

GOAT MEDICATIONS AND PROPER USAGE  
Also detailing medicines that are NOT effective on goats.  
Last updated July 2008

Start with the fact that I AM NOT A VET. I am trying to share some of the knowledge that I have gained over the years, by working in close association with qualified vets, and breeders that I respect, while working on my own goats. This is meant as a guideline and quick reference, available all in one place, and as breeders, we are sorely lacking in that. Most medications that you can, or cannot use for goats will not say so on the label. That is because very little research money has been spent on goats specifically, and the largest majority of vets are still not up to speed on what goats need, or can handle.

Please note that you use this information at your own risk, since I'm not licensed, but it may help you tremendously, if you'll take the time to really read this, and familiarize yourself with it. When discussing possible treatments with your vet, this will give you a pretty good idea of what is needed, and with some vets, that can be immensely helpful. This is not a definitive work, as there are other medicines out there that other people have used. This is only my experience. Also, please save this, because I'm NOT going to retype it every time somebody loses theirs! Grin.

Goatheartedly,  
Chrisi

\*\*\* Indicates medicines that you really should eventually have on hand, some of which require a vet prescription, but I've indicated which ones do.

**ALBON 5% in Solution** (or Sulfadimethoxine 12.5%, is it's generic near-equivalent) This is the current best available medicine for preventing or treating Coccidiosis. If using the Sulfadimethoxine, buy the solution, do not bother with the powder! It is marketed under the brand name Di-Methox, and make sure it says 12.5%. Use this orally in it's full strength at the rate of 3-5 cc for kids, and 5-10 cc for adults, depending on weight, per label instructions. This is for the initial dose. The following 4 daily doses are at half that amount. For goats that are seriously ill, you can also mix this in all sources of drinking water, but only doing it in drinking water is NOT enough.

\*\*\***BABY ASPIRIN** (81 mg) If the goat is teeth grinding, indicating pain, you can crush up one baby aspirin for each 10 pounds of goat. Drizzle with molasses and dissolve in hot water. Give to goat orally, and can be given every 4 hours, as needed. Note: this may seem like a lot of aspirin for a larger goat, but it takes a large dose to cross the brain synapsis and have any effect. You can use adult aspirin, as long as you are careful of the 81 mg per 10 lb. ratio. Real aspirin, and not Ibuprofen or Tylenol is important, as the vehicle those medicines are carried in can severely irritate the goats' stomach lining and affect their sense of balance. No milk withdrawal.

**BABY MAGIC** This is the recipe you can make at home, equaling the commercial product Nutra Drench. It stimulates appetite, eases stress, helps with hydration, gives a boost of energy, boosts the natural immune system, and is considered by most goats to be a treat. I use it most often right after a doe kids. This is the basic recipe, and I usually multiply it enough to come up with half a gallon or so.

8 ounces very hot water	Stir vigorously and serve to goat hot. They appreciate a hot drink
2 Tbsp. Molasses	much the same as we enjoy a cup of coffee, tea or cocoa.
2 Tbsp. Light Karo Syrup	
½ tsp. Salt	
½ tsp. Baking soda	

\*\*\***BANAMINE** (FluMeglumine) **VET PRESCRIPTION REQUIRED** Multi-purpose, this is an anti-inflammatory that is good for bringing down fever, stopping severe diarrhea in very young kids, calming the muscle spasms in the gut caused by severe digestive problems, and relieving pain and soreness and swelling associated with bites and stings and other injuries. Normal dosage is 1 cc per 100 lbs. and must be injected IM, but can be used at ½ cc per 25-30 lbs., IM, if really necessary. A newborn kid with fever and bad diarrhea would get no more than 1/10<sup>th</sup>- 2/10's of one cc, IM. BE AWARE THAT IT CANNOT BE USED BUT ONCE EVERY 36 HOURS, AND NOT FOR MORE THAN 3 TIMES, TWICE IS BETTER, AND ONLY THE SECOND TIME IF IT IS REALLY NEEDED. I cannot tell you how important that is! If over-used it can do permanent damage to the kidneys, and can cause ulcers in the digestive system. 72 hour milk withdrawal time.

\*\*\***BANANA BOAT SUNBLOCK** This is the only brand of sunblock which is hypoallergenic to goats and oil free. After clipping goats, if sunburn is a potential problem, apply early morning and early afternoon daily. Rub in completely until there is no shine left, as damp or partially damp areas will attract and hold germs next to the goats' skin and pores. Does not affect the milk.

**BAYTRIL** (Enrofloxacin 2.27%) **VET PRESCRIPTION REQUIRED** Baytril is prohibited for use in several states. It is NOT approved for use in food or milk animals because of the residual effect of the antibiotic itself. Technically it is a broad-spectrum antibiotic to be used ONLY after all other antibiotic therapies have failed. I will not let a vet give it to my own personal animals...period!

**BAYTRIL 100** (Enrofloxacin 100 mg/ml) **VET PRESCRIPTION REQUIRED** This has been approved for use in cattle, but is extremely hard on goats, as it takes more out of them than some have left to give by the time you have no other medications to pursue. It is used for gut-related illnesses and respiratory illnesses such as Pasteurella, not Pnuemonia. If you have a very sick goat and no other antibiotic is working, Baytril 100 is the final step, but odds are they will not survive, and at that point, you may want to assess if you want to spend more money on a last ditch effort that is usually unsuccessful. The dosage is 4 cc per 100 lbs., once a day for a minimum of 3 days, given IM. Single-use dosage is 6 cc per 100 lbs., given IM. There is a minimum of a 56 day milk withdrawal on this one.

\*\*\***BENZATHINE PENICILLIN** (Long-acting Penicillin, marketed under **TWIN PEN**, or **COMBI-PEN**) Label directions say 1 cc per 25 lbs., given every other day for three to five injections. It takes effect faster IM, but can be injected SQ if problem is not critical. It is best used for infection in the dam after difficult births, anytime you have to go up inside the goat to prevent infection, and infection resulting from injuries. I also use it for Pnuemonia, particularly Interstitial Pnuemonia, (The Pnuemonia that forms between the lobes of the lungs, and is much harder to detect.) For critical problems it can be given at 1 cc per 20 lbs., IM, daily for 3 to 5 days, alternating sides. For use in Goat Polio Encephalitis it is given every 6 hours, along with Thiamine, for the first 3 days, and then twice a day for the next 2-4 days. **REFRIGERATE**, shake well, and heat shot only to goat's body temp under hot running water before injecting. 72 hour milk withdrawal.

\*\*\***BIOMYCIN 200** (Oxytetracycline) This is the non-sting version of Oxytetracycline, and my personal choice for alternative broad-spectrum antibiotic use. May be given either IM or SQ. It is important to note that any Oxytetracycline interferes with bone and teeth formation both en utero and while kids are growing and may discolor and weaken kids' teeth. As with any Oxytetracycline, it can occasionally cause abortion, with the chances of birth defects being higher in the first two trimesters of pregnancy. However, it is the only treatment in "abortion storms", when doe after doe starts to abort. This is caused by Chlamydia and other specific bacteria that only Oxytetracycline will stop.

Very effective for treating pinkeye, even in pregnant does, because the abortion causing Chlamydia bacteria is usually the cause of pinkeye. It is also very effective for treating hoof rot and hoof scald, and mastitis. Dosage is 1 cc per 25 lbs. every other day for a maximum usage of three injections. When using this for pinkeye, follow the dosing above and put 1-3 drops in each affected eye, twice a day. 72 hour milk withdrawal.

**BIOSOL** (Neomycin Sulfate) For use in scouring kids and adults only when Coccidiosis is NOT the problem. Works on digestive-system bacterial infections. Overdosing will result in constipation and severe cramping. For kids, give 1 to 3 cc orally every 12 hours until goat berries are normal. For adult goats give 3-5 cc orally, until goat berries are normal. This is not my first choice of product to use, because there is very little margin for error. 5 day milk withdrawal.

**BO-SE and MU-SE VET PRESCRIPTIONS MAY BE REQUIRED FOR EITHER, DEPENDING ON THE AREA OF THE COUNTRY YOU LIVE IN.** This is an injectable medication for Selenium deficiency. Do not use arbitrarily! Selenium is a heavy metal, and is toxic, and you have only the smallest margin for error. In most areas breeders only need to provide loose minerals in conjunction with their feed. Before using, find out if your area is Selenium deficient, and to what degree...talk with your county or parish Extension Office.

Selenium deficiency most often shows up as weak rear legs in kids, not to be confused with FKS, or Floppy Kid Syndrome. Older goats will look “sickly” and don’t put on weight, and don’t thrive. Selenium deficiency is also known as Nutritional Muscular Dystrophy or White Muscle Disease. When injections are required, your vet should determine the amounts, after discussing your feed and minerals. Usually, if needed, shots are given at birth and at 4 weeks. Does may need injections 4-6 weeks before kidding, and bucks may need injections twice a year.

**BRYONIA** (Bryonia Alba) This is a product that is available at health food stores, and is purported to aid in the cure of mastitis. This product is entirely useless, so save your money!

**CALCIUM GLUCONATE 23% SOLUTION** A handy item to have on hand in case of Milk Fever and/or Floppy Kid Syndrome. This is a quick way to introduce Calcium and electrolytes right after the dam kids, if needed, SQ. Use in conjunction with a Vitamin A and D shot, or the Calcium won’t be absorbed properly. Can repeat the Calcium Gluconate shot daily for 3-5 days, if needed, but only one Vitamin A and D shot is necessary. No effect on the milk as this is absorbed into the doe’s body. Look for a small bottle, as you don’t need it often.

**\*\*\*C & D ANTI-TOXIN** This is a safe solution to many problems. Severe diarrhea in very young kids, toxicity situations in which the goat is frothing at the mouth – except for choking – and is used to combat FKS, or Floppy Kid Syndrome. This provides short-term protection only, as it’s effects last only a few hours, but works very rapidly to solve the problem, and is not at risk for overdosing. Young kids with the above problems can be given anywhere from 20-60 cc, depending on size of kid. Since you can’t overdose them, aim at a higher dosage rather than giving too little. Caution: This nullifies the protection of CD/T vaccine. Therefore, 5 days after finishing the C & D Antitoxin you must re-vaccinate the animal with CD/T, and again 28 days later. No milk withdrawal time.

**\*\*\*CD/T** (Clostridium Prefringens Type C & D – Tetanus Toxoid) Provides long-term protection against Overeating Disease and Tetanus. The preferred injection site is in the area leading to the armpit, on the back-side of the front leg. If you have a Tractor Supply Company store, look for the CD/T Alpha

7 brand-name, as it will not leave a lump. Other brands may create a lump, which is the body's way of creating antibodies to the vaccine, and the lump will usually go away eventually.

New born kids and goats you purchase into your herd should be vaccinated with 2 cc at 28 days, or date of purchase, and then again 28 days later. Initial vaccination requires two injections the first time around, with one injection annually after that. It will not hurt purchased animals if they have already been vaccinated, and you do it again, but it is essential that they have this protection. This medicine is NOT based on the animal's weight, and the dosage is the same regardless of weight or age. The first question out of any goat-qualified vet before treating for major illness or injury is what was the date of the CD/T vaccination? **MUST BE REFRIGERATED**, and shots should be given at room temperature, not warm. No milk withdrawal time.

**CMPK ORAL SOLUTION** (Calcium supplement) This is a cattle product, available in feed stores. It is a rather ineffective way to get more Calcium into a goat, when needed, but it is sometimes available when other things aren't, which is its only appeal. Dosage is 30-60 cc, orally, and is a very short-term solution.

**COMBI-PEN** See Benzathine Penicillin.

**\*\*\*CHILDREN'S BENADRYL LIQUID** (Diphenhydramine Hydrochloride Antihistamine)  
Temporarily relieves symptoms of allergies to dust and pollen, including watery eyes, coughing, clear mucus discharge and sneezing. Also helps on the rare occasions when a goat will rub against vegetation that causes a skin irritation and itching. Give orally. Not for use in newborns and not more than 2 cc for a baby. 5-15 cc, depending on size of older goat, every 6 hours as needed, but best if dosing does not extend beyond 5 consecutive days. May make the goat sleepy, but it is very effective. No withdrawal time on milk.

### **\*\*\*COLOSTRUM, COLOSTRUM SUPPLEMENTS AND COLOSTRUM REPLACERS**

Newborns must have colostrum during the first few hours of life, and while their own dam's is best, if this is not possible for whatever reason, you should keep colostrum in your freezer. Even if the colostrum is not from their dam, it is from your specific location, and will provide the necessary immunities. Milk each dam out completely at 24 hours after birthing and freeze. I measure it into 4 or 8- ounce amounts. Then double ziplock-bag the colostrum, and date the bag. This stays good in the freezer for 2 years. Do not use colostrum beyond the kid's first 24 hours, as they are no longer able to absorb it, and they then require milk. If you do not have frozen colostrum you will have to buy a commercial goat colostrum replacer, not one from a cow. If this is the case, colostrum supplements along with the colostrum replacer is a good idea. Note: Goat colostrum is also viable for dogs or cats, or any mammal, and if you have too much on hand, your vet may be grateful to have some offered to them for their freezer!

**CoRid** (Amprolium) This is a product for helping to prevent or eliminate Coccidiosis. While this used to be the only product available for this, it is NOT the first choice anymore! This product is a Thiamine inhibitor, effectively shutting down the immune system while in use, so I would NOT suggest that you use it at all! Albon or its generic near-equivalent Sulfadimethoxine 12.5% are preferred over CoRid. However, if CoRid is your only choice, buy the liquid and not the powder, for better control over dosages. For prevention of Coccidia, use 2 ounces per 15 gallons of water. For treatment, use 3 ounces per 15 gallons of water. Limit the goats to one source of water, and treat for 5 consecutive days. For severely infected cases, mix 1 ounce CoRid in 5 ounces of water and orally drench twice a day for five days...kids should receive 20-40 ounces of this mixture, twice a day. Adults would get 40-80 ounces of this, twice a day, for 5 consecutive days. 28 day milk withdrawal.

**\*\*\*CUT-HEAL** Creates a protective barrier which stops germs, bacteria, AND flies! Aids in rapid healing and minimizes proud flesh and scarring. Useful for major or minor wounds, skin irritations, burns, cuts, and even re-growing new skin. If you get hurt out in the field, we've used it dozens of times on ourselves over the years. Available in spray, which I like best, dauber and powder. Something you should never be without, and it is very affordable. No effect on milk.

**\*\*\*CYDECTIN** (Moxidectin 5 mg/ml) This is the top of the line in de-wormers. Do not use for so long that the animals become immune, as there is nothing above this to go to. It is listed as a pour-on for cattle, and you can use it topically for treatment of lice and external parasites. For external use, distribute 1-3 cc evenly from base of neck to tail head, along spine, depending on size of goat. The purple coloring will go away on it's own. External use is worthless for internal parasites however.

For internal parasites use at a rate of 1 cc per 22 lbs., unless treating for Humuncous Contortus or Screw Worms. In that case use at a rate of 1 cc per 11 pounds. Re-worm again 10-14 days later, to catch worms hatching out, as any wormer will only get the adult worms and not touch the larva. Wear gloves as this will absorb through your skin and can turn you inside out if you absorb too much of it! 72 hour milk withdrawal.

**CyLence POUR-ON INSECTICIDE 1%** This is a cattle product that is supposed to help with several kinds of biting flies and two kinds of lice. It is pricey and you have to use it every few days. The bottle I bought probably 12 years ago is still almost half full. Guess that explains how good this product is!

**DEXAMETHAZONE VET PRESCRIPTION REQUIRED** While I do keep "Dex" on hand, this is not for use by newbies and amateurs, because of possible side effects. You HAVE to know when to use this drug, so it may be best to let your vet handle this one. Used for swelling and inflammation once infection is under control. Vets use this to induce labor when the slow introduction of labor over a 48 hour period is desired. Must be tapered off slowly to avoid serious health problems, if given in larger amounts and then suddenly stopped. Tapering off over a 5 day period is normal. Dosage varies depending on the problem being treated.

Do not use in conjunction with broken bones, as it interferes with bone repair. It also interferes with, but does not stop the immune system. 5 day milk withdrawal.

**\*\*\*DEXTROSE SOLUTION 50%** Although this is generally an IV product, it is very effective in weak newborns when you slowly drop 1-2 cc in the mouth and under the tongue for quick energy. It can be enough to give the baby enough oomph to begin to suckle. It is inexpensive and easily available.

**DIATOMACEOUS EARTH (DE)** Used by some breeders as a "natural" de-wormer. However, I cannot find any scientific research of DE's effectiveness in controlling internal parasites. I have, however, seen multiple tests where it was considered to result in failed tests. It is somewhat effective on keeping the fly population down. If choosing to use DE as a food additive, make sure you have "food grade" DE, and check fecal samples regularly for worms, as depending on it for parasites can result in dead goats.

**DMSO GEL** (Dimethyl Sulfoxide 90%) Very effective for external use on swelling, as it warms and opens the pores, and has a drawing effect. I use it in conjunction with heat treatments and physical therapy, for injured muscles and tendons. Wear gloves as this product will absorb through the skin and is not approved for human use yet in this strength. Rub product into swollen area, and apply heat treatment for 10 minutes per session, at 2-4 times a day, depending on severity. No milk withdrawal.

**DOPRAM VET PRESCRIPTION REQUIRED** 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. May also be used in difficult birthings, requiring kids to be physically pulled out of dams.

**\*\*\*EPINEPHRINE** Probably the most inexpensive medicine in all of the goat's needs. Absolutely required that you have it at all times. It is used to counteract shock in animals, and should ALWAYS be carried with you when you give injections, along with a fresh syringe and needle. If a medicine should drop an animal unexpectedly, you will not have time to run and get it. If you need it, don't worry about warming it, give it NOW! Dosage is 1 cc, SQ, per 100 lbs. One of the few medicines that is not good beyond it's expiration date, and I'm always grateful when I can throw it away without ever having opened the bottle, and get a fresh new bottle. **REFRIGERATE.** No milk withdrawl.

**\*\*\*EXNEL VET PRESCRIPTION REQUIRED** Excellent broad-spectrum antibiotic used primarily for respiratory illnesses and Pnuemonia. Also may be applied directly into eyes at first sign of pinkeye, to prevent the progression. This is the generic form of Naxel, and has the added improvement that it does not require refrigeration and may be kept for a very long time, where Naxel can only be kept for 7 days, or frozen in syringes in pre-measured amounts. It is also considerably cheaper than the Naxel. Dosages are delineated on the bottle, using the same amounts as for swine. I don't know the milk withdrawl time on this one.

**\*\*\*FORTIFIED VITAMIN B COMPLEX** This product may be substituted for Thiamine, although the dosage is twice as much as this contains only 100 mg/ml of Thiamine, upping the dose to 4 cc. An effective tool when dealing with a goat that is off it's feed, as this stimulates appetite, at 2cc IM or SQ, and when used in the larger doses, stimulates the natural immune system. Note: it is advised that this product be stored away from sunlight. No milk withdrawl.

**FLEET'S ENEMAS SUPPOSITORIES** Useful for treatment of constipation and toxicity reactions, including FKS, or Floppy Kid Syndrome. Also, if you have a baby girl born with her vagina turned out, use a Children's Fleet Enema Suppository (or generic equivalent) to move her bowels for the first time, passing her "plug", and the vagina will return to it's proper position. Make sure to put the suppository into the RECTAL opening, not the vagina! This product is easier on kids who are over-stressed or ill from some other cause, than Milk of Magnesia for constipation. Follow up with Probios treatment schedule. 5 day milk withdrawl.

**\*\*\*FURALL SPRAY (Furazolidone 4%)** A topical antibacterial, anti-germicidal spray for immediately after you burn horn buds, and for use on superficial lacerations and abrasions. Comes out icy cold, which also stops the burning and internal heat associated with horn burning. Not recommended for major injuries, as an allergic reaction may occur if the laceration is too deep. Effective against staph infections AND flies. After spraying, leave it alone and let it wear off naturally over time. Spray is bright yellow.

**\*\*\*GATORADE** Excellent product for re-hydrating sick animals, regardless of age, and for balancing electrolytes and helping to restore proper Ph. Can be used as an oral drench, put into baby bottles for kids to suck, or mixed into drinking water. If using the powdered form, follow directions and mix with warm water, orange seems to be their favorite flavor of choice. Sometimes very helpful for getting goats to want to drink, when transported to shows. There are no restrictions on amounts or number of times you use it. Does not affect the milk.

**GENTAMICIN SULFATE ORAL SOLUTION** This is a pig product, and is often very hard on goats. In some states, administering Gentamicin to meat or milk goats is against the law. This is an oral antibiotic and is used only for severe gut-related illness. It is a one-time use product, and I don't allow it on my own goats! Milk withdrawal is a minimum of 28 days.

**GoatAde** Another of the commercial products, similar but possibly slightly superior to **NUTRA DRENCH**, but you can use Baby Magic recipe given earlier with almost equal results. Designed to be given orally, it helps with stress, hydration, and stimulates appetite, giving a boost of energy. Does not affect the milk.

**HIBICLENS 4% SOLUTION** This is an over-the-counter drug store product, used to cleanse deep wounds, before applying medicine.

**\*\*\*HYDROGEN PEROXIDE** A cheap and efficient product when cleaning wounds, and bar none, the best teat dip you can buy! For teat dipping, pour Hydrogen Peroxide into cap of bottle and dip each teat, after every milking. Pour the capful on the ground, making the cap self-cleaning. This kills the germs on the teat, and goes up into the milk tube to prevent germs from following that route. It prevents chapping and germs picked up through wet skin tissue, caused by dipping entire teat, as in other products, and negates any need for udder balms or sprays, which attract and hold germs. This information came directly from the head of the Mastitis Research Foundation. They test each product available for teat dipping, regardless of price or procedure, and he assured me that less is more! The cheapest brand of Hydrogen Peroxide is exactly the same as the most expensive, as this product was used when establishing the laws governing medical product labeling, so Dollar Store Hydrogen Peroxide is just perfect!

**IMMODIUM AD** In spite of the fact that Hoegger's Supply will suggest this product in small doses, **DO NOT USE** this product for diarrhea or anything else on a goat. As little as one drop too much can completely **STOP** the peristaltic action of the gut (releasing the food from one stomach to the next, to the intestines) and can cause a quick and horrible death.

**\*\*\*IVOMEC 1% INJECTIBLE** Also sold under the names **IVERMECTIN**, and **IVERCIDE**, depending on who makes it. This is an excellent product for eliminating worms. It is a clear, oily liquid which works best if you give it orally at a dose of 1 cc per 55 lbs. Do not under-dose, as that is the same as not dosing at all. It can be injected, at a dose of 1 cc per 110 lbs., but that stings something awful and is not as effective as the oral dosing. It is the de-wormer of choice when involving Menigeal Deerworm Infection. Note: None of the clear wormers will kill Tape Worms. As with any wormer, re-worm again at 10-14 days to catch larva that has hatched out. Is well tolerated for longer periods of time than most wormers. 72 hour milk withdrawal.

**KAOPECTATE** Same thing applies to this medicine as does to Immodium AD. Do **NOT** use this product on goats. See Immodium AD for reasons why.

**\*\*\*KARO SYRUP, LIGHT** See recipe for Baby Magic. For reasons why Light Karo Syrup, see propylene glycol.

**KETOFEN VET PRESCRIPTION REQUIRED** A non-steroidal anti-inflammatory that helps reduce swelling and temperature. This is not for use by newbies or amateurs as it has very specific applications only. If prescribed by your vet, it helps reduce pain and discomfort, but it cannot be used

over long periods of time, as it collects in the kidneys and can do damage with over-use. Milk withdrawal not listed on packaging, as this is considered a horse product, but my vet says 72 hours.

**KOPERTOX** For use as topical application to the hoof in cases of hoof rot and hoof scald. It forms a liquid bandage on the hoof, IF you can get them to stand in it for as long as the bottle indicates. Used in conjunction with Oxytetracycline injections for hoof infections. If the hoof rot/scald is bad enough, I may fool with this, but truthfully, I don't usually, because it is something of a bother to use. I have used it, however, in years where we've gotten so much rain that it's hard for the goats to find a dry place to stand, for days on end. 72 hour milk withdrawal.

**\*\*\*LACTATED RINGERS SOLUTION VET PRESCRIPTION REQUIRED** For re-hydrating kids and young goats. Using a 60 cc syringe with an 18 gauge needle attached, draw out the Lactated Ringers Solution, warm it in a pot of water, and inject 30 cc SQ at each shoulder. Can be used several times a day until the goat's electrolytes are in balance. This is inexpensive, can be purchased with or without the more expensive tubing for hooking it up for IV application, and can be a life-saving measure. Will form a lump under the skin, which will readily be absorbed into the body.

**LA-200** (Oxytetracycline) This is my personal least favorite of the products in the Oxytetracycline spectrum, as it is harder on the goats. Can be given either IM or SQ. See Biomecin for doses and restrictions, as the same numbers apply to both. 72 hour milk withdrawal.

**\*\*\*LUTALYSE VET PRESCRIPTION REQUIRED** A good thing to have on hand in case of needing to abort a wrong breeding on a doe. If a buck gets out and breeds a doe too young to get pregnant, for example. Exactly 10 days after the breeding, give the doe a single shot of Lutalyse, at 2cc, IM only. The same dose is suggested, regardless of size of doe, with the exception of a 3-6 month old doe, when you would use 1- 1 ½ cc. If the doe comes into a raging heat, she has successfully been aborted. If she exhibits no particular reaction, the breeding hadn't taken anyway. This is hard on a doe, so do not use it without really thinking about it first!

There are those breeders who will use this to try to bring a doe into heat, so they can match their birthing dates to shows. If it doesn't work the first time, they try it again exactly 10 days later. I am entirely opposed to doing this, as it is extremely hard on a doe, and causes such a jarring effect on her internal works, up to and including a higher percentage of risk of miscarriage in does forced into cycling. Technically, this is a horse product, and horses are large enough and have slow enough metabolisms that they can be induced into estrus synchronization successfully, but goats do not have that advantage.

**METRONIDAZOLE TABLETS** (500 mg) For treatment of Giardia, resulting in diarrhea from ingestion of fetid water, caused by goat berries or poultry feces in water source. Also can be used for scouring kids and adults when Coccidiosis is not the underlying cause. Works effectively against eColi and other digestive system bacterial infections. Dosage is ½ pill, morning and night for adult Nigerians, half that for babies over 1 month of age, for 5 days. Crush pill and drizzle w/ molasses. Use just enough hot water to be able to draw into syringe. Not my first choice, due to the length of time needed here. Store away from sunlight.

**\*\*\*MILK OF MAGNESIA** This is an over-the-counter drug store product that is useful for constipation and toxicity reactions, including Bloat, Overeating Disease, and Floppy Kid Syndrome. Administer orally at a rate of 15 cc per 60 lbs., every 4-6 hours until the goat berries go from small and hard to clumpy and back to normal goat berries. Always use electrolytes for hydration when using Milk of Magnesia or any other laxatives. 5 day milk withdrawal.

**MILK REPLACER** While milk replacers may be less expensive than cow milk, and more convenient, I personally can't state how strongly I am against them! In 6 separate University studies on Johnnes Disease, the only common factor among all the goats showing positive for Johnnes was the fact that they were raised on milk replacers as babies. Johnnes is a cow disease, which usually doesn't manifest itself in cows, beyond the fact that they are carriers, because of their incredibly slow metabolisms. Goats have a much faster metabolism and they are entirely prone to contracting Johnnes from the milk replacer! Johnnes is an incurable, slow wasting disease and is fatal, and if left to run its course, causes a very painful death. Whole cow milk is better, but if you can't afford that, at least go to powdered milk, rather than milk replacers. It is pasteurized before dehydration, which kills the disease up to about 97% efficiency.

**MINERAL OIL** This is an over-the-counter drug store item that should NOT be used on goats. Contrary to the name, it literally strips their bodies of their minerals. Worse yet, it has not got a flavor that is recognized by goats as something that triggers the swallowing mechanism, and is easily aspirated directly into the lungs. If a goat has an impacted rumen or other causes necessitating the use of oil, use corn oil or common vegetable oil. These have a taste to them, which will make the goat swallow when given orally and work better, and at much less cost to both you AND the goat!

**\*\*\*MOLASSES** See recipe for Baby Magic, earlier in this paper. For uses and benefits see propylene glycol.

**NAXCEL** (Ceftiofur Sodium) **VET PRESCRIPTION REQUIRED** Naxcel is pricey but an excellent broad-spectrum antibiotic used primarily for respiratory illnesses, such as Pnuemonia. This is the original that Exnel comes from, and you may prefer the generic, Exnel. Naxcel comes in two bottles – one bottle has a powder, which must be kept refrigerated even in powder form, and the other bottle is sterile water. When combined, the medicine will only keep in fridge for 7 days. In order not to have to dispose of the remaining medicine after initial use, draw up syringes in doses of ½ cc, 1 cc, 2 cc, and 3 cc. Put needle caps on them, place in Ziploc bags by dosage, and put those bags into a second Ziploc bag. Label and date it and place in freezer with the needles up. Note: Syringes thaw quickly, but keep the needle cap up, because sometimes the medication will settle into the needle cap and will be lost when you pull the cap off.

Dosages on the bottle are not sufficient, as they are listed for sheep and swine, but not goats. If newborn kids have respiratory distress or e.Coli infections, they must receive a minimum IM dose of ½ cc, daily for 5 consecutive days. A 100 lb. goat needs at least 5-6 cc of Naxcel IM for each of the 5-day course of treatment, and you can break it down by weight for goats in the middle. 5 day milk withdrawal, after you finish the course.

**\*\*\*NEOSPORIN PLUS Maximum Strength** (Bacitracin Zinc-Neomycin Sulfate-Polymyxin B Sulfate-Pramoxine Hydrochloride) This is an over-the-counter drug store item, and it is extremely helpful in many ways. Always get the one with the "Plus" as the goats will not try to scratch or lick it off, they way they do with the regular Neosporin. For use on teats that develop bumps, due to bacterial or fungal problems, rub in thoroughly, so no shine or moisture is left. For use on minor abrasions, to aid in healing. For use in eyes, when treating with pinkeye, if you don't have Oxytetracycline available.

**NFZ PUFFER** (Nitrofurazone) This is the pure, powdered form of the medicine found in Furall Spray. It is used to promote tissue regeneration in deep wounds, promoting healing from the inside out. You must first clean and disinfect wound daily, before puffing this into the wound, and should only be used under a vet's direction. I can tell you, from experience, that the goat will hate you completely by the

time you use this enough to get them past their need for it! It is easier on deep wounds than the spray, but the cleansing process is painful and slow.

**NUFLOR (Florfenicol) VET PRESCRIPTION REQUIRED** When Naxcel/Exnel does not resolve the respiratory problem, the next step up is Nuflor. Administered IM every other day for a maximum of 3 injections. This is very thick, so you will need an 18-gauge needle, using a Luer Lock syringe, or the needle may shoot off the syringe, causing the goat to have a needle stuck in it while the medicine is lost. Dosage is 1 cc per 25 lbs. If the goat has contracted full-blown Pnuemonia very rapidly, or is in bad shape, I may skip the Naxel and go straight to Nuflor, but I do not automatically use it, as you do not want to get the goat immune to this medicine. There is nothing above this to go to in cases of immunity. 5 day milk withdrawl.

**NUTRA DRENCH** See Baby Magic recipe for explanations and how to make this yourself at home.

**OXYTETRACYCLINE** Antibiotic in an alternate spectrum to Penicillin. See Biomyacin 200, LA-200.

**\*\*\*OXYTOCIN VET PRESCRIPTION REQUIRED** This is used after kidding, when a doe does not pass her afterbirth. Must be used before the cervix closes, so you have approximately 5 hours after the birthing of the last kid. This causes labor contractions that expel the afterbirth. This is NOT a comfortable experience for the doe, so only use it after waiting to see if she will do it on her own! Dosage is 1.5 cc per 100 lbs., and it can be used again exactly 1 hour later, in extreme cases, where one shot is not enough. It may NOT be used more than that! Not to be used unless you have been with the doe the entire time, and you know for a fact that she has not passed the afterbirth. Do not put her through this if there is the chance that she has passed the afterbirth and eaten it! 48 hour milk withdrawl.

**PEDIA LITE** This is a grocery store item, in the baby aisle, that is an excellent source of electrolytes, but can be pricey. See Gatoraid for details.

**\*\*\*PEPTO BISMOL** This is an over-the-counter drug store item, and one of the few items where the actual brand name matters, as you do not want the generic equivalents in this case. The vehicle that the medicine is contained in on the generics looks and acts like little razor blades in tiny tummies, when seen through a microscope, while the vehicle in Pepto Bismol looks like little round BB's, and does not damage the stomach lining. Dosage is 2cc every 4-6 hours for newborns and 15 cc for every 10 lbs. over that, using the same time frame. You cannot overdose with Pepto. Before treating for diarrhea, first be sure that you know the cause of the problem. In the case of the doe letting the baby have too much milk, and over-running the rumen, wait up to 4 hours and see if the problem doesn't take care of itself, unless the baby is scouring. Always follow up with 3-5 days of Probios beginning the day after the last treatment, to repopulate the gut with vital live bacteria used for digestion. No milk withdrawl.

**\*\*\*PROBIOS GEL** Also marketed as **PROBIOTICS**, depending on who makes it. A valuable and under-used tool to help combat stress and repopulate the gut with beneficial flora, to aid in digestion and maintain Ph balance. Should always be used after the completion of any program of antibiotics, or laxatives, after bouts of diarrhea/scours, and stress such as kidding, and used once a day during and after travel. Suggested use is 3-5 days, once a day. Doses range from a dab the size of a pencil eraser to about ¾" laid out on your finger for larger goats. Open the goat's mouth and smear the Probios on the roof of the mouth. The gel will begin to melt at their body temperature, and placing it on the roof of their mouth prevents them from being able to expel it. No milk withdrawl.

**PROCAINE PENICILLIN** (Penicillin G) While having many uses, including those listed in Benzathine Penicillin, this must be used daily instead of being able to skip a day. Dosing is 1 cc per 25 pounds IM or SQ. See Benzathine Penicillin for more details. **REFRIGERATE** and warm shot under hot running water to not more than the goat's body temperature before injecting. 72 hour milk withdrawl, although you can freeze the milk for use in baby bottles later, but for goat use **ONLY**.

**PROPYLENE GLYCOL** An oily liquid that comes in 1 gallon containers and is used for Ketosis in does. It is also used to help balance the Ph after high stress situations that would lead to stomach acidity. Use 50-60 cc twice a day for an adult doe until she is back on her feed. Administer orally only. If you do not have all the ingredients for Baby Magic, you can use this, or molasses, or Light Karo Syrup to help, but Baby Magic is the preferred, for Ph. This freezes at well above 32°F, so store indoors, in a controlled temperature environment. Does not affect the milk.

**RED CELL** A horse supplement, this is an excellent source of Iron, for helping goats to recover from Anemia. Available at most feed stores. Follow dosing directions on bottle, and give orally, once a day, for 10-14 days.

**RE-SORB** oral electrolytes. Comes in powdered form and is used for re-hydrating sick animals, regardless of age. Can be used as an oral drench, put into baby bottles for kids to suck, or mixed into pans of drinking water. Each packet should be mixed with ½ gallon warm water. Use this or other similar products in conjunction with Lactated Ringers Solution on extremely dehydrated goats. Does not affect milk.

**SAFE GUARD** (fenbendazole 10%) Also marketed as Panacur, for horses. This is one of the white wormers, and I'm ever so sorry that it ever listed the idea that it is good for goats! This is the same medicine as in Valbazen, but in a lesser strength, and this is **NOT** strong enough to get the job done! You have no idea how many people I talk through dying goats that believe that their goats have been properly wormed, and invariably under those circumstances, it turns out that they used Safe Guard. This is for horses, **NOT** good enough for goats!!! If you are using Safe Guard get rid of it. All you are doing is building an immunity to the medicine contained in it without getting the benefits of using the medicine in a strong enough strength. Please trust me on this one!!! Even if you use more of it, you are **NOT** increasing the strength, only the volume.

**SNAKE VENOM** If you have a goat that dies from snake bite, please be aware that you can put yourself in harm's way by moving that goat, without proper precautions. You can't always see where the snake bit the animal, especially if bloating has even begun to set in with the heat. Before you move that animal you put on rubber gloves, or if you're wearing the medical style of gloves, put two on each hand. If you should happen to press on the bite location, you could release some of the venom and do yourself bodily harm, if it should contact with a sore, a mosquito bite site, your eyes, mouth, nose, etc. Snake venom is still active for 48 hours, even in a dead host.

If the animal is alive after having been bitten, you may want to get it to the vet immediately. The vet may be able to lance the site and clean it out, and this is one of the circumstances when a vet would probably use Dexamethazone. The odds of a goat surviving snake bite depend on too many variables to list here, so that is a judgement call you'd have to make at the scene.

**\*\*\*SPECTAM SCOUR HALT** This is a pig scour medicine that can be used to control diarrhea and especially scours in adults and kids over one month of age. Be very careful to follow dosing directions exactly, as too much of this product can stop the goat up permanently, but the right amount is often very

helpful, when Pepto Bismol isn't enough. It is given orally, and best when you SPLIT the daily dose into one half in the morning and one half in the evening. Follow up with a schedule of Probios, as listed earlier. 5 day milk withdrawl.

**SULFADIMETHOXINE 12.5%** Marketed as **DI-METHOX 12.5%**. This is the generic for Albon, and very nearly as good, at a portion of the price. See Albon for details on dosing and length of treatments.

**SULFAMETHOXAZOLE and TRIMETHOPRIM TABLETS (400 mg/80 mg)** An oral antibiotic given over 10-14 days for the treatment of continuing low grade fever and/or problems that keep returning, after a normal course of antibiotics. Use in conjunction with Tagamet, preferably, or Tums, as listed in this paper. Dosage is 1/2 pill, twice a day, for 100 lbs. Babies would get 1/8 pill to 1/4, depending on size, twice a day. Grind up pill, drizzle w/ molasses, and dissolve in just enough hot water to draw into syringe.

**SULMET (Sulfamethazine Sodium 12.5%)** For the treatment of Coccidiosis, same as Sulfadimethoxine 12.5%, only this is designed as a water treatment only. It is not as effective, as it is not for direct ingestion. Look carefully at the spelling, and you will see that it is NOT the same medicine. Do not confuse the two! Dosages for water treatment are on the bottle.

**TAGAMET** This is an over-the-counter drug store item that can be used on goats in conjunction with oral antibiotics, to help keep from upsetting the stomach, for gut-related problems, such as Coccidiosis. Dosage is 1/2 Tagamet (200mg tablet) per 100 lbs., once a day for 3-5 days. Does not affect the milk.

**\*\*\*TEAT DIP** See Hydrogen Peroxide for details - the best teat dip, bar none.

**TETANUS ANTITOXIN** For short term protection in the case of Tetanus and Tetanus-like infections. Available in single dose vials, and use the entire vial for adult goats, cutting back proportionately for kids. Five days after using this you need to start the CD/T vaccine program over again.

#### **REFRIGERATE.**

**\*\*\*THIAMINE HYDROCHLORIDE VET PRESCRIPTION REQUIRED (Vitamin B1)** One of the most important medicines in your arsenal!!! Thiamine is what stimulates the natural immune system. Among other things this is used in conjunction with large doses of antibiotics to treat Listeriosis and Goat Polio. Early detection of the problem is essential if you are to save the goat! Moldy hay and/or feed is the most common trigger for these diseases, but may also be caused by ingesting fungus, such as mushrooms, or from sudden overly stressful events. This comes in two different strengths, so be SURE to check your bottle. In 200 mg/ml bottles, dosage is 2 cc Thiamine IM every 6 hours, for first 3 days, then 2 shots per day for next 2-4 days. In 500 mg/ml bottles, dosage is 8/10 cc, following the same schedule. DO NOT OVERDOSE. Dosage for lesser problems is 2cc, twice a day in the 200 mg/ml strength, or half that in the stronger version. Carry Epinephrine with you while doing shots, in case of Anaphylactic Shock, which I've never had happen, but it is listed on the bottle as possible.

**TODAY, TOMORROW, QUARTERMASTER ETC.** These are single-treatment teat syringes that are supposed to help overcome mastitis. In a perfectly clinical world, where the goat would stand perfectly still while you shove something foreign up their teat, this might work. Ideally, you are supposed to completely milk out the teats twice a day, and then stick NOT MORE THAN 1/8" of this syringe, designed for cows incidentally, up the milk tube and hold it steady while you back-flush the teat, working it up into the udder. In reality, in the three cases where my former vet insisted that I do

this, I have done far more harm to the goat than the good that the medicine ever could have done. I do agree that you need to milk the teats completely out, twice a day. After that is where this treatment and I part company!!! I would never use these products again, even on a dying goat!!!

**TUMS** This is an over-the-counter drug store item that can be helpful when used in conjunction with oral antibiotics, to help maintain the Ph balance, and keep the antibiotics from upsetting the stomach or doing harm to the stomach lining. For gut-related illnesses such as Coccidiosis, or when you need a quick infusion of absorbable Calcium. Dosage is 1 Tums, per 10 lbs., ground up and drizzled w/ molasses, and add just enough hot water to make into something you can draw up in a syringe, and give orally, once a day for duration of oral antibiotics. In the case of a quick fix of Calcium, give once a day for 3-5 days.

**TWIN PEN** Long acting Penicillin, see Benzathine Penicillin.

**TYLAN 200** (Tylosin) See Biomycin 200 Oxytetracycline for same dosing and schedule.

**\*\*\*VALBAZEN** (Fenbendazole 11.5%) This is the best broad-spectrum de-wormer for babies, bucks and does that you are certain are not pregnant. It can be used for longer periods consecutively without becoming immune, and it is the **ONLY** wormer that gets Tape Worms. It is also the **ONLY** wormer that will kill Lung Worms. This is the same medicine as Safe Guard, but in the proper strength!!! For safety, **NEVER** use on pregnant does, or does that even might be pregnant, as it can cause birth defects and/or abortion, especially in the first two trimesters. I don't chance it with pregnancies...period!

Dosage is 1 cc, orally, per 25 lbs, if you are worming on a schedule of every 3 months and weather conditions are normal. If you are treating goats that are showing signs of being wormy, double the dose. Worm again in 10-14 days to catch the larva that hatches out. If you are using for Lung Worms, do the same thing again after an additional 10-14 days, for a total of 3 treatments in sequence.

**\*\*\*VEGETABLE OIL/CORN OIL** This is the usual grocery store kind of cooking oil. If you have a goat with an impacted rumen and need to move things along, this oil is preferred. There is a flavor to it, and will trigger the swallowing mechanism, so the oil will go to the rumen and not the lungs, as is the case in Mineral Oil. If a goat has broken into a feed bin and gorged, it is a good idea to give the goat oil to make things move along, rather than waiting for the gut to impact. If a goat is constipated, and you have nothing else on hand to help with that, use vegetable or corn oil, until you see the goat berries coming out looking oily. Oil may trigger diarrhea, so you may have to let the gut clean itself out, and then treat with Pepto Bismol to reestablish normal order.

**VETROPOLYCIN ANTIBIOTIC OPTHAMALIC OINTMENT** (Bacitracin-Neomycin-Polymyxin triple antibiotic) **VET PRESCRIPTION REQUIRED** Top of the line eye ointment, for use in Entropia (where the eyelid turns inward, scratching the eye with the lashes). Aids in healing scratches and ulcers of the eye, such as those caused by pinkeye as well. No need to keep it on hand, the vet will prescribe it as needed. To be honest, I find that Neosporin Plus does the same job at ¼ the price. This is finer quality, but I'm not convinced that it's necessary.

**VETROPOLYCIN ANTIBIOTIC OPTHAMALIC OINTMENT WITH HYDROCORTISONE** **VET PRESCRIPTION REQUIRED** Same medicine as above, with the additon of the Hydrocortisone. **NOT** for use with ulcerations or scratches on the eye, but as a follow up after healing, to reduce the swelling. Do not use this product without a vet's permission, as your naked eye isn't good enough to see if the eye is scratched or ulcerated.

**\*\*\*VET RX** A natural product for relief of symptoms of stuffy nose, clear runny nose, that has been in use since the late 1800's, for good reason. The cap is designed to deliver one drop at a time, and you put 2-3 drops in each nostril, as needed.

For treatment of ear mites and/or ear canker, including in dogs/cats, heat in a pan of very warm water for a few minutes, checking temperature of medicine before using, and deliver 1-2 drops in effected ear, then push gently on outside of ear to rub it around. Do not stick foreign objects into ear to do the rubbing!

**\*\*\*VITAMIN A & D VET PRESCRIPTION NEEDED** Best when administered SQ, for use when administering Calcium, as Vitamin D is what is needed in order to make Calcium absorbable. In cases, most often found in bucklings, where the legs are bending outward or refuse to straighten out, administer one dose, to allow them to utilize the Calcium in their milk. Also for use in Floppy Kid Syndrome. Generally one shot is all that is needed, but you can repeat in 60 days, if necessary. Dosage in babies is ¼ to ½ cc. Dosage for adult goats is 1-2 cc.

**\*\*\*VITAMIN B12 LIQUID VET PRESCRIPTION NEEDED** A vital component for goats who are anemic from worms or just about any illness related stress. Helpful with goats who have gone off their feed. Administer 1-2 cc, SQ, depending on severity of condition, per 100 lbs., using an 18 gauge needle, as this is very thick. Can repeat again in 2 weeks, if necessary. Store away from sunlight.

**WOUND KOTE SPRAY** A less effective, more dilute form of Furazolidone than that which is found in Fural. To coat and disinfect surface wounds, minor cuts and skin abrasions. I would suggest that you would be much better off with Fural Spray. This is a purple spray, rather than the yellow of Fural, and it wears off much quicker, with less healing, coating ability.