

J·DSANA

Le Journal de l'Association des Producteurs d'Ovins Laitiers d'Amérique du Nord

PRESIDENT'S ADDRESS

The future is bright



“The real backbone of our industry is going to be the farmstead operation that milks the sheep and makes the cheese or has it made, then actively sells the end product.”

Dear Members,

I WANT TO THANK ALL OF YOU for the interest and support given for the Great Lakes Dairy Sheep Symposium in Petaluma, Calif. This has been a real expansion for DSANA. While there were challenges along the way, we have conquered these, learned from them, and are now better prepared for the next symposium. The goal is to spread the work load of the symposium to the board and committee members so no one is overburdened or has to work on the symposium year after year.

Newsletter changes

This newsletter is being produced for us by a collaborative effort between our own DSANA board member, Terry Felda, and a professional marketing services team sponsored by Land O'Lakes Animal Milk Products Company. After careful review, the DSANA Board of Directors agreed to take advantage of this generous offer to help our organization more broadly provide industry insights and research on a timelier schedule than we've been able to commit to in the past. The benefits of this collaboration will be appreciated by all members, as our organization continues to grow and the need for more information grows with it.

Outlook

Outlooks continue to change, and as they do, we intend to keep all of you in tune for the continued progress of our industry. Sheep dairying is poised to see a major growth in the near future with more national supermarket chains selling US and Canadian sheep milk products. Still the real backbone of our industry is going to be the farmstead operation that milks the sheep and makes the cheese or has it made, then actively sells the end product. Once this market is developed it is not at risk to fads of the national consumer or management decision in the supermarket chains as loyalty and quality product reinforce the buyers' decisions. I look forward to seeing all of you in Petaluma!



Dairy Sheep Association of America

Best Regards,
Bill Halligan

The how and why of pregnancy detection



CORRECTLY IDENTIFYING non-pregnant sheep post-breeding through pregnancy detection is an important process. It gives producers the opportunity to cull or rebreed individual ewes identified as open. These decisions can impact the farm's bottom line by reducing feed and breeding costs and improving the flock reproduction rate.

"If a dairy is lambing their ewes over a two to three month period, then pregnancy testing is not as critical, since the ewe can be culled if she does not lamb," says Bill Halligan, dairy sheep breeder and DSANA president. "With year round lambing, it is critical to accurately determine what is bred and when they will lamb, not only to predict milk production, but for proper ewe management during lambing. In both cases, accurate pregnancy detection is key."

"Selecting a pregnancy detection method for early and accurate detection is important. For every day post-breeding that pregnancy detection is

not performed on a ewe, the breed back time is also extended. A delay in rebreeding ewes will increase the number of days a ewe is open and extend the length of the lambing season – ultimately costing the producer more money for each extra day that the ewe is not bred. "

"The cost is first, but accuracy of the test is equally important," explains Halligan. "The 80 to 90 percent accuracy we've had in the past required more than one testing, but being able to test before 30 days post-breeding is a big advantage." Currently, the most regularly used means of pregnancy detection for sheep include rectal palpation, ultrasonography and by blood sample.

Rectal palpation • Rectally palpating a ewe involves a lubricated plastic rod, which is inserted into the rectum of a ewe (in a restraining crate), while in the supine position. By moving the rod side to side while applying light, upward pressure, the fetus is palpated through the abdominal wall. This method is simple, quick, cost-effective and reliable after 50 days of gestation. But it can be difficult to find a veterinarian willing to rectally palpate due to the size of the sheep rectum. Some research has shown up to 90 percent accuracy of determining open and pregnant ewes using rectal palpation. This can fluctuate depending on ewe weight, and days post-breeding. However, determining fetal number with rectal palpation is much less accurate.

Ultrasonography • Ultrasound technology has been used in the cattle industry for years, and the sheep industry has slowly followed suit, realizing the benefits of this tool for pregnancy determination. In this process, a scanning probe is passed over the abdominal wall and transmits two-dimensional images to an oscilloscope. Varying tissue densities then reflect the ultrasonic waves at different levels of energy – providing a rough

Pregnancy detection • *continued p. 4*

Back to basics: Artificial insemination in dairy sheep

GENETICS AND THE ROLE of artificial insemination (AI) in the dairy sheep industry is rapidly becoming a hot topic among producers. The genetic potential and gain that artificial insemination can bring to sheep producers remains untapped. In previous years, artificially inseminating ewes was thought to be impractical. Unlike cattle and other ruminants, sheep are not easily inseminated due to their complex and delicate reproductive organs and the inability to place semen directly into the uterus as is the case with cattle.

Today, with the use of certain hormones, estrus cycle synchronization is possible and AI techniques have made leaps and bounds with the introduction of a laparoscopic insemination procedure. According to Martin R. Dally, formerly with the Department of Animal Science at the University of California-Davis and now owner of Super Sire Ltd., AI is the gateway to increasing the genetic potential of a flock through the opportunity to use top producing rams to sire offspring. The genetic potential is almost unimaginable.

Prepping for insemination

Laparoscopic insemination is a minor surgical procedure that should only be completed by a highly skilled and trained technician. During the procedure, semen is placed directly into the uterine horns allowing increased pregnancy rates with the precise placement.

To prepare the ewe for being artificially inseminated, 14 to 16 days prior

to breeding, synchronization of the estrus cycle should begin. This can be accomplished with hormone therapy that includes a progesterone-impregnated CIDR and PMSG. First the CIDR should be placed in the ewe's vagina and left for 12 to 14 days to allow progesterone to be absorbed into the blood stream. Progesterone will prevent ovulation.

Once the CIDR is removed, progesterone levels decrease and the follicles develop; insemination should occur within 56 to 66 hours after removal. Also at the time of CIDR removal, PMSG should be given to tighten up synchronization time. However, if too much PMSG is administered, an excessive number of multiple births can occur.

The procedure

For the ewe, the procedure is quick, typically ranging from two to five minutes, with two small incision sites. Experience has shown that very little suturing is required and ewes are up and walking on their own immediately after the procedure.

Again, a skilled technician should be conducting AI procedure due to the delicate nature of the ewe's reproductive organs. However, producers can help prepare the ewe by withholding feed and water 24 hours prior to surgery. With an empty stomach and bladder, there is less of a chance that any organs will be accidentally punctured and allows the reproductive tract to be easily located by the technician.

To learn more about artificial insemination in sheep, visit www.toprams.com. Under the "Shepherd Instructions and Requirements for Aling" section, Martin Dally has developed a checklist for supplies for laparoscopic artificial insemination, as well as information on ovulation synchronization. ■

Lamb Nutrition
sponsored by



Prepare lambs for winter weather with proper nutrition

Lamb energy requirements increase when winter temperatures drop. Producers should pay special attention to lamb nutrition in the winter to both maintain energy and continue growth.

AS TEMPERATURES DECLINE and winter's harsh conditions set in, we ready ourselves by weather proofing our houses and cars. Sheep producers must also remember that their flock needs proper preparation for winter – especially lambs. Lambs have little body fat to protect them from cold stress conditions during this time of year, so proper nutrition is required to keep them healthy and growing through the spring season.

When winter sets in and temperatures drop, lamb energy requirements have an opposite reaction – increasing for the lamb to maintain its body condition. “These requirements must be met before the animal will contribute any energy to growth,” explains Claire Mikolayunas, University of Wisconsin small ruminant extension specialist.

According to a survey of commercial farms in Michigan, starvation and exposure accounts for 50 percent of lamb death loss in the first week of life. (Diagnosis and Control of Neonatal Losses in Sheep. Veterinary Clinics of North America, Food Animal Practice, Rook et al. 1990) “Lambs are born with 2 to 4.5 percent of their body weight as brown fat reserves,” explains Mikolayunas. “Young lambs utilize their brown fat at different rates based on the environmental conditions. For example, in cold temperatures, a lamb may deplete this brown fat within eight hours.”

Feed to a higher plane of nutrition

All producers strive to help their lambs succeed through the winter by both maintaining and growing to optimize the production of the future herd. “Nutrition directly affects growth rate, thereby influencing the animal's future performance,” says Mikolayunas. “A yearling ewe must reach adequate body size before breeding - approximately 70 percent of her mature body weight. In order for her to obtain sufficient body condition before lambing (body condition score of 3 to 3.5), she needs to grow her frame quickly.” Only animals fed to a high plane of nutrition can complete the growth needed to breed and lamb at one year of age.

Mikolayunas suggests dairy sheep producers consider providing shelter to lambing ewes and supplemental heat to young lambs over the cold winter months. “Moisture, wind and low temperatures all

contribute to lamb losses through body temperature reduction and increased energy requirements.”

Milk replacement feeding to meet the energy, nutritional needs of lambs

For those dairy sheep producers utilizing milk replacer, additional energy requirements should also be considered when preparing for the winter season. According to Dr. Tom Earleywine, Director of Nutritional Services at Land O'Lakes Animal Milk Products, one way to achieve this is through lamb-specific milk replacers. The right nutrient content within lamb milk replacer is essential during cold weather.

“Milk replacers should be high in fat and protein, similar to sheep milk,” says Mikolayunas. “Sheep's milk composition, expressed on a fresh milk basis is around 5 to 6 percent fat and 4 to 6 percent protein.” This translates to about 24 to 25 percent protein and 35 percent fat for the desired nutrient content of a milk replacer. Milk replacers with 35 percent fat versus 30 percent may be a critical factor in a lamb's success over winter and can impact growth.

Lamb milk replacers have to be unique, not only their high fat content, but reduced lactose levels as well versus typical milk replacers. Excess lactose may cause scours and intestinal health challenges in lambs.

Lamb milk replacer should be fed at three to five percent of body weight on a dry basis to lambs. Higher levels of the total product and high fat content are needed in cold and stress conditions. Producers hand feeding lambs should feed one pint of milk replacement over the course of four to six feedings at two to three days of age, then gradually increase to 3 cups over 3 feedings from 4 to 14 days of age. From 14 days old through weaning, lambs should be gradually increased to on the milk replacer according to their appetite – over the course of two feedings per day. These amounts need to be increased by 15 to 25 percent when temperatures are below 60 degrees Fahrenheit and increased 30 to 50 percent when below freezing. Remember underfeeding is a common problem for lambs in the cold.

For more information on lamb milk replacer, visit www.lolmilkreplacer.com. ■



For producers utilizing milk replacement for their lamb's nutritional needs in cold temperatures, a lamb specific milk replacer containing 24 - 25 percent protein and 35 percent fat is ideal.

DSANA New Board Member Spotlight

Sheri Palko

Knoxville, Tenn.



Sheri Palko, pictured here with Opposum, is a new director on our board. A DSANA member for the past five years, Sheri is looking forward to bringing new ideas and educational opportunities to our members in her new role. Welcome, Sheri!

In 2000, Sheri Palko joined the dairy sheep industry when she started herding sheep with her Belgian Tervuren and border collies. She later purchased her first ewes and today, she owns 150 dairy sheep near Knoxville, Tenn. Her operation consists of twice-a-day milking, January thru August, and crafting four raw milk aged cheeses, and two soft cheeses.

Sheri has always had an interest and fascination with genetics and dairy sheep genetics lends itself to many new adventures in that area. A close second to her passion for genetics is lambing season. Sheri says, "There is just nothing like watching all those innocent new lives coming into the world."

Sheri has been a member of DSANA for the past 5 years and is looking forward to watching the association and

industry grow during her time as a director. "The timing is so unique for this industry to really take off, especially here in the United States," notes Sheri. "And it's exciting to watch it grow and help educate those who, until recently, didn't even know dairy sheep existed."

Sheri's advice for members...

Attend the annual symposium. The vast education crammed into the three-day experience can't be read in a book – it can only be experienced firsthand.

Network. Networking and sharing is critical for the growth of the industry. Learning from others' trials and tribulations is critical to the growth of the industry.

Keep records. Record keeping for many has been a non-existent part of their dairy operation, and trying to improve record keeping is critical to flock management and breed improvement. No matter how many or how few head you are milking, records are critical for proper genetic and management assessment.

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Pregnancy detection • continued

picture of the fetus. It is recommended that ultrasounding be completed between 60 and 120 days for appropriate accuracy, though some studies show accuracy levels of 85 percent between days 32 and 34 post-breeding. As an additional benefit, determining the number of fetuses allows producers to plan accordingly if twins are found, but this method typically costs more than palpation and blood pregnancy detection.

Blood sample • Blood pregnancy detection uses a small blood sample from the ewe, taken by the producer or their veterinarian at 30-days (or more) post breeding. This sample is sent to the test-providing lab and the producer can receive results 48 hours after lab receipt. This method measures the presence of Pregnancy-Specific Protein B (PSPB), a protein that is only produced by the placenta of a growing fetus. Certain blood pregnancy tests within the industry can be as high as 99 percent accurate for determining open ewes, and 95 percent at determining pregnant ewes. This method also touts a less invasive style than palpation and can be just as cost effective.

Pregnancy detection within the dairy sheep flock is a vital management tool to progress not only an individual reproduction program, but the whole dairy sheep industry. Several variables exist to pick the ideal means of pregnancy detection for your flock, including costs, accuracy, timing post-breeding, but determining what detection method works best within your flock's reproduction management program is key. ■

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Upcoming events

Great Lakes Dairy Sheep Annual Symposium November 3-6, 2011

The Great Lakes Dairy Sheep Symposium is the major annual event of the dairy sheep industry in North America. For 17 years, this event has attracted dairy sheep producers from Canada, Mexico and throughout the United States. The symposium provides an educational environment and fosters connections among dairy sheep producers, processor and researchers.

Next issue

- Record keeping for dairy sheep producers
- Great Lakes Dairy Sheep Symposium highlights, reviews
- New director spotlight