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rrsf@brucetel.net

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Terri MacKenzie
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sburring@frontiernet.net



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www.dsana.org

Editor's notes

Pat Elliot
Winter 2006

Well, another lambing season has begun! Even though I am anticipating it and have prepared for it by organizing supplies (towels, iodine, ear tags), cleaning jugs, and ordering such expendables as Pritchard nipples, I am always blindsided by the sheer quantity of work. Last Sunday from 7 a.m. to 1 a.m. I went with a ten minute break for lunch and a bottle of beer and a slice of bread for dinner while I was warming a cold lamb. It is neat to know that all across the United States and Canada, the other 150 or so of you are doing pretty much the same thing (or are getting ready to be doing it) and understand what I am talking about.

I can't go down the road and find someone who understands how I feel about the difficult birth that makes it, the ewe who is in labor out in the snow and doesn't want to come in, the abundant whiteness of the fresh milk, but you do. We are scattered comrades. Our newsletter is a little lean this time due to lambing, but I hope you will enjoy the fare.

I do urge you to contribute your ideas and experiences. We are always looking for more copy.

We need to work together to enhance our product. We can promote our product--sheep milk/cheese and help all of us with no fear about competition--there is room for all good quality sheep milk and cheese. Promotion for or by one of us helps everyone sell more cheese because awareness increases of our fantastic product!

Membership ■ L'Adhésion

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.

DSANA accueille tous les producteurs (trices) de lait de brebis, les transformateurs artisanaux, les fromagers de ferme, les vendeurs, les fournisseurs, les professionnels dans la filière des ovins laitiers, les chercheurs académiques...enfin, tous et toutes qui s'intéressent vivement à la production et à la transformation du lait de brebis. Nous accueillons également les ami(e)s de l'industrie laitière ovine.

Benefits of membership ■ Bénéfices de l'adhésion à DSANA

- ✓ Quarterly DSANA Newsletter • *Journal tous les trois mois*
- ✓ DSANA website • *Site web de DSANA*
- ✓ Discount admission to the Great Lakes Dairy Sheep Symposium • *Tarif réduit pour le symposium annuel des Grands Lacs sur la brebis laitière*
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A principal member is one who is currently milking sheep in a state/province licensed facility, or is actively involved in getting milk to the market, brokering milk sales, producing or distributing sheep milk based products.

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Carol Deacon,- DSANA Treasurer
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Rock Hills, SC 29730 USA
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Email: threedog@flashlink.net

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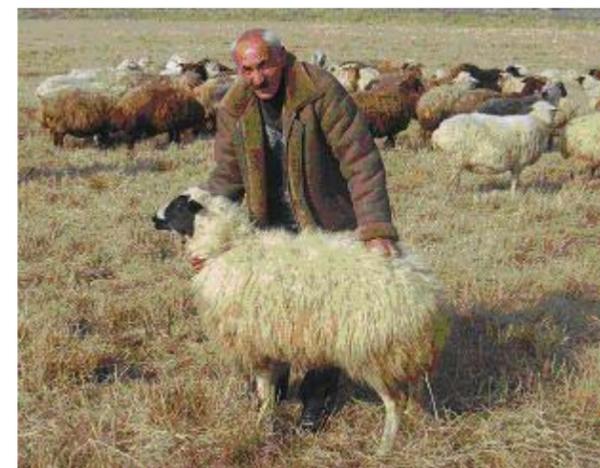
March (Winter/Spring issue)

July (Summer issue)

Deadlines for submission of material is three weeks prior to publishing. The editor reserves the right to move material to future issues if needed. Past issues are available on the DSANA website (www.dsana.org).

The greatest priority need for the Armenian dairy sheep industry highlighted by the team was the production of high quality milk. Traditional hand milking on the ground is not favorable for the production of high quality milk and is physically demanding work. Milking on a raised milking platform can improve milk quality, reduce long-term physical ailments of milkers, and encourage young people to become interested in sheep dairying. The milking platform should be located in a building constructed of materials that are easily cleaned.

In villages that have a cheese plant, consideration should be given to the construction of a larger communal milking building close to the milk processing plant where sheep from the village can be brought for milking. The construction of a single milking building would be more cost effective than the construction of several smaller buildings by individual households and could more easily



A shepherd and his flock in northwestern Armenia.

justify the expense of installation of milking machines in the future. We did not visit any summer camps in the mountains, but milking in the mountains also must be done in permanent milking facilities that are easily cleaned in order to ensure the production of quality milk.

The team also made several recommendations for possible improvements in sheep management, improved sheep milk processing methods, the development of new specialty sheep milk cheeses, and marketing strategies for both domestic and export markets.

All of the several Armenian dairy producers and their families that we visited were warm, generous people that welcomed us in a most hospitable manner. After each day in the field, we were tired, but also full of wonderful food and drink provided by our farmer hosts. We look forward to working with Armenia dairy shepherds in the future to assist in the development of their industry.



A fat-tailed Mazekh ewe lamb.

It's time to mark your calendars!

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Dairy sheep production in Armenia

David L. Thomas

At the request of the USDA/Foreign Agricultural Service and the Armenian Center for Agribusiness and Rural Development, a four-member U.S. team spent a week in Armenia in November 2005 conducting an assessment for the potential development of the Armenian dairy sheep sector. The team consisted of Yves Berger, dairy sheep scientist and Superintendent of the Spooner Agricultural Research Station; Gary Frank, retired Farm Management Specialist, Center for Dairy Profitability; David Thomas, dairy sheep scientist and Professor of Sheep Genetics and Management; all from the University of Wisconsin-Madison; and Peter Dixon, private dairy foods consultant and cheesemaker, Vermont.

Armenia is a small mountainous country, with a land area midway between that of the states of Maryland and West Virginia. Armenia's neighbors include Turkey to the west, Iran to the south, Azerbaijan to the east and Georgia to the north. Armenia is land-locked, and due to disputes with Turkey, Azerbaijan, and somewhat less with Georgia, it is very difficult for trade goods to move in and out of the country except by air or by land through Iran. Armenia was the most southwestern province of the former U.S.S.R. and became independent in September 1991 with the break-up of the old Soviet Union.

There are currently about 560,000 sheep in Armenia. This is a decrease from the approximately 2.5 million head that were present in 1991 at the time of independence. As with land and other assets, the large flocks of sheep that were maintained under central government ownership and control prior to 1991 were privatized and redistributed to the farm workers and their families in 1991. Many of the sheep were sold for cash, bartered for needed commodities, or consumed by their new owners. It now appears that sheep numbers have reached their low point and are starting to increase in numbers.

Armenia has dry hot summers and cold snowy winters, similar in climate to much of the inter-mountain west of the U.S. Sheep have traditionally spent their winters housed in barns near villages in the valleys and grazed mountain pastures in the summer. Since 1991, it has become difficult for many of the new owners of small flocks to organize their flocks for movement to mountain pastures in the summer. This has resulted in many mountain pastures being underutilized and areas around villages to become overgrazed. However, sheep numbers have become so low in some areas that there is enough grazing year round near villages in some regions of the country.

Most of the sheep in Armenia are fat-tailed. A major breed is Balbas. This is a semi-coarse wool breed with white wool. The legs are white and the face is white with black pigmentation around the eyes, on the ears, and on the nose. A second major breed is the Mazekh. This is a semi-coarse wool breed with brown or black wool, face and legs. All breeds are tri-purpose producing meat, wool, and milk. A common schedule and management practices followed by sheep flocks are as follows:

1. Ewes are bred in October-November. Only a few of the ewe lambs are expected to conceive their first autumn.
2. Lambing occurs in sheds in February-March.
3. Lambs are allowed to nurse the ewes for approximately 3 months until May-June. However, during this nursing period, lambs and ewes are kept separate and allowed together twice or three times each day for the lambs to nurse. It is thought that this separation lessens the chance of the lambs eating the wool of the ewes and dying.
4. After the lambs are weaned in May-June, milking starts and continues for 3 or 4 months through August. Milking usually starts when the ewes are still in the valley near the village and continues in the mountains, if the ewes move to the mountains.
5. Hand milking is practiced. One person restrains two ewes, with each arm around the neck of a ewe. A milker milks the ewe from the rear into a bucket that has been placed in a hole dug into the ground.
6. Ewes are milked twice per day. Some flocks milk in the morning and the evening each day. Other flocks also milk twice each day but with only about one hour between milkings. Evidently many of the ewes are slow to let down their milk, so the first milking recovers only the cisternal milk and the second milking within an hour obtains the alveolar milk that is let down.
7. While in the mountains, the ewes and lambs are grazed in separate flocks.
8. Due to its high cost, very little, if any, grain is fed to ewes or lambs. Sheep are fed hay during the non-grazing season.
9. Production from a ewe each year is approximately 110 – 155 lb. of milk, 4.5 – 6.5 lb. wool, and 1.10 – 1.20 lambs per ewe per year. Lambs are sold for meat at a live weight of approximately 90 lb. (45 lb. carcass weight).

President's message

Larry Meisegeier

Hello and welcome to an exciting new year for dairy sheep production.

For those who do not know me, my name is Larry Meisegeier. My wife, Emily and I own one of the largest sheep dairies in Wisconsin. I was born and raised on a cow dairy farm, a fourth generation dairy farmer in our community. My uncle and cousin still operate the 60 cow dairy farm that my grandfather started next door to his father's dairy farm back in 1945.

I have been in the agriculture/livestock industry my entire life working with traditional livestock as well as sixteen years in the fur industry with mink and fox and two years in the commercial poultry industry with over 1.5 million laying hens.

I serve on the Board of Directors of the Wisconsin Sheep Dairy Cooperative as quality control officer and Field Representative.

In 1994, I was part of a small group of sheep producers that founded the Indianhead Sheep Breeders association and I served seven years as President of the organization. The ISBA has become one the most successful producer groups in Wisconsin. This was due to the involvement of the membership and this is what I hope to see with DSANA. Without member participation, we can not make DSANA a success.

If there are projects you believe DSANA should be involved with, I want to know. I always enjoy talking to dairy sheep people about the industry, so feel free to give me a call or send an e-mail.

I have two major goals I would like to see accomplished during my two-year term as President. One is opening doors to import new genetics from Europe and the other is to establish a genetic improvement program and a USDA sire summary for dairy sheep.

We will need everyone's help with the second goal. We need everyone to provide information about the rams and bloodlines they have used. This information is needed to build a database to work with.

My first assignment for all of you is to gather your genetic records and send it to the Board to get the ball rolling.

Lambing and production season is just about upon some of us, I would like to wish you all good luck and happy milking.

Ontario report

Eric Bzikot

As I agreed to be DSANA's "reporter" from our region, here is my first "letter from Ontario". First I will tell you a little about ourselves, and then a bit of what's happening in Ontario – as I see it.

Elisabeth and I run a sheep farm which is our source of income and which consumes our time and energy. The farm is 150 acres, most workable, with quite an extensive set of buildings. We are glad to have the buildings in the winter as being in the snowbelt necessitates housing the sheep for at least four months every year.

We are down in flock size as my personal health problem in 2005 forced us to sell nearly 300 ewes. We still have 130 ewes and about 150 of last year's ewe lambs. The majority of the ewes are now pure British Milk Sheep – a dairy breed not well known in North America.

We have milked our sheep since 2001 and milk yields have been increasing as we have built up more British Milk Sheep stock and as the average age of the ewes has risen. We put a lot of effort into marketing our lambs, our milk and milk products.

Our milk is sold through the Ewenity Dairy Co-op, which co-packs most of its members' milk but has also sold some to other processors. Ewenity is one of about half a dozen buyers of sheep milk in Ontario.

There appears to be renewed enthusiasm in sheep dairying in Ontario, with several new entrants into the business. The Ontario Dairy Sheep Association is able to provide information and advice to new entrants, as well as being our voice to the outside world.

The Ontario Cheese Society, formed in 2004, is arousing interest in artisan cheese and much of this can be made from sheep milk. Currently a significant amount of artisan cheese originates outside of our province as very strict local regulations make establishment of small scale processing facilities difficult and expensive. I suppose the silver lining to this cloud is that those that do overcome the red tape and high cost will be built to a very high standard.

I would like to finish by wishing you and all DSANA members a wonderful 2006 with lots of grass, lambs and milk, and few predators!

South region liaison report

Kim Duty

Greetings fellow sheep dairies. My name is Kim Duty, and my husband Steve and I own True Ewe Farm in Flint Hill, VA. At the November 2005 DSANA meeting, I agreed to serve as the DSANA liaison for the Southern region.

Judging by the number of start up farms, it appears that the south may be the next up and coming region for the sheep dairy industry. In addition to our farm, which we hope will be in commercial production by 2007, Jeff Earnest and Kelly Graddy have started Ewe Remembered Dairy Sheep Farm in Weirsdale, FL and Jon Treffert is starting HimmelAlm Farm in Powell, TN.

South DSANA Resources

Web Site. Late last year, Jeff Earnest created a new web site for the southern region called the South East Dairy Sheep Cooperative (SEDC) at www.diamondjksfarms.com/index.htm. The goal of the SEDC is to promote effective dairy sheep management by encouraging cooperation and idea exchange among new and established sheep milk dairies in Florida, Georgia, South Carolina, North Carolina, Tennessee and Virginia. (If your farm is not listed and you would like to be, contact Jeff at jne0493@hotmail.com. The SEDC is also looking for relevant articles, materials or other information to post. Please feel free to send anything of interest to Jeff.

E-Mail Listserve. In January, we created a new listserv (called SouthDSANA) to explore the unique operational issues and challenges that southern sheep dairies face. Recently, the group has been discussing our efforts to develop a pasture mix for our reclaimed pastures. To join the group, send an email to SouthDSANA-subscribe@yahoogroups.com or visit <http://groups.yahoo.com/group/SouthDSANA/>.

Farm Updates

Ewe Remembered: Ewe Remembered is a small family farm of East Friesian, Katahdin and Barbados Black Belly sheep. It was established in Central Florida by Jeff Earnest and Kelly Graddy in 2004. The farm's first lambing will be in mid-March; although after this first year, the farm will adopt the Star Breeding Method of five lamb crops in three years, with a preference for September/October lambing. Unlike DSANA's northern counterparts, the farm is able to breed "off-cycle" because of its southernmost location and its Katahdin foundation stock.

Still in start up mode, Jeff and Kelly have cleared the area for the barn/milking parlor and have finished the exterior of the creamery and have decided to build a cheese-aging cave. They plan to take advantage of their property's rare-for-Florida 25 foot vertical slope and have begun the initial step of rough digging.

While the cheesemaking part of the business is being developed, Ewe Remembered will be marketing sheep's milk products at local markets. Initially, they will be selling sheep's milk soaps, lotions and bath products purchased from Shepherd's Dairy in Nebraska as they introduce their own cheeses, soaps and value-added farm products. They hope to move to a permanent retail location in March 2008.

HimmelAlm Farm: There is much excitement at HimmelAlm, a small family farm in Powell (just north of Knoxville) Tennessee owned by the Trefferts. It's almost lambing time for all but the very youngest of the East Friesian/Lacaune girls. Last year saw the construction of a new sheep barn and fencing for the ewes and two rams. In 2006, finances permitting, construction of the milking and cheese production facility will get underway. The Trefferts are also trying to find a local cave they can use for cheese aging. The farm hopes to be in commercial production in 2007 and will spend this year developing local and online markets and defining/refining the cheese production process. For more information please visit www.himmelalmfarm.com.

True Ewe Farm: True Ewe Farm is a 25-acre operation located in the foothills of the Blue Ridge Mountains, approximately one hour from Washington, DC. It was started in 2005 by chef-turned-winemaker Steve Duty and his wife Kim. After a year spent fencing and erecting a new hoop barn, they are now focused on building their dairy flock, reclaiming their pastures, building the milking parlor and creamery and instituting an intensive rotational grazing program. They hope to be in commercial production by 2007.

The flock currently consists of 27 East Friesian and Ile de France ewes, one East Friesian ram and two East Friesian/Lacaune rams. A relatively unknown breed, the Ile de France was selected to flesh out the meat carcass of the East Friesians without compromising milk production and without running a terminal sire program. Although not a dairy breed, they have a reputation as extremely good milkers, with very strong udder attachment and conformation. They are also known for their calm disposition, extremely large and meaty loin, and high muscle to bone ratio. The 10 Ile de France ewes on the farm were selected specifically for milk production based

The wonders of sheep milk discovered - Twice the nutrition and all of the taste

Julie Daniluk R.H.N. (Registered Holistic Nutritionist), Toronto, Ontario, Canada

As a nutritionist, I have searched everywhere to find a true alternative to cow's milk. The symptoms of a dairy allergy are so broad that it is often one of the first things that need to be substituted in a dietary program that would help treat bowel, skin, and lung disorders. The first time I tasted sheep dairy it was in the form of sheep yogurt. It was so rich and thick I thought it must be sheep ice cream thawed out!

The truly remarkable thing about sheep milk is the taste. It is so close to cow milk that 83% of patients trailed on sheep milk prefer it to any other milk substitutes including; soy, goat, and rice milk.

Leonard S. Girsh, M.D. did a study of 206 individuals and found that 99% of the patients were tolerant to sheep milk over an average of 34% tolerance for soy, goat and rice. It was notable that the severity of allergic symptoms such as diarrhea, nausea, vomiting, headache, sinus congestion, migraines and skin rashes were relieved by simply substituting sheep milk where ever the patient would normally use cow milk.

Apart from its incredibly low allergenicity, the nutritional value of sheep milk is truly something to be excited by. Check out how sheep milk compares to other milks.

Nutrient	Human	Goat	Cow	Sheep
Protein	2.58 g	8.9 g	8.23 g	15 g
Calcium	80 mg	335 mg	297 mg	483 mg
Magnesium	45 mg	35 mg	32.5 mg	75 mg
Lysine	183 mg	710 mg	640 mg	1260 mg
Vitamin B ₁₂	.045 mcg	.065 mcg	.357 mcg	.711 mcg
Zinc	.17 mg	.30 mg	.38 mg	.57 mg

What do the chart stats mean?

- A well-tolerated, non-allergenic protein source is very important for people who are healing, athletic or growing.
- Calcium is responsible for relaxation, bone density and cavity prevention.
- Magnesium is very critical for the relief of muscle cramping.
- Sheep milk contains twice the amino acid lysine than cow or goat milk. Lysine is one of the most important

nutrients in the treatment of viruses such as herpes simplex.

• A diet high in Vitamins B12 and C, magnesium and zinc, is recommended for people who suffer from Chronic Fatigue or Immune Dysfunction Syndromes.

Plus, sheep milk fat is 25% MCT's (Medium Chain Triglycerides). These healthy fatty acids are easily digested and not stored in the body as fat. They prefer to be burned as fuel and thus are favored by endurance athletes. MCT's do not raise LDL (bad) cholesterol.

With all of the nutritive benefits and great flavor you can see why sheep milk, cheese and yogurt has fast become one of my all time favorite foods!

Why choose sheep milk products?

Why should a consumer choose to purchase sheep milk based products? The advantages of sheep milk products are numerous. Sheep milk contains almost twice the percentage of calcium, phosphorus, iron and zinc that cow's milk contains. The chart below taken from E. Renner, 1974 shows a comparison between sheep and cow milk in relation to the human daily need in 1 litre of milk from each source. (Quantity mg/l)

Minerals	Human Daily Need (mg)	Sheep Milk	Cow Milk
Calcium	800	2030	1360
Phosphorous	1000	1330	850
Potassium	1500	1460	1520
Magnesium	300	170	120
Copper	2	0.34	0.12
Iron	12	1.05	0.6
Sodium	1150	360	460
Zinc	7	7.42	3.9

Sheep milk also contains more of the percentage of A, E, C, and B complex vitamins that cow's milk contains (sometimes up to 2 times as much!). The comparison chart below taken again from E. Renner, 1974, shows the daily human need as met by sheep and cow milk in one litre of the product.

Vitamin	Human Daily Need (mg)	Sheep Milk	Cow Milk
Vitamin A	1.5	0.5	0.3
Vitamin E	20	15.8	7
Vitamin C	70	40	22
Vitamin B ₁	1.3	1.2	2.2
Vitamin B ₂	1.6	4.3	2.2
Vitamin B ₆	3	0.7	0.52
Vitamin B ₁₂	0.0035	0.0098	0.0027
Folic Acid	0.15	0.054	0.052

Sheep milk contains approximately 5.5% Protein in comparison to 3.7% in cow milk.

A review of the journal article: "Effect of dietary energy and protein concentration on the concentration of milk urea nitrogen in dairy ewes"

by A. Cannas, A. Pes, R. Mancusco, B. Vodret, and A. Nudda (*J Dairy Sci* 81 (2):499-508, 1998)

Melanie Schotthofer, Graduate Assistant
Department of Animal Science, Cornell University

Developing a performance-based diet for dairy ewes that will yield the most profit has been a challenge to dairy sheep farmers and researchers alike. Due to the comparatively small quantity of milk yield from dairy sheep (0.75 to 4.0 pounds of milk per day compared to a cow's 55 to 65 pounds per day), it is essential for dairy sheep farmers to maximize returns in milk yield and quality from feed costs on diets that promote long-term productivity for ewes. As part of my senior research project last year at the University of Wisconsin, I examined the journal article, "Effect of dietary energy and protein concentration on the concentration of milk urea nitrogen in dairy ewes" by A. Cannas, A. Pes, R. Mancusco, B. Vodret, and A. Nudda (*J Dairy Sci* 81 (2):499-508, 1998) in an effort to discover values of milk urea nitrogen (MUN) that could indicate the most effective levels of dietary energy and protein in the diet of a lactating ewe. Although this was but one study, several interesting observations were found that may be of use in further developing performance-based dairy sheep diets.

Milk urea nitrogen (MUN) levels are used as indicators in dairy cows to evaluate how well dietary protein is being metabolized. MUN actually reflects the blood urea nitrogen (BUN) which is a reflection of the protein efficiency in the rumen. However, MUN is easier to measure than blood urea nitrogen, which requires a blood sample. Further research has been necessary to know if MUN values can be used as indicators of dairy sheep performance, protein metabolism, and the cost-effectiveness of a diet.

The Cannas study used Sarda ewes fed a formulated total mixed ration (TMR) composed of dehydrated alfalfa, beet pulp, soybean hulls, ground corn, wheat, fishmeal, soybean meal, calcium carbonate, and dicalcium phosphate. Eight different TMRs were formulated representing two different energy densities (1.55 Mcal/kg and 1.65 Mcal/kg) and four varying levels of crude protein (14, 16.5, 18.7, and 21.15 %)

The MUN values increased as dietary crude protein concentration in the diet increased. Milk yield plateaued and even decreased at protein levels higher than 18.7 % crude protein. Ration costs were the highest for these high protein levels because protein is the most costly major ingredient, causing these levels to be unattractive in terms of productivity and profit. Also, at crude protein concentrations in which milk production was maximized, MUN values were potentially high enough to cause negative effects on reproductive efficiency of the ewes. Results also showed that at certain high dietary nitrogen levels, milk yield may increase, but the percentage of milk components in the milk decreases, diluting the milk to some extent.

From this study, with these particular diets, the lower energy diet (1.55 Mcal/kg) yielded higher milk yields, lower feed costs and more overall profit than the higher energy diets at all protein levels. Moreover, the 18.7% protein concentration diet resulted in the highest milk yields and overall profits when compared to the other protein levels. This was also the diet with the highest dry matter intake and crude protein intake. The MUN values are shown in Table 1.

The results indicate that milk urea nitrogen can be used for sheep dairy farmers to evaluate the protein and energy levels in their diets. These papers support that MUN tests are valuable indicators of dairy sheep performance, protein metabolism and ultimately, cost-effectiveness of a diet for any dairy sheep farmer interested in measuring these factors. Further research is needed to test conventional and grazing diets for MUN values.

Table1. Sheep milk urea nitrogen values (mg/dL) for low and high energy diets with four crude protein levels.^a

Diet energy density, Mcal NE _L /kg DM	Dietary crude protein ^b , %			
	13.9, 14.2	16.3, 16.6	18.6, 18.8	21.1, 21.2
1.55	12.9	17.7	23.4	26.7
1.65	12.2	17.0	22.3	25.8

^aFrom A. Cannas, A. Pes, R. Mancusco, B. Vodret, and A. Nudda (*J Dairy Sci* 81 (2):499-508, 1998).

^bValues for diets with 1.55, 1.65 Mcal NE_L/kg DM, respectively.

on their estimated breeding values (EBV). They are proving to be hardy and very thrifty sheep, and are actually gaining weight on the unimproved winter scrub pasture! Another test will come when the ewes are exposed to Virginia's hot and humid summer.

At full production, they hope to have a flock of 100 milking ewes, and they plan to make four kinds of cheeses: a fresh, soft, pasteurized cheese; a naturally aged raw milk cheese; a washed rind cheese; and a bloomy rind cheese. They will target the DC market and leverage their location in a county called the "Sonoma of the East" by the New York Times because of its concentration of wineries, gourmet restaurants and small farms. For more information, visit www.TrueEwe.com.

Blackberry Farm: Meanwhile in Tennessee, cheese maker Kristian Holbrook is helping turn Blackberry Farm, a top-rated luxury inn in the Great Smoky Mountains, back into a working farm. 2005 was the first year of cheese production for the farm's flock of East Friesian ewes, during which the "girls" produced almost 1,000 pounds of milk.

For the 2006 season, Kristian is making four raw milk cheeses and a yogurt. The debut cheese produced early in the season is a small, two to three ounce, mold-ripened variety called *Miller's Cove*. Later in the season when the legumes and early wildflowers start to bloom, he produces a somewhat firmer soft cheese called *Trunk Branch*. In the summer, he changes direction and focuses on *Blackberry Blue*, a natural cultured-blue cheese that is aged for two to four months. At the end of the season, he turns his attention to his *Singing Brook Ewe*, a hard cheese with a complex caramel richness. All of Kristian's products are served in the Inn's Zagat-rated dining room.

DSANA-South Resources

South East Dairy Sheep Cooperative:
www.diamondjfkfarms.com/index.htm

SouthDSANA Listserve: <http://groups.yahoo.com/group/SouthDSANA/>.

South DSANA Liaison: Kim Duty, Kim@TrueEwe.com or 540/675-3259.

Members of DSANA-South

Blackberry Farm
Kristian Holbrook
Walland, TN

Clayhill Farm
Amy Hayner
Waverly, VA

Everona Dairy
Dr. Pat Elliot
Rapidan, VA

Ewe Remembered Dairy Sheep Farm
Jeff Earnest and Kelly Graddy
Weirsdale, FL
(www.diamondjfkfarms.com/)

HimmelAlm Farm
Jon Treffert
Powell, TN
(www.himmelalmfarm.com)

Red Dragon Farm
Michael Haynes, Ariel Marshall, John Noles
Mt Vernon, KY

True Ewe Farm
Kim and Steve Duty
Flint Hill, VA
(www.trueewe.com)

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.

Unique medium chain fats found in sheep milk yogurt do not cause plaque in arteries

Allison Marchese

The Old Chatham Shepherding Company makers of 100% sheep's milk artisanal cheese and yogurt, released news today that it's uniquely healthy sheep's milk yogurt does not contribute to the development of plaques in the major arteries. Further results show that the yogurt is easily digested by people who have difficulty using dietary fat and the yogurt will not contribute to additional body fat deposits.

According to Dr. Ronni Chernoff, Professor of Geriatrics at the University of Arkansas for Medical Sciences, and past President of the American Dietetic Association, "Sheep's milk yogurt has a unique fat profile. 25% of its fat content comes from medium chain fats, which are digested and absorbed differently than the longer chain fats that are more commonly found in other milk."

Dr. Chernoff adds that medium chain triglycerides (MCT) are absorbed directly into the liver circulation which means that they will not contribute to development of plaques in major arteries, and are easily digested by people who have difficulty in absorbing dietary fat. "Because of the amount of protein and calcium, and the unique fat profile," says Dr. Chernoff, "sheep's milk yogurt makes an excellent contribution to a healthy diet." She concludes by saying " Sheep's milk yogurt can be well tolerated by people who have fat malabsorption; with coronary artery disease or hyperlipoproteinemia; who have cystic fibrosis, cholesterol gallstones, or an intestinal resection." (Babayan, 1981; Babayan and Rosenau, 1991; Haenlein, 1992; Dulloo et al, 1996)

"Besides, it tastes great," says Dr. Ronni Chernoff. "The level of protein, calcium and essential vitamins in sheep's milk exceeds that in other milk while the fat content tends to be lower. This combination of higher protein and lower fat makes products made from sheep's milk, such as the yogurt, an ideal food to include in a healthful diet."

The Old Chatham Shepherding Company is the largest sheep dairy and one of the first to make sheep's milk products in the U.S. The farm produces award winning artisanal sheep's milk cheese and yogurt on its 600 acre farm located in the heart of the Hudson Valley in Old Chatham, NY. Owners Tom and Nancy Clark began the farm in early 1993 selling its milk to a local cheese

maker. It wasn't long before the Clarks were making cheese at the farm under their own label in a state of the art facility. Today the farm consists of 600 lush organically managed pastures home to more than 1200 East Friesian sheep. Old Chatham's sheep milk cheese and yogurt are sold in all fifty states and through the farm's website www.blacksheepcheese.com.

Noted by the press, the Old Chatham Shepherding Company's 100% sheep milk yogurt has been featured in the annual "Top 100" in *Saveur Magazine*. In a blind tasting, *Food & Wine Magazine* selected Old Chatham yogurt as one of the best. The yogurt won first place at the 2002 American Cheese Society cheese competition. Most recently the yogurt was featured in *New York Magazine*, *Yankee*, *Gourmet Retailer* and *Natural Food Network* and is also recommended in the national best selling book, *The Maker's Diet*.

Keep a eye on cow milk information

Pat Elliot

There is a lot of information on milking dairy cows-- when it comes your way, look at it.

Sure, cows are big and give watery milk but the principle is the same, and there is a ton of information about milking cows., most of which is applicable to the sheep dairy. An article called "Good Milking Practices Help control Mastitis and Maximize Profit" in the Mid-Atlantic Country Folks Farm Chronicle on January 23, 2006 is a case in point. It emphasizes the importance of clean teats.

It is a must to remove excess soil from the teat first. Then the familiar strip, pre-dip (they suggest a foaming iodine pre-treatment for coverage. A Virginia Tech study showed no difference in whether animals were dipped or stripped first as long as the teat was not touched once it was dry. An affirmation for something we know. They comment that dirty cows get the best prep and therefore milk the most because the extra prep time causes them to milk-out faster and give more milk. They said the most nerve endings were at the base of the teat with stronger muscle contractions in the teat when more oxytocin was released.

Properly prepped cows released in 20-24 seconds and 80-90% peak flow occurred in one minute. They urged close watching to not over-milk and urged that a good barrier dip be applied as soon as possible, a dip being better than a spray according to Penn State research.

The facts about sheep milk and yogurt

Old Chatham Shepherding Company

- ✓ Lacto-calcium is much more easily digested than calcium carbonate found in cows milk.
- ✓ Being told to get off milk products usually means cow milk not sheep's milk. Calcium should not be eliminated from your diet.
- ✓ Sheep's milk is high in zinc, which is essential for healthy skin.
- ✓ Sheep milk fats are 78% MCT, which digest by transporting themselves directly to the liver for quick energy. Sheep's milk contains polyunsaturated or monosaturated fatty acids, which are good fats for your body and easily digested, they do not go to your arteries.
- ✓ Sheep milk is considerably higher in most essential vitamins such as A, D, & E. Vitamin D is 18g/100g vs. cows milk @ .04g/100g. Sheep's milk is also almost 2 times higher in calcium than cows milk.
- ✓ Sheep milk yogurt is 3 times higher in whey protein than cow. Whey protein is a more easily digested form of protein.
- ✓ Any illness or any cause for use of antibiotics reduces your immune system. However, wonderful antibiotics may be, they usually kill the good bugs along with the bad. Our sheep's milk yogurt helps to redress and restore the gut flora back to its original load, all to prevent getting ill again.
- ✓ Sheep milk has more Anti-carcinogenic – cancer fighting - CLA Linoleic acid. Which also helps to reduce fat.
- ✓ Sheep produce much less milk than cows. Therefore, sheep milk sells for a significantly higher price per pound. Keeping in mind that it would take about 30 sheep to equal the amount of milk 1 cow makes.
- ✓ Most sheep milk produced in the world is made into cheese such as: Feta, Ricotta, Pecorino Romano and Roquefort.
- ✓ The sugar in sheep's milk yogurt is MILK sugar, which does not cause cavities in teeth.
- ✓ We do not remove the fat from our sheep's milk. We feel it's a good fat that's good for your body. Most companies who remove the fat are replacing with artificial thickeners and sugar.
- ✓ The butyric acid found in sheep milk reduces colon cancer risk.
- ✓ The linoleic acid found in sheep milk reduces breast, stomach, prostate and colon cancer.
- ✓ Sheep's milk can help you to optimize bone health because of its increased levels of calcium, phosphorus, fluoride, protein, vitamin K, and magnesium.
- ✓ Sheep's milk is full of probiotics, which help to: modulate immune function, may reduce risk of breast cancer, alleviate symptoms of lactose intolerance, preserve intestinal integrity, and reduce symptoms of IBS.
- ✓ Trans fats in sheep's milk yogurt are animal fats, not the same as vegetable fats. Animal fats are good for you and digested quickly in our bodies.
- ✓ Sheep milk yogurt (dairy) consumption between childhood and adulthood has shown a reduction of cancer in women aged 34-39.
- ✓ Our sheep's milk yogurt has the same amount of fat as "low fat" yogurts. However, low fat yogurts add stearic acid, butyric acid & sphingoloids.
- ✓ Nutrition Today recommends a moderate fat diet, not a low fat one. Low fat diets are dangerous.
- ✓ This year Old Chatham Shepherding introduced GINGER YOGURT. Ginger is also very good for your body. Ginger is known to relieve stomach cramps, settle your stomach, lowers cholesterol, fights cancer, relieves nausea & vomiting in pregnant women, helps indigestion, helps with heartburn, eases motion sickness (better than Dramamine), stimulates circulation.
- ✓ Janet Fletcher of the San Francisco Chronicle wrote a good article about or sheep's milk yogurt. Check it out at: sfgate.com/cgi-bin/article.cgi/file+/chronicle/arcive/2004/03/03/FDGVA5909L1.DTL

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