

# NURSE SOWS FOR SUPERNUMEROUS PIGLETS

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### Background

Nurse sows save piglets born in large litters. Large litters exceeding the number of teats in the sow are still readily supported with colostrum due to a continuous milk letdown during farrowing. After farrowing the sow can only nurse one piglet per teat as lactation changes into milk bouts.

According to EU regulations, piglets must nurse the sow for at least 28 (21) days. We investigated the optimal procedures to make nurse sows.

### Materials and Methods

Supernumerous piglets were randomised to different nurse sow treatments to answer questions concerning nurse sows. End products were piglet survival and weaning weight per piglet.

TABLE 1. EFFECT OF PARITY OF THE SOW

Nurse	1 <sup>st</sup> parity	2 <sup>nd</sup> parity
No. sows/piglets	15/158	15/158
Weight at start, kg	1.9	1.9
Survival, %	88	71
Weaning weight, kg	7.3	7.7

First parity nurse sows tended to give higher survival but lower weaning weight.

TABLE 2. COMPARING ONE- AND A TWO-STEP NURSE SOWS

Nurse	1-step nurse	2-step nurse
No. sows/piglets	10/110	10/100
Weight at start, kg	1.5	1.5
Survival, %	82 <sup>a</sup>	94 <sup>b</sup>
Weaning weight, kg	5.5 <sup>a</sup>	6.4 <sup>b</sup>

Two step nurse sows gave higher survival and weaning weight.

TABLE 3. EFFECT OF BEING A NURSE PIGLET

Piglets allocated to	Own mother	2-step nurse
No. sows/piglets	201/220	10/110
Weight at start, kg	1.5	1.5
Survival, %	94	94
Weaning weight, kg	6.3	6.4

Staying at own mother or transferred to a two-step nurse did not affect survival nor weaning weight

TABLE 4. EFFECT OF TREATING THE NURSE SOW WITH OXYTOCIN

Nurse	Not treated	Oxytocin
No. sows/piglets	20/216	20/216
Weight at start, kg	1.8	1.8
Survival, %	91	88
Weaning weight, kg	6.5	6.4

Treating nurse sows with oxytocin tended to lower piglet survival.

TABLE 5. EFFECT OF TRANSFERRING THE NURSE SOW TO THE SECTION OF THE PIGLETS

Nurse	Not moved	Moved to piglets
No. sows/piglets	10/103	10/102
Weight at start, kg	1.8	1.8
Survival, %	80	82
Weaning weight, kg	6.0 <sup>a</sup>	5.6 <sup>b</sup>

Transferring the nurse sow to the section of the nurse piglets (segregation) reduced weaning weights.

TABLES 6 AND 7. EFFECT ON THE FOLLOWING LITTER OF THE SOW BEING A NURSE SOW

Group	Control	New litter after 21 days
No. sows	116	58
Farrowing rate	92 <sup>a</sup>	83 <sup>b</sup>
Total born piglets	15.1 <sup>a</sup>	17.1 <sup>b</sup>

Given a new litter after 21 nursing days reduced farrowing rate but increased litter size in the following gestation.

Group	Control	New litter after 7 days
No. sows	38	19
Farrowing rate	100	94
Total born piglets	13.9	14.2

Given a new litter after 7 nursing days did not affect farrowing rate nor litter size in the following gestation.

### Conclusion

1. The best nurse sow is a young two-step nurse sow that stays in her own pen.
2. Being a nurse piglet does not affect productivity.
3. Being a 2<sup>nd</sup> step nurse sow does not affect productivity.
4. Being a 1<sup>st</sup> step nurse sow will increase litter size but reduce farrowing rate in next parity.

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