EFFECT OF PROGRAMS OF CONTROL OF *Haemophilus parasuis* and *Streptococcus suis* ON PIGS, DIARY OF PIGS AND ALIMENTARY CONVERSION.

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**Introduction**

*Haemophilus parasuis*, ocasiona poliosisitis, poliartritis, meningitis, septicemia and pneumonia in pigs, the latter which has been converted into a growing problem in modern pig production (1). This disease generates important economical losses in the swine industry (2), increasing the mortality in pigs in the early stages and the pigs of high quality (3). *Streptococcus suis* type 2 is an important pathogenic agent that causes a significant number of clinical signs in pigs, and the most relevant is meningitis, as it afflicts the cerebral endothelial cells (4). The objective of the current work was to evaluate 3 programs for the control of these agents and their impact on final weight in the grower (Kg), gain in weight per day (GDP) and alimentary conversion (CA).

**Material and Method**

In a production farm established in three sites, located in the Sureste of Mexico, a problem was diagnosed related to *Haemophilus parasuis* and *Streptococcus suis*; where the effects were evident in pigs of 7 days of age, as well as in pigs of older age in the weaning stage.

For the realization of this work, 3 programs were conformed.

**Group 1:** Piglets born by non-bacterized sows in gestation with a bacterization for control of *H. parasuis* and *S. suis* (total 3,324).

**Group 2:** Piglets born by non-bacterized sows in gestation and treatment with *Tulatromicina* at a dose of 2.5 mg/Kg per day at 70 days of age. (total 3,349)

**Group 3:** Piglets born by non-bacterized sows in gestation and treatment with *Tulatromicina* at a dose of 2.5 mg/Kg per day at 70 days of age and the same sows that received 2 doses of a Bacterization to pigs of 49 and 63 days of age. (total 3,238)

The pigs from different programs, were kept for 145 days of age on average, in order to evaluate their growth at the end of the stage.

The gain in weight per day was obtained from the difference in the weight in kilograms at the end of the stage minus the weight in kilograms at the beginning of the stage, between the days of stay that they stayed in the grower.

The conversion of the alimentary was obtained from the ratio of the consumed total kilograms of feed to the kilograms of weight gain.

The results obtained were subjected to an analysis of variance (ANOVA) in order to determine the statistical differences of the treatments.

**Result**

**Table 1.**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Final Weight</th>
<th>±</th>
<th>GDP</th>
<th>±</th>
<th>CA</th>
<th>±</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>107. ± 2.30</td>
<td></td>
<td>0.939 ± 0.025</td>
<td>1.7 ± 0.100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>102. ± 2.96</td>
<td></td>
<td>0.948 ± 0.024</td>
<td>1.7 ± 0.063</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td>107. ± 3.09</td>
<td></td>
<td>0.952 ± 0.039</td>
<td>1.7 ± 0.075</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Differences among columns indicate significant statistical differences (P<0.05).

The program conformed by the group 3 and the treatment program by the group 1 showed a similar behavior in the final weight; there was observed a difference of significant magnitude (P<0.01) in comparison with the treatment of the group 2.

The program conformed by the group 3 showed a significant difference in comparison (P<0.01) with the gain in weight per day (GDP) compared with the group of treatment 1 and the group treatment 2.

No were observed differences in statistical magnitude (P>0.05) with respect to the conversion alimentary (CA) in any of the three programs.

**Discussion**

The program of control for *Streptococcus suis* and *Haemophilus parasuis* that presented the best results was where the non-bacterized sows in gestation were treated with bacterization, independently of the treatment received. These results coincide with those of Martín de la Fuente who suggest that the immune system protects against the disease.

**Conclusion**

The program of quality 3 showed a better productive performance in comparison with the group of pigs born in the treatment program 1 and the treatment program 2.

**Bibliography**

1. Lichtensteiger C.A et al 2003, Veterinary Microbiology, Volume 33, Issue 1, pages 79-87
2. Del Rio M. L. et al 2005. FEMS Immunology and Medical Microbiology, Volume 45, Issues 1, pages 75-86