

# AGRICULTURAL EXPERIMENT STATION of The Alabama Polytechnic Institute, Auburn, Ala.

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## CONTROL of WORMS in HOGS

Several kinds of worms infest hogs. The most important is the common round worm, or ascarid, which is found in the small intestines. It is a grayish white worm, 8 to 10 inches long and ¼ inch thick. The female lays millions of eggs in the feces, which are passed out onto the ground and eaten by other hogs with their feed and water. The adult worms do very little damage, but the young worms pass through the liver and lungs, causing extensive injury before returning to the intestines.

### SYMPTOMS

Symptoms of worms in young pigs 2 to 3 months old are: slow growth, 'thumps,' pot belly, cough and development of pneumonia, rough hair coat, and general unthrifty appearance. Old hogs seldom show any symptoms.

### CONTROL

Prevention is more important than treatment, because the young worms bury themselves in the tissues and treatment is effective only for the mature worms. Hogs should not be raised in the same lots or pens year after year. Neither should they be allowed access to stagnant wallows, ponds or swamps. The ideal place for a sow to farrow and raise pigs is in a clean pasture, or on forage crops where the soils can be cultivated thoroughly after each litter is raised. Cultivation of the soil exposes the eggs and young worms to the sunlight, which kills them in a few hours.

### TREATMENT

Treatment will remove the round worms that are in the intestines at the time of treatment. It will also remove some of the other intestinal parasites that may be present.

Pigs should be treated as early as possible after weaning. They are first confined in a small lot, which can be cleaned after the treatment, and feed is withheld from the pigs for 24 hours. The medicine is then given to each pig in the form of a capsule or tablet.

### Capsule Method

Especially prepared worm capsules or tablets and the necessary instruments needed for administering them can be purchased from a local veterinarian, a local feed store, or from almost any good stockman's supply house. If prepared capsules are not readily available, local druggists can probably fill the following prescription, which the Agricultural Experiment Station has found effective:

Calomel .....	2	grains
Santonin .....	2	grains
Areca nut .....	5	grains
Oil of chenopodium .....	5	drops
Sodium bicarbonate .....	7½	grains

This mixture, put in a capsule, is the proper dose for a shoat from weaning age to 100 pounds. A balling gun and mouth spreader will be helpful. These cost about \$1. The pig is placed on a box or table and its jaws are opened with the spreader. After placing the capsule in the balling gun, it is inserted in the pig's mouth and passed back of the tongue; the capsule is then pushed out, and the pig's mouth is closed immediately. **The capsule should be greased with vaseline to prevent its sticking in the pig's throat.**

If a balling gun is not available, the treatment may be administered by hand.

\* Formerly Mimeograph Series.

\*\* Prepared jointly by the Department of Animal Pathology, School of Veterinary Medicine, and the Department of Animal Husbandry.

With the pig held, head up, between the operator's knees, the left hand is used to grasp the pig's under jaw and to force the mouth open, while the capsule is being forced down the pig's throat with the fingers of the right hand. Care should be taken to prevent the pig from biting the operator's fingers.

### Mass Treatment

Mass treatments, which are easier to administer, may be used, although they are not as effective as the capsule method.

Oil of chenopodium with castor oil. Oil of chenopodium with castor oil is very good if fed in a thin slop after fasting the pigs for 24 hours. One dram of oil of chenopodium (American wormseed) in one pint of castor oil will be sufficient to treat 30 pigs weighing 25 to 30 pounds each. The dosage of this mixture for a 25-pound pig is 1 tablespoonful; for a 100-pound shoat, 3 tablespoonsful.

Phenothiazine. Phenothiazine is an effective treatment against nodular worms and fairly effective against roundworms. This drug is sometimes poisonous to hogs and should be used with care. Pigs under 3 months of age are apparently more likely to be poisoned than those over 5 months old.

A dose should not exceed one-tenth gram per pound live weight, or 4 grams for each pig weighing approximately 40 pounds. One-fourth pound phenothiazine is sufficient

to dose 35 30-pound pigs, or 25 40-pound pigs, or 20 50-pound pigs. The drug should be thoroughly mixed with the grain or can be given in milk or slop, or any feed that is customarily given to the animals. Give it at one feeding only. Be sure there is plenty of trough room, and if possible divide the pigs in groups of 2 to 5 of approximately the same age and weight. **BE CAREFUL ABOUT OVER-DOSING.**

Sodium fluoride. Sodium fluoride is very effective against the large roundworm in swine. Use one part of a technical grade of sodium fluoride to 99 parts, by weight, of **DRY FEED**. Pigs should be divided into small groups of 2 to 5 with plenty of trough room. Mix a quarter of a pound of technical grade sodium fluoride with 25 pounds of ground dry feed or 1 pound sodium fluoride to 99 pounds of dry feed. The pigs should be confined and allowed access to the sodium fluoride grain mixture until they eat about what they will clean up in one feeding. **THIS TREATMENT SHOULD NOT BE USED FOR PIGS THAT ARE NOT ACCUSTOMED TO EATING GRAIN.** It is advisable to treat pigs at 8 to 12 weeks of age and again when 4 to 6 months old. **DO NOT USE SODIUM FLUORIDE IN MILK OR SLOP. SODIUM FLUORIDE IS POISONOUS AND IT SHOULD BE KEPT AWAY FROM THE KITCHEN AND OUT OF REACH OF CHILDREN OR CARELESS PERSONS.**

For further details consult your local veterinarian or your County Agent.