



55th Annual Meeting of the EAAP

Opportunities for increasing sow productivity in Slovenia

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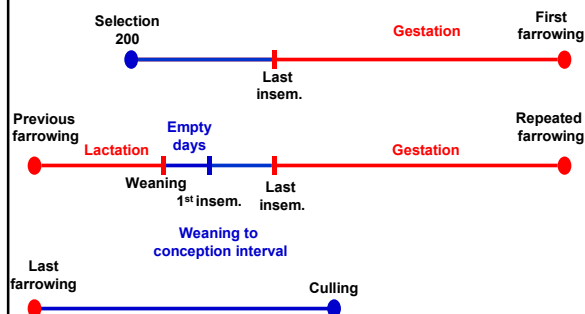


Introduction

- Efficiency of pig production
 - Number of piglets/sow/year
 - Litter size
 - Female days
 - Length of reproductive cycle
 - Gestation (≈115 days)
 - Lactation (21- 28 days)
 - Weaning to conception interval (WCI)



Female days



Goals

Feasibility for:

- ↓ reproduction cycle
- ↑ litter size
- ↓ female days per piglet



Material and methods

- Litter records (1994 - 2003)
- Four Slovenian farms
- Model

$$y_{ijklmno} = \mu + G_i + S_j + B_k + P_l + W_m + b_{1l}(x_{ijklmno} - \bar{x}) + b_{2l}(x_{ijklmno} - \bar{x})^2 + b_3(z_{ijklmno} - \bar{z}) + \varepsilon_{ijklmno}$$



Results

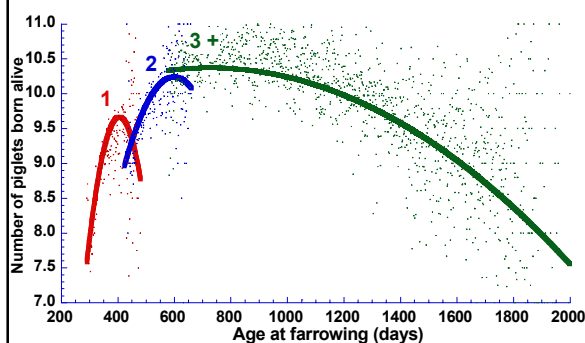
- Explained variability – 9.5 to 10.4%
 - Genotype – crossbred > purebred (0.35 to 0.63 piglets per litter more)
 - Season – structural changes, climate
 - Boar – boar's fertility



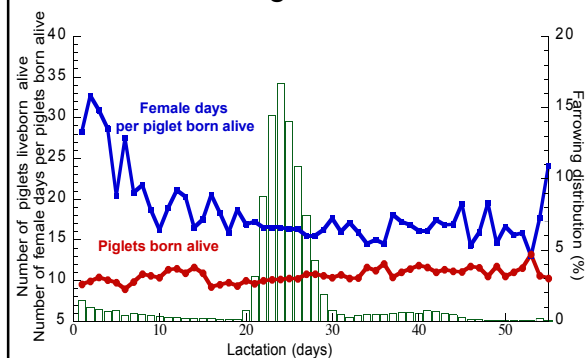
- Parity & age at farrowing -connected
- Weaning to conception interval – delay of estrus (6 – 10 days)
- Lactation – prolonged increase litter size



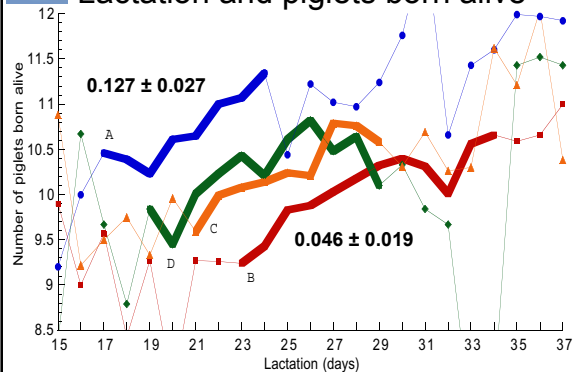
Age at farrowing and litter size



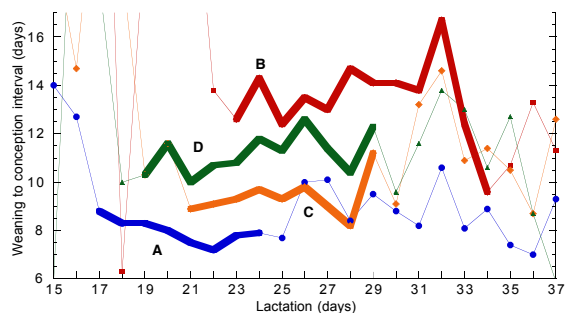
Lactation length distribution



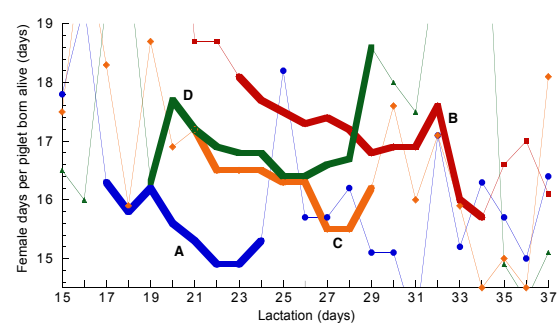
Lactation and piglets born alive

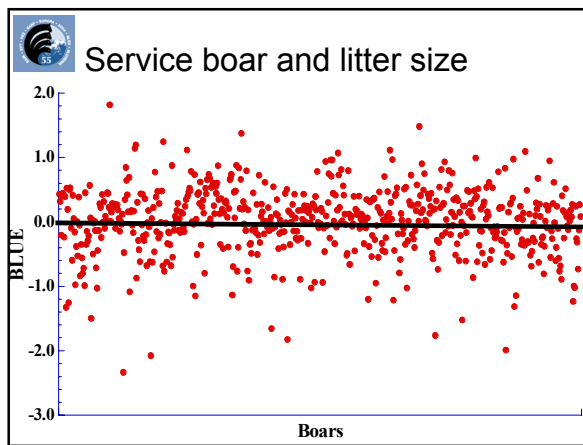
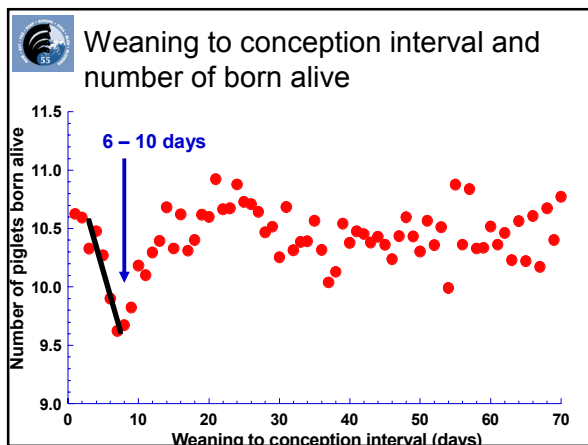


Lactation and weaning to conception interval



Lactation and female days per piglet born alive





Owner	Age at 1 st farrowing	Empty days	Piglets born alive	Female days/piglet	Liveborn/ sow/year	Weaned/ sow/year
A	351.4	9.2	12.03	14.6	26.0	23.2
B	352.6	9.0	11.55	14.7	25.9	23.4
C	330.7	8.6	10.94	15.4	25.6	22.1
D	447.6	14.6	10.04	24.6	13.1	10.7
E	391.8	16.9	9.54	23.2	14.7	11.4
F	414.4	20.6	9.44	28.4	12.8	6.9

