

Higher parity sows eat less but require higher nutrient levels

Higher parity sows play an important role in a balanced parity structure. They have achieved their break even point and any production over operating expense is profit. To help older sows continue performing, feed consumption should be monitored and the composition may need to be adjusted.

Older sows eat less

Research at the Purina Animal Nutrition Center in Gray Summit, Missouri, USA, shows that sows in their seventh or higher parity consume less feed than younger sows.

"We measure daily lactation feed intake on every sow every day in our 200 sow unit," Brenda de Rodas, director of swine research at the Purina Animal Nutrition Center, told International Pig Topics.

"We full-feed all sows, measure the feed we provide them and then measure the feed they did not consume daily."

The researchers compiled feed consumption data from 2004-2010 and compared feed intake by season of year, parity and litter size.

All age groups typically consume less feed as temperatures increase, but the biggest difference they saw was in feed consumption by parity. Parity 1, the gilts, consistently had the lowest feed intake, because they

have less capacity for consumption. Parities 3 and 4 were the sows with the highest feed intake. The parity 7+ sows were the second lowest in feed intake.

Decreased consumption

Because overfeeding and over-conditioning of sows during gestation can lead to decreased voluntary feed consumption during lactation, producers often restrict the feed of older sows during gestation to prevent over-conditioning – as over-conditioning can lead to lameness and poor reproductive performance.

"When we adjust the amount of feed to maintain BCS, we may also need to adjust the ration for nutrients," added Jon Bergstrom, senior technical support manager for DSM Nutritional Products.

"Often, higher parity sows are limit-fed based on energy alone. This can cause vitamin and mineral inadequacies – because, when the older sows are eating less feed, they are also consuming fewer vitamins and minerals per unit of metabolic bodyweight unless the ration is adjusted."

Research shared by DSM using PIC data shows a decrease in vitamin and mineral consumption per unit of bodyweight for older sows if the ration is not adjusted.

The researchers estimated that

third parity sows consume approximately 27% fewer vitamins and minerals per unit of bodyweight, and parity 5 sows consume up to 43% fewer vitamins and minerals than parity 1 sows.

"If you restrict feed for energy over the lifetime of the sow, the amount of vitamins and trace minerals consumed per pound of bodyweight decreases significantly over time," added Jon.

"Additional vitamins are especially important in higher parity sows because their litter sizes and birthweights typically trend higher. We can help sows receive the nutrients they require by feeding more vitamin and mineral dense rations to sows who consume less feed."

Vitamin dense rations

Research conducted at the IRTA Monogastric Nutrition Unit in Spain from 2011-2012 underscores the

importance of optimum vitamin nutrition on sow and litter performance.

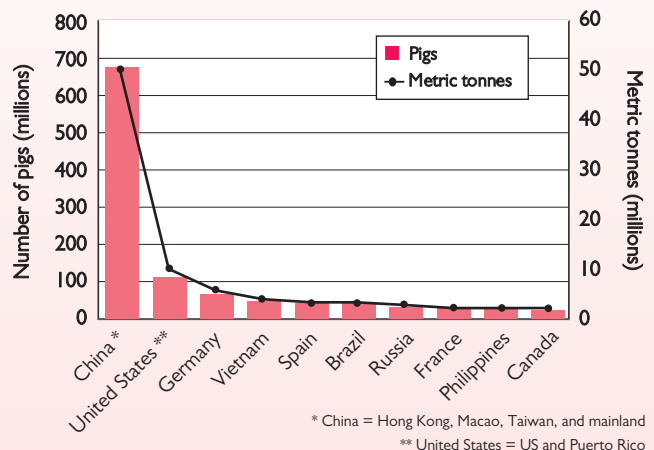
As compared to sows supplemented with a vitamin pre-mix to provide the average industry levels of vitamins, sows supplemented with higher vitamin levels:

- Lost only 2lb compared to 13.6lb for the control group during lactation.
- Experienced a 5.3 day wean-to-oestrus interval as compared to 8.5 days for the control group.
- Weaned a greater number of pigs per litter: 10.9 versus 10.2.
- Weaned heavier pigs: 17.2lb versus 16.7lb.

Providing vitamin levels above industry standards can help sows and their litters perform. All sows need high quality vitamins; they are essential for life. Providing more vitamin-dense rations may help higher parity sows consume the nutrients they require and better reach performance targets. ■

Graphically speaking ...

The graph below shows the top 10 global producers of pigs and pig meat in 2012, ranging from China with nearly 680 million pigs and over 50 million tonnes, to Canada with 21.3 million pigs and just under two million tonnes. Source: The Food and Agricultural Organisation of the United Nations (FAOSTAT).





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