Agricultural Newsletter

UW-Madison College of Ag & Life Science
University of Wisconsin-Extension

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Wisconsin to host 10TH Great Lakes Dairy Sheep Symposium

The dairy sheep industry continues to grow in North America, and the annual Great Lakes Dairy Sheep Symposium (GLDSS) has been an important venue for potential producers to gain a better understanding of the industry and for present producers to obtain new ideas to improve their operations. The 10th symposium returns to Wisconsin after very successful symposia in Ithaca, New York, USA in 2002 and Quebec City, Quebec, Canada in 2003.

The 10th GLDSS will be held November 4 – 6, 2004 at the Hudson House Inn, Hudson, Wisconsin and will include practical instruction on a sheep dairy farm, lectures by scientists and progressive producers and sheep milk processors, and tours of operating sheep dairy farms.

International speakers will be Pierre Billon, a sheep milking systems scientist with the National Agricultural Research Institute of France and Maristela Rovai, a lactational physiologist at the University of Munich, Germany. Pierre Billon will discuss practical milking systems for small and medium size sheep dairies, and Maristela Rovai will discuss the desired udder shape for optimum milk yield and milking time. Additional topics to be discussed are milk testing, calculation of lactation yields, business management, a comparison of the East Friesian and Lacaune dairy sheep breeds, the effects of feeds on milk flavor, prevention of residues in milk, relationship between milk composition and cheese yield, cultures for specialty cheeses, and marketing of milk and sheep milk cheeses.

Following the symposium on Sunday, November 7, open houses will be hosted by Dave and Mary Falk, LoveTree Farm, Grantsburg, Wisconsin and the Spooner Agricultural Research Station, Spooner, Wisconsin. Mary Falk produces some of the finest sheep milk cheeses in North America, and her cheeses have won many awards. The Spooner Station, operated by the University of Wisconsin-Madison, has the only dairy sheep research program in North America.

The 10th GLDSS is sponsored by the Dairy Sheep Association of North America and organized by the Wisconsin Sheep Dairy Cooperative and the University of Wisconsin-Madison with major financial support from the Babcock Institute of International Dairy Research and Development of the University of Wisconsin-Madison.

A symposium brochure, sponsor information, and on-line registration can be found at http://www.cals.wisc.edu/cos/Current%20Programs.html or information can be obtained from Yves Berger, Symposium Chair, at ymberger@facstaff.wisc.edu (phone:715-635-3735). Early registration deadline is October 15, 2004.

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Recent notes from the Dairy-L discussion group

Tom Syverud
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Ringworm

Ringworm is a fungal infection of keratinized tissue (skin, hair and nails) of cattle, but it can affect humans as well. Transmission occurs primarily by contact with infected animals, grooming tools, ropes, halters or other equipment. Young or unthrifty animals are prone to infection and once recovery has occurred, those animals have some immunity. After an incubation period of several weeks the hair falls off and a raised, gray-white crusty area is visible. Ringworm is more common in winter in confined animals. Spontaneous recovery is common; however, use of a topical therapy will probably limit the spread of the infection. Several farmers, researchers, and vets from Canada and the US had the following comments after the initial question about Ringworm:

About one month ago I had two cows with what our vet diagnosed as ringworm. One of them had it all around her eye. We treated it very successfully using small gauze pads presoaked in Betadine solution. I think just to soak some gauze pads or Q-tips and wipe the area once a day would be very effective. After a week or so the improvement was very noticeable and I started doing it once every other day and now have stopped altogether. Our herd is small so we can treat easily. I guess the concern is that it spreads from cow to cow. We were able to keep her grain bucket separate from others, etc.

I think the most important method of spread from animal to animal is by contamination of feeders, posts stanchions and other things when a new animal coming onto the facility will rub up against. I always assume when one animal in a group has ringworm, they are all probably exposed and either just haven't shown the crusty lesions yet or have better immunity against the disease. Disinfection of facilities is a good use for the Captan fungicide, though other broad-spectrum disinfectants might be a good choice as well

Assuming that all ages of heifers and cows can be caught in self-locks, I would just walk down the line every day, and spray all the ringworm spots with "strong tincture of iodine." We put it in a plastic spray bottle that can be bought cheap nearly everywhere. Cover the heifer's eyes with your gloved hand. Many times the ringworm is actually around the top of the eye, but we CAN cover the eye with a gloved hand and easily keep the iodine spray out of the eye. Most ringworm is on the head, or can be reached from the front of the self-locks, but walk down the other side too, as ringworm is commonly around the tailhead. Be careful not to get your nose up close and breathe the iodine mist. Once a day, for a few days or a week, should do the job. It isn't time consuming. I can treat several hundred heifers in approximately a half hour. This is a common sense treatment, just be careful that you or other employees do not catch ringworm as well.

One home remedy that I've had success with is melting vaseoli and adding 5 g of Captan (a commercially available pesticide.) Let the mixture cool, and apply it to the affected areas on the cows. Continue daily application until the skin begins to peel

and looks raw. Then wash the area with water and iodine. This from a graduate student at UW Madison.

There IS a vaccine available: "Ringvac Bovis LTF-130," manufactured by Alpharma (Norway) distributed in Canada by Vetoquinol (Quebec.) We have had excellent results with this. We used to have ringworm in all our heifers, but haven't had a new case since we began vaccinating. We vaccinated for about a year or two (heifer calves, starting at two weeks to four months old.) The vaccine wasn't available for a while, so we stopped vaccinating calves, but haven't had a new case since (this was about three years ago.) The cycle must have been broken. Our vet says it is available now, and many others have had excellent results as well. The cost is about $10 Canadian per dose. To us this is well worthwhile, and much easier than constantly worrying about treating each case or having to look at unsightly heifers (and explain to visitors what it is.) This should help you just get rid of it once and for all, assuming you don't have new animals bringing it in.

One farmer stated that, "I learned from personal experience that 'Virkon,' a disinfectant, fungicide, virucide, cleaner, works excellent at eliminating ringworm when sprayed on the infected animals." This brought a reply from the USDA VS, "According to label directions, using Virkon for treatment of ringworm is inconsistent with label uses and federal law. It's primary use is premises disinfection and biosecurity, not topical application. It also is an eye, skin and mucosal membrane irritant. There may also be environmental restrictions depending upon the state. Let's avoid the OSHA, EPA and PETA scrutiny."

Frost Bite

Another winter problem was recently discussed; Protecting the udder and teats is imperative to assure a cow's longevity in the herd as well as uphold milk quality. Damage to the mammary gland in any form can be devastating to the usefulness of the dairy cow. Winter time in the North presents just such a challenge when cows are exposed to the climatic elements of extensive cold and wind. This is further aggravated by unwanted moisture, leaving the teats vulnerable to damage caused by extensive cold weather conditions. Slight frosting causes the skin to be pale and bloodless. This is soon followed by intense redness, heat, pain and swelling. Sometimes the hair falls out and the skin peels--always there is sensitivity to cold. When severe, the teat end will eventually shrivel and slough off leaving a raw surface. Severe freezing may be treated conservatively until a line of demarcation appears. The necrotic portion can then be removed and treated as a open wound. Farmers had these additional comments on treatments and dipping in cold weather.

Frost bitten teats are NO FUN. We've been dealing with this problem for at least five years now. We have several animals each winter and we are getting more successful in treating them. One of my veterinarians suggested using the "Herpes" vaccine (a horse product) on all springers. This is a very expensive vaccine, but so far we've had no more problems since.

The only thing we've found that works after the damage is done is: Applying Nolvasan ointment to the affected area of teat after milking and then wrapping the teat with 3M Micropore Tape until the next milking. It is tricky getting the tape to stick to a greasy teat, but it can be done. The 3M tape is sometimes hard to find, try a pharmacy or medical supply store. We buy it at the Mayo Medical Store in Rochester, MN. The teat needs to be rewrapped after each milking and we do sometimes use cannulas to drain or dilators in between milkings but then we might as well just treat immediately for mastitis too. This takes patience, persistence and a bunch of TLC, but we've had pretty good luck on some very bad cases. The last case had a teat that turned completely black, was being drained with cannula at milking for two weeks and treated with mastitis tubes and was wrapped consistently for at least a month. She is now completely normal and doing well and doesn't even have a high SCC. I have very dedicated employees!

We post dip with ABS Valiant until the temperature gets down around zero, then we switch to Dermascept. We might stop dipping or dip and dry if it gets down to 20.

In South Dakota it also gets cold, I have had good luck using Theratec Plus pre and Derma Kote after milking from Surge/Westfalia. My cows are on a bedding pack and when it gets below 30 I dip more than ever with the Derma Kote. I do not use anything else. I spray the dip on with a hand sprayer and let the cows out in the cold. The dip has a green color, so I use latex gloves or it will get your fingers green also. It costs more than the normal dip, but heifers and cows with frozen teats are not cheap. There are emollients and stuff in the dip to keep the udder soft. I think not dipping below 30 is asking for trouble for all of your cows.

New agent joins staff in Spooner

Richard "Otto" Wiegand became the new area Agriculture, Dairy and Livestock Agent for the University of Wisconsin Cooperative Extension in Burnett, Sawyer and Washburn Counties on July 19. Otto replaces Bill Saumer who left his position in January. Otto moved here from Madison where he spent the past five years working as a consultant for dairy in the private sector and also teaching at a technical college.

Otto was born on a 120-acre Jersey dairy farm in Cleveland in southern Manitowoc County. He obtained a Bachelors degree in Dairy Science from UW-Madison in 1970. Between two stints with the Peace Corps in Kenya and Paraguay, Otto worked for his father on the farm and did odd jobs off the farm. In the 1980s, after obtaining a Masters in African Studies from Ohio University, he operated the farm for six years, expanding from 28 to 45 cows.

In 1988, Otto left the farm to work on a Masters and PhD in Dairy Science Nutrition at UW-Madison, finishing in 1995. He did his field work in Ethiopia where he fed tree leaves to sheep. Otto then worked for Agri-Management, a dairy placement company in Madison, the African Development Bank in Ivory Coast, and New Age Computers in his hometown before his five years at Dairy Strategies in Madison with part-time teaching at Northeast Technical College in Green Bay. Otto also did short-term international work with Dairy Strategies in Costa Rica and Holland, and with the Babcock Institute in Cyprus.

Otto brings considerable experience to farmers and residents of northwest Wisconsin in dairy business planning, placement and teaching. He also has interests in international issues, historic preservation, land conservancy and the environment in general. Otto is an avid traveler, likes bicycling and enjoys taking photographs. He looks forward to serving his constituents in Burnett, Sawyer and Washburn counties.

Otto joins area Agriculture Development Agent Kevin Schoessow who is also located at the Spooner Agriculture Research Station. Mr. Wiegand's office is located at the Spooner Ag Research Station in Spooner and he can be reached at 1-800-528-1914 or 1-715-635-3506, or by e-mail at otto.wiegand@ces.uwex.edu.

Soil testing on the go

Kevin Schoessow
Area Ag Development Agent
Burnett, Washburn, & Sawyer Counties

Manure contains nutrients, such as nitrogen, that spur growth in field crops, but excess nutrients can be harmful if they end up in surface or subsurface waters. Agriculture Research Service scientists are pinpointing where these nutrients end up after being placed on a field by measuring soil conductivity.

What is unique about soil conductivity is that it can be measured in the field. Currently, researchers are using an instrument that scans the soil's conductivity from a sled that is dragged across the field. This information is combined with a global positioning system (GPS) to create a field map with shaded areas representing high and low nutrient concentrations.

By measuring soil conductivity soil scientists are able to study nutrient movement in crop fields. In corn, for instance, soil conductivity and nitrate content gradually increases from crop emergence to one foot tall. But after this, there is a rapid decline of conductivity, indicating that the corn is rapidly taking up the nutrients. Once the crop is harvested, there is another gradual increase in conductivity.

So how might this be used to benefit farmers? It most likely would be used to aid farmers in making decisions when and where to apply crop nutrients. Similar to yield monitors which measure grain yields on the go, conductivity measurements could provide instant feedback on where and how much manure or fertilizer to apply to a field.

Maintain grain quality in storage

Brian Holmes
Biological Systems Engineering Dept.
University of Wisconsin-Madison.

With harvest in full swing, it is advisable for producers to think about storage before they fill their bins. Grain quality can be maintained in storage if managed properly. It is a wise investment of time to spend a few hours maintaining the $20,000 to $40,000 value of grain stored in a 10,000-bushel bin.

Steps to prepare a bin for storage:

- Repair any holes that may allow water to enter. Look for holes by looking for sunlight coming into the bin. Seal the joint between the bin wall and the foundation to prevent outward leaks of aeration air. However, do not seal openings intended for aeration.
- Clean the inside of the bin using brooms and/or a vacuum.
- Examine the inside of aeration ducts for debris and insects.
- Service the aeration ducts, fans and vents to ensure proper operation.
- Clean around the outside of the bin.

Grain stores best when it is dry, clean, and cool. Weed seeds and fine foreign material, which are usually wetter than the grain, accumulate in the center when loaded into a bin, causing storage problems. This material should be removed from the grain. Use a grain cleaner before storage or unload some grain using a center take out after the bin has been filled.

Temperature plays an important role in grain storage. The optimum temperature for insects is between 70 F and 90 F. Therefore, grain should not be stored at this temperature. The expected grain allowable storage time is approximately doubled for each ten degrees that the grain is cooled.

Aeration should be used to cool the grain whenever outdoor temperatures are 10-15 degrees cooler than the grain. It should be cooled to a temperature of about 20-30 degrees in Wisconsin and Minnesota for winter storage. If grain will be stored into summer, the grain should be warmed in spring to maintain the 10-15 degree temperature differential between grain and average air temperature.

Look for indications of problems such as condensation on the roof or crusting of the grain surface. Probe to examine grain below the surface. Bring a grain sample indoors if the grain temperature is below 50 degrees; allow it to warm to room temperature, then place the grain on a white surface, and examine for any insect activity. Fumigation is not recommended at grain temperatures below 60 degrees.

More information about dry grain aeration and grain handling and storage can be found in the following MidWest Plan Service publications: "Dry Grain Aeration Systems Design Handbook," MWPS 29; or "Grain Drying, Handling and Storage Handbook," MWPS-13. Both are available through MidWest Plan Service at www.mwpshq.org, e-mail mwps@iastate.edu, or call 800-562-3618.

SHEEP DAIRY FACTS

The U.S imports more than 70 million pounds of sheep milk cheese annually.

Familiar foreign sheep milk cheeses are Roquefort (France), Pecorino (Italy), Manchego (Spain), and Feta (Greece).

There are about 150 dairy sheep producers in North America, and their numbers are growing.

Old Chatham Sheepherding Co., NY is the largest dairy sheep producer in North America, milking 800 to 1,000 ewes

Sheep milk sales by the Wisconsin Sheep Dairy Cooperative have increased tenfold in 7 years - from 45,000 pounds in 1996 to 450,000 pounds in 2003.

Producers receive $55 to $70 per 100 pounds of sheep milk.

In recent years, domestic sheep milk cheeses have won several national and international championship awards in competition with cow, goat and other sheep milk cheeses.

The dairy sheep industry is a positive contributor to the economic viability of family farms, agricultural industries and rural communities.

Some pros & cons of letting corn stand in the field through winter

Joe Lauer
Corn Agronomist
UW-Madison

Due to late corn planting dates, some farmers are considering leaving their corn in the field through winter and harvesting in the spring. Delayed planting combined with below normal heat units for the 2004 growing season has resulted in a crop that is behind normal development. As of September 19, only 43% of the corn in Wisconsin was dented, making the corn crop more vulnerable to early frost damage before it reaches physiological maturity. Even if it's not damaged by frost, immature corn will exhibit higher moisture which will increase drying costs and lower test weight (weight per bushel at 15.5% moisture), a key indicator of quality in corn.

Every year some fields in Wisconsin are harvested in the spring. If the stalks stay standing and there isn't much ear drop, snow cover or wildlife damage; the crop can get through the winter without much yield loss. Ear drop will vary by hybrid and environmental conditions as well as the amount of grain on the ear (smaller ears should stay attached better than larger ears). If winter conditions are cool without snow then corn will continue to dry and can be harvested throughout the winter without too much yield loss. Stalks will become brittle and broken corn parts may decrease the grade causing discounts at the elevator.

Since we cannot predict the weather, the most prudent decision would be to harvest after a reasonable period of drydown. In some years with heavy snow cover, grain yield can decrease significantly (Table 1). For example, during 2000 grain yield decreased 65% by March and by spring yield decreased 37% from an October harvest date. This is contrasted with the winter following 2001 (little snow cover) when yield only decreased 18% by February and by spring was 10% lower than October harvest.

Greatest grain moisture loss occurs during October and November (Table 2). Drying continues through the winter, but at a slower rate than October and November. This is especially true for later planting dates. By the following spring there is little difference in grain moisture for early versus later planted fields. Grain test weight changes are minimal regardless of planting date (Table 3). Since grain moisture changes are minimal past December and grain yield losses can be significantly affected by environment, the best decision is to complete harvest by December (or the typical first heavy snowfall, if you are good at predicting such things).

Table 1. Grain yield (bu/A) change of corn left standing in the field through winter at Arlington, WI.

	Harvest month						
Year	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**
2000	204	206	113	86	83	72	127
2001	220	208	208	200	181	205	199
Mean	212	206	165	145	134	145	162

Table 2. Grain moisture (%) change of corn left standing in the field through winter. Data are summarized for the 1992, 1993, 1994, 2000, and 2001 production seasons at Arlington, WI.

	Harvest month						
Planting Dates	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**
Before May 11	31	21	20	19	18	15	12
May 11 to May 31	37	27	22	22	18	16	10
After May 31	46	37	28	27	23	20	15

Table 3. Grain test weight (lb/bu) change of corn left standing in the field through winter. Data are summarized for the 1992, 1993, and 1994 production seasons at Arlington, WI.

	Harvest month						
Planting Dates	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**
Before May 11	58	55	54	55	54	55	56
May 11 to May 31	57	50	52	52	53	50	52
After May 31	51	44	46	46	46	47	48

New Wisconsin farmers work-shops set

Kevin Schoessow
Area Ag Development Agent
Burnett, Sawyer, & Washburn Counties

Regional workshops to help people who are interested in becoming farmers will be offered around the state over next several months. These workshops will provide information on strategies for getting started, pursuing a farm career, preserving the family farm, developing contacts and building networks.

The workshops feature farmer panels presenting ideas and information about different ways to get started farming. Those who attend can visit with others about how getting started, transferring farm ownership and helping people interested in farming.

Registration is ten dollars and covers registration and instructional materials. The registration fee is due one week before the workshop. The Wisconsin Milk Marketing Board will provide lunch and refreshments. All workshops begin at 9:30 a.m. and end at about 3:30 p.m. For information and registration, contact your University of Extension Office, Wisconsin Technical College, Farm Service Agency or Wisconsin Department of Agriculture, Trade and Consumer Protection, at 800-942-2474.

The schedule is:

November 13, Grant County Youth and Agriculture Center, Lancaster, contact Grant County UW-Extension, 608-723-2125.

December 4, Lakeshore Technical College, Cleveland, contact Manitowoc County UW-Extension, 920-683-4168.

December 11, Thorp High School, Thorp, contact Clark County UW-Extension, 715-743-5121.

January 8, Wisconsin Indianhead Technical College, Rice Lake, contact Barron County UW-Extension, 608-723-2125.

January 22, Craig Center, Rock County Fair Grounds, Janesville, contact Rock County UW-Extension, 608-757-5696.

Pest Management Update meetings scheduled this fall

Kevin Schoessow
Area Ag Development Agent
Burnett, Sawyer, & Washburn Counties

University of Wisconsin-Extension will host eight Pest Management Update Meetings around the state this fall. Topics will include weed and insect management and disease control.

Chris Boerboom and Jerry Doll, weed scientists at UW-Madison/ Extension, and Eileen Cullen, UW-Madison/Extension field crop entomologist, will speak at each session. Craig Grau, UW-Madison/Extension plant pathologist, will appear in video presentations.

This meeting counts toward four hours of pest management continuing education credits.

All sessions start at 10 a.m. and conclude at 3 p.m. The registration fee is $25. This fee covers the cost of the information packet and the noon meal. The information packet will contain the 2005 Pest Management in Wisconsin Field Crops bulletin, with weed, insect, and disease control recommendations for corn, soybean, small grains, and forages, as well as other pest management reference materials. Additional copies of the information packet will be available for purchase at $15 each.

Organizers request participants to pre-register with the host agent at least one week before the meeting they wish to attend.

The schedule for the Wisconsin Pest Management Update meetings is:

October 26, Sparta, contact Bill Halfman, 608-269-8722

October 27, Bloomer, contact Jerry Clark, 715-726-7950

October 28, Marshfield, contact Matt Lippert, 715-421-8440

October 29, Green Bay, contact Dan Schreiner, 920-391-4610

November 8, Platteville, contact Ted Bay, 608-723-2125

November 9, Arlington, contact Laura Paine, 608-742-9682

November 10, Fond du Lac, contact Mike Rankin, 920-929-3170

November 11, Janesville, contact Jim Stute, 608-757-5696

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