

Goat Herd Health Calendar

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January } February }	Covexin ^R 8 booster } 2-6 weeks prior to kidding Trim feet }
	Deworm does as they kid or deworm entire group just prior to the onset of kidding. This is a strategic time to use ivermectin. Sort does into kidding groups according to expected kidding. Allow does to kid in separate pens and make sure that kids are nursing and navels are dipped. Put does that have kidded onto a separate pasture from does which are still pregnant.
March	Process Kids - Ear Tag/Tattoo Castrate males/Disbud by 1 week old Vitamin E/Se at birth
April	Start Covexin ^R 8 to kids at 4-6 weeks of age (2 ml subcutaneously). Repeat every 4 weeks until 16 weeks old. Deworm every 4-6 weeks through September. Change to clean pasture at each deworming. Trim feet. Do a composite fecal sample - flotation and eggs/gram count. Consider doing a pre- and post- deworming fecal sample if using a single dewormer type to check for resistance.
May	Wean kids. Deworm kids. Consider using a coccidiostat in feed for kids (ie.--Decox or Bovatec) Drying off does - Use an effective dry cow mastitis treatment. One tube for each half. No feed or water for 24 hours unless exceedingly hot conditions. Then allow limited water for 24 hours. Then allow ad lib water and feed poor quality hay or straw for 2 days. Return to pasture.
June } July }	Cull does based on records (number and weight of kids raised, disease problems [mastitis, foot problems, etc]) Spot check fecal samples for parasites. Strategic deworming with ivermectin.
August	Body score, check udders and trim feet of does. BSE (Breeding soundness examination) and trim feet of bucks. Vit E/Se injection and Lepto/Vibrio vaccination to all breeding stock. Repeat Lepto/Vibrio vaccination to replacement does in two weeks. Allow fenceline contact with buck to encourage estrus.
September	Flush with 1/4-1/2 pound of grain (corn)/head/day for 2 weeks. Hand breed as does show estrus. Record dates that does are bred and next expected estrus cycle for teasing. Alternatively, does can be paint branded with numbers and checked twice daily for estrus and breeding behaviour. Breeding dates will allow you to sort does and observe for kidding at the appropriate time.
October	Depending on weather conditions reduce deworming to every 8-12 weeks.
November	Deworm 2-3 weeks after hard freeze. Should not have to deworm again until kidding.
December	Pregnancy check about days 45-90 after breeding using ultrasound. Vaccinate does with soremouth and/or K99 vaccines (optional)

^R Trade name of clostridial vaccine which also contains tetanus. Any toxoid which contains enterotoxemia C and D combined with tetanus toxoid will do. Bar Vac CDT is another trade name.

Reference Texts for Goats

1. Management and Diseases of Sheep and Goats - Dr. Samuel B. Guss, VMD - Very practical, somewhat out of date. This can be ordered through the Dairy Goat Journal, P.O. Box 1808, Scottsdale, Arizona 85252.
2. Dairy Goat Production - Independent Study, University of Guelph, Guelph, Ontario, Canada N1G 2W1 - Very practical handbook for new goat owners. This talks about dairy goats but much of the information is applicable to meat goats. This is no longer offered as a correspondence course but you can buy the handbook from Caprine Supply, 33001 West 83rd Street, P.O. Box Y, DeSoto, Kansas 66018 1(800)646-7736
3. Nutrient Requirements of Goats - National Academy Press, 2101 Constitution Avenue NW, Washington, DC 20418 - A little technical for beginners but has a lot of nutritional information including keeping goats on pasture. It is relatively inexpensive.
4. Goat Production - Academic Press, 1981. This is a reference book that I have not used much but has some good chapters on raising different types of goats. I recommend that you try to locate this one through your public library or nearest university library. The call number is SF383.G6 1981.
5. Goat Medicine - Mary C. Smith and David M. Sherman, Lea & Febiger, Malvern, Pa 1994. This is a relatively new book which covers many diseases in great detail. Highly recommended.
6. Color Atlas of Diseases and Disorders of the Sheep and Goat - KA Linklater and MC Smith, Mosby-Yearbook Europe Limited, Brook House, 2-16 Torrington Place, London, England WC1E 7LT - This has excellent photographs of every disease you could imagine in sheep and goats.
7. Sheep and Goat Medicine, The Veterinary Clinics of North America, Large Animal Practice, November 1983 (5:3) - A classic that has been reissued several times due to demand. W. B. Saunders Co., Philadelphia 1983.
8. Advances in Sheep and Goat Medicine, The Veterinary Clinics of North America, Food Animal Practice, November, 1990 (6:3) - Fills in gaps of #7 and addresses production and herd health issues more. W.B. Saunders Co., Philadelphia 1990.
9. Sheep and Goat Medicine – D. G. Pugh, W.B. Saunders, Philadelphia, Pennsylvania, 2002. Newest book in the market. Good information. Fairly concise and practical.

Marketing information can be obtained through the Southern States Meat Goat Cooperative, Route 2, Box 273-D4, Mendenhall, Mississippi 39114, (601)764-4628 or Thomas Clark (601) 469-1209.

Topics of Particular Interest to Boer and Meat Goat Production

Gastrointestinal Nematodes

The nematode of major economic significance is Hemonchus contortus, as it often results in sudden death. There are 4 major factors to keep in mind:

a) Anthelmintic schedules/strategic deworming

Drug dosages per kilogram body weight (1 kg = 2.2 pounds)

Fenbendazole* 10 mg/kg

Ivermectin 400 ug/kg

Levamisole 8 mg/kg

*Licensed for use with 30 day withdrawal in goats.

Most anthelmintics are an extralabel drug in goats and the owner must take responsibility for drug residues on slaughter.

b) Rotating Pastures

Deworming goats and placing them back on the same pasture ensures that they will be immediately reinfected with worms. Following deworming goats should be moved to a “clean” or “safe” pasture. A clean or safe pasture is one that has had no sheep or goats grazing on it for 6 months or has been worked up and reseeded, or has been used for hay. Dividing existing pastures into smaller pastures will help get you enough pastures that you can start to stretch out the intervals between pasture uses.

c) Weather

Dry and cold weather conditions will decrease numbers of infective larvae on pastures. Freezing the soil for 1 week will remove most of the Hemonchus larvae from a pasture. During dry weather, worm eggs do not hatch and fewer larvae are available to reinfest goats. However, once sufficient rain (1 inch) occurs and weather is above 50oF large number of larvae will hatch. It is very important to deworm the goats approximately 3 weeks after rain that breaks a drought.

d) Resistant to Dewormers

Keeping goats in one pasture and deworming monthly for several years usually leads to the worms developing resistance to the dewormer. Resistance has been reported in all classes of dewormers. To test for resistance on your farm, you must run a fecal egg count on several animals the day that you deworm them. Recheck the egg count 1 week later. If the egg numbers do not drop by at least 80% you have a resistance problem and should no longer use that dewormer on your farm.

Coccidiosis

All goats have coccidia. The highest risk groups are the young, growing kids. Kids can be affected as early as 2-3 weeks with clinical signs of coccidiosis (failure to thrive, diarrhea and possibly anemia). Prevention is the key. Young kids raised on a bottle in confined pens that are reused for years have the highest incidence of disease. Clinical coccidiosis is best approached by oral sulfa drugs (ie. Albon {sulfadimethoxine} at 25 mg/lb or 1 500 mg tablet/20 pounds body weight on first day, then 1 500 mg tablet/40 pounds once a day for two more

days, no treatment for 7 days, then repeat the three doses of Albon). In severe cases I have started treating kids at two weeks of age and continued the cycle until weaning.

To control economic losses due to coccidiosis after weaning or following sulfa treatment, a coccidiostat in the feed is the best approach. There are three choices: monensin (Rumensin^R), lasalocid (Bovatec^R) and decoquinate (Decox^R). Lasalocid has a greater margin of safety than monensin, however, monensin is licensed for use in goats and lasalocid is not. Decoquinate is also licensed for use in goats. Amprolium (Corid^R) is effective as a preventative but has the drawback of being expensive and is a thiamine antagonist (predisposes to polioencephalomalacia).

Predator Control

At some point new owners should be informed of the danger of losing large numbers of their herd due to attack by wild or domestic canines. The importance of penning goats at night, maintaining a guard animal or perimeter fencing which discourages entry should be discussed.

Urolithiasis

In a wether, urolithiasis (urinary calculi) treatment is aimed towards salvage (urethrostomy). Blockages in goats tend to be severe and calculi are sand-like. Breeding bucks, if valuable enough, can be managed to retain breeding soundness but owners must be willing to pay \$600-\$1000 (cystotomy, installing a Foley catheter to allow bladder drainage after surgery, diuresis and supportive care) depending on severity of blockage and secondary problems. Predisposing factors are:

Water deprivation.

Consumption of excessive minerals (especially phosphorus giving Ca:PO₄ ratio of 1:1).

Excessive concentrate rations (80% of diet).

Anatomy of urinary tract (urethral process, sigmoid flexure, urethral diverticulum)

Prevention includes making sure that the diet has a Ca:PO₄ ratio of 2:1, adding 2-4% NaCl (maintains urine flow) and or up to 2% ammonium chloride (acidifies urine) to the grain ration, and ensuring that adequate drinking water is available at all times.