

AGRICULTURE

Mysterious Disease Seems To Lurk in Northwestern Grain

With Actual Cause Unknown, Fungus, Bacterium Or Soil Poison Are Thought Possibly Responsible

GRAIN from certain sections of the great cereal-growing region of the Northwest seems to harbor the cause of a serious and sometimes fatal disease afflicting farm animals and possibly also human beings. Researches indicate very strongly that when several different kinds of grain raised in parts of the region are fed to laboratory animals, these suffer from a serious weakening of the bones, breakdown of the liver tissue, hemorrhage, skin disturbances and other symptoms. There are also indications that farm animals get the disease from eating hay as well as from the suspected grains. A few human cases showing somewhat comparable symptoms have been reported from hospitals.

The actual cause of the disease is still quite unknown. Conjectures have been made that it may be a fungus harbored by the grains, a bacterium, or a poison drawn from the soil or formed in the grain because of peculiar soil or climatic conditions. But these are only guesses, and the real answer must await more extensive investigation. Scientists of the U. S. Department of Agriculture expect to grow grain under controlled conditions in the areas from which the disease is reported. They will feed this grain to experimental animals to obtain more definite data than are now available.

Four Carriers

The four grains known to carry the disease are corn, wheat, barley and emmer. The latter is a relative of wheat, and seems to have been the first grain cultivated by the ancient civilizations of Babylonia and Egypt. It is less grown now, but is still valuable in many semi-dry regions.

Efforts will also be made to determine whether the malady is confined to specific soil types. If this proves to be the case, the scientists will then try to find what soil elements or conditions are responsible for the trouble.

Before grains were pointed out as responsible for the disease, a very careful checking up was made. Large numbers

of rats were fed on grain from the suspected area, and "controls" were fed from grain raised elsewhere. The controls remained healthy, while the others showed marked slowing down of growth with other abnormalities.

Trouble with poultry in the "poison area," apparently traceable to the same disease-bearing grains, manifests itself largely in the failure of eggs to hatch. The chick develops, almost reaching the point of hatching; some of them do hatch in a lame sort of way. But when the chicks, living or dead, are freed from the shells, they are seen to be cripples, with deficient leg or wing bones, sometimes with abortive beaks, and invariably clad in a thin, stringy, hairlike growth instead.

May Become Serious

The experiments have been going on for more than a year until there is little doubt that the four grains named are real bearers of the disease. It is reported that local buyers have long been discriminating against grains from the affected area. If this practice should be-

come extensive, the economic consequences are bound to be very serious. It remains to be seen whether flour and other mill products made from the grains will produce nutritional disturbances in human beings.

The condition responsible for the present investigation seems not to be strictly new. Records of similar disturbances have been found running back for many years; but until the present time the malady was merely shoved aside as "alkali trouble" and not seriously considered.

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GEOGRAPHY

Shore of Hudson Bay Miles Wrong On Maps

THE EASTERN shore of Hudson Bay is shown as much as 25 miles out of place on existing maps, Dr. Noel J. Ogilvie, director of the Geodetic Survey of Canada, reported to the American Geophysical Union.

Dr. Ogilvie made this discovery in the course of an accurate geodetic survey of the Belcher Islands, an iron-bearing archipelago, last summer. The Belcher Islands themselves, he found, are shown on the same maps as much as thirty miles away from their true location. Hitherto these errors have had little or no practical significance; but with the development of a railroad to Fort Churchill and the opening of navigation to Europe in the summer the accurate location of shorelines becomes important.

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NIGHT LIFE IN THE TREETOPS

No Broadway night-club fiddler is more industrious than the pallid tree cricket—and none plays a tune more monotonous and persistent. Yet though he be no Kreisler, the tree cricket is still able to charm the female of his species with his "Liebesfreud." Much patience and a good lens enabled Cornelia Clarke to snap this musical insect idyll.