

GOAT MEDICATIONS & HOW TO USE THEM

Goats are a minor ruminant species. As of January 2013, there are less than 2,000,000 goats in the USA and the number is decreasing, so very few medications are made for them. Drug development, testing, and approval costs seldom justify focusing on such small numbers. Most medications used to treat goats, prescription or over the counter, are "off label" or "extra label" usage. Lack of government approval does not mean that such products are dangerous or ineffective. In many areas of the USA veterinarians know little to nothing about goats. Goat producers must rely on each other for the help they need to raise healthy goats. Find yourself a mentor and, if knowledgeable, stick with that person; contacting multiple people on the Internet will confuse you and hurt your goats.

I am NOT a vet. I have been raising goats since January 1990, and I have been fortunate to have had two good goat vets upon whose advice I rely. Use the information in this article at your own risk and only after you have consulted with a qualified goat veterinarian. The medications are presented in alphabetical order; some of the medications are interchangeable with others, i.e. they provide similar treatment benefits but are offered because specific products may not be available in all areas. I have not addressed meat or milk withdrawal timeframes. Some of the products may not be approved for use in food animals; Gentamycin and Baytril (but not Baytril 100 for use with cattle) in particular are restricted from usage in food animals in certain species and jurisdictions. Check with your local vet to find out what you can legally use. The products listed below and comments about them are based upon my personal experiences or those of vets with whom I have had a working relationship. Jeffers 1-800-533-3377 www.jefferspet.com carries most of these non-prescription items. Prescription items must come from your vet.

In December 2016, antibiotics will be prohibited as feed additives. DiMethox 12.5% oral solution is already unavailable. Companies are exiting the animal-health business, leaving fewer suppliers and large gaps in product availability. The remaining companies are already gearing up for prescription-only selling to veterinarians. Mark my words, soon ALL currently over-the-counter antibiotics will require prescriptions. Stock up and/or develop a relationship with a vet, because it is going to happen.

A comment about antibiotics: Due to the goat's very fast metabolism, antibiotics (whether given orally or injectably) must be given for five consecutive days.

A-180 (danofloxacin) - Vet prescription. Injectable respiratory antibiotic. Neither I nor my vet like this product's use with goats. Nuflor Gold and Excenel RTU have worked better for us.

Albadry Plus - Teat infusion medication containing procaine penicillin and novobiocin sodium for treating mastitis in non-lactating goats and drying up lactating goats. Can be used topically on staph infections. Best to have the udder's contents tested to find out which organism is causing the infection so you can choose best antibiotic.

Albon (Sulfadimethoxine 12.5% or its generic equivalent DiMethox 12.5%) - These products are the drug of choice for preventing and treating Coccidiosis. Give orally undiluted to kids at a rate of 3-5cc and to adults at a rate of 5-10cc for five consecutive days. Mixing with drinking

water as directed on the label is another option, but I recommend against it. Sick goats should be treated individually with oral dosing for five consecutive days. The gallon jug is the most cost-effective purchase. Will not work with automatic waterers due to continual dilution of the product.

Albon 40% Injectable - Over-the-counter and dosed orally to treat coccidiosis. 1.56 cc given orally on first day per 25 pounds bodyweight; days 2-5, dose at .78 cc per 25 pounds bodyweight. Mix with Nutri-Drench or similar product for palatability.

Alushield - Aluminum-based water-resistant aerosol bandage for topical use only.

Banamine (FluMeglumine) - Vet prescription required. Anti-inflammatory that helps reduce fever, soothes irritation in the gastro-intestinal tract (gut) when diarrhea or other gut-related digestive illnesses occur, relieves pain and soreness associated with animal bites and other injuries. Use no more frequently than every 12 hours (stomach ulcers are possible) unless goat is dying, justifying the risk. Dosage is 1 cc per 100 lbs. body weight IM. A newborn kid with fever at Onion Creek Ranch would receive an injection of no more than 1/10 cc IM. Keeps best in hot climates when refrigerated. Must-have medication; never run out.

Baytril 100 (Enrofloxacin 100 mg/ml) - Vet prescription. (not Baytril 2.27%). Usage in goats is "off-label" or "extra-label," but this antibiotic is being used in goats by some veterinarians. The appropriate IM dosage is 4 cc's per 100 lbs. of body weight for five consecutive days. This medication is very effective against gut-related illnesses and works synergistically (better together than individually) with SMZ (sulfadimethoxazine with trimethoprim). Some jurisdictions prohibit use of Baytril or Baytril 100 in any form (injectable or tablets) in food-production animals because the withdrawal time from meat and milk has not been determined. Great for treating Joint Ill when no other antibiotic works. If you have a sick goat on which no other antibiotic is working, Baytril 100 is the drug of last resort. Do not use without vet approval and supervision.

Beet Pulp, Shredded - While this isn't a medication, I mention it because it is useful and often misused. I use shredded beet pulp to add fiber to the rumen of old goats whose teeth have begun to wear. This is in addition to their normal feed, not in place of it.

Biosol (Neomycin Sulfate) - Over-the-counter sulfa-based antibiotic for using with scouring kids and adults when Coccidiosis is not the underlying illness. Works effectively against E.Coli and other digestive-system bacterial infections. For kids, give 3 cc orally every 12 hours until diarrhea has stopped and feces is normal. For adult goats, use 5 cc to 10 cc orally and as directed for usage in kids. Do not overdose; constipation can result. Do not stop diarrhea until you know its cause. Sometimes diarrhea is the body's way of eliminating toxins.

Black Oil Sunflower Seeds (BOSS) - Another non-medication, it is useful to add fat to the diet of thin and/or old goats. BOSS is 25% fat. Top-dress the feed with BOSS.

BoSe (not MuSe) - Vet prescription. (A horse product, MuSe is too strong and should not be used with goats.) Injectable medication for selenium deficiency (white muscle disease, aka

nutritional muscular dystrophy). Since selenium deficiency exists at different levels throughout the United States, it is critical to follow your veterinarian's directions on the usage of these products, as well as offering supplemental loose minerals containing selenium. Google "selenium deficiency" to see the general locations in the USA. Most of the East Coast, down to Florida and westward through the Great Lakes region, plus the West Coast, including California and parts of Nevada and Idaho, are selenium deficient to different degrees. Selenium deficiency usually shows itself in the form of weak rear legs in kids. Older goats don't put on weight, have weak legs, and generally stay in poor condition and poor health. Selenium is toxic at low dosages, and the dosing margin of safety is narrow. The addition of selenium to feed is controlled by US law. In some areas, producers only need to provide loose minerals containing selenium. In other regions, selenium injections are necessary. When BoSe injections are required, they are usually given at birth and again at one month of age (one-half cc IM). Pregnant does receive injections four to six weeks before kidding, and bucks are vaccinated twice a year. Adult dosage of BoSe is 2-1/2 cc per 100 lbs bodyweight given IM. It is easy to overdose selenium.

C&D Anti-toxin - Over-the-counter made-for-goats product that can be safely used for many problems when they already exist. Severe diarrhea in very young kids, toxicity caused by plants, poisons (bites, overeating disease, bloat, ruminal acidosis, and ingestion of toxic substances like azaleas and antifreeze are several examples), one of the products administered to combat Floppy Kid Syndrome . . . these are a few of the applications of this very versatile product. C&D Anti-toxin provides short-term protection (about 12 hours) but works quickly towards solving the immediate problem. Follow label directions. Must be refrigerated. Freezes at very high temperatures. C&D Anti-toxin negates any protection previously given by the CD/T vaccine, so you must wait for at least five days after completion of C&D Anti-toxin therapy and re-vaccinate the animal with the initial CD/T vaccine injection plus the booster 30 days thereafter. Must-have medication. Always have on hand. There is no substitute.

CD/T vaccine (Clostridium Perfringens Types C&D + Tetanus Toxoid Vaccine) - Over-the-counter made-for-goats product that provides long-term protection against overeating disease (types C&D) and tetanus. Kids of one to three months of age and all newly-purchased animals regardless of age should be vaccinated with 2 cc and then a second vaccination should be given 30 days later. Two injections 30 days apart are required in order to provide long-term protection. Annually thereafter, one injection of 2 cc per goat will renew the protection. Give SQ. It may cause an injection-site abscess, which is an indication of the body's positive reaction to the vaccine. In most cases, the abscess goes away in time.

Caseous Lymphadenitis (CL) vaccine - Introduced in May 2012 by Texas Vet Lab of San Angelo, Texas . See the December 2015 issue of MeatGoatMania for articles on how to use this very effective vaccine. Over the counter in some states; prescription item in other states. Not available yet in a few states. Jeffers can tell you what each state requires. Call 1-800-533-3377 and ask to speak with their CL vaccine expert.

Chondroprotec - A skin regrowing medication. Applied topically. The January 2013 issue of MeatGoatMania has an article and pictures of this amazing product. Vet prescription.

Colostrum Replacers & Supplements - Do not confuse these two types of products. Newborns must have colostrum during the first hours after birth. If the dam is colostrum deficient, you must use a colostrum replacer. The best colostrum replacer is colostrum saved (and frozen) from does on your property who have already kidded. This colostrum will have antibodies that provide the kids needed immunity to the organisms existing in your particular location. If you don't have a supply of frozen colostrum, then you must use a commercially-prepared goat colostrum replacer (*not* "supplement"). Do not use colostrum or colostrum replacer beyond the first 48 hours of the kid's life. Switch to goat milk or goat milk replacer. Colostrum has already done its job for the newborn after 48 hours and the kid's body can better digest goat milk. I use Ultra-Bac 24 all-species milk replacer (Milk Products).

CoRid (amprolium) - Over-the-counter product for preventing and treating coccidiosis. Comes in granular packets and gallon liquid. This product is a thiamine inhibitor, so knowledgeable professionals recommend against its use. Albon or its generic equivalent Sulfadimethoxine 12.5% (Dimethox 12.5%) is preferred over CoRid. If you must use CoRid, buy the gallon liquid and maintain better control over dosages. Follow package directions. Treatment dosage: Mix 1 oz CoRid in 5 oz. water and orally drench the sick goats twice a day for five consecutive days; kids should receive 20-40 cc of this mixture twice a day, while adults should receive 40-80 cc. This is a higher-than-label dosage but is what it takes to control coccidia in goats. For prevention of coccidia, use 2 oz. per 15 gallons of water; for treatment, use 3 oz. CoRid per 15 gallons of water. Limit the goats' water supply to one source and treat for five consecutive days. Use Thiamine (Vitamin B1) daily dosing at 4 cc per 100 lbs bodyweight given IM or SQ when using CoRid.

Dewormers, Feed-based - Feed-based dewormers are usually not effective. Dewormers are dosed based on the goat's bodyweight; there is no accurate way to do this with feed-based dewormers. Plus the goat needing the dewormer the worst will also be the least aggressive goat who will get less feed, therefore a lower dosage of the feed-based dewormer. Unless you can control the precise amount of feed that each goat receives, I recommend against using feed-based dewormers.

Dewormers - There are multiple classes of dewormers. Some still kill stomach worms; many are no longer effective. Generally speaking, the white-colored dewormers (Safeguard/Panacur and Valbazen) no longer kill stomach worms in much of the USA. All dewormers should be given orally, regardless of package directions. See my article on Deworming & Vaccination Schedules on the Articles page at www.tennesseeatgoats.com.

Dexamethasone - Vet prescription. Cortico-steroid. Use sparingly and under the direction of a vet. Dex can have bad side effects. Used for swelling and inflammation after infection is under control. Do not use if broken bones exist; Dex interferes with bone repair. Do not use on pregnant does unless you are trying to induce labor. Used to induce labor in pregnant does when the slow introduction of labor over a 48-to-72 hour period is desired (pregnancy diseases like Pregnancy Toxemia & Ketosis). Dex interferes with the functioning of the goat's immune system. Usage of this drug must be tapered off slowly; serious problems can occur if Dex is given in large amounts and then suddenly stopped. Tapering off over five days is a normal

procedure, i.e. reducing the dosage each day for five consecutive days. Dosage varies depending upon the problem being treated. Keeps best in hot climates when refrigerated.

Dextrose Solution (50%) - This over-the-counter IV product in a bottle is used orally with weak newborns by slowly dropping one or two cc in the mouth and under the tongue for quick energy. Can be mixed half and half with water and offered short-term to weak goats or kids who are either having trouble digesting milk or have overeaten on milk (Floppy Kid Syndrome) and need to be taken off milk for several days until the toxicity caused by undigested milk has been successfully treated.

Diatomaceous Earth (DE) - Although this product is being used by some producers as a "natural" dewormer, DE does not kill internal parasites (worms). There is no scientific evidence of DE's effectiveness in controlling internal parasites. Every controlled test done to determine efficacy of this product in killing internal parasites (worms) in goats has failed. It is somewhat effective on external parasites like flies. If a producer chooses to use DE as a food additive, make certain that "food-grade" DE is purchased and use DE in conjunction with an ethical (commercially-produced) deworming product. Check fecal samples regularly for worms while using DE. There is no such thing as a "natural dewormer" for goats.

Dopram V - Vet prescription. (May have to be compounded by a pharmacy as it may no longer be available commercially.) Eliminates respiratory distress in newborns caused by troubled births, including C-sections. Drop 2/10 cc under kid's tongue immediately upon birth to stimulate lung activity. Use on "pulled" kids since the normal squeezing of the body during the delivery process is altered. This liquid medication keeps best under refrigeration. This is a must-have medication at Onion Creek Ranch.

Draxxin (tulothromycin) - Vet prescription. Injectable respiratory antibiotic. Very expensive product that purports to be a one-time-only usage antibiotic. Because goats have the fastest metabolism of all ruminants, they need to be dosed daily for five days. Nuflor Gold and Excenel RTU given daily for five days work in my herd and are far less expensive.

Dyne - Over-the-counter oral high-calorie food supplement for animals off feed or needing quick energy. Must-have product.

Electrolytes, Oral (Bounce Back, ReSorb, Entrolyte HE, or equivalent) Over-the-counter products packaged in powdered form. For rehydrating sick animals, regardless of age. Can be used as an oral drench, put into baby bottles for kids to suck, or mixed in drinking water. Can be used in conjunction with Lactated Ringers Solution on dehydrated kids or adults. Store in a cool, dry place. Never be without this product.

Entrolyte- This terrific product was pulled by Pfizer in January 2008. It was an over-the-counter oral nutrient product for both rehydrating and providing nutrition to ruminants that were not ruminating or off-feed. Contained 13+% protein in addition to electrolytes. No comparable replacement product is on the market, to my knowledge. Best alternative: Mix a package of electrolytes such as Bounce Back or ReSorb and add 8 to 12 oz milk replacer.

Epinephrine - Vet prescription. Used to treat Shock. Always have it on hand when giving injections. Shock must be treated within seconds or the goat will die. Dosage is 1 cc IM per 100 pounds body weight.

Excenel RTU - Prescription injectable antibiotic. Ready-to-use equivalent of Naxcel. Effective against respiratory and urinary tract infections. Dose daily at 6 cc per 100 lbs bodyweight. Day One: dose twice 12 hours apart. Days 2 through 5: dose once daily. Give IM.

Ferrodex iron injectable - Over-the-counter Injectable iron supplement for treating anemia. Interchangeable with oral Red Cell or oral Lixotinic. I prefer oral Red Cell.

Fleet's Enema or generic equivalent - Over-the-counter product that is useful for constipation and toxicity reactions to clean out the intestinal tract. If a doeling is born with her vagina turned inside out, use a children's Fleet's enema to move her bowels for the first time ("pass her plug") and the vagina will return to its proper position. Make sure to put the enema into the rectal opening -- not the vagina.

Formalin (10% buffered formaldehyde) - Classified as a disinfectant, this product works well when injected into CL abscesses and also is very effective in treating hoof rot/hoof scald. However, I am no longer recommending using Formalin but prefer rather lancing and cleaning out abscesses because too many goat raisers are not using it correctly.

Fortified Vitamin B Complex - Over-the-counter product. This product can be used instead of Thiamine since it has 100 mg/ml thiamine in it. Products without "fortified" in the label have inadequate levels of thiamine. If such products must be used, then the dosage must be increased to achieve a thiamine level of 100 mg/ml. Example: If the product has only 25 mg/ml thiamine, then the dosage given must be multiplied by four. B vitamins are water soluble; a healthy rumen produces B vitamins daily. Dosage is 4 cc per 100 pounds bodyweight.

Gentamycin Sulfate - Injectable prescription antibiotic. Not authorized for use in all jurisdictions in food animals due to concern for antibiotic residue in meat. Works extremely well when used in conjunction with penicillin in the treatment of post-birthing infections and other bacterial infections. Mixed in equal parts with Dexamethazone and Sterile Water, the resulting product is a very effective eye spray for treating Pinkeye. Do not use on ulcerated eyes.

Gentosin Spray - Topical prescription spray useful in treating Pinkeye in non-ulcerated eyes. See Gentamycin Sulfate.

Goat NutriDrench - Oral quick energy supplement for stressed and/or off-feed goats. Contains many of the vitamins, minerals, and nutrients that a sick goat requires to survive its illness. Mixes well with propylene glycol or mineral oil for flavored dosing.

Granulex - Topical spray for removing dead & dying skin. May not be available. Check with vet.

Immodium AD - *Do not use this anti-diarrheal with goats. It can stop the peristaltic action of the gut, causing rapid and painful death.*

Ivomec 1% injectable dewormer or generic equivalent Ivermectin - Over-the-counter product for eliminating stomach worms. This clear liquid works best if used orally at a rate of 1 cc per 50 pounds body weight. Do not under-dose. Store at cool temperature and keep out of sunlight. Achieves a quicker "kill" via oral dosing. Also used in treatment of Meningeal Deerworm Infection. Clear dewormers do not kill tapeworms. Ivermectin 1% is one of several dewormers used to kill stomach worms. All dewormers should be given orally to goats.

LA 200, Maxim 200, Biomycin (oxytetracycline 200 mg/ml) - Over-the-counter broad-spectrum antibiotic. Thick (use an 18 gauge needle and give SQ over the ribs) and may sting. Oxytetracycline 200 mg/ml must be used to treat abortion "storms." No vaccines are available to treat abortion diseases and no off-label vaccines are effective in preventing abortion diseases in goats. Oxytetracycline 200 mg/ml is the goat producer's only choice. Also used to treat Pinkeye, even in pregnant does, as an abortion organism can cause one strain of Pinkeye. Used both injectably and topically (in non-ulcerated eyes) for Pinkeye. Sometimes effective in treating hoof rot/hoof scald infections. Use 1 cc per 20 lbs. body weight SQ daily for a minimum of five consecutive days. The non-sting version of oxytetracycline 200 mg/ml is called Biomycin. Oxytetracycline 200 mg/ml is sold under several brand names; check the content label for correct 200 mg/ml strength. Turns a dark red when opened and air enters the bottle, but if kept under controlled climatic conditions and used before the expiration date, it should work fine.

Lactated Ringers Solution - Vet prescription. For rehydrating kids and young goats. Comes in IV bag but use SQ. Using a 60 cc syringe with an 18 gauge needle attached, draw up LRS, warm in a pot of water, check temperature as you would a bottle of milk for proper heat, and inject 30 cc under the skin (SQ) at each shoulder. Can be used several times a day until the goat's electrolytes are in balance. Will be absorbed by the goat's body very quickly if dehydration is present. Can be used in conjunction with oral electrolytes (BounceBack/ReSorb). Refrigerate when storing or strange things will grow inside the bag. A must-have product.

Lime sulphur dip 97.8%. Lime sulphur dip 97.8%. Used topically for mites and staph infections on the skin.

Lutalyse -- Prescription injectable. Used to cycle does into heat or induce abortion in doe bred to wrong buck. Give 2 cc on the seventh (7th) day after observed breeding. Do not repeat.

Marquis - See Toltrazuril for cost-effective alternative.

Masti-Clear - Procaine-penicillin-based teat infusion for lactating does to treat mastitis.

Micotil - *Never use Micotil on goats.* Cattle antibiotic causes quick heart attack and death.

Milk of Magnesia -- Over-the-counter laxative product that is useful for constipation and toxicity reactions (to move toxic materials from the body), including bloat, ruminal acidosis, overeating disease, and Floppy Kid Syndrome. Use as oral drench at a rate of 15 cc per 60 lbs.

body weight every four to six hours until the feces goes from normal to clumpy then back to normal 'pills.' Always keep the animal hydrated with electrolytes (BounceBack/ReSorb or equivalent) when using Milk of Magnesia or other laxatives. Useful with mastitis by increasing magnesium levels in goat's body. Keep MoM on hand at all times.

Mineral Max (Multi Min) - Vet prescription. Cobalt-blue colored injectable liquid that must be used sparingly in goats suffering from severe mineral deficiencies. Help with weak labor contractions. Overdosing is easy; this medication builds up in fatty tissues. Dose SQ only.

Mineral Oil - Over-the-counter laxative product. Because mineral oil has no taste, the goat does not recognize mineral oil as a substance to be swallowed and can aspirate it into the lungs. Must be stomach tubed. If stomach tube is not immediately available, mix mineral oil with Goat Nutridrench to flavor it and slowly orally drench into the goat's mouth.

Molasses/Karo Syrup - Use orally with kids when quick energy is needed. See my article on Weak Kids on my website. Can be substituted for propylene glycol with ketotic does.

Kopertox - Over-the-counter product for hoof rot and hoof scald. Blue-green liquid for topical application as a "liquid bandage." Use with Oxytetracycline 200 mg/ml injections.

Nalalgen IP - Intra-nasal vaccine of short duration. I administer to goats when shipping.

Naxcel (ceftiofur sodium) - Vet prescription. Broad-spectrum antibiotic used for respiratory illnesses (pneumonia). Comes in two bottles: One bottle contains a powder which must be kept refrigerated even in powder form, and the other bottle is sterile water. When the two are mixed, they keep for only seven days. Draw syringes in dosages of 1/2 cc, 1 cc, 2 cc, and 3 cc, put needle caps on them, place the filled syringes in a ziplock bag, label and date it, and put the bag in the freezer. Syringes thaw quickly, but hold the needle cap upright, because the medication will settle into the needle cap and will be lost when the needle cap is removed. Newborn kids with respiratory distress or E.Coli infections need a minimum dosage IM of 1/2 cc daily for five consecutive days. A 100 pound goat needs at least 5-6 cc of Naxcel IM over the five-day course of treatment. I no longer use Naxcel but instead use Excenel RTU, the ready-to-use equivalent product that doesn't require refrigeration or mixing, or Nuflor Gold.

Niacin (Vitamin B3) - Give 1000 mg daily orally (crushed and dissolved) to does having weak labor contractions until kidding occurs.

Nolvasan - Bolus used inside uterus after difficult delivery to prevent metritis or vaginitis.

Nuflor Gold (florfenicol) - Vet prescription. My preferred antibiotic for respiratory problems, including pneumonia. Can also be used try to keep mastitis from becoming systemic. I tend to use Nuflor on adults and Excenel RTU on kids, but they are interchangeable. This is a thick liquid, so use Luer Lock syringes, or the needle may blow off the syringe. Dosage is 6 cc per 100 lbs bodyweight given IM for five consecutive days; newborn kids should receive no less than 1/2 cc. Keeps best under refrigeration in warm climates.

Oxytocin - Vet prescription. Used when a doe has not passed her afterbirth within 24-36 hours of kidding. Dosage is 1-1/2 cc per 100 lbs. body weight. In warm climates, keeps best when refrigerated.

Penicillin, Benzathine (long-acting penicillin) - Over-the-counter antibiotic. Has been overused and is often no longer effective. Dosage is 5 cc per 100 lbs. body weight IM for five consecutive days. Must be refrigerated. Do NOT use this type of penicillin if Listeriosis or Goat Polio is suspected. I don't keep this penicillin in stock any longer.

Penicillin, Procaine (300,000 IU) - Procaine Penicillin must be used in higher than usual dosages in conjunction with Thiamine (Vitamin B1) in the treatment of Listeriosis and Goat Polio. Also is used to treat infection resulting from injuries, bites, and after difficult birthings. Over-the-counter product. Must be refrigerated. Always have lots of this product on hand.

Peppermint Oil Cream (Cai-Pan) - Topical application for congested and/or mastitic udders.

Pepto Bismol (pink bismuth) - Over-the-counter product to help with irritation/distress caused by diarrhea in both kids and adults.. Before using Pepto-Bismol when diarrhea is present, first determine the cause of the problem. Use up to 2 cc every four to six hours for newborns; 5 cc for kids approaching one month old; as much as 10 to 15 cc for adults. See my article on Diarrhea on the Articles page of www.tennesseeatgoats.com.

Pirsue - Vet prescription mastitis medication. Expensive but excellent product.

Pneumonia Vaccines: Presponse HM and Poly Bac Somnus - Both vaccines are newer than and provide better protection against pneumonia than the Colorado Serum product mentioned below; they are also more expensive. Dosage is 1 cc for goats under 60 lbs and 2 cc for goats over 60 lbs, with a two-injection series 21 days apart the first time and annually thereafter. The extra cost is reduced by the lesser amount of vaccine needed for the 60 lb & under goats. If pneumonia is a problem in your herd, use these newer products.

Pneumonia Vaccine (Mannheimia Haemolytica Pasteurella Multocide Bacterin) - Over-the-counter injectable pneumonia vaccine by Colorado Serum. Made for goats. Requires two initial injections of 2 cc each 30 days apart for all young goats and any new purchases brought onto the property regardless of age, then booster annually thereafter. Give first injection in conjunction with first deworming and first CD/T vaccination. Repeat 30 days later then annually thereafter. Dosage is 2 cc for all goats, regardless of age, sex, weight, or breed.

Polyserum or Bovi Sera - Over-the-counter injectable immune system boosters. Give SQ. Use with any ill or unthrifty goat. Give to young kids that did not receive adequate colostrum.

Primor (Sulfadimethoxine & Ormetoprim in 5:1 ratio)- Vet prescription. Oral sulfa-based antibiotic. Tablets sized by weight of animal for gut-related infections, including Coccidiosis. Tablets are scored by animal weight for easy dosing. Primor 120 is for 5-15 lb goats; Primor 240, 10-30 lb goats; Primor 600, 25-50 lb goats; and Primor 1200, 50-100 lb goats. Give two times

the appropriate weight's dosage the first day, and then dose to the goat's weight for the next 9 consecutive days.

Probiotics, Oral - Over-the-counter oral ruminant gel which should be used after the completion of antibiotic therapy, treatment for diarrhea (scours), and daily when goats are in shipment. Helps lessen stress and settle the stomach. Keep refrigerated in warm climates.

Propylene Glycol - Over-the-counter liquid for ketosis in does. Provides quick energy. Comes in one-gallon jugs. Use 50-60 cc orally very slowly twice a day for an average-sized adult doe until she begins eating. Mix with Goat Nutri Drench so the goat can taste it and know to swallow. If this product is not available, use molasses or Karo syrup. Freezes at temperatures well above 32°F, so store indoors under controlled temperature.

Rally or Recovr - Injectable antihistamine for toxicity problems. Vet prescription.

Red Cell - Over-the-counter flavored oral iron supplement made for horses. Dosage is 4 cc orally given daily. Use in treating anemia.

Safeguard (Panacur) dewormer - White-colored dewormer. No longer kills stomach worms in most of USA. Used to kill tapeworms. Used to treat Meningeal Deerworm infection.

Spectam Scour Halt - Over-the-counter sulfa-based antibiotic product to control diarrhea in kids. Usage with adult goats may stop the peristaltic action of the gut. Follow label directions when dosing this pinkish-red liquid into the goat's mouth.

Sterile Water - Vet prescription. Used in mixing medications.

Sulfadimethoxazine with Trimethoprim (SMZ) - Sulfa-based oral prescription antibiotic. Available in liquid and tablets. Use to treat watery diarrhea and other gut-related illnesses. Used with Baytril 100, SMZ is synergistic (better than by itself) in treating E Coli and other difficult to cure infections. Excellent product.

Synergized DeLice or generic equivalent - Over-the-counter product. This permethrin-based oily liquid should be applied topically along the backbone from base of neck to base of tail. (This back drench works on goats because external parasites are the target; back drenches don't work for treating internal parasites like stomach worms.) Follow the directions carefully, and do not use on kids under 3 months of age and pregnant does. Topical back drench dosage should never exceed 3 ounces on the biggest and heaviest of goats. Use a reclaimed permanent squeeze bottle with applicator tip to apply this product. The bottle tip is just the right size. For kids under three months of age and pregnant does, use a kitten-safe or puppy-safe powdered flea control product or carefully apply 5% Sevin dust. These products contain pyrethrins, which are much safer for very young animals. Cylence is a comparable topical product used to kill lice on adult goats.

Tagamet - Over-the-counter product for gut-related pain resulting from illnesses like coccidiosis. Dosage is one half of a Tagamet HR200 (200 mg) for 3-5 days.

Terramycin - Over-the-counter product. Ophthalmic ointment used to treat Pinkeye, particularly in ulcerated eyes.

Tetanus Anti-toxin- Over-the-counter product for immediate and short-term protection against tetanus (lockjaw) when the problem exists. Tetanus is fatal if not promptly treated. Comes in single-dose 1500 unit vials; use the entire 1500 unit vial IM for adults; use half the 1500 unit vial for kids. No sooner than five days after this medication is last used, you must re-vaccinate with tetanus toxoid or CD/T (the complete two-injection series given 30 days apart) to reinstate long-term protection. Keep refrigerated.

Theodur - Vet prescription. Used to clear air passages when bronchitis exists. Precise dosage is not known for goats, but I have, under vet direction and supervision, used 1/2 tablet per day on a 15-20 pound kid. Theodur suppresses the appetite; the producer must make sure that the animal is kept hydrated.

Thiamine (Vitamin B1) - Vet prescription. Used with any goat that is off-feed. Also used to treat goat polio and listeriosis. Dosage is 4 cc per 100 pounds bodyweight up to three times per day IM, or SQ. Keeps best in warm climates when refrigerated.

Thrush Buster - Topical product to treat and prevent hoof scald (between toes).

ToDay (cephapirin sodium)- Over-the-counter product for mastitis treatment in lactating does. Milk out the udder and infuse one tube of To-Day into each teat for three to five consecutive days. Use the alcohol wipe provided to clean the teat thoroughly before infusing medication to avoid introducing new bacteria into an already-infected udder.

Toltrazuril - This is a close "relative" of the very expensive Marquis for treating Coccidiosis. I have never used it but am told by several goat producers that they use it quite effectively, dosing one time at one cc per five pounds body weight. Currently being bought online from <http://www.horsepreprace.com>. This is not an endorsement of this product or this supplier.

ToMorrow (cephapirin benzathine)- Over-the-counter treatment for mastitis in dry does.

Triple Antibiotic Ophthalmic Ointment - Vet prescription. Use topically to treat Pinkeye, particularly in ulcerated eyes.

Tylan 200 (tylosin) - Prescription antibiotic for respiratory problems. Use 1 cc per 25 lbs. body weight for five consecutive days intramuscularly (IM). Keeps best in warm climates when refrigerated. The prescription products Nuflor Gold and Excenel RTU are far more effective than Tylan 200. I don't use this product.

Universal Animal Antidote Gel - Give orally when toxicity is suspected or diagnosed.

Valbazen - Over-the-counter white-colored dewormer. Can cause abortions in pregnant does if used in first trimester of pregnancy. For safety, never use on pregnant does. Does kill tapeworms. Dosage is 1 cc per 25 lbs. bodyweight given orally.

Vitamin B1 (thiamine) - Vet prescription. See Thiamine for uses and dosages.

Vitamine B-12 - Vet prescription. This red-colored injectable liquid is essential for use with goats who are anemic from worms. Also stimulates appetite. Administer 4 cc per 100 lbs. body weight IM. Keeps best refrigerated.

This listing is not comprehensive, but is a good overview of medications available for goat health problems. I am NOT a vet. I do NOT encourage anyone to use these products and/or dosages without supervision and direction of a veterinarian. I encourage goat producers to find a qualified goat vet and develop a working relationship with that professional. This is what has worked for me with my goats. Many variables can affect the usefulness of this information, some of which may include breed, sex, age, nutritional and reproductive status of the goat, climatic conditions and general cleanliness under which the goats live, knowledge and skills possessed by the goat producer, and a host of other items. Consider this listing to be a guide by which you are pointed to a qualified vet in order to obtain help for YOUR animals. Remember, what works for me may NOT work for you in your goat-production operation.

Suzanne W. Gasparotto, ONION CREEK RANCH, Texas Revised 1/12/16