



## The Species Specific Educational Resource Team (SSERT)

### A Series for Small-Scale Producers and Hobby Owners

# Management Options to Prevent Diseases for Small Dairy Goat Enterprises



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Zoonotic diseases are diseases that are transmitted from animals to humans. Foreign animal diseases are those that are not currently in the U.S.

Owners of small dairy goat enterprises, including those where goats are kept as pets and companions, can be at high risk of financial as well as emotional loss through the introduction of foreign animal and zoonotic diseases unless a disease management plan is in place and implemented. The loss of a single animal is a relatively greater loss to a small producer than to a larger producer, so it makes sense to develop and implement a disease prevention and management plan. County agents, veterinarians, other animal professionals, and competent dairy goat owners can provide advice on developing the plan. A section on basic sanitation leads this pamphlet since many foreign animal and zoonotic diseases can become established and be “hidden” under conditions of poor sanitation.

Several diseases can be transmitted to humans in goat milk so it is important to work with a veterinarian to establish a herd health program, and to pasteurize all milk intended for human consumption to ensure that the milk from your herd is safe and wholesome.

For those who are interested in the background and changing dynamics of foreign animal diseases and the rationale for con-

sidering this threat to small farm livestock enterprises we recommend a review to the *Gray Book* entitled *Foreign Animal Diseases* published by the U.S. Animal Health Association. The 7th Edition as revised in 2008 is available on-line.

**Basic Sanitation.** Because many diseases can be prevented or at least more easily managed under sanitary conditions, the first consideration should be given to sanitation practices and developing a sanitation protocol. The major components of sanitation include basic housekeeping and cleanliness, quarantine of new animals, isolation of sick animals, farm visitor policy, and farm owner movement guidelines. Areas of the farm for which sanitation measures must be considered include the five P’s including pastures, paddocks, pens and bedding, parlor and processing areas.

**Cleanliness and housekeeping.** Avoiding the buildup of manure and filth in pens, working areas, and milking areas will prevent conditions that harbor infectious microorganisms. In areas where bedding is used to keep animals dry and warm, it is important that clean bedding be readily available and used. Keeping feed troughs and feeding areas clean and picked up reduces exposure to manure and body fluids that may cause disease. Repair/removal of broken fences, partitions, and rigid objects reduces the chance of trauma and injuries to animals and the people that work with them.

**Quarantine of new animals.** In small dairy goat farms the most frequent new purchases will be breeding bucks. These new animals should be quarantined and isolated from the

main herd. Isolated animals should remain out of contact with the existing herd for 30 to 60 days. A fecal sample should be used to determine what internal parasites are present and the newly acquired animal(s) dewormed accordingly under the oversight and recommendation of a veterinarian. The aim is to minimize exposure of the herd to a new level of resistance to anthelmintics (dewormers). For certain species of worms, Barberpole worm, for example, the FAMACHA® chart may be used to monitor general level of infestation in the quarantined stock. They should be observed daily for clinical signs of disease, and be treated according to veterinarian recommendation. The same procedures should be followed for does or kids that are introduced into the herd. Animals that have been away from the farm, at exhibitions, sales, or other on-farm function should go through a period in quarantine. Routine diagnostic testing as determined through veterinary consultation should be done during the quarantine period.

**Isolation of sick animals.** Dairy goats that show signs of sickness should be moved out of the main herd and put in an area of the farm where they do not have contact with other members of the herd. After it is determined that the sickness is not created by a contagious agent, or the animal has recovered, it may be returned to the herd or sold. Many disease conditions are not contagious, but may be genetic, trauma, or metabolic. If the reason for sickness is not known, then the services of a veterinarian should be used to diagnose the problem or to take the tissue (skin, hair, blood) samples that might be necessary to provide an accurate laboratory diagnosis. If the disease involves the production of an infectious material (pus from an infectious abscess) or represents a contagious condition, the animal should be moved out of the herd as soon as possible.

**Farm visitors.** Clean and sanitized footwear, and in some cases protective clothing, should be used by visitors to the farm, especially if it is anticipated they will enter pastures or dairy goat pens and facilities. The farmers should be prepared to provide protective gear at the farm site to assure compliance. The amount of infectious material that can create a problem on small farms is quite small indeed. While this practice may be cumbersome and time-consuming, the protection it provides is worthwhile for small farms. Keep in mind that small farms are as vulnerable to these risks as large confinement operations.

**Farm owner/manager travel.** Exposure and transfer of foreign animal and zoonotic disease in small dairy herds can occur when owners/staff travel off the farm to other farming operations or animal agriculture sites such as stockyards, feed stores, and the like. Different footwear and clothing

should be worn at such locations and changed before returning to the animal and feeding areas of the home farm. Even travel to training sessions and field days where animals are a part of the exhibit should involve use of different clothing. Basic precautions such as washing hands after handling animals at a fair, sale, or on another farm can be implemented. Foreign travel adds another level of risk of bringing in a foreign animal disease, and should be considered a serious threat, especially if farm or animal product facilities have been visited.

**Disease prevention.** Generally vaccination and testing are two actions that can prevent the outbreak of disease as well as the transfer of disease from one point to another. Some diseases have no vaccine available to aid in prevention. Minimizing the opportunities for animal exposure to disease, acts as a tool in disease prevention. Well-fed dairy goats and those with a healthy immune system will be better able to deal with disease challenges. When vaccinating, follow label instructions or instructions of a veterinarian if the material is not labeled for use with dairy goats. Keep in mind that does in lactation, where milk is being consumed for human consumption (family or off-farm customers), will have more stringent withdrawal times as compared to other classes of goat. Standard test procedures are available for detection of many diseases or organisms that can cause disease. The California Mastitis Test for mastitis is an example as well as the laboratory strips that suggest acidic conditions in the urine. Many diagnostic tools require laboratory tests that can be recommended by a veterinarian. All these tools help prevent disease organisms from entering the herd in the first place or identify animals within the herd that are harboring disease agents that threaten the whole herd. Remember prevention is almost always cheaper than a cure, which is especially important to small dairy goat producers since they have fewer animals across which to spread the costs of a cure. Nutritional status of dairy goats has a major indirect effect on herd health. Well-fed (not fat) goats are much better able to maintain a level of immunity to hold off new infections as well as to produce a robust defense to organisms that have gained a foothold. Feeding balanced rations in appropriate amounts is a management practice that results in many fewer disease outbreaks of a severe nature.

## Reference

United States Animal Health Association Committee on Foreign and Emerging Diseases. 2008. *FOREIGN ANIMAL DISEASES, SEVENTH EDITION*. <http://www.usaha.org/pubs/fad.pdf>. Accessed 04/12/2011.