



# Breeding Sow Mortality and Euthanasia

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For a long time, the mortality and euthanasia rate of breeding females recorded in a sow barn was around 5%. But since the arrival of more prolific animals, this average has doubled to almost 10%, or more in some herds. What are the causes?

## PROLAPSE

Prolapse (collapse of the rectum, vagina and/or uterus) is the leading cause of increased mortality and euthanasia on a farm. In some operations, it is even responsible for up to 25 to 50% of deaths and euthanasia.

## SERIOUS INJURIES AND LAMENESS

Serious injuries and lameness also lead to a significant number of euthanasia. It is true that lameness has always been occurring, mainly due to arthritis; so it is not a new phenomenon. Paradoxically, the adoption of animal welfare guidelines which lead to sows gestating in groups might cause some sows to experience more fighting and hierarchical competition. Euthanasia then becomes the only alternative to a sow unable to meet the requirements for transportation to the slaughterhouse.

This is why, in order to avoid causing trauma to animal limbs, facilities should be inspected regularly to ensure neither bolts, nor parts come out of the wall or the floor. The recommended gap widths between slats of flooring must be respected and well-designed floors should be kept as dry as possible, while ensuring that ventilation and heating are adequate at all times.

## THERMAL STRESS

In the summertime, during lasting heat waves, some breeding sows die due to heat stress, a phenomenon observed more often in late gestation and at farrowing. Incidentally in Québec, the 2018 summer was particularly stressful. To get more details and recommendations regarding this phenomenon, please read the following article: Les canicules estivales (Summer heat waves), Le Courrier CIPO, Volume 20, N° 1, April 2016.

## GASTRIC ULCERS

In some herds, gastric ulcers may be common. At an advanced stage, they are revealed by bleedings, a disturbed appetite and paleness of the skin and vulva, which is a sign of anemia. Eventually, the sow will die. Where do gastric ulcers come from? Grain size (granulometry), fibre content and the Vitamin E : Selenium ratio in the ingested feed might be the cause. If the problem persists for many sows, it is suggested to consult with the feed sales representative in order to investigate and make the required corrections.

## TORSION OF THE STOMACH

A death caused by torsion of the stomach, liver and/or spleen is often provoked by overexcited animals intaking water and/or feed too quickly as a result of excessively long periods of deprivation. This is why, in order to prevent a break down in the feeding or watering system resulting in an extended deprivation, it is well advised to plan ahead and keep replacement parts on hand to resolve the issue as soon as possible.

## RENAL INFECTIONS

Extended inadequate water intake and/or poor water quality, will lead to poor cleaning of the urinary tract. Thus, it will promote infections (e.g. cystitis = bladder inflammation / nephritis or pyelonephritis = kidney disease + urinary tract infection).

Usually, the first signs of an infection are expressed through very dark urine with a cloudy appearance. To get more details regarding recommendations, please read the following article: L'abreuvement (Watering), Le Courrier CIPQ, Volume 19, N° 3, October 2015.

It is also possible for urinary infections to occur as a result of a poorly cleaned environment, where the sows sit or lie down. So, a dirty floor can sometimes promote the entry of faecal bacteria through the urinary tract up to the bladder and the kidneys. Regular scraping is a simple measure that reduces the risk of possible infections.

“ Better understanding the causes of sow mortality can help producers effectively manage their operations. ”

## VARIOUS DISEASES

Of course, some diseases can have a devastating impact on a herd. We can think of Porcine Reproductive and Respiratory Syndrome (PRRS), or diarrhea like ileitis which, uncontrolled, will lead to death, mainly in gilts. Sometimes when an animal's immune system is already weakened, an episode of influenza or mycoplasma may cause death following pneumonia. Finally, even though they might only be isolated cases, we also encounter septicemia (blood infection) and metritis or endometritis (inflammation in the uterus).

## DYSTOCIA

One can define dystocia as a difficult farrowing resulting from either a maternal anomaly or fetal anomaly. We often only think of the sow with large piglets who does not get assistance and dies from exhaustion after several hours of contractions. Mummified piglets spending many days in the uterus of the mother can cause septicemia and the death of the sow. How to calculate costs associated with the death of a sow? The cost of a dead sow depends on when her death occurs. The later the death occurs in the gestation period, the greater

the loss of money will be as the sow has been fed and housed for several days, without being able to benefit from the sale of piglets. This loss of money cannot be recovered since, like the dead piglets, the carcass will not bring back any income. Incidentally, a premature death in the herd has to be considered since it modifies statistics by increasing the average non-productive days of the herd. To this already long list of losses, labour costs have to be added for euthanasia if necessary, removal from the pen and building, transport to the rendering facility, the rendering costs and finally the cost of a replacement gilt. It is therefore undeniable that premature mortalities are very detrimental to the net income of a swine business.

## Conclusion

Animal mortality and euthanasia on the farm will certainly always be part of the reality of the swine business.

However, it is also true that the negative impact of this reality can be reduced by maintaining a diligent and thorough surveillance.

It is worth reminding swine producers that regular and watchful monitoring rounds can turn what may seem like a waste of time into a profitable investment.

*Translated by Canadian Centre for Swine Improvement with permission from CIPQ. The original article in French is available at [http://www.cipq.com/documents/\\_LeCourrier\\_automne2019.pdf](http://www.cipq.com/documents/_LeCourrier_automne2019.pdf)*

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