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Influence of farrowing number on prolificacy and lactating performance in Iberian pig farms

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Abstract. Productivity of sows depends on farrowing number. Swine producers need to know how their sows produce to make decisions on culling and replacement besides cross-fostering strategies in their farms. Producers need benchmarks to compare their farm performances. There are few reproduction performance parameters about Iberian pigs. A total of 8 farms and 3400 sows providing data in a routine have been included in this first study summarizing 2009 results. Data were imported from different software brands, standardized and merged in a single data base, from which the analysis was performed using Pigchamp© software, obtaining performances according to farrowing number. Sows of 3rd and 5th farrows are the most prolific (8,2 born alive piglets) and sows of 3rd farrow wean more (7,2 weaned piglets); while sows of 1st, 2nd and ≥7th farrows produce less born alive piglets than average and 1st and ≥6th farrows wean less piglets than average. Hence 6th farrow should be considered to cull the majority of sows.

Keywords. Iberian pig – Productivity – Farrowing.

Influence du numéro de mise-bas sur la prolificité et le nombre de sevrés dans des fermes de porc Ibérique

Résumé. *La productivité de la truie dépend de son numéro de cycle ou mise-bas. Les producteurs de viande porcine ont besoin de savoir quelle est la production de leurs truies pour la prise de décisions concernant l'abattage et le renouvellement, et pour les stratégies de cession et d'adoption de cochons de lait dans leurs fermes. Les producteurs ont besoin de paramètres ("benchmarks") avec lesquels ils puissent comparer le rendement de leurs fermes. Aujourd'hui il n'y a pas beaucoup d'information sur les paramètres reproductifs du porc Ibérique. Dans ce travail on analyse les résultats de 2009 pour un total de 8 fermes et 3.400 truies incluses dans une routine de recueil et d'analyse de données. Ces données ont été importées de différents logiciels de gestion, elles ont été standardisées et consolidées dans une base de données qui a été analysée avec le logiciel Pigchamp© de gestion de fermes porcines, pour obtenir les rendements selon le numéro de mise-bas. Les truies en 3^{e} et 5^{e} mises-bas sont les plus prolifiques (8,2 cochons nés vivants) et celles en 3^{e} mise-bas sont celles qui ont sevré le plus d'animaux (7,2 cochons sevrés); tandis que les truies en 1^{e}, 2^{e} et ≥7^{e} mises-bas ont moins de cochons nés vivants que la moyenne, et celles des 1^{e} et ≥6^{e} mises-bas sèvrent moins de cochons que la moyenne. C'est pourquoi la 6^{e} mise-bas devrait être considérée comme le moment de l´abattage pour la plupart des truies.*

Mots-clés. *Porc Ibérique – Productivité – Portée.*

I – Introduction

Technical efficiency of the production is very important for cost control. As an industry, swine producers need to collect production data to use these to make decisions on their farms. Producers need benchmarks to compare their farm performances. Iberian pig is a non improved rustic breed and there is a lack of reproduction performance parameters about it. The aim of this paper is to provide a first structured batch of the productivity pattern according to the farrowing number as tool for benchmarking.

II – Materials and methods

1. Animals

A total of 8 farms and 3400 Iberian breed sows were studied.

2. Measures and analysis

This first study summarizes the production results of 2009. Data were imported from different software data bases, uniformed and merged in a single data base in order to analyze it with the Pigchamp© software.

III – Results and discussion

Reproductive performance of this pig breed is much lower than other modern pig lines; this would be explained by the physiological differences of the Iberian breed.

The total number of piglets born and born alive is very short (7.8 born alive and 6% of still born), besides preweaning mortality is not particularly low (9.7 %), resulting only 6.8 weaned piglets (Table 1).

Table 1. Distribution of farrowing number and productivity for the Iberian breed

Farrowing number	1	2	3	4	5	6	≥7	Average
Census (%)	15	20	16	14	15	7	12	-
Piglets born alive	7.1	7.5	8.2	8.1	8.2	8.1	7.7	7.8
Still born (%)	6	6	4	4	5	8	8	6
Weaned piglets	6.5	6.9	7.2	7.0	6.9	6.5	6.2	6.8
Dead piglets	1.3	1.2	1.3	1.2	1.4	1.6	1.3	1.0
Dead piglets (%)	17.3	12.7	11.0	19.3	10.5	14.0	7.6	10.6

The census distribution lacks of a higher per cent of primiparous as it is recommended (only 15 % of the census); hence replacement gilts were included in a lower percentage to the proper needs.

Prolificacy curves show a similar pattern compared to modern breeds. So sows of 3rd and 5th farrows are the most prolific (8.2 born alive piglets) and sows of 3rd farrow wean more (7.2 weaned piglets); while sows of 1st, 2nd and ≥7th farrows produce less born alive piglets than average and 1st and ≥6th farrows wean the same number of piglets but less than average.

IV – Conclusions

These results show an overall different reproductive performance with other breeds; however the Iberian breed follow a similar productivity pattern according to the farrowing number. As 6th farrowing sows wean as first farrowing sows, the 5^{th} or 6^{th} farrows should be considered to cull the majority of sows.

The knowledge derived from this data should be used to compare farms and to establish objectives of reproduction performance.