



Out Of Season Gene Is Discovered in Sheep

Dr. J.D. Bobb

Just as many sheep producers have discovered the value associated with testing their sheep for Scrapie resistance using Codon testing, now researchers at Cornell have discovered the gene that codes for out of season breeding. The discovery of the M allele indicates the ability to breed out of season, the M stands for a receptor for melatonin.

Melatonin is a hormone released by the pineal gland (found at the base of the brain) in response to darkness. This is the hormone responsible for seasonal breeding, due to the fact that in the spring and summer when days are long, the ewe releases very little melatonin, and in the fall as days get shorter and the nights are longer, the ewe releases more melatonin. Australia has had access to a melatonin product for years that can be used to make the ewes behave like fall breeding, and many researchers have experimented using a darkened barn for 16 hours a day over 6 to 8 weeks to make ewes come into estrus.

The identification of this gene by researcher, Raluca Mateescu, may be a first step into an answer for one of the major limiting factors in year around lamb production. If we can identify this gene and correlate its presence with the ability of a ewe to breed year around and select for this trait in a large population of sheep it would have an enormous economic impact in the sheep industry. We have always known that there are breeds as well as family lines that tend to breed more readily out of season, perhaps now we can use the M allele to help identify the presence of this gene.

There are perhaps many genes controlling the ability to breed out of season, but this is the first and perhaps the break through research that will lead to more genetic answers. It is very exciting to think that in the future we can select for sheep that will lamb year around based on their genetic makeup and not have to rely on the use of synchronization products.

Due to the diverse circumstances that sheep are raised under the ability to breed and lamb without the seasonal restrictions would level the marketing and production of the sheep industry. Mateescu is now at Oklahoma State University and is continuing his research in this area.

Question & Answer with Dr. Kennedy

Question: I was wondering what your thoughts are on Diatomaceous Earth for use in deworming sheep. I have 2,600 head mostly kept in feedlot type situations. We are based in Maryland, Northeastern USA, our herd are blood donors for use in the medical diagnostic field. They live their lives out on the farm and most of them get to around thirteen years or more before we have to cull them. Internal parasites are a considerable problem here. Because of having to keep the hematocrit levels up for blood production, we are having to deworm the whole flock monthly. As you can guess, this is costly and time consuming, but has seemed to help. I am concerned however, about resistance build up to dewormers. We usually rotate mostly from Ivermectin to Cydectin, with Valbazen after the first frost.

Someone had mentioned Diatomaceous Earth to me, so I was trying to get feedback on it. My questions would be, How effective is it? Is it practical for a flock this size? Can it be added to our palletized feed? Is it cost effective? Are there any issues with it that I should be concerned about, especially as far as blood production is concerned? I am presuming it would not totally replace our deworming program, but would it mean we could reduce frequency?

Answer: It has absolutely no value. Be sure to worm prior to going to pasture. Another step you might consider is to use Cydectin a couple of weeks after Valbazen. Resistance to Valbazen is common. You do need to use it for the tapes.

Nor 98 Scrapie

Dr. J.L. Goelz

Just when you think you have begun to understand the Scrapie disease, researchers have found a new twist...Nor 98 or Non-classical Scrapie. You may have heard something about it in sheep publications. This is an attempt to briefly explain the difference between Classical Scrapie and Nor 98 Scrapie:

1. Nor 98 Scrapie is very, very rare. Only a small number of cases have been found throughout the world and never more than one sheep in a flock. In contrast, Classical Scrapie is found in multiple animals in a flock, often following family lines.
2. Nor 98 Scrapie has not been demonstrated to be transmissible to other sheep. In contrast, Classical Scrapie is transmitted at lambing. Nor 98 may be a spontaneous event with no concern from a transmissibility standpoint.
3. Nor 98 Scrapie does not follow the same genetic susceptibility as Classical Scrapie.
4. Brain lesions are different between Classical Scrapie and Nor 98 Scrapie.
5. Affected sheep showing clinical signs may be infected with Nor 98 or Classical Scrapie. There is no way to differentiate except by post-mortem exam.
6. Live animal tests designed to attempt to diagnose Classical Scrapie are of no value for Nor 98.

You likely have a better chance of being struck by lightning than by being affected by Nor 98. however, you may have heard or will hear information about it. Please keep it in perspective.

Recently while speaking at a sheep meeting in Nebraska, I got fired up a bit. In order to interpret my remarks they had to realize that my favorite TV show was Bill O'Reilly and that I had voted for John McCain.

This organic farming bit just doesn't cut it. We will not be able to feed the world with organic farming and there are a lot of people that are hungry. If you date yourself back to the hippy years and expect to support yourself by organic farming with 100 ewes, you have indeed probably smoked too much funny weed. What about cap and trade, well you have just doubled or tripled your carbon requirements.

The cap and trade people are worried about cutting forests in Brazil and maybe they should be. One solution may be to replant trees in Iowa and take the bread basket of America out of production.

The liberal agenda is confusing the same people that want to limit the use of fossil fuels, want to go from crates to pens in the pig business, dramatically increasing the carbon requirements to produce a pound of pork. It's not confusing, it's just wrong.

Oh, and by the way, did you know the glaciers are melting? Buffalo Ridge which is about twenty miles northeast of Pipestone is, guess what? Left by a glacier. Glaciers have been melting forever, which is what they are meant to do, is melt. It is part of the definition.

Isn't it about time for some common sense? I still get calls about the efficacy of diatomaceous earth and garlic products. The answer is simple, there is none.

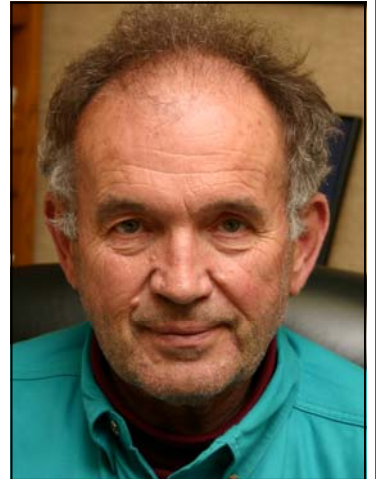
I haven't been controversial for a while. The meeting was fun and everybody is entitled to their opinion.

Two years ago we developed a milk replacer that we believe blended the best of all options out there. We shipped over 50 tons of this product last year. Four thousand lambs can't be wrong. It is an acidified product that mixes extremely well. We ship this product nationwide.

The other two products that compliment this product are Lamb and Kid Quick Start and Nursemate. Nursemate is a colostrum product that I put together with Randy Kjelden over fifteen years ago in a little old creamery near Big Stone, South Dakota. Randy has now grown his business to a larger drying and processing facility in Brookings, South Dakota. He receives tanker loads of colostrum from the big dairies. Eighty five percent of his products go to human consumption. This product is legit. Used as directed, it delivers adequate colostrum to colostrum deprived lambs.

Lamb and Kid Quick Start is also a product we developed for the starved, hypoglycemic lamb. It contains plasma and a lot of fat for energy, plus vitamins and electrolytes. We intend to add colostrum to this product going forward. Producers have achieved high success with this product.

We are looking forward to another lambing season. Fortunately lamb prices have been good. The balance of livestock economy is suffering hard, economic times. A management tip that fits the season is when the ewes are removed from pasture, be sure they are wormed. No value in feeding worms all winter. Get rid of them now.



Hope you all have a Happy and Bountiful Thanksgiving!!

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Veterinary services, procedures, biologicals, and drugs mentioned in this publication represent the personal opinions and clinical observations of the contributing author. They are in no way intended to be interpreted as recommendations without the consent of the producer's own practicing Veterinarian. We strongly urge that producers establish a patient-client-veterinarian relationship that allows extra-label use when there are no drugs approved for treatment or if approved drugs are not effective. This procedure allows veterinarians to go beyond label directions when "prudent use" is necessary. The limited availability of drugs and biologics in this country is a major factor in restricting the growth of the sheep industry and allowing producers to compete in the world Market place.

Mold Alert

Dr. G.F. Kennedy

There is a lot of conversation about mold in our corn and in our area, there is a lot of mold. The corn didn't mature until late and coupled with wet weather, mold seems to be everywhere. If the mold is pink or olive green in color, it can be toxic to livestock. It has been cool enough that it is unlikely this type would occur.

Ruminants are fairly tolerant of molds. Proper harvesting and drying will eliminate most of the problems.

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