



Raising sheep the EASY way!

Barbados Blackbelly Sheep Association International

Blackbelly Banner

Understanding the BBSAI Registration Number

FLOCK PREFIX	MONTH BORN	YEAR BORN	BBSAI SEQUENCE	BREED DESIGNATION
C	C	R	0504250	AB

AB = American Blackbelly
BB = Barbados Blackbelly
H = Horned*
P = Polled*

*designation made before breeds were differentiated; may not accurately reflect breed genetics

The BBSAI registration number is a unique number assigned to each animal entered into the BBSAI registry. The illustration above explains what each digit in the number represents. The "250" in the illustration represents the 250th animal entered into the registry.

The "P" at the end of some ram registration numbers stands for "polled." Between 1996 and 2004, the BBSAI tried to document whether the rams were displaying horned or polled attributes. There is also an "H" after the registration numbers of the horned rams during this period. This documentation was not done for the ewes, since most or all ewes displayed the polled phenotypical attribute. Later, when more

information about polled and horned genetics was obtained, the BBSAI tracked the genetics of both ewes and rams born from polled and horned lines. It was recognized that even though ewes do not display their horned or polled genetics, these attributes, though hidden from view, are carried forward by the ewes as well as the rams.

In 2004, the BBSAI permanently separated the registry into two groups (polled and horned) by identifying which group each ram or ewe belonged to. Each previously registered animal, once labeled as either polled or horned, became an ancestor for either the polled registry lambs or the horned registry lambs born and registered from that day forward. All animals born from polled

heritage were referred to as "Barbados Blackbelly" (BB). And all animals from horned lineage were referred to as "American Blackbelly" (AB). In other words, the BBSAI recognized two separate breeds from that point forward. The general membership voted to name the horned breed "American Blackbelly" and to preserve the original polled Island of Barbados breed with the original name "Barbados Blackbelly."

After that point, all new animals (ewes as well as rams) registered from polled heritage were assigned a "BB" at the end of their registration number. And all animals registered from horned heritage were assigned an "AB" at the end of their registration number.

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What To Do with Cull Sheep

By Mary Swindell and Carol Elkins

Recently, a group of BBSAI members who raise Barbados Blackbelly sheep engaged in a conversation about what they should do with cull animals. Cull animals can occur for many reasons. Sometimes a sheep doesn't meet phenotypic breed standards (traits that you can visually observe). Or perhaps the sheep looks fine but is a poor breeder or is otherwise unthrifty. Perhaps the sheep was already registered as a lamb but now as an adult exhibits traits that a breeder would not want to introduce into his bloodlines.

Because the gene pool for BB sheep is so small, these breeders recognized that it would be unwise to allow cull sheep or their offspring to potentially contribute to that gene pool. The discussion isn't limited to BB breeders; American Blackbelly breeders should also be concerned about allowing substandard animals to breed. So what should breeders do with sheep that they cull from their flocks?

It is these authors' contention that selling unregistered breeding stock is never a good idea. Animals should leave a breeder's farm either as registered breeding stock or as freezer meat. Either a sheep is of high enough quality to perpetuate its genetics or not, and if not, then it should be slaughtered. It is a breeder's responsibility to make this decision and not let (or require) the buyer to make it. Even if buyers want blackbelly sheep to use in a crossbreeding operation and don't care about their quality, it is a breeder's responsibility to sell registered seed stock.

Every breeder will, at some point, have a sheep that is not worth registering, either because it won't meet breed standard or you know it is carrying a bad mix of genetics. You know you need to cull it from your flock, but selling it to some poor schmuck who doesn't know any better isn't an honorable thing to do. So what are your options?



This lamb is not registerable and should be culled from the flock.

How can you remove the animal from your flock while ensuring that it isn't ever allowed to breed?

If you have a meat processing facility nearby that will slaughter the sheep for you, you can either keep the meat for yourself or sell it. Depending on your market, you can sell a whole lamb for as little as \$2/lb live weight or \$16/lb packaged. If there is no slaughter facility nearby, you might check the local meat markets to see if one of the butchers will come to your farm to slaughter and dress the sheep. Because he will take the carcass back to the meat market for custom cutting and wrapping, such an arrangement is usually good for both you, the butcher, and the meat market.

If butchering the sheep and keeping or selling its meat is out of the question, then the next thing to consider is selling the sheep directly into a slaughter channel. Many communities have auction houses whose target buyers ensure that the sheep will go directly to a slaughterhouse. Some pay less for hair sheep (actually penalizing them), but others, particularly those that also sell goats for slaughter, can command top dollar for the exceptional quality of hair sheep meat.

The absence of an auction facility shouldn't stop you from selling a sheep

for slaughter. There are plenty of private buyers, particularly those whose culture or religion or desire for "all natural grass-fed" meat favors the blackbelly's lean and tender lamb, who monitor classified ads, Internet ad sites such as craigslist.com, and other farm-based marketing efforts. Some may ask you to provide an area on your farm on which the sheep may be slaughtered, but others have the means to provide their own arrangements for slaughter.

Some breeders decide when a sheep is born whether to raise it for slaughter or keep it as breeding stock. If they decide a ram lamb is destined for slaughter, they may choose to castrate (wether) it. By painlessly banding a ram or surgically castrating it at a very young age, a breeder ensures that a cull ram can never be used for breeding purposes. Although a wethered ram will take longer to reach a desired butcher weight, the peace of mind knowing that the ram can never breed is worth it. Rams quickly become 50% of someone's flock genetics, so it is very important that people "get these boys off the street."

If you end up with an adult intact ram that you now want to sell as freezer meat, how can you be certain that the buyer won't decide to keep the ram alive and breed him? One option is advertise the ram for sale as a butcher ram under limited arrangements. The seller can transport such a ram to a slaughter facility for the buyer. The ram will be processed and the seller can pick the meat up already packaged. If the buyer doesn't want to buy under these circumstances, then don't sell.

What to do with cull ewe lambs? The only route guaranteed to remove cull ewes from the breeding pool is to sell them directly through a guaranteed slaughter route. Either they should be tagged with a USDA meat tag (which helps guarantee that the meat buyer

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Cull Sheep (Continued from page 2)

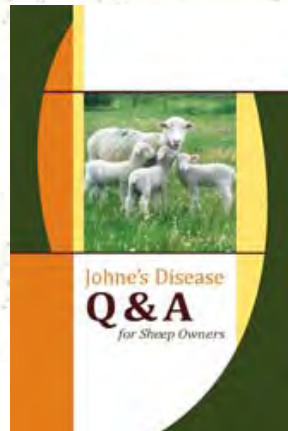
doesn't pull them off the slaughter-bound truck and keep them for himself) and sold to a meat buyer at a lamb pool or they should be sold to a private buyer with the understanding that you will take the animal to the processor yourself. The buyer may pick up his lamb in packages after processing is completed.

Although it is a lot more work to do it this way, it is important to remain in control of the ewe's slaughter to ensure that the buyer doesn't keep her as breeding stock. All ewe lambs basically have "dollar signs" stamped on their sides, and they are a potential breeding animal, no matter what they look like. If you are not willing to take on this responsibility, then you need to find a slaughter facility that will remove the ewe from the gene pool, even if you must drive a long distance to transport the sheep.

As a responsible breeder, you need to develop a plan for advertising and selling your cull stock to guarantee that they are actually sold to slaughter and not put back into the breeding pool. If you advertise on Craigslist or any other media, you can design your ads so that you are in control of the situation from the beginning to the end. If you already have your approach figured out ahead of time, it will be harder for a buyer to talk you into some other plan.

If you believe in the importance of these conservation and breed preservation issues, then you must be willing to take simple steps such as these to prevent cull animals from being used as breeding animals. In the long run, we are protecting the standardization, the integrity, and even the monetary value of the each blackbelly breed by making sure that only the best are used to breed, not only by BBSAI members but by the general public as well.

FREE Booklet Helps Sheep Owners Understand Johne's Disease



Johne's disease is one of those mysterious sheep diseases where symptoms often challenge owners since symptoms for Johne's disease can be easily confused with symptoms for other diseases. And, while no one knows the number of infected sheep flocks in the United States, cases of Johne's disease have occurred in sheep raised for meat, milk and fleece as well as in 4-H flocks.

A new 16-page booklet developed by the National Johne's Education Initiative in cooperation with USDA-APHIS-VS, the Wisconsin Department of Agriculture, Trade and Consumer Protection and the School of Veterinary Medicine, University of Wisconsin-Madison,

shares facts about Johne's disease as it applies to sheep and sheep owners. Delivered in an easy-to-read format, the Q&A booklet provides answers to questions such as "What is Johne's disease?", "How do I know if my flock has Johne's disease?", "How can I help keep Johne's disease out of my flock?", "Should I test my flock for Johne's disease?" and more.

"This booklet focuses solely on Johne's disease as it relates to the sheep population and sheep owners," states Dr. Elisabeth Patton, chairman of U.S. Animal Health Association's Johne's Disease Committee. "Since there is no cure for Johne's disease and there is not an approved vaccine for sheep in the United States to help protect them from infection, education about Johne's disease, and the prevention of Johne's disease, is extremely important." Dr. Michael Carter, National Johne's Disease Control Program Coordinator, National Center for Animal Health Programs, USDA-APHIS-VS, points out that symptoms of Johne's disease in sheep are vague and similar to other ailments: rapid weight loss. Adding to the mystery of the disease is that, although infection with *Mycobacterium avium* ss. paratuberculosis (the bacteria that causes Johne's disease) occurs primarily in lambs in the first months of life, signs of disease usually do not appear until the animals are adults. Despite continuing to eat well, adult infected sheep can become emaciated and weak and even die.

"Lambs are significantly more susceptible to infection than adults and often become infected by swallowing manure containing MAP—for example when they suckle manure-stained teats, drink milk that carries MAP or consume feed, grass or water contaminated with manure containing the bacteria," adds Dr. Becky Manning, Senior Scientist, Johne's Disease Information Center, School of Veterinary Medicine, University of Wisconsin. "Bottle-fed lambs can also become infected if the milk was contaminated. Johne's disease can spread swiftly through a herd, especially if the infection remains undetected for several lambing seasons."

Sheep owners and veterinarians can obtain a free copy of the new Johne's disease Sheep Q&A booklet by contacting their state Designated Johne's Coordinator, calling the National Institute for Animal Agriculture at (719) 538-8843 or by ordering the booklet online at www.johnesdisease.org.

Ask the BBSAI

Questions sent to info@blackbellysheep.org are answered by BBSAI Registrar Mary Swindell.

Q: We have 4 female blackbelly sheep and 2 rams and obviously more to come!! What are our options with limited pasture?

A: You didn't indicate how much pasture land you have available, or if you have a winter feeding plan. Usually medium quality pasture will support 8-10 blackbelly sheep per acre during the growing season. During the winter months, one small square bale of hay (about 50-60 lb) will feed approximately 8-10 blackbelly sheep per day. Unless you live in an area where the growing season lasts for the full 12 months, you will usually need to feed hay for at least 4 months per year.

You should calculate your ideal "stocking rate" (that is, the appropriate number of sheep that your fenced area can support for grazing during the growing season). And you should calculate the approximate amount of hay to purchase or grow for the winter, based on how many animals you plan to keep during those cold months where nothing grows (in the Midwest, that usually means December 1 through April 1).

Many breeders decide to sell extra stock just before the winter begins so that they don't have to feed hay to as many animals over those winter months. They will keep their breeding ewes and the most important breeding ram(s) and market all the other animals. If they are raising sheep for meat, they may be able to take their lambs and cull animals to market in late autumn, just around the time they are changing their animals from pasture to hay. They hope to have lambs that are old enough and big enough to sell for the best price.

Usually, blackbelly lambs get the best price at market at between 11 and 12 months old because they are fairly large at that time and can still be graded into the "lamb" category (1-12 months old), which always commands the highest price per pound. Animals over 12 months old will bring a lower price per pound. The buyer can tell the animal's age by its teeth.

When you take your lambs and cull sheep to a sale barn, there may be a couple of options. There may be a live-stock auction, at which various buyers bid on your animals. Or there may be a lamb pool, at which one buyer purchases sheep from several different producers on the same day. We have such a situation here in southern Illinois. Our local sheep breeders association has a lamb pool agreement with a buyer who agrees to purchase all lambs we choose to bring to our local sale barn, once per month during 6 months of the year. He pays the current market price, and there is no "auction" or bidding involved.

Federal and state laws prohibit the sale of meat that has not been processed through a state or USDA inspected facility. You can advertise and sell your stock directly to the public, but buyers must purchase their animal from you live and take it home to process themselves. Before you offer to let them kill it on your premises, check your state and municipal regulations. Some states allow home kill only if the meat is for your own family's use. In this case, you could offer to take the live animal to the processing facility for your customer and then they can pick up their packaged cuts after the meat is processed.

If you want to directly sell some of your adult sheep or lambs yourself, there are several ways to advertise them free of charge as either

butcher or breeding stock.

BBSAI members can advertise their stock for free on the BBSAI's online classified ads at www.blackbellysheep.org/classified.html. Many people sell their sheep on www.craigslist.com. You can also advertise your stock on the Blackbelly Listserv, a free e-mail group for blackbelly sheep breeders. To subscribe, go to www.blackbellysheep.info, read the instructions, and then click "Subscribe."

Another free way to get the word out about your sheep for sale is to post a flyer with photos on the bulletin boards of local farm stores. Also, if you have a personal Web site, you can set up a "Sheep for Sale" page to announce your animals for sale.

If your animals are registered with the BBSAI, they may be able to bring a higher price as breeding stock than they would bring as market animals. If you are finished using one of your rams, for instance, perhaps someone else would love to purchase him as a breeding ram. It is a good idea to look at the "Buy/Sell" page at BBSAI's Web site to see what prices other blackbelly breeders are asking for their animals.

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New BBSAI Members

Ed Harmon	TX
Edwina Hanson	WI
Ronald Ciomperlik	TX
Terri Robb	PA
Rebecca Shanor	FL
Maria Springer	FL
Andrew Dotson	NM

Q: I bought some blackbelly sheep but I'm not sure if they're pure BB, American, or what... is there any way for me to find out without knowing pedigree?

A: If you do not know the sires and dams of the sheep you bought, you can still determine a lot about their heritage from their physical appearance. The BBSAI has a set of American Blackbelly (AB) breed standards and a set of Barbados Blackbelly (BB) breed standards on our Web site at www.blackbellysheep.org on the "About the Sheep" page. There are also quite a few photographs on that same page that will give you an idea of the appearance of the AB and BB sheep. Basically, the AB sheep and the BB sheep look alike except that the AB rams have large horns, whereas the BB rams are smooth polled. The ewes of both the AB and BB breeds look polled, but AB ewes carry hidden horned genetics and the BB ewes carry the polled genetics.

Your sheep cannot absolutely be declared purebred AB or BB sheep unless their parents are registered AB or BB animals. But if you think that you have purebred AB or BB ani-

mals, the BBSAI recommends progeny testing (breeding your animals to known purebred mates to determine if their phenotypical attributes successfully pass to their lambs).



What breed is she? Without knowing her pedigree, the only way to tell is to conduct progeny testing.

BB sheep are the "original" Barbados Blackbelly sheep from the Caribbean island of Barbados. There were a few of these imported into the United States during the 1900s. Today's BB sheep are descendants of those few original imports. AB sheep are a new breed resulting from the cross of

Barbados Blackbelly sheep with horned Mouflon and Rambouillet sheep in the southwestern U.S. during the 1970s through the 1990s. To protect the distinctions between these two breeds, it is important not to cross the AB with the BB sheep. The BBSAI does not recognize as registerable any crosses between AB and BB sheep.

The BBSAI has an "open registry" policy for AB sheep. Therefore, if you have a horned AB ram and he meets all the AB breed standards, you may register him as an AB sheep even if you have no pedigree and no knowledge of his parents. Likewise, if you have an AB ewe, you may be able to register her as an AB sheep even if you do not know her pedigree. However in the case of ewes, the BBSAI recommends that you do progeny testing to make sure the ewe is capable of producing ram lambs that grow large horns by about the 6th month. Ewes must be able to produce horned lambs (when bred to a horned AB ram) in order to be registered as AB ewes.

The BBSAI has a "closed registry" policy for BB sheep. That is, only animals with two registered BB parents

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Results of 2010 Annual Meeting Election

The 2010 Annual Meeting convened by teleconference on November 10 and ballots were mailed the following day to elect the 2011 Board of Directors.

The slate of candidates submitted by the BBSAI Nominating Committee was approved by majority vote.

BBSAI welcomes the following members to the Board:

- Mark Fleming
- Carol Elkins
- Joan Eubank
- Stephanie Parrish
- Pat Kahn

We look forward to new faces and new ideas!

Submitting Registration Photos

The BBSAI Registrar *prefers* digital photos sent as .jpg files (either as attachments to an e-mail or on a CD sent along with the registration application form).

Please DON'T print your digital photos and mail in the hardcopy. Doing so creates extra work for both you and the Registrar because she then has to scan the hardcopies to digitize them.

Ask the BBSAI (continued from page 5)

can be registered as BB sheep. However, the BBSAI also has an exceptions policy, for undocumented purebred BB sheep. This is a heavily scrutinized process whereby candidate BB sheep may qualify for initial registration even though their parents are not registered, providing the Exceptions Committee believes the evidence indicates that the animal is really purebred. When applying for registration of polled BB sheep through the Exceptions Committee, the owner submits background information about his sheep in accordance with Exceptions Committee requests. The owner may be asked to conduct progeny testing to determine if the sheep are capable of breeding true to the polled BB breed standards, so the process may take some time.

If you have a naturally polled BB ram or a blackbelly ewe that meets all BB breed standards, you may submit it to the Exceptions Committee to get a ruling on those animals. As stated above, it is almost impossible to know whether the ewes are AB or BB just by looking at them, because the ewes of both breeds are usually polled (although AB ewes sometimes have small scurs or little horns).

Q: I just bought some non registered American Blackbelly lambs. How long should it take them to shed their undercoat? Their parents shed it in the spring but the babies have not really shed much of it. I want to register them, but since they are only 5-6 months old, I am unsure if they meet standards.

A: Blackbelly lambs sometimes hold on to their winter undercoat for the entire first year, not truly having a nice shed until their second year. Shedding is also very dependent upon seasonal conditions, time of birth, geographical location, etc. To complicate it further, an individual sheep may shed to a sleek coat one year and retain some undercoat the next year. However, the fact that both parents of your lambs shed their coats is a



These sheep will probably not shed a coat that is this woollie.

good sign. Were the breeder's sheep registered? Were there other lambs born during that same time at the breeder's farm? Would it be possible to contact the breeder and ask how the shedding of his other lambs is coming along?

When you notice that your AB lambs' woolly undercoat has "broken" and begins to hang off in "tags" or "clumps" or can be "plucked" without hurting the animal, you are probably seeing signs of a shed. Again, you may not get a complete shed the first year, so don't be discouraged prematurely.

If the animal seems to be in the process of shedding (even if it is far from being complete), you may go ahead and submit photographs and your registration and fees to register them. Include a note with your application explaining that the shedding is in process. If an animal otherwise seems to meet breed standards via the photos, we will accept your statement because the BBSAI trusts its members to ensure their sheep meet breed standards.

Free Registration

Register 2 Sheep and Get the 3rd One Free!

Print this coupon and submit it with your registration application.
Expires 3/31/11. Limit one coupon per member.

Abortions in Sheep—Causes, Control, and Prevention

AS-1317, October 2006
By Justin S. Luther, Ph.D.,
NDSU Extension Sheep Specialist

The lambing season can be the most exciting time of the year for a sheep producer. The long awaited opportunity to evaluate that new ram or great set of replacement ewes finally arises. So, when the first two ewes abort, the next ewe has a stillborn lamb and the fourth ewe has a set of twins that are weak at birth and soon die, the experience can be very depressing and frustrating. These are all signs of an infectious abortion outbreak that should motivate you to 1) identify the cause(s) of abortion in your flock, and 2) develop a plan to control or prevent abortions from occurring in the future.

Identifying the Causes of Abortion

Identifying the exact cause of abortion in your flock requires knowledge of the clinical signs, flock history and laboratory diagnostics. You should deliver the proper samples (fetus and placenta) to your local veterinarian or state diagnostic laboratory. Samples always should be placed on ice in a spill-proof, insulated container. Your diagnostic laboratory likely will provide results for one of the four common types of infectious abortion. The clinical signs and mode of transmission for each of these four types are described below.

Enzootic abortion is caused by *Chlamydia psittici*. This organism will spread through infected fetuses, placentas, vaginal discharges, feces and nasal secretions. The organism enters the bloodstream but causes no signs of infection in the ewe unless she is, or becomes, pregnant. During pregnancy, the organism enters the uterus and causes inflammation of the placenta and death of the fetus. If infection occurs before conception, the ewe will abort during midpregnancy. If infection occurs during early pregnancy, abortion will occur 60 to 90 days thereafter. If infection occurs during

mid or late pregnancy, stillbirths and weak lambs at birth may result. Ewes in their first pregnancy are most susceptible to infection. In the Western U.S., isolated range flocks are highly susceptible when the organism is introduced. Similarly, Western ewes introduced into infected Midwestern flocks are very susceptible. Approximately 25 percent to 60 percent of ewes will abort, depending on the time of the outbreak relative to initiation of pregnancy. Older ewes will become immune to *Chlamydia psittici*, thereby minimizing the annual flock abortion rate to 1 percent to 5 percent. *Chlamydia psittici* infection also can occur in young lambs and may lead to pneumonia.

Vibrio abortion is caused by *Campylobacter* sp. The organism is discharged with the membranes, uterine fluids and fetus at the time of abortion. Transmission will occur when ewes ingest infected membranes or fluids, or through consumption of feeds contaminated with *Campylobacter* sp. If infection occurs during early pregnancy, the ewe likely will reabsorb the fetus. If infection occurs during midpregnancy, abortion will occur 10 to 20 days later. A late-pregnancy infection will result in stillbirths and weak lambs at birth. In general, 20 percent of ewes in a flock will abort following introduction of *Campylobacter* sp.; however, some outbreaks have led to 80 percent or 90 percent of ewes aborting. As with enzootic abortion, older ewes may become immune, but 5 percent to 10 percent of the infected flock will continue to abort each year.

Toxoplasmosis abortion is caused by *Toxoplasma gondii*, a protozoa that causes coccidiosis in cats. Infection will occur following ingestion of feed or water that has been contaminated with oocyst-laden cat feces. If infection occurs during early pregnancy, the embryo or fetus generally will be reabsorbed and rebreeding may occur. If infection occurs during midpregnancy, abortion will occur and the ewe may be

susceptible to a secondary infection. During late pregnancy, infection will lead to abortion, stillbirths, mummified fetuses or weak lambs at birth. Abortion can occur in 5 percent to 50 percent of the ewe flock, with typical losses averaging 15 percent to 20 percent of the lamb crop. In healthy, non-pregnant ewes, toxoplasmosis will not cause clinical symptoms or detrimental effects.

Salmonella abortion is a rare occurrence that is caused by various salmonella organisms. Stress and the number of ingested salmonella bacteria will determine whether the pregnant ewe aborts. If abortion does occur, it usually is during the final month of pregnancy. Most of the ewes will exhibit diarrhea, and some will die from metritis, peritonitis and/or septicemia. Healthy, young lambs also may contract the disease and die.

Controlling Abortion

When faced with unexpected abortion outbreaks, here are some general practices that producers can use to minimize the risk of spreading the infectious organism:

- Check feed and water supplies for sheep and cat feces contamination.
- Sanitize feeding and watering equipment.
- Separate ewes showing signs of abortion and house them apart from the remainder of the flock.
- Properly dispose of (burn or bury) the infected placenta and fetus.
- Do not feed ewes on the ground.

The following treatments also can be used to minimize the number of ewes aborting in an infected flock:

- Immediately vaccinate the remaining pregnant ewes for enzootic and/or vibrio abortion.
- Begin feeding 500 milligrams (mg) of chlortetracycline per head per

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The Barbados Blackbelly Sheep Association International is a non-profit organization registered in the State of Missouri



Raising sheep the EASY way!

The BBSAI Newsletter is a benefit of membership in the BBSAI and is published quarterly. The BBSAI Newsletter welcomes articles, photographs, and classified ads that relate to American Blackbelly and Barbados Blackbelly sheep. Publication of articles or advertisements does not necessarily constitute an endorsement by BBSAI. No part of the BBSAI Newsletter (including photographs) can be reprinted, put on Web sites, or used in any manner without written permission of the BBSAI.

Issue deadlines are:
January Issue – December 15
April Issue – March 15
July Issue – June 15
October Issue – September 15

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Joan Eubank, Vice President
Carol Elkins, Secretary
Stephanie Parrish, Treasurer

Directors:

Patrick Kahn

Newsletter Editor: Carol Elkins
Registrar: Mary Swindell
registrar@blackbellysheep.org

Abortions in Sheep (continued from page 7)

day for five days, and then reduce to 250 mg per head per day for the remainder of the pregnancy.

- If the outbreak is severe, inject all ewes with long-acting tetracycline (LA 200) at the rate of 10 mg/pound subcutaneously.
- If salmonella is the causative agent, inject ampicillin at the rate of 5 mg/pound. Spectinomycin also may be used at the rate of 5 mg/pound per day for three days.

Preventing Abortion

After an abortion outbreak, you must develop a plan for preventing abortions from occurring in the future. You should consider the following guidelines:

- Vaccinate. Vaccines are available for vibrio and enzootic abortion. *Campylobacter fetus* (cause of vibrio abortion) vaccine is given 30 days before breeding and repeated 60 to 90 days later. *Chlamydia psittici* (cause of enzootic abortion) vaccine is given 60 days before breeding and repeated 30

days later. (Note: The supply of both vaccines has been unreliable, so you need to place your order early in the year)

- Maintain sanitary feed and water supplies.
- Manage first-lambing ewes in a separate flock.
- Do not purchase replacement ewes from an infected flock.

Summary

Infectious abortions result from four major causes. Accurate determination of the infectious agent requires a diagnostics laboratory.

Antibiotics, vaccines and sanitary facilities all can be used to minimize the risk of abortions and ultimately improve reproductive efficiency of the ewe flock.

See article online at:
<http://www.ag.ndsu.edu/pubs/ansci/sheep/as1317w.htm>

Organic Sheep Production

By Susan Schoenian

There is a growing demand for organic commodities, including those products derived from sheep and goats: meat, fiber, milk, and cheese. The demand for organic is not driven by science, but rather by the perception that organic food is healthier, and organic farming is better for the environment.

The biggest challenge to raising sheep and goats organically is internal parasite control. Animals destined for slaughter may not be dewormed or treated with a coccidia drug. Alternative methods of parasite control must be implemented. Any animal that requires anthelmintic or antibiotic treatment cannot be sold as organic.

The Maryland Small Ruminant Page has added a page on organic sheep and goat farming. The page contains a comprehensive list of links pertaining to organic sheep and goat production: animal health, breeding, economics, meat quality, pasture, predator control, standards, transitioning, and welfare.

www.sheepandgoat.com/organicfarming.html