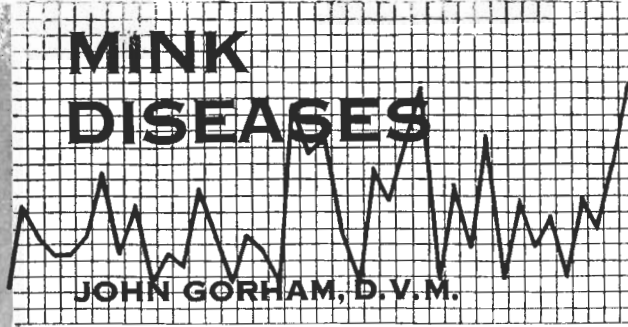




MINK DISEASES

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Stilbestrol Danger Not Entirely Eliminated

MINK ranchers all over the United States breathed a sigh of relief when they read the wire service stories that diethylstilbestrol (stilbestrol for short) had been banned for use in market poultry. Shortly after its use had been authorized as a chemical castrator for cockerels in 1947, the mink industry was given an expensive course in endocrinology. The field observations were later confirmed and amplified by the first rate researches of Shackelford, of the University of Wisconsin, and Basset at Cornell.

The poultrymen implanted fifteen milligrams of this synthetic female hormone-like compound in the neck of their fattening young roosters. Although it was estimated that only one percent of the total U. S. poultry output was treated, there was enough residual stilbestrol in poultry scrap to impair the reproductive capacity of female mink on many ranches. After an apparently successful breeding season—in fact, the sterile breeders were actually easier to mate—there were few, if any, kits in May. It is safe to say that thousands of potential kits were lost.

It was out of the question to discontinue the use of this valuable source of protein. While the managers of poultry killing plants tried to exclude the treated heads, they were not always successful since they had no real control over all of their producers. Consequently, to minimize the danger, most mink ranchers adopted a feeding schedule in which poultry scrap was fed only after whelping and discontinued in December. Perhaps this schedule should be kept in mind, as it may take some time for the new regulations to have the desired effect.

The hazard of feeding contaminated feed has not been completely eliminated. The U. S. Food and Drug Administration permits the sale of stilbestrol for fattening cattle and sheep, providing that the synthetic hormone is not fed within a forty-eight hour period before slaughter. Shackelford and Cochran (Mink Farmers Research Foundation cooperating) showed

that mink fed tripe from stilbestrol-fed steers produced as well as control mink receiving tripe from steers which had not been fed the compound; consequently, tripe fed at ordinary levels is apparently safe for use. However, as can be seen from the following reprint (courtesy **Agriculture Research**) the danger has not been entirely eliminated:

Low fertility and permanent sterility in laboratory test animals can result from accidental estrogen contamination of pelleted feed by commercial feed producers, say USDA scientists at Plum Island, N. Y. (Plum Island is one of the world's great basic-research centers for the study of foot-and-mouth disease and other foreign diseases that threaten our livestock.)

This serious obstacle to livestock research is a threat to the continuity and even validity of important studies. The correction lies in following contamination-proof methods of preparing feeds for laboratory test animals.

ARS veterinarians H. R. Seibold and J. F. Wright found a puzzling sharp drop in number of pregnancies and births among their test animals. Unweaned female guinea pigs showed uterine discharges and subsequent autopsy showed uteri enlarged and blood vessels swollen.

Microscopic examination revealed that glands in the uterus were greatly swollen through enlargement and multiplication of their lining cells. The cytoplasm of these cells was foamy and full of large holes. In the severe cases, cellular degeneration set in between the membrane of some of the swollen glands and the over-lying mucin-laden cells. Granular cells of many egg sacs of the ovaries also showed degeneration.

Researchers soon found why this happened. Check of the pelleted feed showed it was contaminated with estrogen—20 milligrams per kilogram of feed. The feed had been processed in a mill previously used for preparing an estrogen-supplemented broiler mash.

There was no improvement in ability of breeders to reproduce

Poultry Folk Obey Request

WASHINGTON, Dec. 19. (AP)—Poultry dealers have complied promptly with the government plan to withdraw from the market poultry treated with stilbestrol, a hormone found to cause cancer in test animals.

Secretary of Health Arthur S. Flemming gave that report yesterday to congressmen who had asked how the withdrawal program was working.

Flemming said he feels justified "in again assuring consumers as I did on December 10 that they may buy the poultry now on the market with confidence that it is safe and wholesome."

Only a tiny portion of the poultry supply had been treated with stilbestrol, which induces more growth. These birds were easily identified, the department said, because they sell for a premium price.

even when contaminated feed was replaced, and the buildings, cages, feeders, and bulk containers were sterilized. Observation of affected females was continued for four months after the feed was changed.

According to the researchers, these results indicate the need for extreme care in handling potent hormone supplements. Unintentional contamination of laboratory animal feed can occur in any feed mill where these powerful substances are stored or used in the manufacture of feeds. Premixing rooms, mixers, elevators, pellet mills, even the ever-present feed-mill dust are all potential sources of contamination of test feeds.

Feed stored where these powerful hormone products have been used isn't safe for breeding animals. Some of the larger commercial producers of animal feeds have adopted the policy of manufacturing feeds for laboratory animals in a special mill that isn't used for processing estrogen-supplemented feeds.

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