Group suckling in organic sow units

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FiBL

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Group housing of lactating sows

> Study on 31 farms in Switzerland, Germany and Austria
> Aim of the study: description of the status quo of group suckling in organic farms and the identification of success factors on farm level

The project was sponsored by the Federal Organic Farming Scene, Germany.
Group suckling – an animal friendly and economic system

Advantages

- Natural behavior
- Less farrowing pens needed
- Integration in old buildings
- Possible for outdoor climate stable
- Efficient use and acceptability of the areas
- Less stress for the piglets during weaning – no grouping
- More space – more activity
- Higher feed intake

Disadvantages

- Higher demand in management
- Difficult to control the animals
- One additional transfer and cleaning
- Increase of weight differences between piglets
Group housing of lactating sows

Group housing without changing the stable

- Single system
- Modified single system

Combination of single and group housing

- Two stables
Methods: Success factors

> Health of sows and piglets

> homogeneity in piglet’s weight at weaning

> normal behavior of the sows at handling

> productivity data (amount of weaned piglets per litter, losses in farrowing and group housing pen)
Methods: Evaluation of farms

Target values were defined in the areas

> housing
> management
> feeding
> animal health
> human-animal relationship
> productivity
Methods: Development of scoring system

<table>
<thead>
<tr>
<th>Farm</th>
<th>Pen design</th>
<th>Pigletnest</th>
<th>Outdoor run</th>
<th>Feeding</th>
<th>Management</th>
<th>Animal Health</th>
<th>Productivity</th>
<th>Human-Animal Relation</th>
<th>Skin lesions, BCS, Behaviour</th>
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1 = good  
2 = mid  
3 = bad
Results: Housing

7 outdoor climate, 24 closed
6 new stables, 25 modified stables
Results: Number of sows per farm

Austria: 27 (11 – 45)
Switzerland: 36 (12 – 90)
Germany: 41 (21 – 60)
Results: Number of sows per unit

Number of farms

- 2: 4 farms
- 3: 19 farms
- 4: 4 farms
- 5: 3 farms
- 11: 1 farm

Number of sows per unit
Results: Management

> Keeping the planned group size
  > six farms > 75% of the groups

> Keeping a low age difference between litters
  > less than eight days in 84% of all groups

> Preference for low age difference is more important than to keep the planned group size
Results: Animal health

After weaning evaluation of: injuries at neck, body and teats, wounds at vulva, damage of extremities

> Relatively little postural damages

> Head-body-injuries correlate with the group-size

> Injuries of teats are not correlated with the size of the group and amount of piglets
Results: Human-Animal relationship

- Approach test: reaction of sows and piglets to an unfamiliar person
- Handling test: behavior of the stockperson

- More approach than retreat, flight or aggression
- Sows were little afraid in group housing systems
Results: Body Condition Score and behavior

Evaluation of 192 sows

> 74 % in good nutritional condition
> 18 % were considered skinny
> 8 % were considered fat

> Problem of thin sows after lactation: more influence from feeding than from the lactating period
> Only 18 of 203 sows (in 12 farms) behaved anxiously or aggressively
Results: Productivity

> 9,1 weaned piglets per sow and litter (5,8 – 11,5)

> Losses in the farrowing pen 15,6 %

> Losses in the group housing 3,9 %
Final evaluation

> Most critical housing factors:
>  > Piglet nest
>  > Feeding

<table>
<thead>
<tr>
<th>Factor</th>
<th>Good</th>
<th>Mid</th>
<th>Bad</th>
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</thead>
<tbody>
<tr>
<td>Pen design</td>
<td>9</td>
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<tr>
<td>Piglet nest</td>
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<td>Management</td>
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Final evaluation

> None of the farms provided optimal conditions in housing, feeding and management

> None of the farms was considered successful in all: productivity, animal health and human animal relationship

> No plausible correlations between success criteria and farm specific production conditions could be found
Recommendation: Management factors for successful group housing

> Max. age difference between the piglets is 5 days

> Min. piglet age for the day of grouping is 10 days

> Group size of 3 – 4 sows
Conclusion

> Group housing is an alternative system to single housing
> Group suckling has advantages in animal welfare and economic aspects

But
> To ensure success the basic requirements in
  > Housing
  > Feeding
  > Management
  > Veterinary treatment
must be adhered to.
Thank you for your attention!
<table>
<thead>
<tr>
<th>Ort/Was</th>
<th>Parameter</th>
<th>Anforderung</th>
<th>Begründung</th>
<th>Bewertung</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS-Bucht</td>
<td>Gruppengröße</td>
<td>2 – 4 Sauen pro Gruppe</td>
<td>Häufigste in der Praxis anzutreffende Gruppengröße; stallbaulich und bezüglich Umtriebsplanung gut realisierbar</td>
<td>Gut: 2 – 4, Mittel: 5 – 7, Schlecht: &gt; 7</td>
</tr>
<tr>
<td>Liegefläche pro Sau in m²</td>
<td>&gt; 3,5 m²</td>
<td>Reduziert Ferkelerdrücken: Jede Sau muss ungehindert liegen können und synchrones Säugen auf der Liegefläche muss möglich sein</td>
<td>Gut: &gt; 3,5, Mittel: 3,4 – 2,5, Schlecht: &lt; 2,4</td>
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<tr>
<td>Einstreumaterial und –höhe</td>
<td>Stroh 5-10 cm hoch</td>
<td>Tierkomfort; Wühlmaterial, Wärmespeicher</td>
<td>Stroh, 5 – 10 cm</td>
<td>bodendeckend; Tiefstreu</td>
</tr>
<tr>
<td>Ferkelnest</td>
<td>Grundfläche pro Ferkel in m²</td>
<td>&gt; 0,1</td>
<td>Ausreichend Platz für Ferkel im Kleinklimabereich</td>
<td>Gut: &gt; 0,1, Mittel: 0,1 – 0,08, Schlecht: &lt; 0,08</td>
</tr>
<tr>
<td>Zugfreiheit</td>
<td>Keine Zugluft durch Öffnungen (Spalten) in Deckel und Wänden</td>
<td>Ferkelgesundheit</td>
<td>Ja</td>
<td>Nein</td>
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<tr>
<td>Wärmequelle</td>
<td>Fußboden- oder Deckelheizung</td>
<td>Gleichmäßige Wärmeverteilung im Ferkelnest</td>
<td>Fußboden-, Deckelheizung</td>
<td>Ferkellampe</td>
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</table>
Idea of group suckling

> Natural behaviour
> Reduction of the weaning stress
> Economically interesting (stable, work schedule)

> Animal friendly and economic system
Results: Weaning age of piglets

<table>
<thead>
<tr>
<th>Weaning Age of Piglets in Weeks</th>
<th>Amount Farms</th>
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<tbody>
<tr>
<td>6</td>
<td>20</td>
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<td>&gt; 9</td>
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</table>
Methods: Data collection

**Researcher**
- Questionnaire for farm data, management, human-animal relationship
- Data sheet for housing, animal health, BCS, human-animal relationship
- Arrangement drawing of the group suckling pen

**Farmer**
- Productivity data

**Both**
- Piglet weight
## Final evaluation

<table>
<thead>
<tr>
<th>Success criteria</th>
<th>Good</th>
<th>Mid</th>
<th>Bad</th>
<th>Missing</th>
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<td>Productivity</td>
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<tr>
<td>Animal Health</td>
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<td>Skin lesions, BCS, behaviour</td>
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<td>Human animal relationship</td>
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