Securing feed intake of lactating sows for better productivity

Certain formulation adjustments and new technologies can make a big difference to improve farm productivity.

The raising and management of lactating sows is a critical component of pig production, as sows are responsible for producing the next generation of pigs.

by Dr Stéphanie Ladirat, Research & Development Director, NUQO
nuqo.eu

The modernisation of pig farming, however, has led to new challenges in managing lactating sows, which require careful attention and proper care to ensure their health and productivity.

Modern farming of lactating sows presents several challenges for the pig industry, one of which is the need to secure feed intake of sows during the lactation phase.

Lactating sows require a high level of nutrition to support milk production and the growth of their piglets.

However, the physiological changes that occur during lactation can affect a sow's appetite and food intake, making it challenging to provide sufficient nutrients for both the sow and her piglets.

MODERN FARMING OF LACTATING SOWS

The first challenge in securing feed intake of lactating sows is the reduction of appetite that occurs during the early stages of lactation. Sows may experience a reduced appetite due to hormonal changes, the stress of farrowing, and the demands of lactation.

During lactation, sows require high levels of energy and protein to support milk production, and the feed must be highly digestible to ensure the sow can utilise the nutrients effectively.

Additionally, feed must be palatable to encourage sows to eat and meet their nutritional needs.

Sows may refuse to eat feed that is not palatable, leading to reduced feed intake and reduced milk production.

Lactating sows must produce enough milk to support the growth and development of their piglets.

If a sow's energy intake is insufficient, she will not produce enough milk, and her piglets will suffer from stunted growth or reduced survivability; or she will compensate too much by losing weight, which in the end leads to loss of body condition that can impact sow reproductive capacity and longevity in the long term.

Sows must be fed a balanced diet that provides sufficient energy, protein, and other essential nutrients to support both the sow and her piglets.

EMERGING TECHNOLOGIES SPECIFICALLY DESIGNED FOR LACTATING SOWS

Effective strategies to secure feed intake of lactating sows include providing a balanced diet and optimising feed quality and palatability. In addition to these strategies, proper management of the sow's environment can also play a role in securing feed intake.

New concepts have recently emerged to secure feed intake, reduce health problems, and improve animal welfare.

Recently, one innovative company has developed a new technology (NUQO), based on micro-granulation and the combination of different active ingredients:

- Ingredients work synergistically to create a unique taste to stimulate the appetite of sows and arouse interest.

Taste enhancers increase feed intake, as well as gut development, and gut maturation (Moran, 2020), and in return better feed efficiency.

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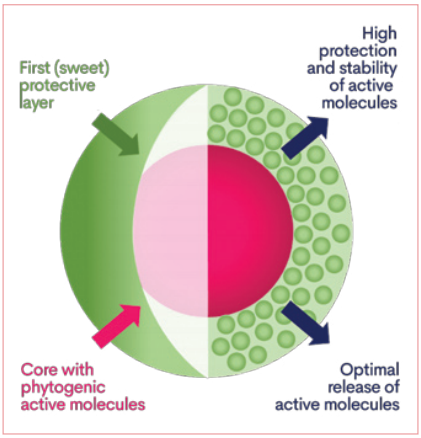
Fig. 1. An all-in-one technology.



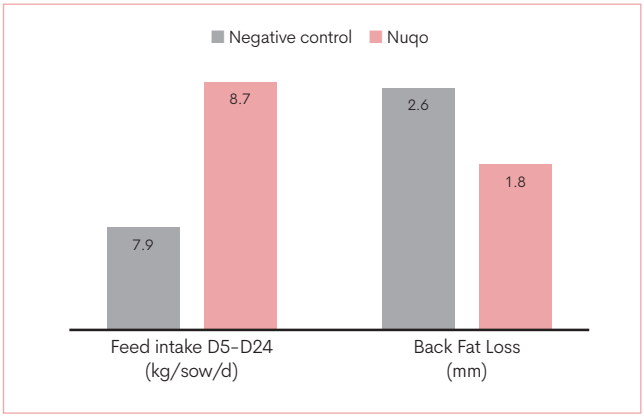


Fig. 2. Sow performance.

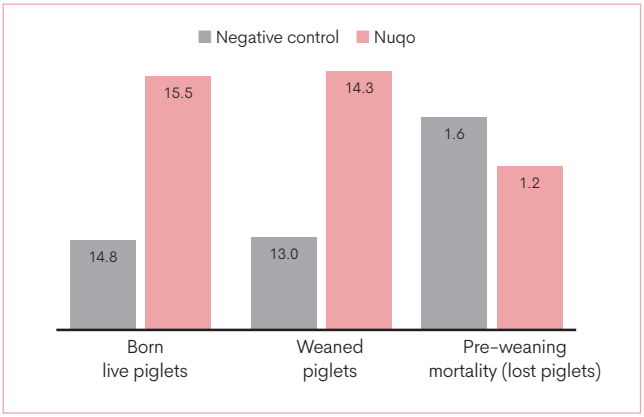


Fig. 3. Progeny data.

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Besides phytogenic supports intestinal health, reduces inflammation, and indirectly promotes feed consumption (Liu, 2013).

• The exclusive micro-granulation technology guarantees the stability and the targeted release of active molecules.

The manufacturing technology and the double-layer structure play a key role in protecting active molecules and secure and optimal dispersion in feed.

In parallel, this advanced technology leads to the high concentration of actives and therefore a more cost-effective application. (See Fig. 1).

RESEARCH SHOWS POSITIVE IMPACT FOR SOWS AND PROGENY

Several field trials have been conducted to validate the effect of this technology during the lactation period. A trial was set recently in Spain to evaluate the efficacy of this technology in the diet to support sows' performance.

Two groups of sows of mixed parities, were allocated to two treatments one group with a basal diet (Negative Control: NC) and a second group with the inclusion of this new technology (NUQO: NQ), at 200g/ton.

The sow feed intake and sow body condition (back fat loss) were evaluated between the entry of the sow into the farrowing room and at day 24 of lactation.

The number of live-born piglets and the number of weaned piglets were recorded at farrowing and weaning, respectively.

The average daily feed intake increased substantially for the sows of the second group during late gestation and lactation (+0.8kg/sow/day). In addition, the sows from the second group lost less backfat than the sows in the control group (0.8mm less).

These results indicate that thanks to a higher feed intake during the lactation period, the sows had a better body condition at the end of lactation when fed with the new technology. (See Fig. 2).

Regarding sow performance, the sows from the NQ group had a higher number of weaned piglets.This is partly because the control sows (NC) had fewer live-born piglets and partly because of lower pre-weaning mortality in the NQ group (-0.4 piglets).

The lower pre-weaning mortality may be explained by the higher feed intake and, therefore, higher milk production of the sows of the NQ group. All this data points toward the importance of feeding with the right technology to the sow to improve their feed intake, their body condition and ultimately their performance. (See Fig. 3).

BETTER FEED INTAKE DURING LACTATION FOR BETTER PRODUCTIVITY

In conclusion, securing the feed intake of lactating sows is a critical component of modern pig farming. Lactating sows require a balanced diet that is highly digestible and palatable to support milk production and the growth of their piglets over several cycles.

Effective strategies to secure feed intake include offering smaller, more frequent meals, optimising feed quality and palatability, providing a comfortable and clean environment, and ensuring access to fresh, clean water.

By addressing these challenges, producers can ensure the health and productivity of lactating sows and their piglets, leading to a more sustainable and profitable pig farming industry.

Emerging technology fed to sows during late gestation and lactation improved their feed intake and their body condition.

It also reduced piglet pre-weaning mortality.

It is essential to maximise sow productivity and prepare her for the next reproduction cycle.

References are available from the author on request