

# Steatitis (Yellow Fat) in Mink

By G. R. Hartsough\*, D.V.M. and John R. Gorham\*\*, D.V.M., M.S.

Steatitis is an acute, subacute or chronic disease of young mink characterized by a non-suppurative inflammation of the depot fat and a subcutaneous edema. Definite information as to the etiology and control is lacking.

This disease has been referred to as "yellow fat" by McDermid and Ott.<sup>1</sup> Quortrup, Gorham, and Davis<sup>2</sup> described the pathology of the disease and found it to be similar to non-suppurative panniculitis (Weber-Christian disease) in man. Chaddock<sup>3</sup> used the term "yellow fat" synonymously with fatty degeneration of the liver. Apparently, he was describing a syndrome other than the one commonly referred to as "yellow fat" inasmuch as the typical condition affects only young mink. Fatty changes of the liver in this condition are not characteristic. In Alaska, a malady identical with steatitis is known as "watery hide disease."

## Occurrence in the North Central Region

Steatitis (inflammation of adipose tissue) has been recognized as a separate and distinct entity in Wisconsin since 1942. It probably occurred rather frequently before that time, but was not recognized as a specific disease and possibly was diagnosed as vitamin B<sub>1</sub> deficiency.

In this region, it appears that the disease may be associated with the feeding of rather high percentages of storage meats and fish; that is, meats and fish (especially fish scrap) that have been in storage longer than six months. Ranchers who butcher their own horses and feed a considerable percentage of fresh horse meat, that has never been frozen or has been frozen for only a short time, have not reported this condition.

## Occurrence in the Pacific Northwest

The first authentic report in which the malady, was recognized as a distinct entity, was made in the summer of 1946; before that time, losses were attributed to food poisoning or vitamin B<sub>1</sub> deficiency. Although it is not definitely known, it is believed that the losses were not as large in previous years as they

were during the disastrous outbreaks of 1947 and 1948.

In this area, steatitis may be associated with the lack of horse meat and liver in the ration. Both are becoming expensive, and as a result, mink ranchers are feeding more fish scrap now than formerly. Adult mink are not af-



Steatitis in mink is characterized by marked and severe symptoms and a serious mortality rate among young animals. Veterinarians are reminded of the high incidence of this disease during late summer.

ected by this type of ration, but kits if fed heavily on fish scrap (especially fish that has been stored) with no horse meat or liver in the ration, steatitis is likely to occur.

## Symptoms (Both Regions)

This disease affects only young mink and usually occurs shortly after weaning, when the kits are eating large amounts of solid food. The majority of outbreaks occur in the last two weeks of July and the first two weeks of August. Some outbreaks may begin late in September, and losses may continue until pelt-time. The kits may or may not be separated. In pens where the whole litter is kept together, the largest, most likely appearing kit is often the first affected.

The condition usually appears suddenly with no prodromal symptoms; a few dead animals

\*G. R. Hartsough, Veterinarian, Associated Fur Farms, New Holstein, Wisconsin.

\*\*John R. Gorham, Veterinarian, Pathological Division, Bureau of Animal Industry, in cooperation with the Division of Veterinary Science, Agricultural Experiment Station, State College of Washington, Pullman, Washington.