DISEASES OF PIGS.

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Pigs kept under clean conditions, receiving a balanced ration, and provided with dry, draught-proof sleeping quarters, are susceptible to very few serious diseases.

Most diseases can be traced to bad housing, badly-drained land upon which they run, or a ration which is unbalanced, i.e., the per cent. of proteins to carbohydrates and fats, in the ration being fed, is either too high or too low.

Provided that all these factors are given proper attention and the strain of pigs kept are the right type, little difficulty will be experienced in bringing the pigs to maturity in the shortest possible time.

It must be remembered that when a young pig becomes affected with a disease of heavy infestation of parasites, its growth is seriously hampered, and it is rarely worth while attempting to rear it to maturity, as the time taken and the extra food consumed makes it uneconomical.

Following is a list of the more important diseases to be met with by the pig breeder.

Contagious Pneumonia.

This disease causes heavy losses among pig breeders, and once established in a piggery is highly infectious, and spreads rapidly from affected to healthy pigs.

It is caused by a bacillus. The organism responsible can remain alive for several months under favorable conditions, but is easily killed if due care is given to hygiene, and disinfectants used. Pigs of the weaner or store type are usually affected.

Symptoms of the disease are as follows:—

Pigs affected have a high temperature and have great thirst, with a tendency to lick up anything wet. They become sleepy and dazed, and lose all inclination to eat. The gait becomes unsteady, and often the hind legs wobble. The pigs seek quietness, rest, shade and water. A sticky discharge appears from the eyes, to which dust adheres, and the eyes may become glued together. The pigs become emaciated, the ribs and spine becoming prominent and the flanks tucked up.

Diarrhoea and constipation usually alternate, the foeces are discoloured, sometimes contain blood, are putrid and usually adhere to the buttocks. Ulcers may appear in the mouth and a state of pneumonia is present. The animal has fits of dry coughing, and sits on its haunches breathing very rapidly and shallow. There is a heavy pumping movement of the body, which gives the popular name of "Pants" to the disease. Red spots may appear on the body, especially on the underline, ears, neck, breast, and on the abdomen, where it runs underneath the groin. These are more readily noticed on white pigs than on pigs of a darker colour.

Post-mortem inspection shows the lymph glands to be slightly darker than usual, and the lung has a marbled or mottled appearance.

Predisposing causes of the disease include exhaustion, cold or continued wet weather, unbalanced rations, contaminated water supply and general insanitation.

Prevention and suppression of the disease consists in taking the following precautions:—

Keep any new or visiting stock separate and under observation for at least four (4) weeks.
Isolate all sick pigs.
Disinfect all sties, houses, &c.
Undertake sanitary measures daily.

Swine Fever.

As far as is known, this disease is not present in the Territory, but when once introduced may rapidly wipe out large numbers of pigs in a very short time.

It is an extremely contagious, virus disease (i.e., caused by an ultra microscopic organism) favoured by insanitary conditions and improper feeding. It usually affects suckers or stores up to three (3) months of age, but rarely affects older pigs. Death may take place in as short a time as two to three hours.

The temperature rises rapidly, and may go as high as 106°-107°. The pulse and heart rate become very quickened, while the respirations are quick, increased and shallow. The pig may also exhibit a short, dry cough, and be greatly affected by prostration, often bleeding from the nose, due to excessive coughing. Red spots similar to those caused by contagious pneumonia may also appear. These are due to the action of the virus organism on the nervous system.

The pigs become constipated or otherwise, have a tendency toward tympany (bloating). Death usually then follows.

Method of infection may be either by ingestion or respiration, but more usually by ingestion.

A common cause is the feeding of uncooked meat from a diseased animal to healthy animals. The period of incubation may range from one to three weeks from time of ingestion till the first symptoms are noticed.

The disease may be spread by—

(1) Contact with affected pigs or material.
(2) Sound pigs occupying sties previously occupied by affected pigs.
(3) Introduction of boars and sows for breeding purposes.
(4) Germs carried from one piggery to another by attendants, &c.
(5) Birds (crows, &c.) and flies may carry the germs from an affected piggery.
(6) Stock may carry the germs on their feet.
(7) Prevalence of rats.
(8) Contact with any discharge from an infected pig.

Post-mortem lesions show very little, although blood spots may be noticed in the musculature and kidneys, while the lymph glands are usually darker than usual.

There is no effective remedial measure, and prevention by proper attention to hygiene and suitable rations is the only thing.

Inoculation may be practised, but an inoculated pig, due to the method of inoculation, becomes a carrier, so that all pigs in a district must be inoculated. In addition, up to three (3) per cent. may be lost.

Tuberculosis.

This may be regarded as a serious disease of pigs in the Territory, and many have been seen suffering from it, some badly affected.

The disease is caused by pigs ingesting material from an infected source, as milk or meat. It may also be caused by inhalation, but ingestion is the more common method of infection.

The most common glands affected are those of the head and throat, the glands of the digestive tract are next affected, followed by those of the lungs, while the spleen may often be affected. Occasionally, the bones and even the udder and mammary glands become infected. The pigs become unthrifty, or there may be no outward signs of the disease. If infection is suspected, the pigs should be tested by tuberculin, using the Opthalani test, which gives indication of the presence of the disease.

Post-mortem examination shows the lymph glands to be enlarged, and containing a grey, gritty pus. It is very easy to determine the presence of tuberculosis on post-mortem inspection; therefore, all pigs killed for human consumption should be examined for presence of the disease.

The glands inspected are the submaxillary and the precrural lymph glands. The submaxillary are found one on the point of each jaw, and are cut on to from inside the carcass. The precrural are situated one in each groin, and if these are found to be affected the whole carcass should be condemned. If only the submaxillary are affected, then the head should be condemned.

The main source of infection of tuberculosis to the pig is cattle. Where possible, pigs should not be allowed to run in the same paddocks as cattle, and all milk, fed to pigs, should be sterilized before feeding.

All slaughterhouse and household refuse should be well boiled before being given to pigs.

Poultry may also transmit tuberculosis to pigs, and for this reason the two should not be run on the same ground. Tuberculosis in fowls is most easily recognized by enlargement and sponginess of the bones.

All houses and feeding places should be regularly disinfected to prevent the possibility of spread of the disease. There is no known remedy for tuberculosis; prevention is the aim.

All pig flesh should be well cooked before being consumed, as the organism is destroyed by prolonged high temperatures. It is considered that much of the tuberculosis in the Territory is caused by the consumption of undercooked pig flesh which appears to be the usual method in most parts.

Anthrax.

This disease in pigs is caused by the same organism that causes anthrax in other animals, but it affects pigs differently, except that death usually takes place very rapidly.

The pig has a fever of up to 106° F., there is a swelling in the throat due to the bacilli being located in the lymph glands there, and the face swells up and the eyes appear to sink.

Pressure from this swelling causes short, difficult, rapid breathing, and owing to the distress, the animal gets diarrhoea and finally chokes.

Post-mortem inspection shows little, except swollen lymph glands.

The carcass of a beast which has died from anthrax should never be opened up, but should be burned on the spot without being moved. An alternative is to bury the carcass at least 6 feet deep, as earthworms can convey the spores to the surface if not buried deeply enough. Spores can exist from fifteen to twenty years under favorable conditions.

Suppurative Otitis.

This disease is most common in young pigs, and is marked by the peculiar carriage of the head and unsteadiness of gait, the part affected being the ear.

The ear is divided into the outer, middle and inner ear. The outer ear collects the sound waves and transmits them to the drum. The middle ear is on the other side of the drum, and it exaggerates the sound waves, which are then passed to the inner ear. This is connected with the brain.

A tube, known as the Eushachian tube, connects the middle ear to the nose, and this serves to maintain equal pressure on both sides of the drum. Mucous and other discharges from the ear also pass down the tube to the nose.

When suppurative otitis occurs, an abscessed condition is set up in the middle ear, while the outer ear is not affected. This interferes with equilibrium and sense of direction by breaking down the maintenance of equal pressure. Being situated in the middle ear it is practically impossible to treat it.

The head is rotated to one side, and is often twisted. In bad cases the drum may burst, and there is a pussy discharge from the ear. There may be often a discharge from the nose which is a form of nasal catarrh.

There is a possibility of the disease being contagious, although this has never been proved, but it is advisable to isolate any affected pigs.

Pigs in any condition may be affected by the disease, and when affected the hair may lose its lustre, and the skin may become scurfy; but this is not always the case.

The only treatment to be adopted is to syringe out the external ear with a weak solution of hydrogen peroxide.

Heat Apoplexy.

This condition is more likely to affect fat pigs, and only occurs in hot, sultry weather, and in pigs subject to the direct rays of the sun.

The condition consists of convulsions in the pig due to pressure within the brain. The blood vessels become dilated, but still intact, so that recovery is rapid, or the blood vessels may become ruptured, which brings about death.

Prevention, as far as possible, by good management, feeding and hygiene, should be aimed at. The action of the bowels should be kept under observation, and purgatives administered when necessary. Glaubers salts (3–4 tablespoons per 100 lb. live weight) should be given, olive or linseed oil (4–8 oz.), or castor oil (2–4 oz.) are all satisfactory.

Where possible, if symptoms are shown, hose the pig down or throw buckets of water over him, being careful to wet the head first and then the rest of the body.

Abortion.

This condition in sows may be either sporadic or contagious, due to a bacillus. The bacillus, however, has not yet been proved to be identical with that causing contagious abortion in cattle.

Predisposing causes of sporadic abortion include—

Insufficient exercise, which causes overfatness and a toxaemia which causes abortion.

Incorrect feeding of pigs; a necessary portion of the ration is missing.

Feeding indigestible foods, or pigs becoming constipated.

Feeding too much fat to pigs, especially household scraps not cooked.

Driving pregnant sows hard, or long journeys, rough handling, or crowding together in sleeping quarters.

Debilitating diseases, as pneumonia or swine fever.

Once a sow has commenced to abort (i.e., swelling of the vulva or dropping in the hams) it is practically impossible to prevent it. A quarter (¼) to one (1) teaspoon of laudanum per 100 lb. live weight may help in some cases. If the sow is constipated give her a drench of 3-4 tablespoons of Glauber salts in water per 100 lb. live weight.

Preventive treatment lies in correct management, and feeding, quietness for pregnant stock, segregation of stock into sties, and the maintenance of clean, hygienic surroundings.

Catarrh.

This disease is also known as "snuffles". It is an inflammatory condition of the mucous membrane of the respiratory parts of the head—the nasal cavity, frontal sinus, &c.—causing an increased supply of lymph, which blocks up the apertures and causes snuffles.

The pigs are affected by a short dry cough due to the distress and the inflammation of the larynx and pharynx, which causes laryngitis and pharyngitis. The condition extends down the trachea and turns to bronchitis, which causes the cough to become quicker and more rapid. If the lung substance becomes affected the condition gives rise to pneumonia.

The disease is caused by wet, exposed, unhygienic conditions, especially draughts and cold winds, or chills due to incorrect flooring. There is always a tendency towards catarrh in continued wet weather.

All affected pigs should be isolated and the food should be correctly balanced, nutritious and not constipative.

If the pig becomes constipated, dose with olive or linseed oil (4–8 oz.) or castor oil (2–4 oz.).

Chlorate of potash at the rate of half (½) teaspoon in water for 100 lb. live weight, may also be given in the drinking water.

Scours in Young Pigs.

This condition is usually due to the sow's milk, the fault being either in feeding or the management, or even a diseased condition of the sow.

If the latter is the case it is necessary to take the young suckers away from their dam.

Too much fat in a young pig's ration will also cause scouring, as will unhygienic conditions, which rapidly bring on diarrhoea.

In treatment, the first essential is to remove the cause, and to pay particular attention to management and feeding.

Prepared chalk and powdered charcoal mixed in equal quantities, and given at the rate of one (1) drachm in the feed will relieve the condition.

Very good results have been obtained by diminishing the amount of feed given to the sow and cutting out all greenstuff from the ration, it being replaced by a little whole dry maize. With this treatment suckers have been cured of this condition in two to three days.

Gastritis.

This is an inflammatory condition of the stomach due to the ingestion of fibrous foods, sand or poisonous substances as brine, arsenic or phosphorus.

The pig shows signs of great uneasiness and loss of appetite. It attempts to vomit, and stands with its back arched, tail drooped and ears back. A fever is present, and there is evidence of great thirst. After two or three days the pig either becomes constipated or has diarrhoea; or if the condition persists, the two alternate.

Treatment lies in good nursing and tempting the pig with easily digested swill. Add half an ounce (½ oz.) epsom salts or half an ounce (½ oz.) hyposulphite of soda, daily to the drinking water, which will keep the temperature down. In addition, give castor oil, one ounce (1 oz.) per 100 lb. live-weight, in milk, three (3) times daily, till the bowels function normally.

If the pig has diarrhoea, give one (1) drachm chlorodyne and 15–20 grains baking soda in milk, several times daily till the condition ceases.

Soapy water enemas will also help.

If the gastritis is due to brine poisoning, in addition to other symptoms, the pig usually froths at the mouth, races round bumping himself, and may even go into convulsions.

In this case an emetic is necessary, so give 15 grains zinc sulphate in water. Follow this with olive or linseed oil, 4–5 oz. per 100 lb. live weight. Add one (1) drachm laudanum and chloradyne to the oil and repeat this sedative four or five times daily, in milk.

If the gastritis is due to phosphorus, on no account give oil, but give either one (1) drachm turpentine or half (½) drachm of copper sulphate, in a flour gruel.

Mammitis.

This is a germ infection of the udder and is brought on by contact with dirty floors and pens, or cold damp quarters. It may also be caused by overfeeding a sow of high milk production.

The udder becomes swollen, inflamed and tender. In advanced cases it becomes hard, swollen and lumpy or lobulated, and even containing pus.

The condition can be prevented by avoiding the cause—strict hygiene in the pens and careful attention to the sow's rations.

If from over milk-production, reduce her feed and give an increased amount of salt in the ration, which will have the effect of drying her off.

Relief may also be given by massaging the udder with an embrocation made up of—Camphor, 1 part; soft soap, 1½ parts; turpentine, 13 parts; boiled water, 4½ parts.

The soap is dissolved in the water, and the camphor in the turpentine, the two solutions mixed and well shaken.

Sow Eating Young.

This condition can usually be traced to improper feeding, the ration usually being deficient in protein, so that the sow is meat hungry.

It is marked by an extremely feverish state and abnormal appetite after farrowing; the sow may even become ferocious toward her attendants.

To overcome the possibility of a sow eating her young after farrowing, it is essential to balance her ration properly during pregnancy, seeing that she receives sufficient protein, by feeding meat meal if necessary, to make up for the extra drain on her system.

With a sow inclined to eat her young, it may be wise to remove the pigs from her immediately after farrowing, for a few days, except at suckling time, when she is carefully watched.

If the abnormality becomes habitual, it is wise to dispose of the sow.

MIXING PIG FOOD.

When pig food has to be mixed by hand, whether wet or dry, much labour can be saved and better results obtained by mixing in the right way. The water or swill that is used in slop-feeding must always be put first into the receptacle, be it bucket or tub, and the meal measured into it in such quantity that when all is mixed together a creamy consistency is obtained. A flat paddle is the best tool for mixing, and it should be kept quite clean. When more than one dry ingredient is used it is better to add each one separately to the slop and to stir it in well before putting in the next.

Unless each kind of food is well mixed in, the ration will not be balanced and some pigs may get too much of one ingredient and not enough of another. Particular care should be taken with highly concentrated stuff like fishmeal, which is used in a small quantity, and must therefore be very thoroughly incorporated. This can best be accomplished by putting it in first, adding the next smallest quantity of ingredient next, and keeping the largest to the last.

In mixing dry food it is better to reverse this process, the ingredient which forms the greater bulk of the mixture being first spread out thinly on an even floor. A thorough turning of the pile should be given as each ingredient is added, taking care that the shovel goes beyond the centre of the heap each time. Dry food cannot be turned too often, and one should not be satisfied until on picking up a handful one finds that it is impossible to do so without getting a proportion of each substance used without an excess of any. A flat-tined fork is a useful implement for mixing dry food, turning the heap first with this and then finishing off with the shovel.