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Learn Veterinary Skills

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In the last six years, the dairy goat population in Snohomish County has increased notably. For many local homesteads, goats are important contributors to the process of attaining self-sufficiency in food production.

During this same six years, an impressive number of books and pamphlets dealing with goats has appeared on the market. This is but one indication of a national trend: increasing numbers of persons are turning to homesteading as an alternative to urban living. Many of the new homesteaders lack an adequate knowledge of the problems faced by a small stock raiser. Thus they need books— but too often the books fail to address the questions that are of greatest interest to homesteaders who are new to stock raising.

Also, much of the currently available material is aimed at persons who are raising goats 'for fun,' as pets or for show. There is a clear need for information that will help residents of the Northwest learn about goat care, selection and integration into the life of the homestead, when economic considerations are one's chief concern.

Sometimes it is said that the amiable personality of goats is, ironically, an obstacle to pursuing good homesteading practices. A dairy cow that is highly susceptible to diseases that reduce milk production will almost certainly be culled for the sake of herd health and economics. In the same circumstances, a dairy goat may be carried at a loss, transmitting its genetic predisposition to its offspring. Why? Because it has come to be regarded as "another member of the family."

This sort of thing can indeed be a problem, preventing the homesteader from attaining self-sufficiency if it goes too far. Good information, and knowledge about how to use it, should help all goat owners (and to be a goat owner is to be a goat lover) to use one of humanity's first domesticated animals in a way that is personally rewarding as well as economically advantageous.

The present article seeks to help you, the goat owner to diagnose illness in your animals. For this purpose one needs tools, just as one does for any kind of work. The first and most important of these tools is an educated eye—more on that in a minute. Other tools include a veterinary thermometer (a heavyweight version of a clinical thermometer), a California Mastitis Test (CMT) kit, two kinds of scales, and a stethoscope if possible.

The thermometer, CMT kit, and a milk- weighing scale may be obtained at most feed stores or through a veterinary supply house (usually listed under these headings in the yellow pages of your phone book). If desired, the milk-weighing scales may be replaced with a small household scale, such as a baby or kitchen scale; in this case the scale should record weights accurately to the nearest ounce or tenth of a pound, and should accept weights up to 25 pounds. You will also need an ordinary bathroom scale in addition to the milk-weighing scale. The stethoscope may be purchased through a veterinary or medical supply house, or from your own vet.

BASELINE DATA

The easiest way to get familiar with these tools is to learn by doing. By collecting what is called "baseline" information, you will be teaching yourself how to use the equipment while you establish the way your goats behave when they are healthy. Baseline data are obtained as follows:

1) TEMPERATURE

Take each goat's temperature rectally twice a day, once in the morning and once in the evening, for at least a week. Average the AM readings to get a baseline morning temperature, and the PM readings to get a baseline evening temperature. The average of the two latter figures is your baseline daily temperature. You now have a good idea of what reading is "normal" for any particular goat, and you know the approximate range of temperatures that a given goat may be expected to have.

With regard to temperature, goats are just like people: some stay steady as a rock,, others show an appreciable variation. Generally speaking, a temperature of 101 degrees F. to 103 degrees F. is right for adult goats: kids will be a bit higher, even possibly 104 degrees F.. Goats are not as good at handling hot weather as we are, however, so if it's sizzling hot outside you can expect them to run slightly above normal in temperature (e.g. an outdoor reading of 90 probably means temperatures of about half a degree above normal.)

Remember: in one goat a deviation of four-tenths of a degree from its "normal" is a sign of illness, while in another it is par for the course. It is the purpose of your baseline data to let you tell which goats are which.

2) MILK PRODUCTION

You should weigh (do not measure by volume) the milk produced by lactating animals. Do this at every milking throughout the lactation, and figure a total for each day. A deviation of more than 10% from one day to the next is a definite warning signal. Health problems in milking animals are most frequently heralded by significant changes in milk production.

Date	Lbs. Milk		Time		Milker		Comments (feed, weather, ailment, Rx, etc.)
	name	name	am	pm			
9/1	4.8	5.3	8:15	8:15	SL	SL	
9/2	5.1	5.4	8:10	8:20	SL	LK	
9/3	5.0	5.4	8:—	8:30	LK	LK	
9/4	5.2	5.3	8:00	8:10	LK	SL	
9/5	5.3	5.2	8:15	8:30	LK	SL	
9/6	5.1	5.3	8:10	8:20	SL	SL	
9/7	5.1	4.8*	8:15	7:50	LK	LK	* sick or estrus ?
9/8							
9/9							
9/10							
9/11							
9/12							

Sample Milking Chart

3) WHITE CELL CONCENTRATION

The CMT (California Mastitis Test) kit should be used as directed. Among other things, it tells you the approximate number of white blood cells present in a goat's milk. These cells are always present in milk in minute concentrations, but certain things can increase their number. Heat stress, estrus and contention in the herd are examples: if these are the reasons for an increase, the test will register a reading of either "trace" or "#1." If your animal shows a "#2" on the test, you have excellent reasons for thinking she has acquired an infection or an injury to the udder.

The result is mastitis.

Testing your animals while they are healthy permits you to know how they come out on the CMT test normally; an animal with a permanent “trace” result must be judged differently from one without.

4) WEIGHT OF YOUNG ANIMALS

Weigh your new goats on a bathroom scale. First weigh yourself, then hold the goat and weigh yourself again; the kid’s weight is the difference. Weigh daily for the first three weeks and weekly thereafter. For your first few kids, you will want to keep this up for at least six months so that you can get a good feel for how weight changes in young goats. Once you are satisfied that you have such a feel, three months of regular weighing should be sufficient.

It is difficult to speak of "average" rates of weight gain in kids, because many factors affect those rates (including things like the number of kids in a given delivery). Anything that looks like an erratic change in weight gain should be taken as a warning of possible, trouble.

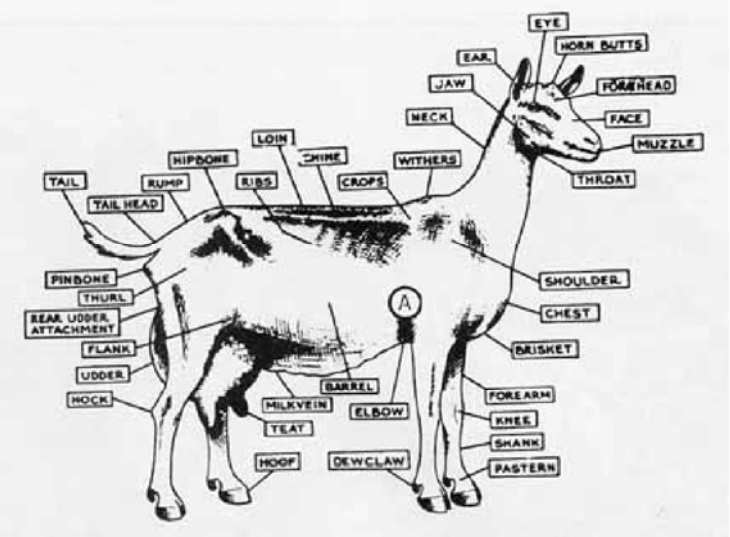
5) HEARTBEAT AND BREATHING

Use the stethoscope to listen to the breathing and heartbeat of your animals. It is very important that you learn how to use the instrument properly, so that you will be completely familiar with the sounds that are appropriate for a healthy goat. Otherwise, the stress and excitement that sometimes accompany an attempt to diagnose a goat’s condition are likely to lead to a misinterpretation of the sounds you hear. Check for condition of the lungs by placing the stethoscope just above the goat’s right elbow, at point A on the diagram on the next page. To hear the heartbeat, place the stethoscope inside the goat’s front left leg. Listen for the lub-dub sound.

6) OTHER THINGS TO LOOK FOR

Now to that most important of all your tools--the educated eye! There are countless things that serve as dependable signs of health, but you have to learn to see them. For example, one of my friends has remarked that she spends more time looking at the rear end of her goats than at the front end: the condition of the stools is an important guide to a goat’s state of health. The appearance of the eyes is important. Eye and nose discharges should be noted. The goat’s gait and posture are good sources of information. Watch the physical shape of the stomach area (this will be different when full and when empty), and keep an eye on your animal’s appetite.

Mother kind of evidence comes from that intangible that one calls “expression” or “demeanor” in humans. Goats are extraordinarily expressive animals. They can appear woebegone, insulted, disdainful, frightened (goats tremble when frightened, and shiver in a somewhat different way when chilled or feverish). These are only a few things in a goat’s repertoire of expressions. Each goat is an individual— you must get to know its particular behavior well enough to know when it is out of sorts. In many ways the expressions of goats are like those of children (children stick out their tongues, goats give you a curled lip). If you “translate” a goat’s expression the same way you would a child’s, you will usually be close to the truth.



OBSERVATIONS

Up to now we have been concentrating on signs of health, and how the absence of those signs can be an indication of trouble. Another part of diagnosing a health problem consists of organizing your observations about a goat that you have reason to believe is ill.

The first stage in this process is to write things down. Not only does this clarify your thinking, it also creates a written record that assists you in your learning and serves as a memory aid if you need to go back for information in six months or a year. In particular, you should write down all of the following:

1) Main symptom— what is it that's got you worried?
2) Temperature— is it abnormal, and if so, by how much?
3) Condition of stools
4) Description of discharges
5) Animal's gait and posture
6) Appetite
7) Observed state of health during the last 3 to 7 days.

Also, you should be prepared to answer these questions:

1) Has your animal recently been exposed to stress— heat, cold, noise, strangers, etc.?
2) Have you recently changed your feeding program?
3) Has your animal ever been checked for parasites? If so, when? If there was a parasite problem, how was it treated?
4) Has your animal had access to Northwest poisonous plants? Many common weeds and wildflowers are poisonous— bracken, buttercup, lupine, morning glory, death camas, foxglove, etc. This is also true of a great number of cultivated ornamentals such as rhododendron.
5) Has your goat been exposed to infection carried by other animals (including yourself)?

Unless you are forced to deal immediately with a major loss of blood (half a cup or more) or cessation of breathing, you always have time to stop and think. Next to your eyes, your mind is your most useful tool here— so give yourself enough time to use it effectively.

I find it helpful to keep a daily journal of observations about my animals. This permits me to find information of the preceding kind when I need it, as well as other data that may be useful.

In the next issue of Tilth, I will discuss the process of decision-making that is involved in arriving at a diagnosis. This will include a description of the various kinds of ailments that one may expect to encounter in goats, as well as common treatment programs. Readers with questions about diagnosis, needing an answer before the appearance of the next article, should call Lee

Kirschner at (206) 334-4890. After this two-part series is finished, if readers have a continued interest in this sort of article I will be happy to research and report on such topics as goat selection, feeding, the economics of goat-raising on a homestead, and the genetics of herd improvement.

Lee Kirschner is the managing partner of L S Associates. She is the "L"; the "S" is Steve Lewis. Together they raise Angora goats for their fiber, mohair, and LaManchas for milk. They have a household garden and raise milk-fed European veal for sale with their surplus milk.