Methods of Controlling Lung Worms in Swine

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Lung worms have been an economic problem in sheep husbandry in Minnesota and North Dakota for many years. In has been assumed that lung worms of swine were not important because these worms were not found in routine post mortem examinations over a period of years from 1938 to 1955.

The following case history illustrates the potential hazards of a heavy lung worm infestation in swine:

On October 19, 1955, a swine producer from Beltrami, Minnesota, submitted two pigs for diagnosis as to cause of sickness and death. Both pigs were heavily infested with the common lung worm of swine, *Metastrongylus apri.*

The history given by the producer suggests that in his case, lung worms constitute a serious problem in his swine husbandry. He used a pasture in which there was a "hog wallow" that was always wet. There was also a grove of trees for the pigs to root in. The wet hog wallow and the shaded pasture were both contributing factors to the perpetuation of lung worms.

If swine lung worms are to be controlled, there must be a break in the life cycle. Medication of the infected swine is of little or no value.

The lung worm of swine spends a part of its life in one of the common earthworms. The life cycle is illustrated in Figure 1.

Control of lung worms in swine must be based on a method of prophylaxis. The young pigs must be protected against infestation. Since the common earthworm is the vector, that is the intermediate host, it is necessary to use a control program based on the elimination of the earthworm. Earthworms require moisture, therefore the first step in eliminating swine lung worms is to develop a very dry pasture or hog lot.

At present the only advice that can be given regarding swine lung worm problems is to keep the swine on concrete or very dry lots, feed adequate rations and attempt to eliminate carriers by selling all unthrifty animals for slaughter.

The McLean County system for control of the large round worms of swine will also help in the control of lung worms. However, elimination of the earthworm is very important.

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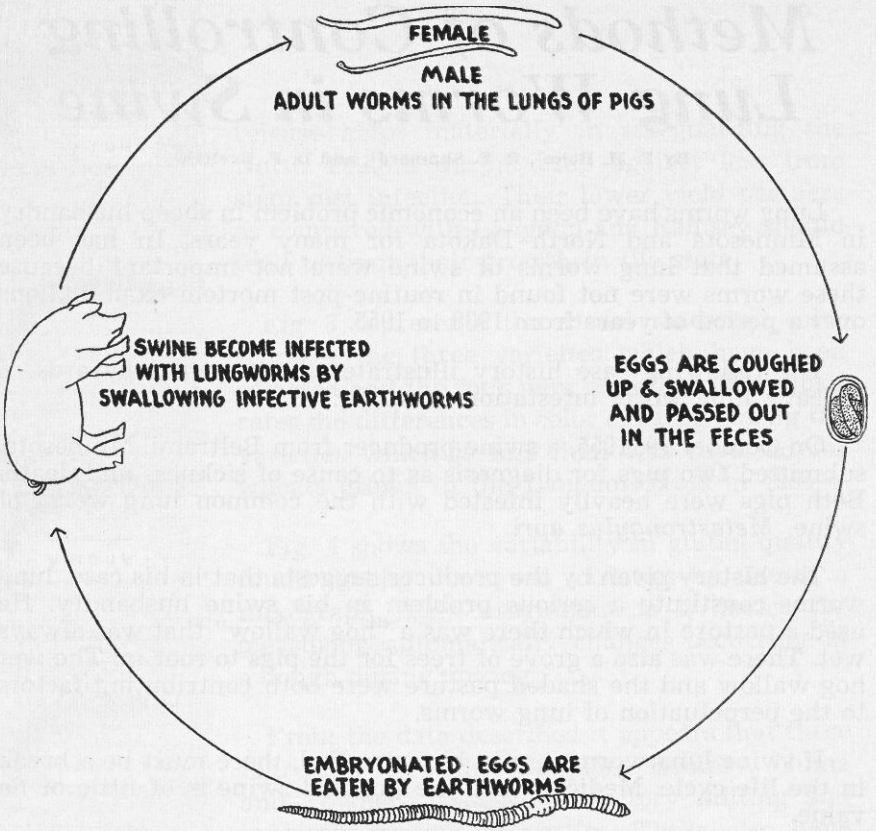

FIGURE 1.—*This drawing illustrates the life cycle of Metastrongylus apri, the swine lungworm. (Drawing adapted from plate in "Veterinary Helminthology," by Morgan and Hawkins)*

The McLean County system of swine sanitation was devised primarily to protect the young pigs which are susceptible to roundworm infections and consists of the following essential procedures:

1. **Clean farrowing pens thoroughly and scrub them with scalding water and lye. Outside dirt floor pens connecting with inside farrowing pens should be shut off and not used. After cleaning, the pens should be closed to hogs until farrowing time. No one should be allowed in the pens.**
2. **Clean the sows with soapy water just before they are placed in the farrowing pens. Pay particular attention to the udders and sides of the animal. Immediately after washing, place the sow in the farrowing pen. After farrowing, the sow and pigs must remain in the farrowing pen until taken to pasture.**
3. **HAUL the pigs and sows to clean pasture approximately two weeks following farrowing, if possible. If a truck is used, be sure it is scrubbed clean with boiling water and lye.**
4. **Keep the young pigs in clean pastures until they are at least four months old.**

With the new type piperazine wormers, the sows may be wormed a few weeks before farrowing.

During hot weather shade is necessary for swine. The best type of shade is a movable range shelter, which can be moved to clean ground periodically.

By using a program consisting of dry lots or pastures and movable range shelters, the number of earthworms that are available to swine will be decreased. The number of eggs or larvae of round worms that might infect swine also will be decreased.

ABOUT THOSE ANCIENT TURTLES

Scientists are by nature a skeptical breed, so it is no wonder that they are going to put under very close scrutiny a tortoise which bears upon its shell the carved in dates 1844 and 1860. If the dates are authentic, it is estimated that this particular tortoise is 129 years old, which would make it a pretty old tortoise. In general tortoises are honest animals with no interest in deceiving anybody about their age. Occasionally one turns up with its shell inscribed 1776 or 1492, but this is generally regarded as the imposition of a prankster rather than the work of George Washington or Christopher Columbus.

The longevity of the tortoise has long impressed more shortlived creatures such as man. The explanation seems to lie in the animal's habits, which include a disinclination to move any faster or any farther than is absolutely necessary. Most tortoises, it seems, spend their careers within a range of only 250 yards, a distance they evidently figure is adequate for all reasonable purposes.

A wise turtle knows that a lifetime is hardly enough to take care of all problems close at hand, without looking for trouble elsewhere. And if anyone wants to carve a date, genuine or otherwise, into its shell, that is hardly cause for concern. Perhaps the best solution to the present controversy would be to add a 1955 to the dates already inscribed in this tortoise's back and pass him on with best wishes to future generations.

In the near future a farmer may be riding on a tractor or in a truck, parts of which will be made of reinforced plastics.

Reinforced plastics were brought to a high state of development during World War II, primarily for aircraft use. Since then many other uses have been made of them. Today we are all familiar with plastic cars, bread boxes, chairs, boats, hammer handles, fishing rods, and a host of other common every-day items.

Plastics offer many advantages in the manufacture of agricultural equipment. Some of these are corrosive resistance to fertilizers, pesticides, and other chemicals; rustproof; light weight with high strength; and high impact strength. Even though plastics are of an organic nature, they are rot and fungus proof. They have good insulation properties and require a minimum amount of maintenance. Plastics already are in experimental use for fertilizer hoppers, fenders for farm trucks, tanks for liquid fertilizers and pesticides, seed plates and metering equipment.

Honey production in North Dakota in 1955 was an estimated 1,792,000 pounds, down from the 1,820,000 pounds in 1954. The 1955 production came from 14,000 colonies of bees compared to 13,000 in 1954. However, even the 1955 per-colony average of 128 pounds in 1955 in North Dakota was the highest per-colony average in the nation. For the U.S. as a whole, production per colony was 46.4 pounds.