

Winter Care of Piglets

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The Zimbabwean winter months from June to August are mostly characterised by warm, dry days and extremely low temperatures (down to less than 20°C) at night. It is vital that pig farmers prepare for this drastic change in weather way before the onset of the winter season. This is especially true for small-scale farmers whose pigs are frequently kept outside or in inadequately heated shelters.

It has been noted that often at times a lot of attention and focus is directed at minimising heat stress in pigs as they lack sweat glands whilst the management of piglets during colder periods is neglected. It is widely believed that pigs are quite tolerant to colder conditions compared to other animal species as they have a thick layer of fat underneath their skin. However, the lack of fur especially in young piglets makes them more susceptible to cold conditions. This means that extra supply of warmth is imperative.

COLD STRESS

Cold stress is experienced when the pig's core temperature falls below the thermoneutral zone (TNZ). The TNZ is an environmental temperature range that allows the pig to prioritise feed nutrients for building meat or reproductive tissues. In this range the pig will be able to maintain its normal body temperature.

The young piglet is born wet, hairless and with very low energy reserves. Without warmth the piglets will become lethargic, less competitive and more prone to starvation, disease and death. It is therefore essential that sufficient and complementary, if necessary, heat sources should be provided for the piglets.



Extreme cold conditions have many detrimental effects on the piglet. These include;

- Health problems which arise as a result of damp and moist conditions within the pig housing;

- Lower growth rates;
- Poor pig performance; and
- High mortality rates.

Harmful results of chilling also include poor feed efficiency, loss of body fat, greater susceptibility to diseases such as scours and pneumonia, higher mortality and even an increase in tail biting. Investing in proper housing facilities can minimise the impact of cold stress in piglets. A farmer must be well informed and equipped to be able to fully understand the piglet behaviour indicating cold stress.

SIGNS OF COLD STRESS

1. Sleeping behaviour/ pattern - As a pig farmer, you must be cautious to the sleeping patterns and behaviour of the piglets. It is a sure way of assessing the thermal state of the pig housing. Huddling may be defined as a state where a pig is lying with more than half of its body in contact with another pig. The piglets may be lying on top of each other. When the piglets are huddling, lying with their feet tucked



beneath them is a sure sign of discomfort due to cold. The tucking in behaviour reduces the surface area of skin exposed to the cold.

2. Shivering - This is probably the easiest and simplest way to indicate cold stress in pigs. It is a muscular thermoregulatory behaviour which indicates cold stress in piglets. Shivering is usually a slow and irregular vibration of any body part, or of the body as a whole due to muscle activity in response to cold. The shivering is a metabolic response to attempt to increase the body's heat production. The piglets do this to adapt to the drop in environmental temperature. Visually examine the selected group of animals and estimate the percentage of pigs that are shivering. If the number of piglets showing shivering behaviour exceeds 20% the farmer should know that the temperatures are too cold for the piglets.

3. Sleeping in waste material - When cold, piglets tend to lie on faeces and urine as these provide a temporarily warm sleeping area. However, this exposes the young animals to diseases.

•Other signs to look out for include snorting/coughing and changes in skin colour.

HOW TO PREVENT COLD STRESS IN PIGLETS?

There are various strategies that the pig farmer can employ to minimise the impacts of cold weather in piglets and these include;

1. Provide adequate shelter - This will ensure that your piglets are protected from any abrupt drops in temperature. The buildings should be well ventilated and allowing dry air to circulate. All entry points for drafts should be closed or repaired. Avoid material made of steel, aluminium or concrete. For pigs that are housed outdoors, one must provide nesting and farrowing space in a shaded area because neonates are more susceptible to the cold weather compared to other young animals. Cheap sources of material such as plastic boards and plywood can be used as a covering

for the shelter for farmers using open pens. A hole can be made on the top and an infra-red lamp put through it.

2. Supply deep bedding - Bedding in the form of straw can be supplied to the piglets to minimise heat loss from their bodies. Make a deep layer with the hay or straw to provide better insulation to the piglets. Cheaper sources of bedding such as wood and shavings can be used as they are a more absorbent layer of insulation. Barley shavings, sand or old pieces of cloth can be used as extra bedding for the piglets if one has access to these. When supplying straw, be sure to avoid any type of bedding that may cause skin irritations to the young piglets. The bedding should be changed regularly when it gets soiled or wet.

3. Ensure adequate ventilation - The common misconception is that completely covering pig housing will help minimise heat loss. This is to some extent true although if mismanaged it can lead to microbial build up.

4. Provide extra heat sources - Keeping piglets warm is critical to maintaining health and achieving early growth. For very young, low-weight piglets up to three days old, there is also the threat of hypothermia. Temperatures of up to 34 degrees may be necessary to keep these vulnerable piglets alive. Farmers can use charcoal burners or infra-red lights. Infrared lamps are relatively cheap and widely available. As shown in the picture provided the lamp can be reinforced with a wire gauze to guard the bulb and prevent damage to it.

It is very essential that farmers prepare for the coldest time of the year in order to minimise losses from the impacts of cold stress as highlighted in this article as new-born piglets are extremely vulnerable and more susceptible to cold stress. Hence the farmer has to ensure that they provide a warm environment for the piglets so that they can perform optimally.



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