

## Medication costs in French pig farms: Evolution and herd typology

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### Introduction

The reduce of medication costs is a major challenge to optimize production costs and to reduce antibiotic use (1). The medication costs from the French technical-economic database allow an annual monitoring of the use of antibiotics and other drugs (2). The herds characteristics links with the drugs levels can be also studies.

### Materials and Methods

The evolution of medication costs over the last 10 years (2002-2012) in French pig farms was analysed. Medication costs collected in the national technical-economic database (GTE) were analysed in two types of herds: farrow-to-finish herds (n>1475 farms) and fattening herds (n>349 farms). The total medication costs and sub-categories were considered:

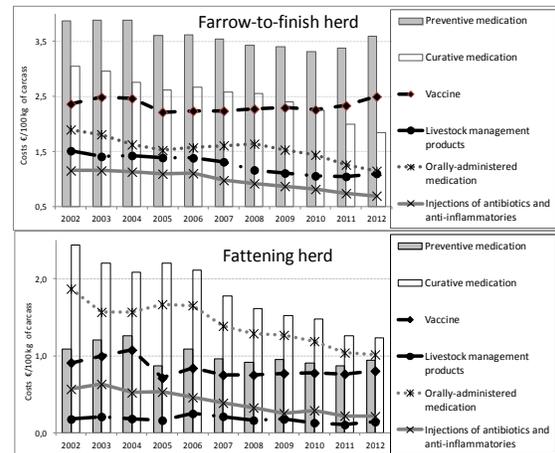
- Preventive = vaccine + livestock management product;
- Curative = orally-administered medication + antibiotic and anti-inflammatory injection.

A herd typology with an ascendant hierarchic classification based on the medication costs in 2012 was also done to analyze the impact of some farm characteristics and technical and economic results from the GTE (area, farm size, sow productivity, standardized margin, etc.).

### Results

In farrow-to-finish herds ( figure 1), the total medication costs decreased significantly by 1.2 €/100 kg of carcass (-18%) between 2002 and 2012, in relation to the decrease in orally-administered medication (-0.75 €/100 kg of carcass, -39%), in antibiotic and anti-inflammatory injections (- 0.46 €/100kg of carcass, -40%) and also in livestock management products (-0.41 €/100 kg of carcass, -27%). During the same period vaccination costs increased (+0.14 €/100kg of carcass, +6%). Over those 10 years, the levels of curative medication decreased by 40% (-1.21 €/100 kg of carcass) and were lower than that of preventive medication.

Medication costs for fattening herds also decreased significantly by 0.95 €/100 kg of carcass (-29%) between 2002 and 2012, in relation to the decrease of orally-administered medication (-0.85 €/100kg of carcass, -46%) and antibiotic and anti-inflammatory injections (- 0.35 €/100 kg of carcass, -62 %). However, livestock management products and vaccines remained stable. Over the 10 years, the level of curative medication decreased by 50%.



**Figure 1.** Evolution of medication costs in farrow-to-finish and fattening herds

Herd typology identified four groups of farms with quite significant profiles of medication costs. The influence of the geographical area, the impact of farm size and the relationship between levels of medication costs and some technical and economic criteria were shown in farrow-to-finish herds. Age at weaning, home-mixed feed, number of batches, the purchase of gilts or self renewal and growth performances (ADG and FCR) are not significantly associated with medications costs. In fattening herds only the geographical area was linked to medication costs.

### Conclusion

The decrease in health costs, associated with a decrease in the use of curative treatments and an increased use of vaccines, meets the expectations of society. This is due to improvements in the health status of farms, linked to connection with the development of vaccinations and the awareness of the need to reduce antibiotic use.

### Acknowledgments

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### References

1. EcoAntibio 2017 Plan, 2012.
2. Corrége et al., 2013. J. Rech. Porcine, 44, 55-60