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Thomas E. Lucas D.V.M.  
*South Dakota State University*

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South Dakota State University  
Brookings, South Dakota

Department of Animal Science  
Poultry Section

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POULTRY DISEASE PROBLEMS IN SOUTH DAKOTA

Thomas E. Lucas, D.V.M.<sup>1</sup>

CHICKEN DISEASES

Marek's Disease, Leukosis

In the diagnostic laboratory, it is difficult to assess the value of Marek's Disease vaccination. When we have a year or so to compare the laboratory reports before and after vaccination began, we will be in a better position to see if there is any apparent reduction in the incidence. All reports received from the field, however, indicate that it is very successful. The current recommendation is not to buy birds unless they are vaccinated. The vaccination for Marek's Disease will not have any effect on the incidence of Leukosis. Leukosis, however, has been less of a problem than Marek's Disease. The two diseases cannot be differentiated, based on gross examination. Histopathologic examinations of the affected tissue are needed to make an accurate diagnosis.

Fatty Liver Syndrome

Fatty Liver Syndrome has been reported as early as 1953 by Texas workers. The incidence of this disease seems to have increased at a rate which is somewhat similar to the increase in cage laying units. This condition is also seen in floor birds, but the incidence appears to be higher in caged birds.

The onset of this condition in a flock of birds is not dramatic and the mortality does not suddenly increase. The most common complaint is a 1 or 2% increase in mortality and somewhat lowered egg production.

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<sup>1</sup>Assistant Professor of Veterinary Science

In some cases treatment with Vitamin E, Choline Chloride, and Vitamin B<sub>12</sub> in the feed has been quite helpful.

#### Peritonitis

This disease syndrome remains as one of the more common problems in laying hens. It often follows or occurs with airsacculitis and reproductive disorders. Usually this is the result of an ascending infection by E. coli organisms as secondary factors in a mycoplasma infection or as a primary pathogen, if specific serotypes are involved.

### TURKEY DISEASES

#### Colibacillosis

This disease remains the number one problem in South Dakota turkeys. Pathogenic E. coli organisms are the cause of this disease problem. These organisms are usually considered opportunists and cause disease only when stress of one type or another reduces the resistance of the bird. Some of the different strains of this organism can also be primary pathogens. This disease is usually characterized by sudden deaths in older birds and at times the mortality can reach serious proportions but it is often an insidious thing and takes its toll throughout the growing cycle.

#### Salmonellosis

Salmonellosis is a continuing problem and results in the loss of considerable numbers of birds each year. This disease cannot be differentiated from colibacillosis or other septicemic diseases without bacteriological examination of the tissues. This disease is egg transmitted in both turkeys and chickens. It can also be picked up by the birds from a contaminated environment or contaminated feed, water, etc. This disease in addition to being the cause of considerable mortality in turkeys is also an important public health problem. Salmo-

nella contaminated poultry, meat and egg products constitute a major reservoir of human Salmonellosis.

Mycoplasma (PPL0)

Mycoplasma organisms are the cause of one of the major infectious disease problems in turkeys and also in chickens. Turkeys are more susceptible to these infections than chickens. Turkeys more frequently develop a clinical airsacculitis than do chickens. This does not mean that a higher percent of turkeys are infected but rather that they more frequently display clinical signs. These organisms generally infect the airsacs and can result in an inflammation which produces respiratory distress. Often however, birds will go to market not having displayed clinical signs and yet will be condemned at the processing plant.