

# EVOLUTION OF SOW PRODUCTIVITY IN LAST TEN YEARS IN AMERICAN AND IN EUROPEAN SWINE HERDS

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## INTRODUCTION

Improvements in sow productivity have been described progressively in last years in many countries. Producing 30 pigs weaned per sow per year is now within the reach of many progressive pig units in Europe, North- and South-America. Genetic selection has been the key driver of increased sow productivity, but also improvements in housing, management and a more exhaustive analysis of data have been important.

In this sense, current swine production is everyday more linked to a proper analysis and monitoring to maintain competitiveness. Despite of the fact that every farm has to improve taking into account its own results, in many cases general standards can be useful to set a quick reference in order to help to define farm objectives and to compare performances through benchmarking processes.

The objective of this study was to analyse the evolution of sow productivity data in the last 10 years in swine herds from Spain, Portugal, Italy, Brazil, Mexico and Colombia.

## MATERIALS AND METHODS

A total of 2,163,916 farrowing records during 10 years (2003 to 2012).

165 Farms were included from

- SPAIN (about 60,000 sows)
- PORTUGAL (about 12,000 sows)
- ITALY (about 6,000 sows)
- BRAZIL (about 10,000 sows)
- MEXICO (about 5,000 sows)
- COLOMBIA (about 8,000 sows)

Monitored by PigCHAMP Pro Europa and registered with PigCHAMP® software

### Data collected

- Total born per farrowing (TB)
- Born alive (BA) & stillborn (SB)
- Farrowing rate (FR)
- Litter and piglet birth weights (only in farms where these factors were recorded)

Data were analysed as repeated measures using the MIXED procedure of SAS (v. 9.00).

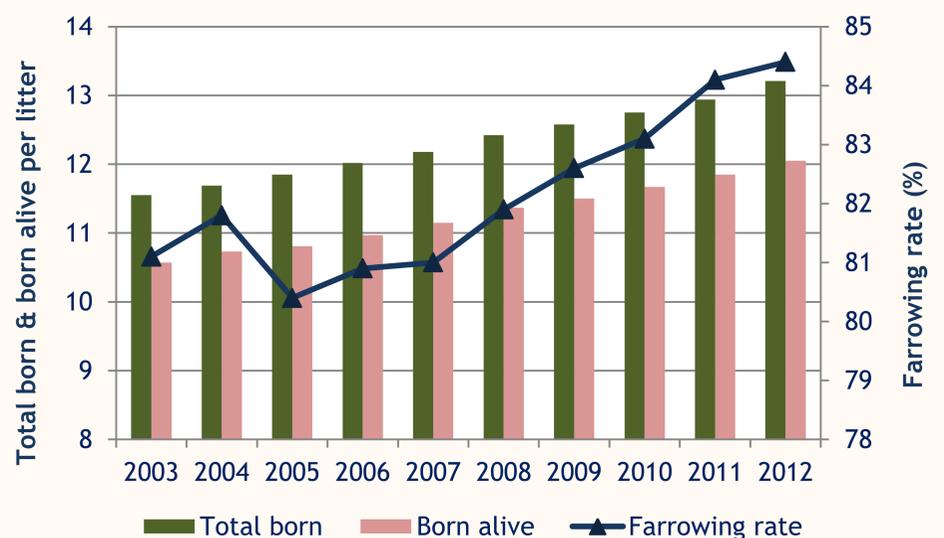
## RESULTS

### ✓ REPRODUCTIVE PERFORMANCE

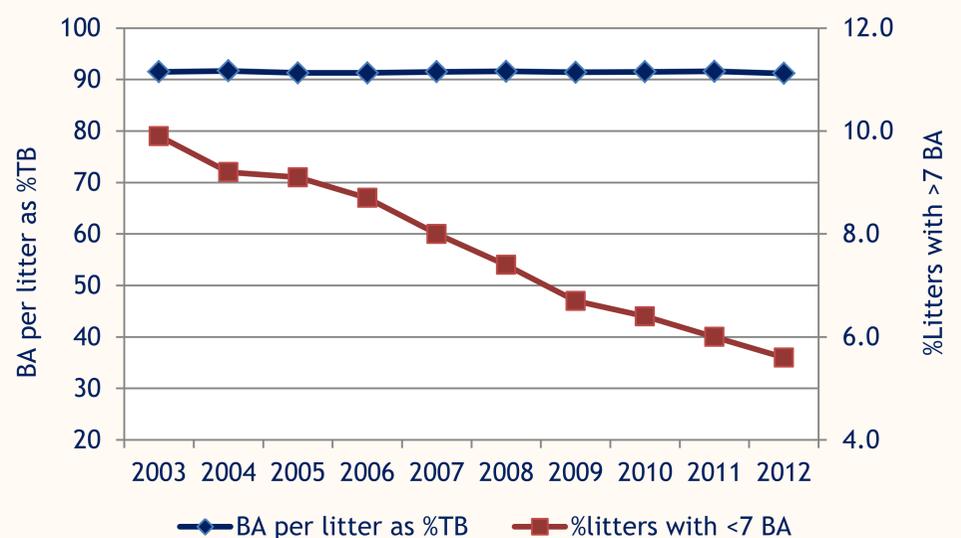
All variables evaluated showed an increasing evolution with time (P time < 0.05) (figure 1) and also have been observed:

- The ratio BA:TB has been kept constant
- A pronounced decrease of litters with less than 7 BA, becoming about 59% lower in 10 years (9.9% to 5.6%) (figure 2)
- SB slightly decreased with time (P<0.10) while the % mummified increased considerably (about 79%) since 2008
- An increase in litter weight has been observed (P<0.05), but mean individual birth BW did not differ with time.

**Figure 1-** Total born and born alive per litter and litter and farrowing rate evolution in 2003-2012



**Figure 2-** Born alive (BA) per litter as percentage of total born (TB) and % litters with less than 7 BA evolutions in 2003-2012



## CONCLUSION

Improvement in sow productivity in last 10 years is clear in all countries analyzed. Number of TB and BA has increased linearly, especially due to the marked decrease of sows with small litters.

Consequently, litter weight at birth is also higher nowadays, but individual BW of newborns has been kept constant.