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This litter is healthy and flourishing, but deaths among young piglets are far too common.

DISEASES OF THE FARROWING SOW

By A. W. WILLIAMS, B.V.Sc., Government Veterinary Surgeon

Some of the heaviest losses incurred by the pig industry are caused by diseases affecting sows just prior to, or immediately after, the birth of their litters. Most of the wastage is caused by the birth of dead or weakly piglets or the loss of litters due to the subsequent failure of the sows to provide an adequate milk supply.

Agalactia, or failure to produce milk, may be due to under-development of the mammary glands—a fault which may be hereditary—but in the majority of cases it is due to diseases such as milk fever (a deficiency disease) or mastitis and metritis which are caused by bacterial infections.

Prevention

Careful selection of breeding stock from sound, healthy strains; good housing and management, and adequate, well-balanced feeding can help to reduce farrowing losses.

During her period of pregnancy, the sow should receive ample supplies of protein-rich foods but should not be allowed to become grossly fat.

Supplementing the grain ration by grazing on good pasture is ideal as the animal can move around and maintain its muscular tone, while ensuring an adequate intake of nutritious food.

Ample supplies of clean water should be available at all times and the sties and farrowing pens should be cleaned and disinfected, prior to the birth of the litters.

Always remember that an animal which is well-fed and well-managed has a much better chance of resisting infection than one which is neglected.

Milk Fever

Most dairymen are familiar with the disease which is commonly termed "milk fever." It affects dairy cows fairly frequently and is also encountered in sows at, or immediately following, the birth of a litter.
The title is somewhat misleading as the disease does not produce a feverish condition—in fact the body temperature often drops below normal.

The correct term is parturient hypocalcaemia. “Parturient” refers to the act of giving birth and “hypocalcaemia” indicates a deficiency of calcium or lime.

This does not necessarily mean that there is an actual calcium deficiency in the animal’s diet. Milk fever is caused by a sudden drop in the level of calcium in the blood and an animal could be feeding on a calcium-rich diet and still suffer from hypocalcaemia if the complex processes governing the calcium supply to the bloodstream failed to operate effectively.

Milk secretion makes heavy demands upon the calcium salts in the bloodstream and when the blood calcium level is lowered the animal loses its appetite, and shows a loss of muscular control. It goes down and is unable to rise, lapses into a coma, and dies if treatment is not applied.

**Treatment.**

The standard remedy for milk fever in cows is to give an injection of calcium borogluconate either into a vein or under the skin.

A similar treatment is effective for sows using a subcutaneous injection of 1 oz. calcium borogluconate dissolved in 5 oz. (a quarter of a pint) of boiling water and allowed to cool to blood heat before injection. The insides of the thighs where the skin is fairly thin would be suitable injection sites.

Ready-prepared solutions which usually contain 2 1/2 oz. of calcium borogluconate are available and these are more convenient to use. A little more than a third of the solution is required to supply the equivalent of 1 oz.

In most cases, one injection is sufficient and recovery should occur in about three-quarters of an hour. If necessary another injection may be given six to eight hours later.

Where the calcium borogluconate injections fail to take effect, give a further injection of 1 oz. magnesium sulphate (Epsom salts) with 6 oz. of 50 per cent. glucose dissolved in half a pint of water.

Occasionally, a sow may show marked excitability instead of the usual comatose tendency. In such cases, an injection of 1/4 oz. magnesium sulphate and 1/4 oz. calcium borogluconate has been found satisfactory.

To avoid deaths from over-laying, the piglets should be taken away from the sow while she is suffering from milk fever. As milk fever often leads to constipation, a laxative such as a cup of molasses or some bran should be given to the sow on recovery.

**METRITIS**

*(Inflammation of the Uterus)*

While this condition can occur in sows of all ages, it is more common in maiden sows. It may follow a history of difficult farrowing or the birth of dead and putrid piglets.

It is caused by a bacterial infection of the womb, but not necessarily by one particular type of organism.

The symptoms observed in the sow are essentially similar to those found in milk fever with the exception that a higher temperature will usually be found in this condition.

A slight discharge of fluid containing pus may issue from the vagina.

Treatment with sodium sulphamezathine (33-1/3rd per cent. solution) at the rate of 3 ccs. per 15 lb. liveweight for the first day followed by 3 ccs. per 20 lb. liveweight for the next four days is perhaps the most satisfactory method for general use. Sulphamezathine is given by subcutaneous injection in the looser parts of the skin.

Sodium sulphamezathine for veterinary use is generally readily available from chemists and stock agents.

A less common type of metritis, which appears to be transmitted in breeding, may also occur. Little is known in regard to the cause and nature of this condition but it usually occurs in maiden sows or sows with large litters.

The first signs are usually seen about 12 hours after farrowing. Lactation ceases, the sow appears listless, has a staggering gait or she may be found down and unable to rise. As with the other type of metritis and also milk fever the animal...
may pass into a coma and subsequently die after a variable period. In this type of metritis a purulent discharge from the vagina is almost invariably present.

The piglets are usually normal when born, but owing to a lack of milk may not survive for any length of time.

Sulphamezathine injections have been found most unsatisfactory in the treatment of this type of metritis, but streptomycin and terramycin have been used successfully. However, the use of these drugs is restricted to veterinary surgeons so that veterinary attention is desirable in these cases.

Some immunity appears to develop in sows which have been affected with this condition, as it is unusual for recovered animals to develop the disease a second time.

**MASTITIS**

*(Inflammation of the Udder)*

This disease is due to an infection of the udder tissue and there are a number of organisms which may be responsible.

Most infections appear to come from external injuries, although cold, damp conditions or draughts may also predispose to the disease. The incidence appears to be highest in excessively fat animals.

The disease usually affects sows immediately after farrowing but may be delayed for 48 hours. The temperature is generally high (up to 106°) and the affected udder becomes grossly swollen, hot and painful. Reddening of the skin may be seen in white pigs.

The milk secretion is often dirty in colour with a “ropey” appearance or it may be very scanty or even absent.

Treatment with sulphamezathine, as recommended for metritis, is likely to be of value. Hot fomentations of the affected udder, when practical, should help to reduce the inflammation.

Unless treatment is successful, milk secretion may be lost from the affected glands. Where this does occur the sows are not likely to be of much value for breeding purposes and should be sold for slaughter.

Other types of mastitis occur where abscess formation with possible discharge on to the surface, will be observed. These types are due to other bacterial infections, e.g., tuberculosis, actinomycosis, etc., and will require veterinary assistance for diagnosis and treatment.

**HAND-REARING PIGLETS**

Sickness in newly-farrowed sows often leads to the death of the litter unless hand-feeding is practised.

If the piglets have been suckled by the sow for one day and received some colostrum or “first milk” they usually thrive on fresh undiluted cow’s milk as this is not greatly dissimilar in composition to their natural food. It should be fed at blood heat.

Where no colostrum has been available, substitutes such as a whisked-up egg or a tablespoonful of olive oil or, castor oil added to a quart of cows milk, have been recommended for the first day’s feeds, but their value is doubtful.

Milk is best given in a shallow dish. With a little perseverance in the early stages, the piglets will soon learn to drink. “Up-ending” them and dipping their noses in the milk will be found surprisingly effective. All vessels containing milk must be kept scrupulously clean by scalding them after each feed.

For the first week the piglets should be fed six times in each 24 hours but the number of feeds can then be decreased gradually until they receive three feeds daily at three weeks of age. At this time a supply of dry ground grain—four parts of grain to one part of meatmeal—should be available at all times, together with a supply of clean drinking water. If the piglets can be given access to a well-grassed run they will probably benefit by grazing also.

**Warmth is Important.**

More hand-reared piglets die from chills than are lost through incorrect feeding. Young pigs are very susceptible to cold and should be kept in warm, dry, draught-free quarters with plenty of litter and coverlets where necessary. Extra heat may be provided at night by brooder-lamps or hot-water bottles.
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In our tropical regions there is the additional hazard of Mastotermes which can exist only in certain areas. The P.M.G. Department have been carrying out tests in these areas for the past 12 months and are continuing and expanding these. To date they have been unable to find any instance of attack on this new type of plastic piping whereas they report cases of attack on all other types and even on lead conduits and concrete compositions.

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