Much of the credit for development of the business in Wisconsin goes to the Spooner research station, which started milking sheep in 1995, then conducted research and helped start a marketing cooperative. Now the state has more than 2,000 sheep in licensed milking herds and produces roughly a million pounds of sheep milk per year.

An Industry' Beginning "We tried to milk the domestic breeds with very little luck. There was not enough milk to make it economically viable, so we imported East Friesians from Germany and Lacaune, a breed that is milked in France to make Roquefort cheese," said Yves Berger, superintendent of the Spooner station. Some Wisconsin producers acquired sheep from the research station, then crossbred them with domestic breeds.

Staff at the station now milk about 300 ewes twice a day, starting in January and going until late September, Berger said. "We have a two-side milking parlor of 12 ewes each. We use 12 milking units in a high line configuration that allows us to swing over to the other side. When one side is milked the other side is being emptied and 12 more ewes come in," he added.

Though the University of Minnesota had the first milking parlor for sheep and was studying milk production first, they no longer have a sheep program, according to Berger. "We are the only institution working on dairy sheep in North America," he said. The Spooner station also helped start and is a member of the Wisconsin Sheep Dairy Cooperative, which markets about 1 million pounds of sheep milk per year, a figure that has been increasing by 10 to 15 percent each year.

The Wisconsin Agricultural Statistics Service reported that 11 licensed milking sheep herds were milking 2,250 ewes in 2006, with an average milk production per ewe of 369 pounds. A New York Department of Agriculture survey in 2005 indicated more dairy sheep farms, but fewer sheep per farm, with slightly more sheep overall.

The Wisconsin cooperative currently has 12 Wisconsin members and four from other states, with

flocks ranging in size from about 100 to 400 ewes. The Spooner station is one of the members. "Without having a good marketing organization it would have been difficult for the industry to develop. We are somewhat unique in that," Thomas said.

The flock at the station is maintained to conduct research and gather information for producers about proper management. "We serve the needs of dairy sheep producers in Canada and elsewhere in the United States, and we also interact with a few Mexican dairy sheep producers," Thomas said.

At the Farm Dean and Brenda Jensen have been milking sheep on their Westby farm in rolling western Wisconsin for four years, and more recently established a creamery where they produce award-winning cheese. They also sell bags of frozen sheep milk, which the cooperative picks up in refrigerated trucks and sells in other states.

Brenda Jensen stresses the nutritional value of sheep milk, which she and Berger said is higher in protein and butterfat than cow milk and easier to digest. "It's good for us. We drink it every day," she said. "It's a richer, creamier taste." The Jensens have 150 sheep and are milking 94 at this time.

"We also have a couple of rams. We don't do any artificial insemination," she said. Sheep are easy to milk, she said, and the process takes only about a minute and a half. The herd average is about 5 pounds per ewe per day. "They do follow the leader into the parlor and come in and stand there and let you milk them. They only have two teats so they milk quickly," Jensen said.

A substantial investment was required to go into the business - the milk-producing breeds are not cheap. However, sheep milk commands a much higher price than cow milk. Producers get \$56 to \$59 per 100 pounds, after co-op expenses are deducted. That compares with cow milk prices that generally vary from \$11 to \$16 per hundredweight.

It's Good For Ewe The Wisconsin Dairy Sheep Cooperative markets milk for all the sheep producers.

"Three cheese plants in Wisconsin buy fresh sheep milk," said Berger. "The biggest one is Carr Valley in Mauston and the others are the Bass Lake Cheese Factory in Somerset and Cedar Grove in Plain. We transport it twice a week." The co-op also sells frozen milk to cheese or yogurt plants in New York, California and Oregon.

The co-op contracts with a company that does the hauling - in-state and out-of-state - in refrigerated trucks.

They see sheep dairying as a way to keep the farm, which has been in Mrs. Meisegeier's family since her great-grandfather moved there in 1912. The couple took over the 200-acre operation in 1993, with a mixed flock.

Before getting into sheep dairying themselves, the Meisegeiers worked two years with the milking flock at the Spooner Agricultural Research Station. Mr. Meisegeier said he was attracted to sheep dairying because it was something different. "It was a chance to be a pioneer," he said. "It has gotten me into more than I bargained for."

In 1999, they built a lean-to on the old barn that houses a double-12 pit milking parlor, 600-gallon milk tank and commercial freezer. Ewes are milked twice daily. Two workers can milk 100 sheep in an hour.

A milk hauler from the Trego area picks up milk from area farms for delivery to cheese plants. This time of year, milk from the Meisegeier farm is picked up twice a week. WSDC members must have a commercial freezer so milk gets to minus 10 degrees within 24 hours. "It's mid-June before we have to freeze any milk here," Mr. Meisegeier said.

To the Meisegeiers, it's not so important how many ewes they milk, but how much milk they get per ewe. Efficiency is key to success in sheep dairying, Mr. Meisegeier said. "I think we need to increase the production of the sheep to be competitive. To me, it's a no-brainer," he said.

Their flock averaged 425 pounds of milk per ewe last year, but he said they need at least 600 pounds to be most profitable. The state average is about 370 pounds. "200,000 pounds a season would be good financially," he said. Some of Mr. Meisegeier's highest producers give 9 pounds of milk a day, but that increases every year.

Breed and nutrition are the biggest parts of the equation, and he continues to make improvements. East Friesians are some of the best milkers, but they are vulnerable to health issues, Mr. Meisegeier said. He has crossed breeds in search of a "happy medium" between animal health and productivity.

Most of their flock is a mix of East Friesian, Dorset and French Lacaune breeds. They also have some Suffolks and hair breeds. The farm sells breeding stock nationwide. Mr. Meisegeier said he hopes to bring in additional Lacaune ram lines from France this fall.

Shepherds in France's Roquefort region aren't realizing the full potential of the breed they developed, he said. "I'm optimistic we'll get better results with them here," he said.

Milk output seems to correlate to the number of lambs a ewe has, he said. Multiple births are more likely in his flock, which carries the Booroola gene. On the nutrition side of the equation, Mr. Meisegeier purchases much of his feed. Ewes get 3 pounds of grain a day in the parlor and dairy quality alfalfa he buys from Western growers. "That's where you get your production," he said. High corn costs have forced him to replace some corn in the ration with hominy and distillers' grains.

Lambs Weaned Early The Meisegeiers raise lambs in a graduating system. Lambs are moved through a series of six different pens, depending on age and size. Within 24 to 36 hours of birth, they're removed from ewes and put in a training pen with a nipple system. By 25 to 30 days of age, they're weaned off milk and fed milking replacer, grain and alfalfa hay. Bloat and "overeating" disease are concerns beyond about 30 days, he said. "We have to keep an eye on lambs that start to grow really fast." Wethers are sold at 70 to 80 pounds into the ethnic meats market.

Mr. Meisegeier said he plans to begin increasing his goat herd again in hopes there will be a regional market for goats' milk. "We will be set to jump right in again with both sheep and goats," he said.

Heidi Clausen may be reached at clausen@amerytel.net.

Udder conformation of dairy ewes and other dairy sheep issues

George Haenlein

I am just almost angry at the general disinterest or ignorance of American dairy sheep breeders to improve the udder conformation of their ewes. You know that I come from dairy cow and dairy goat experience from my early childhood, including East-Friesian dairy sheep during the war, growing up on small German dairy farms of my relatives and my obligatory apprenticeship farms before being allowed to enroll at an Agricultural college, in my cast Stuttgart-Hohenheim in dairy breeding and nutrition.

I have seen over the years how dairy cow and dairy goat breeders have tremendously improved the conformation of udders and teat placement, because these are highly heritable traits, while dairy sheep in some breeds - Lacaune and east-Friesian-have also made progress, but only in Europe apparently. Udder conformation and teat placement is very important for complete milk-out and prevention of mastitis. It is also a requisite for good milking machine attachment. It has been discussed in many textbooks, except that the famous Olivia Mills in her great book (*Practical Sheep Dairying*, 1st edition 1982, 2nd edition 1989, Thorsons Publ.

Sheep dairy producers passionate about industry

Heidi Clausen

Reprinted with permission of The Country Today

The bright, airy lamb barn on Larry and Emily Meisegeiers' Rusk County farm is a popular spot this time of year. At the sound of a visitor, dozens of little heads perk up, turn toward the door and let out a loud chorus of bleats. It's near the end of lambing season on the Meisegeiers' almost 300-ewe sheep dairy. One particularly hectic weekend last month, 60 ewes on the farm gave birth to 133 lambs.

If anyone can handle it, it's the Meisegeiers, who are among Wisconsin's most seasoned and enthusiastic sheep dairy producers. But even they're still learning. The past eight years have been an ongoing experiment in breeding, nutrition and economics.

"By the time we're old and gray and retired, we should have it all figured out," said Mr. Meisegeier, a fourth-generation dairy farmer. If anyone is a cheerleader for the state's sheep dairy industry, it's Mr. Meisegeier, who's in his second year as president of the Dairy Sheep Association of North America. Despite the ups and downs in sheep dairying, he said, he's "still really excited about it." In fact, the Meisegeiers gave their son, Edward, and daughter-in-law, Megan, sheep as a wedding present to start their own sheep dairy near Ladysmith.

Larry Meisegeier is field representative for the Wisconsin Sheep Dairy Cooperative, visiting each member's farm at least once a month during production season. The farmer-run WSDC includes about 15 farms and is the single largest source of sheep milk in the United States. Milk is crafted into artisan cheeses and sold into elite markets on the East and West coasts.

The Meisegeiers are among a handful of WSDC members considering year-round production to provide a more consistent supply to customers. The co-op essentially is shut down from early-October to mid-January. To make year-round production work on his farm, Mr. Meisegeier said one group of ewes would lamb in December and another in June.

The challenge is that ewes typically don't start cycling until August, he said, and they would need to be bred in July for December lambing.

He also hopes to eventually build a new barn. "I would like to set up a fairly large, highly-efficient operation here to produce sheep's milk," he said.

Eventually, it will have to get to that. Eventually, the (milk) price will have to come down."

More Producers Needed Unable to meet a growing demand, the WSDC has begun recruiting more producers in a targeted area of western Wisconsin and eastern Minnesota. A lot of cheese plants are interested in sheep milk, but are waiting to see how it all shakes out, Mr. Meisegeier said. "We need more production; there's no doubt about it," he said. "The world isn't beating our door down to get into the sheep dairy business. I don't really understand completely why. ... It's great for some people; it's obviously not for everybody."

Mr. Meisegeier cautions would-be producers that it's not as easy as it might look and they should spend a couple years just learning how to care for sheep before jumping into milking. "Every single person that has ever gotten into this has never been able to meet their goal," he said. "It always takes another year to get started milking."

Early on, the sheep dairy industry was plagued by low production and market inconsistencies. "We didn't know if we were going to get that milk marketed or not," he said. "This year, we had to turn away some (customers)."

That's been good for producers, and Mr. Meisegeier said payment levels are higher every year. The co-op sells milk for \$73 a hundredweight and pays members about \$56. The WSDC continues to tweak its program. This year, the coop initiated a year-end bonus for quality. Producers also will be rewarded if they estimate within 10 percent how much milk they will market annually.

Producers aren't paid for components, and there's no demand for organic sheep milk products, but Mr. Meisegeier expects those things could change. In an effort to develop a more accurate pricing system, the WSDC has started to track members' production costs. "The biggest thing is how do you know what to charge?" he said. "(People on the East Coast) say we should be getting \$100 a hundredweight."

More also is being learned about the unique needs of sheep milk. For example, because of the high fat content, milking equipment must be cleaned more thoroughly. Researchers at UW-Madison are studying how best to freeze sheep milk for highest quality.

Sheep Saved the Farm The Meisegeiers have been milking sheep on their River Ridge Stock Farm since the late 1990s. They also milk a few goats and raise about 160 chickens a year.

Sheep milk has a milder taste than goat milk, and is more comparable to cow milk, Berger said. "Sheep milk typically has 6.5 percent fat compared with 3.5 percent in cow milk; protein is typically about 5 percent for sheep and 3.6 percent for cows," he added. "There is more unsaturated fat, so it is easier to digest."

Most of the dairy sheep producers in Wisconsin are located in a 100-mile radius of Eau Claire, Berger said.

"It is fairly easy to milk sheep. It takes about two minutes per ewe," Berger said. "We have a fairly good yield of about 800 pounds per ewe per lactation."

Sheep milk produces more cheese than cow milk, according to Berger. "The cheese yield is twice as much because the solid content is twice as much," he said. "There is a different array of flavor to play with."

The retail price is high, from \$20 to \$25 per pound, he said. "It is a gourmet type of thing, not a commodity."

Sheep milk cheese is sold in the Madison area at Whole Foods and at times at the Farmers' Market on the Capitol Square.

E-mail: aweier@madison.com

Tidbits

√ The 8th Sheep and Wool World Congress was held in Queretaro, Mexico from July 23 through July 29, 2007. Many countries were represented, with important contingents from Canada, the United States, Mexico, Australia, New Zealand, and many countries of South Africa.

The commercial production of milk is becoming more and more recognized by the sheep industry as another natural product of sheep. In this light, the organizing committee of the Congress invited Yves Berger of the Spooner Ag Research Station, University of Wisconsin-Madison, to give a presentation on the economics of dairy sheep. The presentation allowed many people throughout the world to be aware of another possible option of sheep husbandry

√ The Spooner Research Station of the University of Wisconsin, at the 3rd Biennial Dairy Sheep Day on August 25, 2007, unveiled a new research project exploring the possibilities of developing a high milk producing hair sheep. To do so, a small flock of Kathadin ewes was purchased by the Spooner Research Station. Crossbreeding with the Lacaune will start this coming fall.

Report from New Zealand: Sheeping breeding for milk

Peter Owens

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Milking sheep in the South Island began 10 years ago then faded away because of inconsistent product and poor marketing. Now the industry is back on a firm footing thanks to the enterprise of an Invercargill entrepreneur.

In late 2004, Southland farmer Keith Neylon bought Blue River Dairy Products Ltd. Baslutha. The company, now operating in the old 0 Fresh Ice Cream building in Invercargill, produces and markets a wide range of sheep milk cheeses. Customers are not alone in their appreciation of the high quality of the Blue river cheeses. Four of the six dairy sheep cheeses the company entered in the recent 2006 New Zealand cuisine cheese awards achieved success.

The company's Halloumi cheese won a silver medal and its two feta cheeses, mild and matured and both entered under the tussock Creek label, each took a bronze, as did the Blue River Curio Bay Pecorino cheese. The company's success mirrors that it has had in export niche markets as diverse as the United States, Australia, and the Middle East. It also exports about 60 tons of feta to a Greek supplier in New York. Its achievements can be attributed to a number of factors including the drive for top quality by chief executive Chris Ulyatt, who oversaw the transfer of the company's operations to Invercargill. Ulyatt also holds a concentrated marketing and quality control position and found targeting at the upper end of the market became a winner.

Another major factor in the success is that the product is made from top quality milk. Blue River puts the development of better breeds of milking sheep as a basic way of upgrading the dairy sheep industry in the north. Ulyatt suggests a specifically evolved composite animal may well accomplish this. He says the sheep milking industry is disadvantaged both in production and marketing by a lack of viable volumes of milk.

Therefore, Blue river decided to boost overall production to the Balclutha plant, by converting a dairy farm at Brydone, southland, and stocking it with first-class milking sheep. This has been successful and the company has expanded its supply base while still accepting sheep milk from several farm suppliers from pre-2004.

The main supplier is antara Dairies Ltd, also controlled by Keith Neylon.

A few notes from Sardinia

Claire Mikolayunas

In April, we made a pilgrimage to the island of Sardinia, Italy. Nestled between mainland Italy, Spain and Tunisia, this mountainous island has a rich tradition of milking sheep. While the land only covers an area the size of Vermont, it boasts over 15,000 sheep farms and 3 million dairy sheep, roughly the same number of breeding ewes in the United States as a whole. As you can imagine, this is the highest concentration of dairy sheep in the world.

Sardinians *only* started making wine in 1200 B.C., and small figurines depict sheep herding in the Bronze Age (around 1500 B.C.). With such a history of sheep management, it is not surprising that the island is home to some well-known cheeses. Among Italy's cheeses that are given the "Protected Designation of Origin" label, two of them are made in Sardinia from sheep milk – Pecorino Romano and Fiore Sardo. Pecorino Romano, made in large cheese plants throughout the country, is aged 5 months in a salt and allowed to ripen for 3 more months. Fiore Sardo or "Flower of Sardinia" is a raw milk, farmstead cheese, made using fresh lamb rennet. It is smoked for 18 days before a 3 month aging process. Over 90% of the Pecorino Romano made in Italy comes from Sardinia and the majority of that is shipped to the United States. We will show a short photo tour of their cheesemaking processes during the Great Lakes Dairy Sheep Symposium to be held in Guelph, Ontario in November.



Pecorino Sardo cheese in the smokehouse

The cultural and economic impacts of sheep milking were echoed at the Università degli Studi di Sassari, where I was graciously hosted by Dr. Antonello Cannas. Among the 12 professors in the Animal Science department, only two focus on cows and the remainder specialize in sheep and goats. What a refreshing change! The faculty works closely with the regional research station, Istituto Zootecnico e Caseario Per La Sardegna, which is home to 2,500 dairy ewes and 100 goats.

Sheep milk production in Sardinia is based on grazing with supplemental grain fed in the parlor. The pastures ranged from cultivated, lowland fields to steep hillsides and produce forage with about 30 inches of rainfall per year (also similar to VT). The main breed is the Sarda, a smaller framed ewe averaging about 100 to 110 lbs. The general production values are:

- √ 8 month lactation
- √ 650 lb. milk per ewe per lactation
- √ \$ 0.36 / lb. milk
- √ \$ 5 to \$10 / lb. cheese



A Sarda ewe after milking

As we toured the countryside, it was obvious that the island's history is not separate from its future. The long shepherding heritage of Sardinia is being supported by modern institutions, from the university to the national research stations, to the cheese marketing boards. When I think of the modern and "scientific" methods we rely on in a research setting, the image of dairy ewes grazing at the base of 3,500 year old stone dwellings reminds me to appreciate where this tradition began.

Our members win Cheese Society awards

Pat Elliott

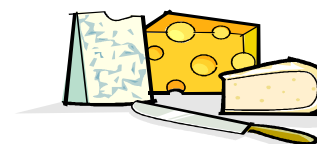
The American Cheese Society met this year in early August and produced a number of winners from our members. The meeting this year was in Vermont, one of the strongholds of sheep milk cheese.

If you have never been there, consider attending next summer--the meeting will be in Chicago. It is a great place to network and to learn a little and to showcase your cheeses. There were a record 1208 cheeses this year!

These awards were given our members :

Soft ripened cheeses from sheep's milk:	Old Chatham 1 st Willow Hill 2 nd Willow Hill 3 rd
American made/int'l style sheep's milk:	Woodcock Farm 2 nd WSDC 3 rd
Blue mold, sheep milk:	Old Chatham 3 rd
Feta, sheep milk:	Bonnieview Farm 2 nd Woodcock Farm 2 nd Black Sheep Creamery 3 rd
Flavored cheeses:	Moutonniere 2 nd
Farmstead cheeses, sheep:	Vermont Shepherd 1 st La Moutonniere 3 rd
Fresh sheep's milk cheeses:	Hidden Springs 1 st Black Sheep 2 nd
Fresh sheep's milk, flavor added:	Black Sheep 2 nd Hidden Springs 3 rd
Marinated cheeses, sheep:	Everona Dairy 1 st La Moutonniere 2 nd
Cultured sheep's milk:	Willow Hill 2 nd La Moutonniere 3 rd
Aged sheep's milk:	Black Sheep Creamery 2 nd WSDC 2 nd

If we missed you by not recognizing your farm name, please tell us.



What's going on in Tennessee

Tim Clark

We now have three farms in East Tennessee that are licensed to milk sheep: Blackberry Farm at Walland, Indian Crest Farm at New Market and Locust Grove in Knoxville.

Blackberry is using our Creamery now to make cheese as their creamery will not be finished until the middle of August. Indian Crest was approved for transporting their milk to Locust Grove for Blackberry's use at about 90 gallons every other day.

Dr. Eden Myers, in central KY, is moving toward milking sheep by next year and will be freezing milk and transporting to East TN if everything moves forward as discussed.

Our Mission ▪ Notre Mission

DSANA will promote effective dairy sheep management by educating, supporting and encouraging new and established sheep milk dairies, farmsteads, and artisanal sheep milk cheesemakers.

DSANA fera la promotion de la gestion efficace des troupeaux de brebis laitières par la formation, l'encouragement et le soutien des producteurs (trices) de lait de brebis (autant les débutants que les plus expérimentés), ainsi que les fromageries fermières et artisanales.

DSANA will promote cooperation and exchange of information among producers of sheep milk and cheesemakers.

DSANA incitera la coopération et l'échange d'idées entre producteurs (trices) et transformateurs (trices) de lait de brebis.

DSANA will also promote the products manufactured from sheep milk.

DSANA fera la promotion des produits fabriqués à partir du lait de brebis.

DSANA will help producers organize activities for the genetic improvement of dairy sheep.

DSANA soutiendra les producteurs/trices pour les aider à organiser des activités visant l'amélioration génétique des ovins laitiers.

DSANA will endeavor to inform and educate the public as to the merits and availability of sheep dairy products.

DSANA s'efforcera d'informer et d'éduquer le public quant (aux mérites) à la valeur nutritive et à la disponibilité des produits fait à partir du lait de brebis.

DSANA will strive to help foster international understanding and the free exchange of ideas between North American based producers and producers abroad.

DSANA s'efforcera de favoriser une meilleure entente internationale et soutiendra l'échange libre des idées entre les producteurs d'Amérique du Nord, ainsi qu'ailleurs dans le monde.