

Field trial in breeder sows shows real benefits in the Philippines

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From March to May 2007, a trial was carried out at PFM Agro Corp. Farm, in Rosario, Batangas, the Philippines. Betamint, Invesa's oral solution against heat stress, was administered to both breeding and lactating sows to improve conception rate and subsequent performance regarding weaned piglets of high genetic value during a period of high environmental temperature.

PFM Agro Corp. Farm is a PIC multiplier farm with 1,700 sows, comprising 300 sows as the genetic nucleus and 2 x 700 commercial sows. The farm is managed through the Pigcom software system that provides a weekly management report.

Summer time in the Philippines lasts from March to May, temperatures normally vary around 30-39°C and relative humidity is usually around 80-88%. Buildings are open-sided and additional ventilation is provided through electric fans.

However, during these months productivity usually decreases due to heat stress. The study was done on 288 productive females of the nucleus herd.

Betamint was administered in the breeding period, for three days

	Week 20: May 2007	Average 2000-2006
Conception rate (%)	85.2	75
Farrowing rate (%)	82.8	70
No. piglets born alive/litter	10.7	9.7
Weaning weight/piglet (kg)	8.2	7

Table 1. Results obtained in week 20: 20th May 2007.

before AI and for three days after AI, and the lactation period, for three days before farrowing and during all lactation (average 28.9 days), at a dose of 1ml per one litre of drinking water. Besides Betamint, no other changes or treatments were applied in the farm for that period.

The product was poured on and mixed in 200 litre water tanks. Each building had two medicating tanks that were filled twice a day, early in the morning and at midday.

Normal water pipes were closed when water tanks containing Betamint were opened. Treated water lasted for at least 12 hours.

Improving reproduction

The results presented in Table 1 were obtained at week 20 on the 20th May 2007.

Comparison of the figures was made with the average data obtained in the same week from the year 2000 to the year 2006.

Results showed that it was the

best week regarding performance.

The conception rate and the farrowing rate improved by at least 10%. There was one more weaned piglet per litter with an improved weaning weight of more than 1 kg.

On the other hand, the number of underweight piglets (700g) decreased up to 0.0118%, while the normal rate used to be 0.0209%. It was the lowest rate ever recorded and the improvement was 100%.

Regarding the weekly services, the number of repeats decreased compared to the same period in 2000-2006 (Fig. 1).

The number of piglets born alive also increased compared to the same period in 2000-2006 (Fig. 2).

At the same time, on another farm, Betamint was administered at a dose of 1.0ml/litre water to pregnant sows, starting three days before farrowing and for three more days after farrowing.

The incidence of MMA syndrome was almost nil. For some weeks there was no MMA record in the weekly report. So the routine use of NSAID + antibiotic (treatment used

for MMA) was no longer necessary. Milk production increased and all teats were suckled.

Conclusions

Regarding productivity parameters, Betamint improved the average number of piglets born and weaned per sow per year, improved weaning weight as well as decreased the number of underweight piglets.

This is probably due to the fact that, besides decreasing the stress level, Betamint administered during lactation improved sows' body condition consequently increasing milk production with a better piglet survival rate.

Farrowing is a very stressful period for females and immunity can be negatively affected, so that some diseases occur in the following days.

In lactating sows given the product around delivery, the incidence of MMA syndrome decreased, probably because by increasing water intake Betamint boosted feed consumption and thus improved overall sow condition.

During the breeding period, dietary conditions are essential to succeed and stress can result in reproductive failure. The administration of Betamint three days before and after breeding showed the best reproductive performance of the last seven years.

Fig. 1. The number of repeat weekly services decreased.

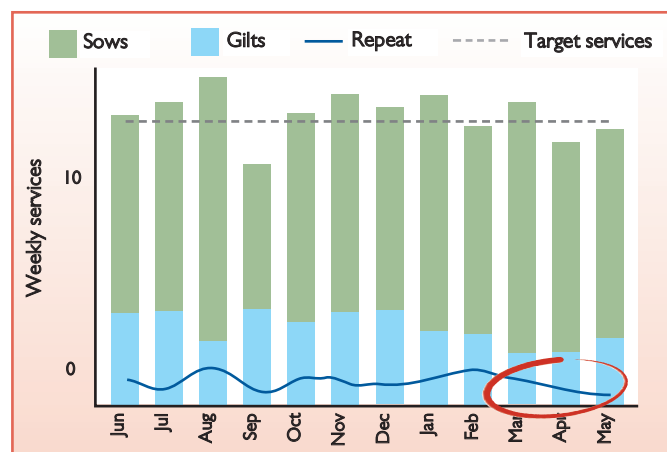


Fig. 2. The number of piglets born alive increased.

