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J-DSANA

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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
Summer 2009 Issue

Firstly, note the great issue this is – Claire did all the work! We both appreciate the contributions for this issue –mostly promised a while back and arriving on schedule!

Things have been very busy for me as I am sure they have been for you. The issues I had to deal with yesterday, for instance, do not have anything to do directly with milk or milking but have everything to do with the overall picture:

- Half the lambs are boys and they have to be marketed even though I do not see myself as a “market lamb producer” so two loads of lambs had to go to market

- “Repairs and maintenance” – a time and money item –it took hours yesterday –sometimes someone else can deal with it, sometimes you have to bite the bullet and do it yourself –go Lowes or wield the hammer!

- Records –the milk inspector wants two documents, the scrapies inspector wants an updated list, and the newsletter needed doing two months ago.

Perhaps we need a speech at the symposium on “Dairy Sheep-It's not Just Milking!” at least by this time of the year, most of the lambs are on the ground and on grass!

The deadline for the fall newsletter is October 1. This edition will be distributed at the 15th Great Lakes Dairy Sheep Symposium, and sent to those who cannot attend.

We are looking from news about your operation, your insights, ideas. Tell us your discoveries. If you have a question, we will try to find an answer. Send to Pat at everona@vabb.com

Grants for Farmers with New Ideas About Sustainability

Carol Delaney
Sustainable Agriculture and Research Education, Vermont

The Northeast Sustainable Agriculture Research and Education (SARE) program offers grants to commercial farmers who want to test new ideas in sustainable production.

SARE Farmer Grant projects normally involve an experiment, trial, or on-farm demonstration, and can focus on a wide range of topics such as pest management, soil health, adding value, cover crops, grazing, marketing, livestock herd health, or new production techniques. Funds can be used to pay for the farmer's time and for materials specific to the project. Awards are currently capped at \$10,000 and the application deadline is December 8, 2009.

Farmer Grant applications are posted on the Northeast SARE web site at www.nesare.org; click at the top “Get a Grant” and then choose “Farmer Grants” to bring all resources into view. The new applications will be posted by the first week of August this year. Or, you can call 802-656-0471 to request a printed copy of the application and a guide to write a Farmer Grant. Questions about the Farmer Grant program can be directed to Carol Delaney, the SARE Farmer Grant specialist, at 802-656-0697 or by sending e-mail to carol.delaney@uvm.edu.

Carol will be giving a presentation at the 2009 Great Lakes Dairy Sheep Symposium in Albany, NY in November on “All About Northeast SARE Farmer Grants” and will share examples of small ruminant grants funded. This includes a current grant entitled “Pressing Spent Brewers Grains to improve its use as an alternative feed: A Study of its effect on Dairy Sheep and Meat lambs” being conducted by Perry Ells in Union, Maine. Each farmer grant is required to list a technical advisor and the Dairy Sheep Symposium is a great place to network with those who could work collaboratively on a grant.

If you have an idea and have questions on how to write a competitive proposal, contact Carol ahead of time and meet with her at the conference for her input. Recommended reading is the “How to Write a SARE Farmer Grant Application” available from the SARE office or downloaded from www.nesare.org.

The Northeast SARE region is made up of Connecticut, Delaware, Massachusetts, Maryland, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia, and Washington, D.C. Additional SARE Grant programs are available throughout the United States, including:

North-Central Region - Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin

Southern Region - Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia

Western Region- Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming

Table 1. Origin of East Friesian animals in North America.

Importer	Imported from		Lines
Hani Gasser (BC)	Switzerland	Semen	Odo, Orf, Garfield
Wooldrift (ONT)	Holland	Embryos-semen	N409, P912, L901, 0166-0022 (the most famous)
	Great Britain	Embryos-semen originally from Holland	Ancellor lines Vos 137, Berksmar 18, Porte
Eurosheel (ALB)	Holland	Embryos-semen	Same as Wooldrift
	Great Britain	Embryos-semen originally from Holland	Vos 137- Berksmar 18, Porte, S542
	Switzerland	Semen	Odo, Orf, Garfield sold through the USA by Jarvis
Rosebud (ALB)	Holland	Embryos-semen	Othello, black EF ram sold through the USA by Jarvis
	Great Britain	Embryos-semen	Same as Eurosheel, sold in USA by Kaufmann- Hagen
L. Giroux (QUEBEC)	Sweden	Embryos	Same as Eurosheel
Josef Regli (ONT)	Switzerland	Embryos	Originally from Switzerland related to Regli (?)
Old Chatham (NY)	Switzerland	Embryos-semen	New lines from Switzerland
	New Zealand	Semen	New Zealand related to Giroux, Quebec
UW- Spooner, WI	Ag Innovation	Live	Grandsons of S542 and N409
	Canada	Live	Regli, Wooldrift, Rosebud
	Great Britain	Semen originally from Holland	Vos 137, Berksmar 18, Topaz
Crane Creek EF (IA)	New Zealand	semen	B40, B21, B26, B87, B49 related to Giroux , Quebec and Old Chatham (??)
	Canada	Embryos- live	Wooldrift – Rosebud
A1 Sheep Import (OR)	New Zealand	Semen	Same
	Canada	Embryo-semen	?
Ag. Innovation(VT)	Holland	Live	All daughters of S542 and grand daughters of N409
	Belgium	Live	
	New Zealand	Live	Same as others

1996 was the boom of importation of East Friesian germplasm through various channels with the number of live East Friesian becoming more abundant in Canada due to the birth of embryos imported in 1995. The Spooner Ag. Research Station imported EF frozen semen from England and New Zealand as well as live pure EF rams from Canada. At the same time, Canadian entrepreneurs formed alliances or partnership with American producers in order to sell high priced breeding stock throughout the country. Canadian entrepreneurs also sold breeding stock directly to American producers, whom in turn set up shop to sell stock such as A-1 Sheep Imports, Oregon or Crane Creek East Friesian, Iowa, as examples. The list of American buyers of East Friesian stock is impossible to compile because without some sort of tracking systems one cannot be aware of all transactions. Also in 1996, for a very short period, the importation of live animals directly from Europe was authorized. Ag-Innovations, a small company located in Vermont, took advantage of the relaxation of the rules to import live East Friesians from Belgium and the Netherlands. In fact most of the East Friesian animals imported by Ag-Innovations were originally from the Netherlands. Those animals were later put in quarantine by the State of Vermont in 1998 and destroyed by USDA in March 2001. Ag-Innovations also imported live East Friesian animals (ewes and rams) from Silverstream in New Zealand, the same company from which Old Chatham in New York and The Spooner Research Station imported germplasm in 1995 and 1996 respectively.

Between 1993 and 2002, many live East Friesians were purchased in Canada where the breed is still raised as purebred with a registry held by the Canadian Sheep Breeders' Association. With the discovery of the first case of BSE in a Canadian cow, the border between the US and Canada closed to all live animal importation in 2002.

Practically all East Friesian animals present in North America have the same origin as shown in Table 1. A fairly high degree of inbreeding must be expected in the pure East Friesian. It is interesting to go to the Canadian Sheep Breeder Association web site (http://www.clrc.ca/cgi-bin/query.cgi?_association=30) and look up at the East Friesian registry. Practically all pure East Friesian animals come from Wooldrift, Rosebud and Eurosheep. They started as imported embryos from the same few Dutch ewes (N409, P912, L901, 0166-022 to name a few) and from the same rams (Vos 137, Berksmar 18, Porte, T 708, S542) the rams being already related to the donor ewes (N409 is the dam of S542 and 0166-022 is the dam of Vos 137). Some embryos from Great Britain (originally from Switzerland), Sweden (originally from Switzerland) and Switzerland complete the very narrow East Friesian gene pool present in North America.

In 2005, Casellas and Thomas, calculated the breeding values of all EF rams used at the Spooner Research Station. It appears that Dutch rams have a better estimated breeding value for milk yield than rams of Swiss or German origin at the exception of Odo who proved to be very valuable. New Zealand rams, originally from Sweden and eventually from Switzerland, have an average breeding value.

Importation of the Lacaune breed

Josef Regli from Ontario, Canada, imported frozen embryos of the Lacaune breed that he originally had when he was farming in Switzerland. The number of animals is not known but certainly not very large. The Spooner Research Station, as well as a few American producers purchased some live rams (3) from Mr. Regli when the border between Canada and the US was still open for live ruminants. At the same time, in 1998, The Spooner Research Station purchased, in Great Britain, frozen semen of 3 different Lacaune rams: Pierre, Jean and Jacques. Pierre and Jacques proved to be excellent rams, Jean much less so. Semen from the same 3 rams was also purchased by a semen importer in California. To my knowledge those 3 rams plus a few from Mr. Regli were the only Lacaune available in the US. Therefore the genetic pool of the Lacaune breed is extremely small. There has been no direct importation from France, the country of origin, of the Lacaune breed.

The Lacaune breed, although producing slightly less milk than the East Friesian, is of great interest to the dairy industry because of higher fat percentage in the milk (better for cheese making) and adaptation to different type of climates.

President's Message

Claire Mikolayunas Sandrock

The new DSANA website is continuing to improve! BUT, we need to add your farm or company to this growing site. While we have not completed a visual map of farms throughout North America, we can update website links. Please email your farm link or other dairy sheep related websites to fill in the 'Links' pages. We want the site to be helpful to newcomers and seasoned shepherds. Please send any ideas to mikolayunas@wisc.edu.

Please spread the word about the upcoming Symposium to any new contacts you find: your local extension agent, your milk inspector, your neighbor who envies your sheep! We hope there are topics for everyone and look forward to a beautiful tour of upstate New York in fall. See you in a few months.

Dairy Sheep Research News

Dr. George F. W. Haenlein

*University of Delaware Dept. Animal & Food Science
Newark, Delaware*

Sheep dairying has a long tradition in the countries around the Mediterranean Sea and is of significant economic and ecological importance in more than a dozen countries there, while here in North America is has just begun to develop in recent years. Research in sheep dairying concerns is therefore strong, especially in Spain. Animal scientists at the University Leon, Spain, have published many interesting papers in the American Journal of Dairy Science (JDS) in recent years. The surrounding area of Castilla-Leon has about 1.5 million milking ewes. Quality of sheep milk is one of the major research concerns. Somatic Cell Counts (SCC) are used to monitor sheep milk quality.

A new publication (Journal of Dairy Science, 2009, vol. 92, pages 156-159) by C. Gonzalo and co-workers reports about the effects of antibiotic treatments during the dry period on SCC and intra-mammary infections (IMI) in subsequent lactations. A total of 3,141 records for bulk tank SCC and total bacterial counts (TBC) were obtained for 2 years from Assaf ewes in 25 cooperating flocks, 23 were machine milking and 2 were hand milking. Average flock size was 400 milking ewes. Bulk tanks in every flock were sampled 5 times per month. Their average SCC before the experiment were above 1 million. No dry period treatments had been practiced in any of these flocks. Mycoplasma agalactiae was not found in any tank at any time.

All ewes in all flocks were treated at drying-off time with the same intra-mammary antibiotic mixture, which contained 100 mg penethamate hydriodide, 280 mg benethamine penicillin and 100 mg framycetin sulfate from Boehringer – Ingelheim Co. A total of 10,313 ewes were treated and veterinary assistance was provided to the farmers. No antibiotic residues were detected in the milk on day 7 after lambing.

The research results showed highly significant decreases due to the dry-period treatment in bulk tank SCC and TBC for the machine milked flocks from 1.3 million SCC during the 9 months prior to treatment down to 900,000 SCC during subsequent lactations for 12 months and 3 months of post-treatment period. TBC were highly correlated with SCC and decreased also. However, hand milked flocks did not show any effects of dry-period treatment due to differences in management and hygiene practices apparently. Their SCC prior to treatment, after dry-period treatment and during the post-treatment period averaged 2.2 million.

Also when dry- period treatment was not repeated, the average bulk tank SCC in machine milked flocks increased from 900,000 to 965,000, and there were differences between flocks. The research conclusion was that more than 30% reduction in average bulk tank SCC due to dry-period treatment in machine milked flocks was achieved and this was also accompanied by improved hygienic practices, which both resulted in reduced intra-mammary infections and improved sheep milk quality.

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Under the 'Keyword' tab, enter your search terms, such as *sheep and milk, lactation, mastitis, nutrition, pasture* or search your favorite author from the Symposium speakers to find many articles on a wide range of topics. Downloaded articles for printing or read on-line.

First Dairy Sheep Association

Pat Elliott
Everona Dairy

As I understand it, the North American Dairy Sheep Association enjoyed a short life from 1989 to ? Someone sent me several newsletters they published. Their acronym was NADSA. In looking through the newsletters, it does not appear to me that any of the people mentioned in 1989 still milk sheep. The newsletter says the first annual meeting was held on January 13, 1989 in Pine City, Minnesota. The Steinkamps were apparently the initiating spirit of the group. I have heard of them and had heard they went out of business because they could find no market (a lot of change in a few years to our present position of not being able to meet the demand).

The new organization envisioned itself doing "6 newsletters per year, 4 fact sheets on various subjects, purchasing literature, and summarizing statistics on sheep dairying".

The officers were Roger Steinkamp-president, Janet McNally-vice president, Karen Aakre-secretary, and Lucie Steinkamp-treasurer. The president called for more help in promoting the industry (sounds familiar).

Apparently there were no sheep from any of the milking breeds in this country and there were several pages in the newsletter devoted to discussing using various meat breeds and how to choose ewes from them based on disposition. One comment I do agree with: "Udder size is another popular eyeball measurement of dairy potential which research calls into question. While it is true that virtually all 'outstanding' dairy producers have large udders (an index of storage capacity, not necessarily production capacity), not all well endowed girls are productive in the parlor". The article also discusses the tendency of the milk in these meat breeds to dry up as soon as the lambs are weaned. The article was written by John Finlay who was, I think, from Vermont but I do not know if he was a producer.

There was, at this time, also a Vermont Sheepbreeders Association and a Vermont Dairy Shepherds Association. David Major wrote a brief note in this January issue about Dr. William Boylan of the University of Minnesota and Frank Brocklehurst a dairy sheep farmer from England touring four of the eight Vermont and New Hampshire farms that "are preparing to milk sheep by the spring".

There were 48 members listed in 1989 in the North American Dairy Sheep Association.

A late year issue has a nice explanatory article on somatic cells and another on OPP. Eight more new members were listed and bylaws were being developed.

I have one newsletter published in 1990 (were there more?) that is nicely done. Apparently Olivia Mills visited in January and spoke as well as touring the Kohler farm. The association had eastern and western divisions. Standard milk records, and the idea of general product promotion were discussed but there was no follow through set up.

Susan Sundburg, a vet, wrote a nice article on preventing mastitis and John Finlay on milking hygiene. These would be worth reprinting if we can find someone to give permission.

In March of 1991 there was an article by Dave Thomas on using care that replacement ewe lambs did not become fat and store milk in their udders thus limiting their milk potential (finally someone I know!). There was also an article of Caseous Lymphadenitis by John Glenn, a vet a UCD in Davis, CA. There was a description of Willowbrook Dorset Dairy in Amery, Wisconsin with an attendance of 90! Yves Berger talked about milking potential of sheep available in the US –still no Friesians or other dairy breed! It said the demand for the Steinkamps "LaPaysanne" cheese was strong. Wisconsin gave a generous grant for the newsletter.

Also in early 1991 the State of Wisconsin had published milk producer guidelines and they were reproduced in the newsletter –not as detailed as today! There was an article by Karen Aakre on her dairy –she starts out by saying milking sheep is "relaxing"! She apparently got a total of 3000 lbs of milk from 25 ewes.

John Finlay cited irresolvable conflict in the Vermont sheep dairy industry and resigned from further involvement with sheep dairying.

I will summarize the other three 1991 issues next month. Please let me know if you have any questions or clarifying information. I think it would be a good thing to compile what people still remember about the early days of sheep milking in this country before that knowledge is lost.

Origin of the East Friesian and Lacaune Breeds of Sheep in North America

Yves Berger
Spooner Agricultural Research Station, Wisconsin

The first importation of East Friesian in North America

In 1966, Agriculture Canada at the Agriculture Research Center Ottawa imported the East Friesian breed from Europe with the intent of creating a synthetic breed (in crossbreeding with other breeds) that would have a high fertility, high lambing rate and good milking ability. By 1972, the flock was closed to all new importation and the imported animals were destroyed. The remaining flock constituted the base for the three Arcott breeds: Outaouais, Canadian and Rideau. Although developed for research purposes, the 8-month production cycle of the Rideau Arcott as well as its propensity for having triplets, quickly caught the eye of Canadian sheep farmers. Between 1982 and 1986, Agriculture Canada continued the minimum of selection necessary to maintain the genetic base for the breeds. In 1986, the Canadian Sheep Breeders Association recognized the Rideau Arcott commercially. The Rideau is now one of the most popular breed in Canada with 15% of its composition being East Friesian.

Second importation of East Friesian in Canada

The dairy sheep fever was not limited to the United States but was spreading to Canada. In 1990 a young entrepreneur-farmer immigrant from Switzerland established a farm in Chase in the province of British Columbia, Canada. He quickly purchased a flock of Rideau Arcott and obtained the authorization to import frozen semen of the East Friesian breed from the Swiss Federal Center for Artificial Insemination. In 1993, the first East Friesian F1 crosses were born. The producer kept upgrading his flock and had ¾ East Friesian in 1994, 7/8 East Friesian in 1995 and higher percentage East Friesian blood in the following years (by continuing this system one can finally have "pure" bred animals).

In 1994, another Canadian immigrant from Germany established in Markdale, Ontario, imported 64 East Friesian embryos from the Harper College in Great Britain. 31 lambs were born from those embryos at an average cost of \$2000 Canadian dollars (embryos were paid \$Can 800 each). This was followed by another importation in 1995 of embryos and frozen semen from Great Britain, the Netherlands and Germany.

At about the same time in 1994, another immigrant from Germany established in Spruce View, Alberta, imported frozen semen from the same source and frozen embryos the following year.

In 1995 the pace of importation of East Friesian in Canada accelerated with Canadian companies (Ova Genetics – Rosebud Breeding Center - Eurosheep) in Alberta also importing semen and embryos from the same source. The same year a Canadian producer at Ste Helene-de-Chester, Quebec, imported frozen embryos from Sweden.

In 1996, another immigrant from Germany located in Finch, Ontario imported EF semen and EF embryos from 9 different lines from the Swiss Federal Center for Artificial Insemination as well as embryos of the second best dairy breed: the Lacaune of France. No more importation of dairy sheep seems to have occurred in Canada after 1996.

Importation of East Friesian in the US

The importation of East Friesian germplasm in the US is, of course, very much linked to the importation in Canada.

In 1993, the Spooner Agricultural Research Station of the University of Wisconsin-Madison along with 2 other Wisconsin producers imported the first ½ East Friesian rams from British Columbia in the United States. Those rams served as the base for the University milking flock. The following year the Research Station imported a ¾ EF ram from the same source, and then a 7/8 EF ram. Some New England producers also imported crossbred East Friesian rams from British Columbia.

In 1995, a major dairy sheep producer in New York imported EF frozen semen from New Zealand. New Zealand (Silverstream Ltd) had imported East Friesian embryos from Sweden (same lines as the producer in Quebec).