

## EFFECTS OF BIOTINE SUPPLEMENTATION ON THE REPRODUCTIVE FUNCTION OF MOTHER SOWS.

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PREMISES

The work has been carried out in NANTA, Ltd.'s Experimental Station in its pig-production section, which has a unit of 120 reproducing sows in closed cycle, with a nursery made up of two nucleus:

1. Nucleus A). - Formed by pure Large White sows and Landrace males. It is a multiplication unit.
2. Nucleus B). - Formed by hybrid females - the product of the Large White nucleus crossed with English Landrace boars and hybrid males. This is a production unit.

Both in the control group and the biotine -- group, the food was the same, only differentiated by the addition or not of biotine, in a dose of 0,2 ppm.

The feeding plan is the following:

Food S-5A, S-50A, S-51A (without biotine)  
Treatment A.

Food S-5B, S-50B, S-51B (with biotine) -  
Treatment B.

Three types of food were used for feeding the sows:

- 1.S-51: Suppling during pregnancy up to 6 days before farrowing.
- 2.S-50: Administering from 6 days before up to 6 days after farrowing.
- 3.S-5: Supplying during lactation.

The experiment lasted for 547 days, and the -- results began to be analyzed 114 days after the start of supplementation, with wich all the sows in the biotine group received the -- amount during pregnancy.

The total number of farrows was 283, of which 145 corresponded to the control group and 138 to the biotine group.

RESULTS

The continous addition of biotine in foods - for breeders did not cause stadistically significant differences in any of the parameters used; however there is a tendency favourable to supplementation in relation with the - - : control group in those parameters related to reproduction. This impression is based in the fact that in the biotine group there was a - 9.2% reduction in the number of stillborn - piglets, as well as a greater number of piglets born live and preserved after 24 hours of life

As a continuation of the experiment, the --- results of reproduction obtained by sows -- were controlled without biotine -- supplementation, progeny of the sows in the supplemented group, in relation with the -- progeny of the controlled group and 29 from the biotine group were analysed for 673 days;

the results obtained do not show the existence of significant differences between both groups.

- 1.The weaning first mating interval (WMI)
- 2.The mating-mating interval (MMI) of the sows again on heats.
- 3.The weaning-mating of fertile animals interval (WMFI) and the number of sows included in each of these intervals.

CONCLUSIONS

The results of this experiment confirm the - data obtained by other authors regarding the beneficial affect oa a biotine addition an the viability of piglets. This favourable effect is shown constantly, in the rest of the parameters analysed, although they are not statistically significant. In the results obtained by progeny of the initial groups these favourable differences are not confirmed.

In any case, mention must be made of the -- : important dispersion of results existing in the experiment, due, probably, to the fact that completely health animals were used, - without any apparent biotine defidiency.

The differences obtained between the groups used do not allow us to affirm absolutely - that there exists a deficiency in these vitamins in the animals subjected to intensive exploitation diets, and therefore deprived of any source of biotine other than their food. However, we consider that there exist tendencies whichwould justify carrying out work - to confirm or not these tendencies.