



# A Practical Approach to Early Intervention to Reduce Sow Mortality: SOP

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## Objective:

The objective of this standard operating procedure is to improve early detection of at-risk sows by evaluating health and lameness concerns to improve treatment outcomes and reduce overall sow mortality. When this evaluation method was implemented in a commercial sow facility, annualized sow mortality was reduced by 4.25%. This reduction in mortality is equivalent to 50 dollars per sow or two dollars per weaned pig savings.

## Requirements:

Identification of at-risk sows is preferentially done while walking the barn during the feeding process, sweeping feed into troughs, and doing barn checks. This procedure requires two individuals for completion. Completion of follow up treatment, of sows that have been identified as at risk, should take one hour per day for one person, after the sows have been flagged for further evaluation and treatment. These time equivalents may vary based on herd size and number of barns or rooms being evaluated.

## Procedure for sows in gestation stalls that are fed once a day:

1. Examination of each individual sow should be done first thing in the morning.
2. Turn on feeders to the entire barn.
  - » Once this is done, the staff will have about 30 minutes to evaluate all the sows and flag the ones that need further evaluation.
3. Two person teams should begin walking the barn with one person in front of the sow and one person behind the sow.
4. Sequentially walk all stalls in a snake like fashion to visually evaluate every sow.
5. The person walking at the head of the sow should observe the following:
  - » Did the sow get up and is eating the feed present in the trough.
    - i. Any sow that does NOT get up should be flagged for further evaluation
  - » Are there any lesions present on the front half of the sow?
  - » Is there any swelling or redness present at joints, including knee and pastern joints?
  - » While standing, is the sow reluctant to evenly distribute weight on front legs?
  - » Are there any signs of respiratory distress or “thumping.”
  - » Does that sow appear to be feverish?
6. The person walking at the rear of the sow should observe the following:
  - » If standing, is the sow reluctant to evenly distribute weight on hind legs?
  - » Are there any signs of toe tapping?
  - » Is there any redness or swelling present on hock or ankle joints.
  - » Are there any lesions present on the rear half of the sow.
  - » Examine vulva region for normal anatomy and clear of discharge, bleeding, swelling, external lesions.
7. If a sow is determined to not be eating or another ailment as described above is observed, this sow should be marked for further evaluation and possible treatment.
8. To mark a sow needing further evaluation, caretaker should use a uniquely colored card to record the sow’s ID and specific reason the sow is being marked.
  - » They can also be flagged by hanging a ribbon or some other visual marker.
9. The card should then be hung above the sow’s crate for further evaluation at a later point in the day.
10. After all sows are observed, go back to those who were marked.
11. Based on farm SOP treatment chart, provided by the herd veterinarian, appropriately treat marked sows based on observed symptoms.
12. Repeat this procedure daily. Consistency is key for this program to be successful.

## Procedure for sows in group housed gestation pens:

1. Examination of each individual sow should be done first thing in the morning.
2. Turn on feeders to the entire barn.
  - » Once this is done, the staff will have about 30 minutes to evaluate all the sows and flag the ones that need further evaluation.
3. Depending on the design of the facility, two to four man teams should begin walking through each group pen. At a minimum, this should be done with two person teams.
4. Sequentially walk through all pens to visually evaluate every sow.
5. Each person walking pens should observe the following:
  - » Is the sow eating the feed present in the trough.
  - » Are there any lesions present on the sow.
  - » Is there any swelling or redness present at joints, including knee, hock, ankle and pastern joints.
  - » Is the sow laying or standing.
    - i. If sows are laying down in pen, gently get them up in order to further evaluate.
    - ii. If a sow is laying down while all the sows are up and eating, this female should be flagged (mark with a small spot or mark on the head) for further evaluation.
    - iii. If standing, is the sow reluctant to evenly distribute weight on front or hind legs.
    - iv. Are there any signs of toe tapping.
  - » Are there any signs of respiratory distress or “thumping.”
  - » Does that sow appear to be feverish.
  - » Examine vulva region for normal anatomy and clear of discharge, bleeding, swelling, external lesions.
  - » Examine the vulva for biting. If the bite is not scabbed over, consider treatment.
6. If a sow is determined to not be eating or has another ailment as described above, this sow should be marked for further evaluation.
7. To mark a sow needing further evaluation, caretaker should use a uniquely colored card to record the sow’s ID and specific reason the sow is being marked.
  - » Female should be flagged with a marking such as a small spot or mark on the head.
8. The card should then be hung at the sow’s pen for further evaluation at a later point in the day.
9. After all sows are observed, go back to those pens where individual sows were marked for further observation.
10. Based on farm SOP treatment chart, provided by the herd veterinarian, appropriately treat marked sows based on observed symptoms.
11. Repeat this procedure daily. Consistency is key for this program to be successful.

## Additional considerations:

1. It can be beneficial to involve your veterinarian or senior production personnel during the first week in order to help the barn staff identify the at-risk sows.
2. It can be difficult to interpret off feed events shortly after weaning and around the time of breeding when the female is in estrus. During this time, gilts are often off feed more than sows.
3. Gilts and sows that have difficulty getting up may suffer from front leg lameness, even if they may not easily show it.

## Resources:

1. Breed-to-wean mortality economic modeling tool: <https://www.extension.iastate.edu/agdm/livestock/html/b1-79.html>
2. Video presentation explaining the process and the results: <https://youtu.be/e2Hoqf6GKqo>