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Health Quiz

NADIS Pig Health – December 2007

Shoulder sores in sows

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Ulceration of the skin over the point of the shoulder producing a “shoulder sore” is a common finding in indoor sows. It is regularly reported by NADIS veterinary surgeons attending pig farms. It represents not only a welfare problem in the individual but can be the cause of premature culling or even euthanasia.

Causes

Shoulder sores occur almost exclusively in the farrowing area but, once started, can continue in dry sow accommodation and there are a number of factors that can precipitate ulceration:-

- 1) **Protrusion of the point of the shoulder**, which is obviously related to the conformation of the animal. In sows which have suffered a previous deep ulcer, there may be a bony reaction, which itself produces a protruding lump which is then vulnerable to further damage.
- 2) **Loss of protective fat cushion**. Sows are generally very lean nowadays and the thickness of subcutaneous fat over the shoulder is low. As the sow lactates, this limited fat reserve can be burnt up, allowing the underlying bone to become more prominent and prone to damage. Nutrition of sow from the earliest stages as a maiden gilt – which will influence the starting point fat levels – through repeated pregnancy and lactation, is the key to maintaining fat cover and reducing the chances of ulceration.
- 3) **Physical abrasion due to floors**. Whilst many cases of shoulder sores are directly the result of rough abrasive floors, such as poor concrete or some metal slats – particularly those deliberately made rough to assist grip – ulceration can be a major problem on some floor types that would not be expected at first glance to be involved. This applies particularly to fully slatted moulded plastic flooring. The problem here seems to be the difficulty that the sow has in moving from the lying position to standing in that the slippery nature of the floor leads to considerable thrashing about as the back legs struggle to gain a grip. This might be exacerbated by the fact that many plastic floors are not firmly fixed to their supports and tend to “bounce”.

Other parts of the body, particularly the lower legs may become abraded as well (fig 3).



Fig 1: Typical shoulder ulceration



Fig 2: Protruding point of the shoulder arising from previous shoulder abrasion



Fig 3: Abrasion around the accessory digits can often accompany shoulder sores

Remedial Action

Once a sow shows signs of ulceration of the shoulder, immediate remedial action must be taken. Ideally, she should be removed from the crate to a loose box on deep straw and her litter cross-fostered. Alternatively, a protective pad can be stuck to the shoulder – thick carpet stuck on with Evostick is very effective and plenty of bedding added to the pen if possible. Antibiotic treatment may be appropriate along with analgesic anti-inflammatory medicines.

Consequences of not acting quickly can be:-

- a) Deeper ulceration leading to infection in the bone.
- b) Cannibalism by piglets, particularly above 3 weeks of age.
- c) Fly maggot infestation.

In all of these cases, this represents unacceptable welfare for the sow and may lead to euthanasia. Chronically affected sows are unsuitable for submission to slaughter and thus contribute to overall on farm sow mortality.

Prevention

To avoid the risk of shoulder sores, it is vital that sows start with and maintain sufficient body condition to act as a cushion over the shoulder. Nutritional advisors and veterinary surgeons can provide advice on how best to feed the sow throughout her life.

The sow must be fed as much as possible in the farrowing house – factors affecting nutrient intake will include:-

- 1) Specification of the diet
- 2) Palatability of the diet and pellet size
- 3) Frequency of feeding and levels offered
- 4) Room temperature
- 5) Water availability
- 6) Feed trough design

All should be reviewed.

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Fig 4: Knee abrasion in piglets also points towards rough floors

Where rough concrete is present at the front of the crate, it can be improved by a coating of self levelling compound or thin latex bonded screed. Concrete surfaces must be fully degreased and acid treated to remove lime before repairs are undertaken and therefore sufficient time between batches is necessary. Rough metal slats can be smoothed off with an angle grinder.

Fully slatted moulded plastic floors tend to improve with age but they must be fully secured to the base with strong cross supports to stop bowing and bouncing under the weight of a mature sow (250-300kg). To help the sow get up and down, safety matting – such as is used on floors in swimming pool changing rooms – laid across the back of the pen will help but will reduce the clearance of dung through the slats and risk hygiene related disease in the litter e.g. scour, joint ill. Conversely, failure to repair rough surfaces can additionally lead to abrasion of piglet feet and legs, again requiring treatment or euthanasia.

Costs

It is very difficult to put a cost of shoulder sores on a herd. Premature culling or on farm euthanasia leads to loss of the sow's value either as a breeding animal or for meat but in this case the costs to the animal in terms of its welfare are likely to exceed the economic costs.

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NADIS Health Bulletins are designed to improve farm income, animal health and welfare by promoting disease control and prevention.

Discuss how health planning can improve the profitability of your farm with your veterinary surgeon.

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