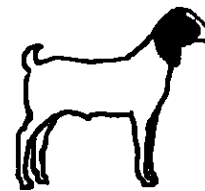


MEAT GOAT MEMOS

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January 2006



Using Simple Records to Increase Production

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As a rule, goat producers are very poor record keepers. Without records you will be unable to tell whether your operation has made a profit or lost money. Further, you will not have a clue how to correct a problem without some sort of records to identify it. If you were to ask a goat producer his breakeven cost of production, most will not know. (For budgeting information see MSU-ES Publication 2177) This could be because many producers believe record keeping a chore more often suited for an accountant, and if they wanted to be an accountant, they wouldn't be raising goats. Another reason is that many producers just don't want to know that their goat operation is not profitable. Record keeping does not have to be complicated. Some simple information can be used to improve production and ultimately, create a profit.

Most producers will know some information about their operation such as the number of kids born per doe or the number of kids sold. Recording this information and looking to see how you fair at the end of the year will help to improve production and come up with a plan to a more profitable level. The sheep and goat industry offer many parallels. If we borrow some numbers from the sheep industry to use as parameters for improvement, we can establish some target goals for the goat operation.

<u>Parameter</u>	<u>TARGETS</u> <u>Description</u>	<u>Target</u>
Kidding Rate	% of does mated that kid	>95%
Abortion Rate	% of pregnant does that abort	<5%
Stillbirth Rate	% of kids that are born dead	<2%
Kid Mortality Rate	% of kids that die between birth and weaning	<5%
Weaning Rate	# kids weaned per female exposed	1.5-1.7
Doe Death Rate	% of does that die per year	<5%
Culling Rate	% of does culled per year	<20%

(Adapted from Herd Health Food Animal Production Medicine, 2nd edition, Radostits, et.al.)

Kidding rate should be higher than 95%. Anything less means bucks are not fertile or does were not cycling when the buck was in or a large number of does aborted a

pregnancy. The best way to make sure the buck is fertile is to perform a breeding soundness exam prior to turnout. If this is not an option, at least put a marking harness on the buck. If does are remarking every 18-21 days it is a good chance the buck is infertile. If the kidding rate is below target, it is likely a problem with the buck. If doe kids are included in the breeding group, this number will obviously be lower.

An abortion rate of less than 5% is considered normal. If you have a higher rate, you should submit aborted fetuses and placentas to a diagnostic lab to determine if it is an infection that caused the abortion. If you have chronic Chlamydia abortion problems, less than 5% on abortion rate will be hard to achieve.

Many consider a kid that does not survive for 24 hours a stillbirth while others consider a stillbirth one that is born full term but does not take a breath. If mortality in the first 24 hours of life is a problem you should examine the cause of death, addressing the incidence of hypothermia/starvation and considering mothering instinct, or the lack thereof, in your goats.

Pre-weaning mortality over 5% will most likely be a problem with: 1. Starvation 2. Hypothermia 3. Scours 4. Pneumonia 5. Entertoxemia Type C. A post of multiple dead kids will generally give you an idea as to which of these is the cause. An examination of the growing kids, your facility, the creep environment, and feed will often help to find any problems that might lead to pre-weaning mortality.

The weaning rate would be the number of kids weaned divided by the number of does exposed to the buck. This number will be impacted by the kidding rate, drop rate, and pre-weaning mortality. Though this number is influenced by various problems, the value is easy to determine and the best determinant of profitability. Regional differences and the type of operation can dictate the value of this number. However, most profitable operations will be closer to the 1.7 rates.

A doe death rate of over 5% will indicate problems with the health of the flock. If the 5% death rate is exceeded, a veterinarian should be brought in to do post-mortem exams on some of the deaths in order to determine the cause. Once the problem is identified it will become easier to lower the death rate.

If the culling rate exceeds 20%, there is most likely a health problem. Keeping a record of culling reasons will give you information about management changes to lower cull rates. Most often a high cull rate is the result of problems with mastitis or poor udder/teat attachment. Management and/or genetics can affect both problems.

So, if we take some information routinely utilized in the sheep industry and apply it to our fledging goat industry, we have the opportunity to make improvements using a handful of easily calculated production numbers. This information will tell you where you have been and where you are headed in the future. Goat producers that plan to stay in the goat business would be wise to utilize records to evaluate performance of the flock and make needed improvements to become more profitable.

Adapted from the Sheep Newsletter, Dr. Goetz, Pipestone Vet Clinic

Providing Immunity for Newborn Kids

Kipp Brown, Area Agent-MSU Extension

As we near the spring kidding season, it is time to consider things you can do to improve the health of your flock for optimum performance. Using a good management program, many of the target goals discussed above can be improved.

It is important for does to be vaccinated prior to kidding in order to provide passive antibodies to the kids. Understanding the timing of this is crucial for the protection of the newborn kid. Passive antibody is a term used to describe the protection passed from the doe to the kid through her colostrum. In ruminant animals such as goats, antibodies do not cross the placenta through the blood supply to provide the kid with these needed antibodies. So newborn kids are born completely susceptible to disease such as e coli or overeating. Kids and other ruminants must obtain their antibodies through their mother's milk or the colostrum. The newborn is then able to transfer these antibodies from their gut into their bloodstream for a very limited time after they are born. Maximum absorption occurs in the first six hours after birth, and decreases until around 12-15 hours following birth.

Colostrum not only contains antibodies, but also is high in energy and vitamins. The doe will produce colostrum in the last several days before giving birth and the first 18 hours after giving birth. The amount and quality of colostrum varies widely with any flock. Doe kids will have both lower volume and lower quality colostrum when compared to older does. The very old does in poor body condition may produce good quality colostrum, but in limited amounts. Proper feeding of the does in the last two months prior to kidding will help ensure a good quality and supply of colostrum.

To provide optimum immunity for your kid crop, proper timing of vaccination is important. Vaccinating the doe for type C overeating 3-4 weeks prior to kidding will increase the amount of antibodies passed in the colostrum to the kid. In pregnant doe kids, giving two vaccinations at five weeks and three weeks prior to kidding can increase this protection. Feeding a mineral formulated for goats containing vitamin E and selenium the last six weeks prior to kidding also increases the amount of protection for the kid. All does will need to be on a good plane of nutrition and be provided an increase of energy in late pregnancy.

Passive antibodies will protect the kid for around five weeks at which time the kid's own immune system will start to make antibodies and develop protection. In order to insure the newborn gets the protection provided by these passive antibodies, make sure the kid receives a minimum of eight ounces of colostrum as soon after birth as possible. As a rule of thumb, a ten-pound kid will require 24-30 ounces of colostrum in the first day of life.

Adapted from the Sheep Newsletter, Dr. Bobb, Pipestone Vet Clinic