Managing colostrum production and intake for piglets

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Piglets are born without the necessary antibodies to flourish and are therefore dependent on the sow's colostrum to help them develop a strong immune system and consequently reduce pre-weaning mortality.

Colostrum also contains high concentrations of energy, protein and vitamin D that are essential for newborn piglets for normal development of vital organs and the immature digestive system.

The composition of colostrum changes rapidly in the several hours after farrowing until it resembles typical sow's milk after approximately 24 hours.

The ability of the piglet's gut to absorb the necessary immunoglobulins begins to reduce six hours after birth, and after 24 hours post-partum, the full benefits of these antibodies are no longer available to the piglets. For this reason, it is crucial to ensure that the piglets receive adequate quantities of high-quality colostrum as soon as possible after birth to obtain passive immunity for optimum health in their lifetimes.

Optimising colostrum production in sows

Colostrum production in sows is highly variable and can be influenced by multiple factors, such as nutrition, environment, mammary gland development, sow parity number and endocrine status. To ensure high colostrum and milk production in the sow and consequently high litter productivity, the following management principles may be applied:

Transition feeding: Proper feeding of the sow and maintenance of her body condition is critical to achieving high levels of productivity. Proper transition feeding provides the advantage of improved start-up of milk production in the sow, with the improved colostrum production also resulting in improved piglet vitality and survivability. The use of a well formulated transition diet will help improve the transition between the lower nutrient dense gestation diet to the higher nutrient dense lactation diet. It also reduces constipation around farrowing and reduces the risk of mastitis, metritis and agalactia (MMA), and udder congestion.

Stress and environmental management: Reduce stress on the sow before, during and after farrowing by ensuring that environmental conditions are optimal. The farrowing house should be kept at 21-23°C while the sows are farrowing, and humidity should not exceed 80%. Overheated sows will eat poorly and have low milk production. The sow should also be encouraged to remain lying down after farrowing so that the piglets will have free access to the udder.

Water: Ensure that sows have access to fresh drinking water at all times.

Check teats: Evaluate all teats to make sure that none are blocked, as unblocking one teat can provide another 150 millilitres of colostrum. Stripping and massaging can help unblock teats.

Managing colostrum intake in piglets

It is recommended that each piglet should receive a minimum of 40 millilitres of colostrum within the first five to seven hours after birth for optimum pre-weaning survivability and health in their lifetimes. To ensure adequate colostrum intake, the following methods can be utilised:

Supervise farrowing: The sow and piglets should be supervised during and immediately after farrowing, with the focus on the early establishment of piglets at the teats.

This should be done to make sure that the piglets receive sufficient colostrum, particularly during the first six hours of life before their ability to absorb antibodies starts to decline rapidly.

Ensure that the piglets are warm and dry as they suckle for the first time. Provide a 175-watt lamp behind the sow until the last piglet born is dry and nursing well.

Newborn piglets chill easily, and cold piglets will not suckle aggressively.

Batch farrowing: Batch management systems can be used with pigs of the same age, breed and health status to assist with the planning and implementation of stock worker su-

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Agri SA and SAPS committed to work together on rural safety


Photo: Bubbablue and me

The South African Police Service led by divisional commissioner of Visible Policing, lieutenant general MD Sempe, on 28 July 2020 met with the leadership of Agri SA to strengthen the working relations between the organisations. The meeting also aimed to address the challenges emanating from the ongoing implementation of the Revised National Rural Safety Strategy, Agri SA and the SAPD said in a joint media statement.

The National Rural Safety Strategy was initially implemented in 2011 and then reviewed during 2018 and 2019 after exhaustive consultation with stakeholders that included organised agriculture, farm workers unions and relevant government departments.

The minister of Police, General Bheki Cele, officiated at the launch of the reviewed National Rural Safety Strategy on 11 October 2019 in Limpopo, Makhado, where various stakeholders signed a pledge of commitment to rally behind the implementation of the strategy.

Agri SA, one of the key critical partners in the revised Rural Safety strategy, appreciated and thanked the police for the work done in this regard as well as for the opportunity to be a strategic role player in the development and implementation of the strategy. Both parties agreed that the effective implementation of the strategy should, however, be supported by the necessary resources. For this reason a task team was agreed upon to unpack the strategy and do a strategic analysis of resources required.

The organisations expressed their concerns regarding the ongoing farm attacks and general criminality affecting the citizens of the country.

Initiatives

Some of the proposed initiatives were:

- To increase visibility to curb farm attacks by both the police and farmers through the blue and white light patrols.
- To focus on an aggressive recruitment process of reservists.
- To initiate some changes on the reservist learning programme, which will encourage more farmers and farm workers to be part of the reservist system.
- This may include reducing the length of the learning programme.
- To ensure that all farm watches and neighbourhood structures operate within the framework of the law and policies at all times.
- A more concerted approach by all parties must be expended towards revitalising the rural safety committees at the lower levels and to ensure participation at the level of Provjoints and Natjoints priority committees
- To seek a long lasting solution to the challenge of illegal hunting with dogs.
- To this extent a joint working group was set up to deal with these issues.

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pervision of piglets during farrowing.

Synchronised farrowing: Synchronising agents can be used to ensure farrowing of multiple sows at the same time, but the use thereof needs careful consideration and should be discussed with a veterinarian.

Cross-fostering: Piglets can be divided between different sows with respect to their lactating capacity as soon as possible after farrowing, to ensure colostrum sharing and to accommodate large litters.

Split suckling: Litters can be split into groups according to piglet size and strength to ensure that smaller or weaker piglets have access to the colostrum they require first, without being constrained due to competition with larger piglets. Split suckling should be done in the first eight hours of life.

Suckling can be managed in alternating groups, depending on piglet size, with the smaller piglets suckling first for one to two hours, followed by the group of larger piglets. Piglets can be allowed to re-mix after both groups have suckled.

By optimising colostrum production in sows and intake in piglets, the long term health and productivity of the piglets will be improved and pre-weaning mortalities will be reduced.

**References are available upon request.*