

Recognition of domestogenic diseases could do much to improve the welfare of farm and companion animals. The concept not only provides a holistic view of many animal diseases and structural/functional disorders, it also focuses greater responsibility for care on the pet owner, breeder and livestock manager by emphasizing that few diseases have a simple, specific cause which can be corrected either with surgery or with drugs, both of which can have additional untoward iatrogenic consequences.

## The Benefits of Tender Loving Care

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Tender loving care (TLC) as a disease control measure is sometimes considered a relic of the days before the advent of wonder drugs. In fact, TLC is still a very important feature in disease control and treatment. As applied to animals, TLC infers gentle, compassionate care. Not only is the animal unafraid of the handler, it also welcomes the handler's presence.

The majority of people oppose inconsiderate handling of animals on moral and ethical grounds. This opposition is easier to maintain when one is well-fed and remote from animals or interacts with only a few animals. On the other hand, it becomes more difficult when one works with large numbers of animals and is under increased pressure to get the work done. When an animal does something which irritates the handler, such as moving at a critical moment, it is easy to react violently toward the animal as a means of discouraging such actions, or relieving frustrations. Following such treatment, the animal becomes fearful of the handler and thus even more difficult to handle. If one does not understand their behavior and appreciate their social needs, one can easily adopt the view that animals are unfeeling creatures.

Millions of animals are employed annually in research projects and testing programs. Often, their caretakers have little real interest in the results. To them, it is a job to be done as quickly and as easily as possible. Furthermore, researchers and directors of testing programs gain little or no prestige from the time spent working directly with animals. Their administrative requirements and laboratory duties may leave little time for developing a relationship with the animals. It is thus understandable how laboratory animals can be reduced to things to be utilized as required. Humane societies have helped the welfare of animals by promoting standards for space, ventilation, sanitation and nutrition. However, they have also encouraged the "thing" attitude by focusing attention on physical requirements.

Recently, Drs. Cornhill, Nerem and Levesque (Ohio State University) reported that rabbits which were given TLC had from 1/3 to 1/2 the amount of atherosclerosis while being fed a high level of cholesterol than unhandled rabbits on the same regimen. They suggested that TLC, or the lack of it, could alter the results of other experiments.

Our research has shown that chickens which are frequently gently handled before and during experiments are superior experimental animals. Their

responses are more consistent, and they are easier to handle. Their immunological response to antigens (vaccines), blood protein levels, and abilities to convert feed into growth and to resist stresses are all increased. Some differences between experimental groups can only be demonstrated with birds which have been handled with TLC. Genetic selection for many factors can only be done with chickens receiving TLC and ideal physical environments. When chickens are not well cared for, environmental effects tend to mask their genetic potential.

To summarize, experimental animals which are exposed to TLC under good environmental circumstances are truly superior. In addition, they experience less trauma, and fewer are needed to obtain better quality results.

Animals employed in agriculture have similar problems to those used in labs. Back in the days when poultry flocks were small, their environmental and disease stresses were high. However, many of the flock owners had a real feeling for the birds and understood their behavior. As flocks became larger, the environmental and disease stresses were reduced. Administrators became more and more remote from the birds and tended to think more about their physical needs than about their social ones. As the size of flocks increased, even those in direct contact with the birds had less time to be cognizant of their social needs, much less to satisfy them. Furthermore, the competitive process in the marketplace which resulted in increased quality of products at decreased cost to the consumer tended to relegate animals to the status of things. However, this feeling is far from universal. Many people who work with poultry today have developed an understanding of their behavioral and social needs and therefore treat them gently and with compassion. The birds perform better, and the caring people make more profits than the uncaring. Similarly, dairy cattle and other domestic animals which are exposed to TLC are easier to work with, more productive and of course more profitable. Again, as in the case of laboratory animals, TLC is indirectly beneficial to humans.

TLC is known to be an important aid in training animals. The most impressive trainers are those who are able to obtain superb cooperation and responses from animals without uttering harsh words or inflicting pain.

TLC is an attitude and as such cannot be put into force through legislation. What is needed to foster a caring attitude is more widespread knowledge about animal behavior and appreciation of the animals' needs by those who work with them. Toward this aim, humane societies should increase their educational efforts directed at those who use animals as pets, in research, in testing and in agriculture. Greater understanding of an animal's behavior results in respect for and compassion toward animals in general. With tender loving care, the animal's life is made more pleasant and the human's endeavors are more satisfactory.

Humane societies should also promote research on animal behavior, particularly of animals that are closely associated with man. Moreover, they should encourage colleges and universities to require courses in animal behavior for all students who might work with animals after graduation. Among these students are those studying biology, psychology, animal agriculture and veterinary and human medicine. These people are especially important because they are likely to have future decision-making power. Their actions and attitudes toward animals will influence those with whom they work. They should be strong advocates of TLC.