

Developing a group housing system for lactating sows and their litters

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Background

- Group housing during gestation mandatory in EU
- Welfare concerns for crated lactating sows

→ Renewed interest in group housing for lactating sows?



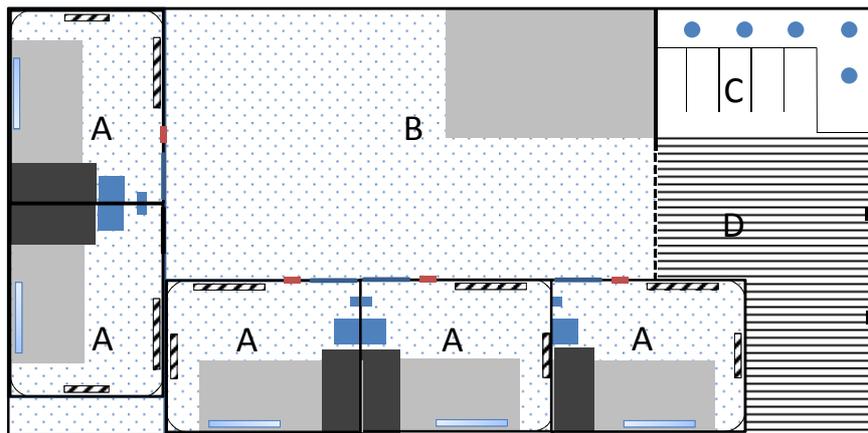
Group housing during lactation

(Van Nieuwamerongen et al. 2014, review)

- + Expression of natural behaviour
- + More complex physical/social environment
- Disrupted nursing
- Increased piglet mortality after grouping

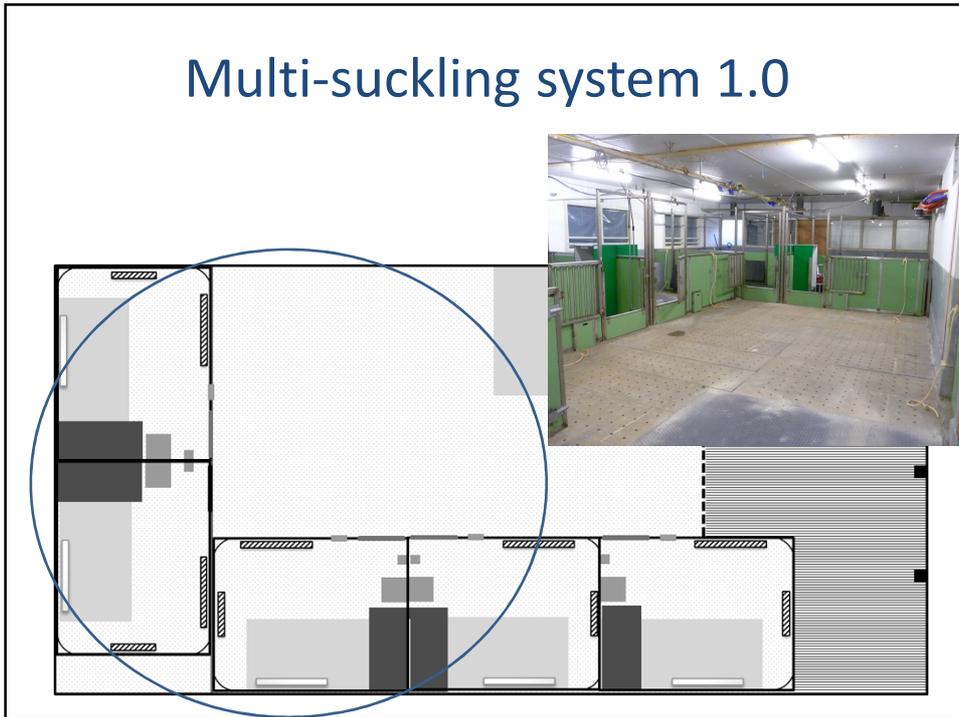


Multi-suckling system 1.0

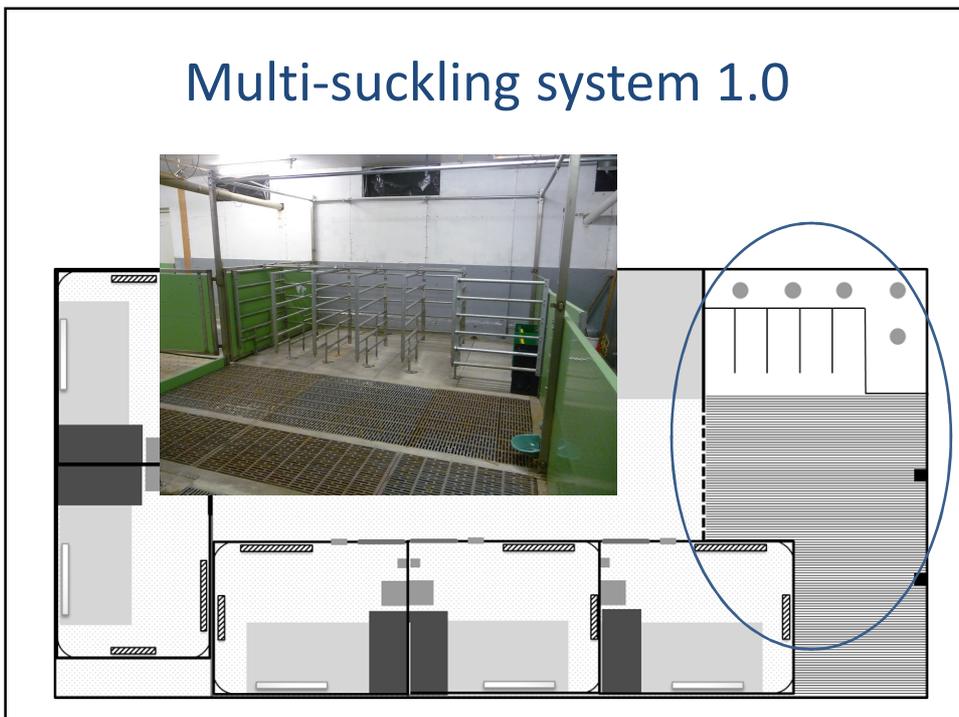


A= farrowing pen B= communal lying area
 C= communal feeding area D= communal dunging area

Multi-suckling system 1.0



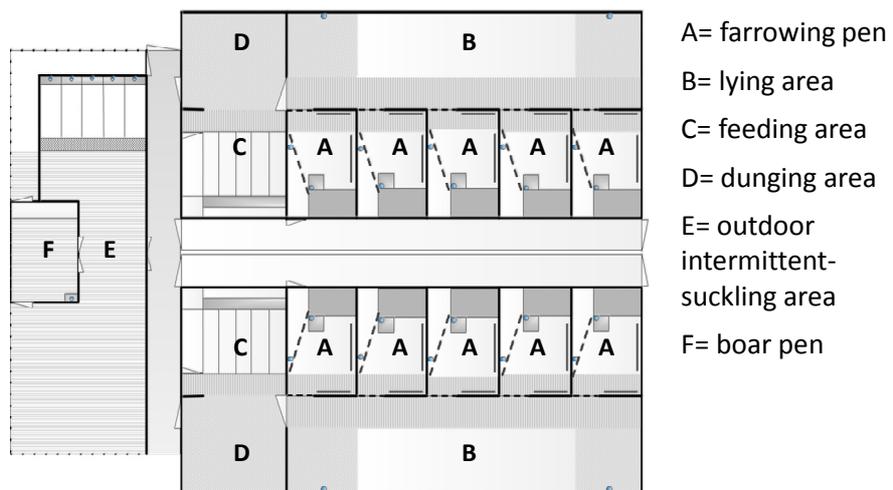
Multi-suckling system 1.0



Exp. 1: Effects on piglet development

	Conventional	Group housing
Pre-weaning Day 0-28		
Post-weaning Day 29-63		

Multi-suckling system 2.0



Exp. 2: Extended lactation

Focus:

- Piglet development (birth-slaughter)
- Sow reproductive parameters

Wk. 1-9
Multi-suckling

Wk. 0-1
Sows grouped,
piglets in
farrowing pen





Wk. 4-5
Forced
intermittent-
suckling



Wk. 5-9
Voluntary
intermittent-
suckling



Welfare consequences multi-suckling systems

	Sows	Piglets
Positive	<p>Natural behaviour</p> <ul style="list-style-type: none"> - Freedom of movement - More possibilities to explore - Social interaction (social preferences) - More control of nursing 	<p>Behavioural development</p> <ul style="list-style-type: none"> - Better social skills - Early feed-directed behaviour - Less damaging manipulation
	<p>Positive emotional state (more tail wagging, play behaviour), fewer stereotypies</p>	<p>Better post-weaning performance</p> <ul style="list-style-type: none"> - Early post-weaning feed intake - Higher growth* - More play behaviour - Less belly nosing
Negative	<p>Disrupted nursing (non-nutritive, restlessness)*</p>	<p>Disrupted nursing (snout damage, restlessness, early weaning)</p>
	<p>Performance of primiparous sows (aggression, feed intake)</p>	<p>Increased mortality after grouping</p>

*depends on transitions within system (e.g. grouping method)?

Based on literature Based on own experience Literature+experience

Welfare consequences multi-suckling systems

	Sows	Piglets
Positive	Natural behaviour <ul style="list-style-type: none"> - Freedom of movement - More possibilities to explore - Social interaction (social control over nursing behaviour) 	Behavioural development <ul style="list-style-type: none"> - Better social skills - Early feed-directed behaviour - Less damaging manipulation
	Sows with more space (less stereotypies, more tail wagging)	Piglets with more space (less aggression, early post-weaning feed intake) <ul style="list-style-type: none"> - Higher growth* - More play behaviour - Less belly nosing
Negative	Disrupted nursing (non-nutritive, restlessness)*	Disrupted nursing (snout damage, restlessness, early weaning)
	Performance of primiparous sows (aggression, feed intake)	Increased mortality after grouping

Many positive effects on sow and piglet welfare, but some issues remain

Thank you for your attention

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