

Diseases and Parasites

As swine increased in numbers, diseases began to appear — hog cholera being the most serious. There have been three periods — 1887, 1896, and 1913 — when cholera caused heavy losses. In 1896 about 13 per cent of all the hogs in the United States died from this disease; in 1913 more than 10 per cent died. Iowa suffered heavy losses in both these periods. In 1896 little was known about hog cholera, and owners who lost hogs endeavored to keep their losses secret.

1907 The discovery of the fact that a virus was the cause of the disease led to the development of a serum to counteract it. Dr. W. B. Niles, Dr. M. Dorset, and Dr. C. N. McBride, of the Bureau of Animal Industry, finally developed such a serum in 1907. It was administered to hogs along with a dose of virus which rendered them immune. By 1914, as the results became known, its use became general. Since that time the losses from hog cholera have been greatly reduced. In 1921 the Iowa legislature passed a bill permitting swine producers to obtain a permit to immunize their own swine, after they had attended a two-day school of instruction and passed a written examination supervised by the Extension Service of Iowa State

College. Thousands of Iowa swine producers have secured these permits, although the majority of immunization is still done by veterinarians.

Since the misuse of live virus in immunizing hogs allowed for the possibility of a cholera outbreak, several new so-called "killed virus" vaccines have been developed. Two of these have been used considerably — Crystal Violet Vaccine and Boynton's Tissue Vaccine (B.T.V.) — and render temporary immunity, perhaps for the length of the fattening period. During the past few years two or more attenuated vaccines have been developed which are supposed to immunize hogs without the danger of a cholera outbreak.

Brucellosis among swine has been prevalent for years and has taken a large toll in the form of premature litters. During the year 1952 an intensive educational program has been instituted by the Veterinary Extension Service of Iowa State College in cooperation with other state agencies, with the hope that within a few years this menace to the swine industry may be eliminated.

Erysipelas showed up in Iowa during the late 20's and early 30's in an alarming way and has now spread to every locality. Some producers immunize against this disease while others just live with it. Gastro-enteritis, a very virulent form of scours, is one of the most devastating of little pig troubles. No sure preventative or adequate control is known at present. Heavy mortality results

once it strikes litters of newly born pigs. Rhinitis is one of the so-called newly recognized diseases, although it is known to have been in Iowa for many years past. It, too, is causing much loss through unthriftiness and actual death loss. Neither the cause nor the treatment are known.

Parasites, such as the common round worm, and infectious diseases such as enteritis, common to old barnyard lots in which hogs have been raised for years, increased as hog populations increased. They reached such seriousness between 1910 and 1920 as to prompt the adoption of a "clean ground" plan of raising hogs known as the McLean County (Illinois) system. Since this system was introduced to Iowa swine producers during the early 1920's it has been one of the most important projects of the Iowa State College swine extension service. The late Dr. K. W. Stouder was a leader in this field of education. Thousands of Iowa producers now follow the plan of management, which is a tribute to Stouder's earnest endeavors in the cause of sanitation.

The four essentials of the system are: (1) thoroughly clean the farrowing pen and scrub with scalding hot water and lye; (2) wash the sows with warm soapy water, especially the udders, before putting the sow in the farrowing pen; (3) move the pigs to clean ground pasture, equipped with houses that have been thoroughly cleaned and disinfected; (4) keep the pigs on clean ground

pasture until they are four months of age. In 1929 two special trains known as "Pig Crop Specials" were run by the Extension Service in cooperation with the Chicago, Burlington & Quincy and the Chicago & North Western railroads. These trains carried exhibits of equipment suitable for use with the clean ground program. One car was devoted to an exhibit of live swine. A total of 64 stops was made with an attendance of 83,000 people.

A modification of the clean ground system developed by a few swine producers in Iowa is known as the confinement system. This plan involves keeping the pigs on a concrete floor from birth to market weights. John Hendricks of West Liberty was a successful exponent of this plan.

As the years have passed, the maintenance of good health in hogs, and freedom from disease and parasites has become and will continue to be one of the most important problems confronting swine producers. The transportation of hogs by common vehicles, the bringing in of breeding stock, and the possibility of the spread of disease by birds, dogs, and stray animals all contribute to difficulties in raising healthy hogs. There is no plan of hog raising which can succeed that does not pay heed to the fundamentals of sanitation as laid down by the McLean County system and to other sanitation practices.

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