Sow Lameness: Being Aware and Taking Action

Yolande Seddon
Prairie Swine Centre, Box 21057, 2015 8th Street East, Saskatoon, Saskatchewan, S7H 5N9, Canada

Introduction
Sow lameness is a cause for concern as it compromises sow welfare, reduces sow productivity and longevity\(^1\), and ultimately reduces the efficiency and profitability of any sow herd. Lameness is one of the most common reasons for culling sows after reproductive failure\(^2\). Sow lameness is a problem that has always been within the industry, yet little is known about the prevalence and severity of sow lameness within herds. There is little recent information available on Canadian herds. Data on culled sows indicates that around 11% of sows are culled due to lameness, with a wide range among farms (0-39%)\(^3\). It is believed that the true prevalence of lameness is higher as it often remains undetected until the sow’s condition deteriorates. A detailed survey of one Canadian herd found that 60% of sows displayed an abnormal gait\(^4\).

Causes of Lameness
The causes of lameness are often multifactorial, which can make it a challenge to address and to treat individual cases with success. Common causes of lameness include: conditions affecting the structure of the joints (osteochondrosis, osteoarthritis, arthritis), conformation problems leading to weakness in the legs, injury and trauma (particularly from flooring), hoof lesions and osteomalacia (weakening of the bones, particularly after the mineral demands of lactation). Injury and trauma are believed to be major causes of lameness in sows, and may become a more significant problem as the industry moves to group housing, particularly with the widespread use of bedding free systems in Canada.

Being Aware
Knowledge of the extent of lameness within a herd is a first step to understanding the problem, from which solutions can be developed. Culling and mortality records are a useful start, but on-farm monitoring of sows is more important as it will contribute to earlier detection of lameness which is key to minimizing losses. Currently, the best method for practical on-farm monitoring of lameness is to observe sows as they walk. Timely, consistent observation of sows should become part of the regular management routine to detect locomotion problems as they develop. As a subjective method, staff should be given training to develop consistency, and using a simple scale (e.g. 0-3) can be easier.

Any time that sows are moved around the barn provides an opportunity to observe sow locomotion. Observing sows moving from gestation into farrowing is believed to be a useful time, as lameness may become more pronounced as the sow is heavier. Further observation as the sow is moved to breeding is also beneficial to detect any problems which have developed in farrowing, and indicate the need for review of the sow prior to breeding. Group housing of sows provides plenty of opportunity to observe sows’ locomotion throughout gestation. Close observation of sows after mixing should be performed to ensure no lameness has developed from injury after fighting. Records of sow
locomotion score and injury should be kept, similar to production records, and these can help to show patterns in lameness development within the herd.

**Taking Action**

Lame sows need to be dealt with quickly to ensure sow welfare and to minimise production losses. Culling is likely the only option for severely lame sows. Milder cases may be worth treating; followed by culling if the sow does not respond. Research is sparse on effective treatments for lame sows. Treatment is also made difficult as it can be hard to determine the cause of lameness in each case. Thus, where lameness problems exist, investigation with the herd vet should be performed to try and determine the most common causes, helping to characterise symptoms and tailor treatments.

Providing lame sows with two doses of a non-steroidal anti-inflammatory, a rubber mat and a corrective hoof trim to restore hoof confirmation at eight weeks gestation was able to significantly reduce the number of sows showing lameness, and the severity of lameness observed in sows. However, the cost-benefit of any treatment methods and the continued longevity of the sow in the herd need to be investigated. Certainly, to help improve the chances of lame sows recovering, those that are not coping in the home environment should be removed to a hospital pen. Providing a cushioned surface (sawdust, straw or rubber matting properly secured) can help alleviate pressure on the legs of the sow.

Problems developing early-on in young animals suggests a need to review management of replacement gilts (nutrition, handling, flooring, genetics, selection criteria). Good flooring is essential to prevent injury at all stages of production. Where poor flooring is believed to be a contributing factor, in the long term the poor quality flooring (such as slatted floor with inappropriate gap width), needs to be replaced. To help alleviate problems occurring with group housed animals, refraining from mixing animals on the poor quality flooring can help to reduce injury. Instead provide the animals with a solid footing for mixing, preferably bedded, and move to the gestation pen two to three days later.

**References**