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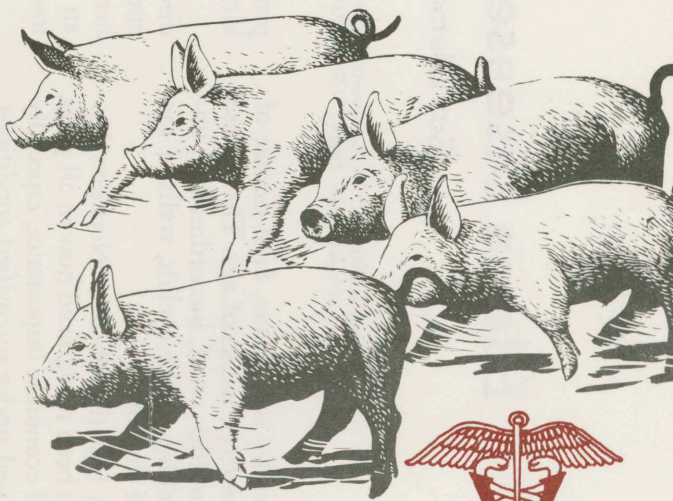
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Edema Disease of Swine

(Gut Edema)



Cooperative Extension Service: South Dakota
State University and U. S. Department of
Agriculture

Edema Disease of Swine

FS 470

(Gut Edema)

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Gut edema generally is an acute, fatal disease of young pigs, six to fourteen weeks of age. The disease is characterized by sudden onset, incoordination, unsteady gait, and swelling of the eyelids, walls of the stomach and coils of the colon.

The disease was first described in Northern Ireland in 1933, but has been recognized now in all parts of the world. It is of economic importance, especially where swine are raised under intensified conditions.

CAUSE

It is generally thought that toxin produced by certain sero-types of *Echerichia coli* (coliform) bacteria in the intestine is the causative factor. *E. coli* are present in the normal intestine. Under certain conditions of stress there appears to be an overgrowth of *E. coli* at the expense of other organisms. A toxin is produced which is absorbed into the blood stream and has effect on blood vessels throughout the body. Fluid is allowed to escape from the vessels resulting in edema (collection of fluid in the tissues) particularly in the abdominal area, in the brain, and around the eyelids.

Edema disease seldom is seen in pigs doing poorly. Rapid growth may in itself be one of the stress factors involved in this condition.

Other stresses such as vaccination, castration, handling, shipment, or any abrupt change in environment or conditions may precipitate edema disease.

The disease is not contagious and will not spread from pig to pig.

Death rate will vary from 10 per cent to nearly 50 per cent of a drove.

SYMPTOMS AND SIGNS

Sudden death in thrifty pigs doing well is quite common in edema disease. Pigs that had been perfectly normal at the last observation may be found dead. There may be some pigs showing central nervous

problems, such as staggering, pushing into objects, kicking movements while lying on the side, etc.

Because the symptoms may be confused with other diseases common to swine, such as hog cholera and encephalitis, call your veterinarian to examine the herd and autopsy any dead pigs. It is essential to reach an accurate diagnosis promptly to prevent serious losses from this or other diseases.

Postmortem examination may show thickening of the stomach wall with fluid making it from two to ten times as thick as normal. Edema may also be present in the spiral coils of the large intestine and mesentery (attaching membranes). Occasionally no lesions are found.

TREATMENT

While the ration is not related directly to the cause of gut edema, an abrupt change in the ration usually is helpful in the management of the disease. A laxative of $\frac{1}{2}$ to 1 ounce of magnesium sulfate (Epsom Salts) per head administered in soaked feed or drinking water may be used to help remove toxins from the intestine.

The abrupt change in ration will alter the intestinal contents enough to throw the overgrowth of *E. coli* "off balance" and reestablish a more normal flora.

Pigs may be brought gradually back to the original ration in a period of four to five days.

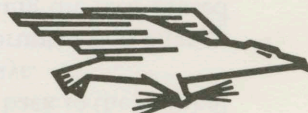
The beneficial effect of this abrupt ration change should not be interpreted as meaning the feed caused this problem. Many years ago this theory was made erroneously and the term "protein poisoning" was associated with gut edema. There is not such a thing as "protein poisoning," and this term should not be used.

Individual treatment of affected animals is apparently of questionable value, depending of course, on the severity of the damage already done by the edema in the body. Consult your veterinarian for his recommendations for your particular farm.

CONSULT YOUR VETERINARIAN—
HE'S TRAINED TO HELP YOU PREVENT LOSSES FROM DISEASE

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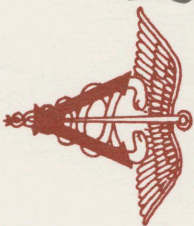
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