

Variation in sow and piglet performance in organic production - influences of herd and sire breed

Anna Wallenbeck¹, Karolina Thorell¹ and Maria Alarik²

¹Swedish University of Agricultural Sciences, Department of Animal Breeding and genetics

²Swedish Rural Economy and Agricultural Societies

Anna.Wallenbeck@slu.se

Different production environments - the same breeds



Swedish conventional



Organic

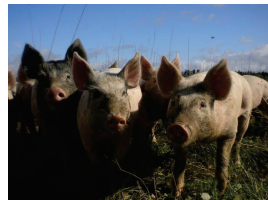
How does 'conventional' breeds suit organic production environments?
Breeding strategy – how to use the available breeds in the best way.

Animal welfare in organic pig production - influence of sire breed?

Research project

Divided into two sub studies:

1. Piglet production – focus on piglet/litter vitality
2. Growing/finishing pig production – focus on leg health

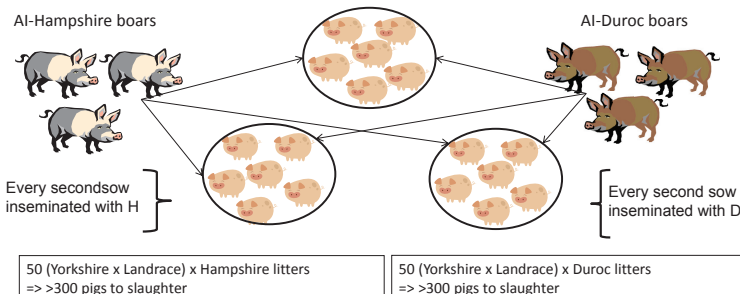


Aim of sub study 1, piglet production:

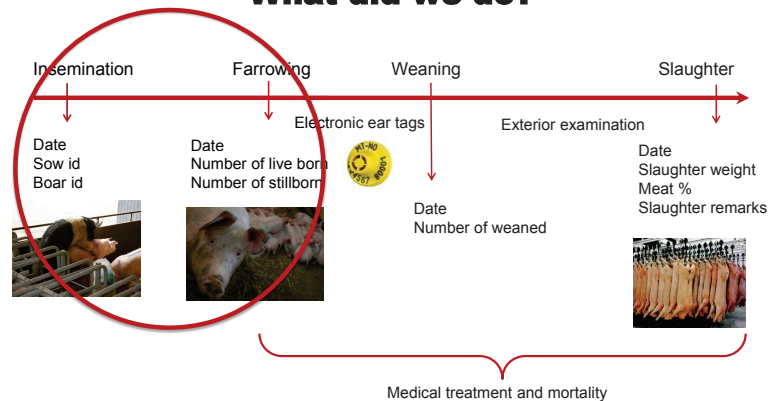
Investigate effect of piglet sire breed and herd on gestation length, litter size and still birth in organic herds.



What did we do?



What did we do?



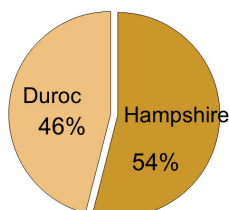
What did we analyse?

75 sows farrowed February to May 2012 in 3 organically certified herds

Gestation length, number of live born, number of still born, total number of born

Statistical analyse: SAS GLM

- Fixed effects: sire breed, herd, parity, month of insemination
- Continuous covariate: total number of piglets born



What did we find?

LSM	Hampshire	Duroc	p
Gestation length (days)	114.2	116.2	*
Number of piglets born alive	13.9	14.1	N.S.
Number of piglets still born	1.4	1.2	N.S.
Percentage of piglets still born in the litter (%)	7.7	6.6	N.S.
Total number of piglet born	13.5	15.2	†

**Larger litters and longer gestation with Duroc sires
-> Sire breed effect sow and infant piglet performance**

What did we find?

LSM	Herd (p)
Gestation length (days)	N.S.
Number of piglets born alive	N.S.
Number of piglets still born	N.S.
Percentage of piglets still born in the litter (%)	N.S.
Total number of piglet born	*

Differences between herds in total number of piglets born

Conclusion

Sire breed influence sow and piglet performance in organic pig production

Next step

Impact on piglet survival, growing finishing pig health and performance?

GxE between breed and herds?



Thank you for your attention!

Anna.Wallenbeck@slu.se