

Summer 2023 - Small Ruminant Edition

Antibiotics and Guidance #263

Cindy Foulke, DVM

The Food and Drug Administration (FDA) published the Guidance for Industry #263 as part of an effort to combat antibiotic resistance. This guidance puts into effect the framework for removing antimicrobials from Over-the-Counter (OTC) marketing channels. This will bring all antibiotics under veterinary oversight effective on June 11, 2023. All producers will need to establish a valid Veterinary-Client-Patient-Relationship (VCPR).

Some of the affected products include tetracyclines (LA200, Bio-Mycin 200, Terramycin), penicillins (Dura-Pen, Pro-Pen-G, AlbaDry Plus), sulfa based antibiotics (Di-Methox, SulfMed, Albon), Tylosin, Cephapirin (Today and Tomorrow), and Lincomycin. Our regular clients already have a valid VCPR in place and will notice little change with this ruling. However, those who do not currently consult a veterinarian on a regular basis will need to do so prior to purchase of these products. Producers will need a yearly visit from a veterinarian to maintain their VCPR.

Antiparasitides, injectable and oral nutritional supplements, oral probiotics, and topical nonantibiotic treatments will not be affected by these regulations.



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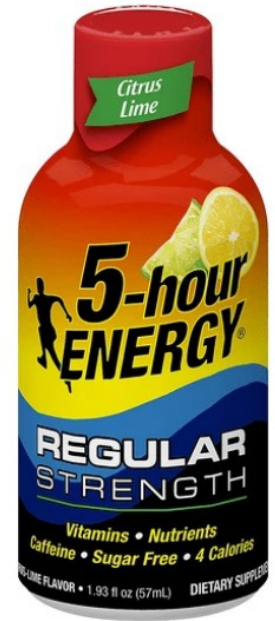


5 Hour Energy

Cindy Foulke, DVM

Newborns that do not nurse or have poor vitality can be given a quick pick me up. One strategy is to use caffeine, which has been used in pre-term human infants with apnea. "Regular strength" 5-Hour Energy contains caffeine and is a stimulant.

Lambs and kids can be given 1-2 mg of caffeine per pound body weight or about .5 ml per pound of 5-Hour Energy orally (by mouth). So a 10 lb kid or lamb would receive about 5 ml of 5-Hour Energy. This dose can be repeated in 24 hours if needed.



Vaccinations

Cindy Foulke, DVM

At a minimum, small ruminants should be vaccinated for CDT with a product such as Bar Vac CD-T to prevent against clostridia disease (also known as overeating disease). Preferably an 8 or 9 way vaccine such as Covexin 8 or Cavalry 9 can be used "as they provide broader disease coverage. Cavalry 9 is recommended as it is the least reactive clostridia vaccine so it causes fewer lumps lumps and abscesses." . The first time the vaccine is administered, it should be followed with a booster dose about 3-5 weeks later. After that the vaccine should be given once a year unless otherwise directed by your veterinarian.

To provide passive immunity to lambs and kids in the colostrum, ewes and does should be vaccinated 2-4 weeks prior to parturition. Maternal antibodies will protect the kids and lambs for about 6-8 weeks if they received adequate colostrum. Lambs and kids should receive their first CDT vaccine around 6-8 weeks of age and then be boosted once in 3-5 weeks. For lambs and kids whose dam was NOT vaccinated, they can be vaccinated around 2 weeks of age and then boosted twice more at 3-5 week intervals.

Clostridia vaccines are administered subcutaneously (under the skin). All vaccines should be stored and used according to the manufacturer's label. Needles used to administer the vaccine to the animal should not be used to draw up vaccine to avoid abscesses. Also keep in mind that only healthy animals should be vaccinated. And it is best to vaccinate when outdoor temperatures are less than 80-85 degrees.

Annual rabies vaccinations are also recommended for small ruminants. Lambs and kids can receive rabies vaccine after 3 months of age. If your herd or flock has problems with other diseases, additional vaccines can be added to the regular vaccination program upon consultation with your vet.

The Madigan Squeeze

Cindy Foulke, DVM

Difficult birthings can often lead to neonates that are dull, lethargic, weak, unable to stand, and unable to nurse. This type of behavior is often referred to as neonatal maladjustment syndrome (NMS) or “dummy lamb”, “dummy calf”, “dummy kid”. These cases are frustrating as the babies often have no suckle reflex, cannot stand, and fail to find the udder. Possible reasons for this condition include difficult birthing, white muscle disease, hypothermia, infectious causes, trauma, and very thin or old mothers.

One treatment for these cases is a maneuver called the Madigan Squeeze. This involves simulation of pressure from the birth canal to help to reboot the brain. A brief description of this technique is as follows. Thread a soft rope around the neck and chest. Then loop the rope around the chest twice more using a half hitch at the top between loops. Apply gentle tension on the rope and squeeze for 5-10 minutes. Usually the neonate will lie quietly on their side during the squeezing. Remove the rope and the animal should get up with more energy and motivation to stand and nurse.

The technique may need to be performed a few times for the first few days of life. The Madigan Squeeze may not save every case but is another tool to use to increase viability of newborns. In addition to the squeeze, make sure to follow other life saving procedures such as ensuring that the neonate is warm, propped up, and given adequate amounts of colostrum.



Health Charts UPDATE (CVI)

Cindy Foulke, DVM

PA-113
REV. 10/2

PENNSYLVANIA DEPARTMENT OF AGRICULTURE
Certificate of Veterinary Inspection

Certificate Number: **B 103601**

1. Exhibitor/Owner/Manager
Name: _____ Address: _____

2. Purchaser/Name of Show/Consignee
Name: _____ Address: _____

3. Species: Cattle Swine Equine Poultry Sheep Other _____

4. BREED STATUS
Breed: _____ Date: _____

5. INDIVIDUAL ANIMAL TESTS & VACCINATION REPORT

TEST	DATE	RESULT	DATE	RESULT
BRUCELLOSIS TEST				
Cattle <input type="checkbox"/>				
Swine <input type="checkbox"/>				
Equine <input type="checkbox"/>				
Poultry <input type="checkbox"/>				
Sheep <input type="checkbox"/>				
Other <input type="checkbox"/>				
TR. TEST				
OTHER TEST - VACC.				
OTHER TEST - VACC.				

7. EXHIBITOR/OWNER/REGISTRAR
NAME: _____

8. EXHIBITOR/OWNER/REGISTRAR
NAME: _____

9. DATE OF ISSUE: _____

10. STATE OF DESTINATION: _____

11. SEE BACK OF LAST COPY

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According to the PA Department of Agriculture, Health charts (CVIs) must be completed for each show/fair destination along with the show address. Each species must have their own health chart. Charts may not be written for the show season for an animal.

Compliance with these regulations is important in case of a disease outbreak so that the state can trace an animal to each show location.

Urolithiasis (Bladder Stones)

Cindy Foulke, DVM

Urolithiasis is common in wethers, rams, bucks and other livestock males. Uroliths can form in females but seldom causes problems. Blockage of the urethra leads to urine retention which causes rupture of the bladder or urethra. Uroliths are solid crystalline formations including calcium, magnesium, and phosphate which form four main types of stones: phosphatic, calcium carbonate, silicate, and calcium oxalate. Phosphatic and calcium carbonate stones form in alkaline urine and in animals on high grain or legume diets. Silicate or calcium oxalate stones mostly form in grazing animals in the western states of the US or those grazing oxalate containing plants.

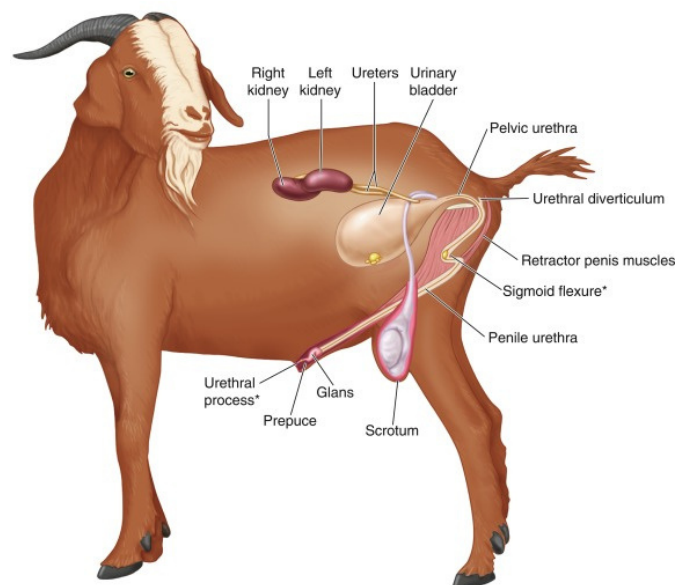
Unpalatable water and disease conditions can result in reduced water intake which can increase urolith concentration. Diet and water intake are major contributors to the disease. Individual factors as well as urethral diameter may also contribute to the problem. The anatomy of the male urinary tract is also a predilection for obstruction.

Clinical signs of urolithiasis include restlessness, vocalization, anxiety, weakness, teeth grinding, abdominal distension, straining, and stretching out. The most common complaint we hear is that the sheep or goat is straining and constipated, which is usually then diagnosed as urolithiasis. In these cases you should call your veterinarian immediately as time is of utmost importance. Treatment includes supportive therapy, amputation of the urethral process, and surgery.

Prevention includes increasing water intake by providing clean, palatable, and temperature appropriate water. Feeding a high forage diet with no or limited grain also increases water intake. A high roughage diet also requires more water for chewing and digestion. Urine acidification is another way to help prevent formation of the bladder stones. One way to acidify the urine is to add ammonium chloride to the diet. Ammonium chloride does not prevent all types of uroliths, but it does help on the primary type of urolith we see in our area. The diet should also have a balanced Ca:P ratio of 2-2.5:1. Loose trace minerals specifically balanced for the species being fed should also be provided free choice as well as access to a salt block.

Bottom line: If possible, avoid feeding grain to males especially those over 3-4 months of age.

If grain is fed, then make sure to add ammonium chloride to the diet.



Fecal Sampling and Fecal Egg Counts (FEC)

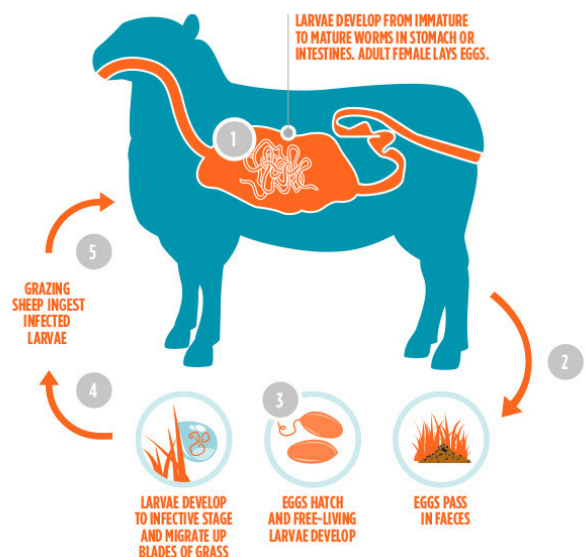
Cindy Foulke, DVM

Internal parasites in small ruminants are a very common problem in our area due to our climate. There is also much parasite resistance to every class of dewormer as a result of their frequent use. Over the years the thought process on deworming has changed as more information is gathered and resistance has developed. Ag Vets offers McMasters testing (which involves measuring fecal egg counts) on fecal samples in house for more accuracy than fecal floats and quick turnaround time. Developing a deworming protocol based on fecal egg counts and egg reduction helps minimize drug resistance and provide better treatment for your herd or flock.

This protocol involves obtaining fecal samples from individual animals (composite sampling is not optimal), treating them if needed based on the results, then rechecking fecal samples from those same individuals 2 weeks post deworming to verify the efficacy of the treatment. If the post treatment fecal egg count doesn't have a 90 to 95% reduction in eggs, then another dewormer or combination of dewormers should be used as the previous treatment was not very effective.

Some animals and others closely related may be naturally parasite resistant and shed low numbers of eggs. These animals can go untreated if they develop no clinical signs such as diarrhea, anemia and unthrifty appearance. This allows a refugia population of parasites that are unlikely to have resistance to the dewormers being used. Refugia is the proportion of the total parasite population that is not selected for antiparasitic drug treatment. In other words, those parasites that are in "refuge" from the drug. Therefore, there's no selection pressure on these parasites to develop resistance. Small ruminants with clinical signs such as pale mucous membranes, bottle jaw, and diarrhea should be treated for parasites regardless of their fecal egg count. Pregnant animals should be dewormed a couple of weeks prior to parturition with an anthelmintic labeled safe for pregnant animals.

If you have any questions concerning parasites or fecal testing, please contact our office.



Test Your Breed Knowledge

Cindy Foulke, DVM

It is always exciting when our clients are willing to bring in new breeds of livestock to the area. Here are examples of a few sheep and goat breeds which are starting to become more popular in the past few years. Can you match up the breed names to the pictures?

Savanna-this is a large framed well muscled breed of goat that originated in South Africa in 1957. They typically have white coats but their skin, horns and hooves have black pigmentation.

Kerry Hill-this breed is from the village of Kerry on the English/Welsh border that dates back to 1809. They are a well balanced sturdy sheep with a black nose and white markings on the head and legs.

Valais Blacknose-this breed originates from the Valais region of Switzerland and were mentioned around the year 1400, but were not recognized as a breed until 1962. Valais have black noses, ears, eye rims, knees, and ankles. Both males and female have spiral horns and are known for their docile personalities.



Miniature Silky Fainting Goat-this is a new small long-coated breed of goat which is a cross between a Nigerian Dwarf and Tennessee Fainting Goat.