

# Sow factors affecting colostrum quantity

Declerck I., Dewulf J., Piepers S., Decaluwé R., Maes D  
Department of Obstetrics, Reproduction and Herd Health  
Faculty of Veterinary Medicine, Ghent University, Belgium  
[lse.declerck@ugent.be](mailto:lse.declerck@ugent.be)

## Introduction

Colostrum yield insufficient in 30% of the sows

Huge variation in colostrum yield between sows within and between herds (1)

Aim: sow and litter factors determining colostrum yield across 10 different commercial herds

## Materials and Methods

### Animals & experimental design

- Farmers voluntary to participate
- 10 commercial farms
- 100 sows of 5 different breeds, Pietrain sperm
- 1 455 live born piglets
- Measurement: colostrum intake (2)

### Statistics

- Linear mixed regression model backward modelling
- Herd as random factor
- Sow (breed, parity, gestation length)
- Litter (size, average birth weight, heterogeneity, interval between birth and first suckling)

## Results and Discussion

Variable	Slope	SE	LSM	P for overall effect
Intercept	5,656	1,034	...	<0.001
Gestation length, d				0.026
113	-2 895	1 599	4 233 <sup>a</sup>	
114-115	-3 040	1 110	3 374 <sup>a</sup>	
116	Ref.	...	3 807	
Interval between birth and first suckling, min	-11	3.66	...	0.004
Litter weight, kg	-74	52	...	0.229
GL * LW <sub>s</sub>				0.031
113	188	91	...	
114-115	148	58	...	
116	Ref.	...	...	

Sows with a gestation length had a higher colostrum yield than sows with a gestation length of 114-115 days

Interaction between the litter birth weight of suckling piglets and gestation length

A shorter interval between birth and first suckling of the litter related with higher colostrum yield

## Conclusions

The interval between birth and first suckling is a major factor determining colostrum yield

Further research to elucidate the observed significant influence of gestation length (per se) &

(combined with the effect of the) litter birth weight of the suckling piglets

## References

- 1) Decaluwé et al., (2013). *Animal* 7(12), 1999-2007
- 2) Deviliers et al. (2004). *Animal Science* 78, 305-313