

Combined pasture and housing systems in Switzerland: evening outings for increased welfare

Description

In Switzerland it is not common for organic sows to have access to pasture. Instead, they are housed indoors year-round, with concrete outdoor runs containing rooting areas. This organic farm is a best practice example of increasing animal welfare and providing occupation by allowing sows short-term access to pasture. The farm has about 60 breeding sows, divided into three groups: young sows, pregnant sows and lactating sows. When weather conditions are favourable, pregnant and young sows get access to the pasture in the evenings. Lactating sows are kept indoors to prevent mixing of the litters and confrontations between the sows.

Pasture management

The farm manages to maintain a high level of grass cover by following three main strategies:

1. Sows are only allowed onto the pasture when the ground is sufficiently dry, and weather conditions are favourable.
2. Pasture access is limited to the evening hours, which reduces the intensity of pasture use per day.
3. Providing a designated rooting area in the outdoor run sows can satisfy their urge to dig before going onto the pasture.

The pasture is a permanent grassland with a natural mix of grasses.



Farm portrait

Location

Canton Bern, Switzerland

Topography

Hilly

Farmland

1 ha pasture area for sows

Size of pig herd

60 sows

Farming system

- Young and pregnant sows housed indoors and have controlled access to pasture.
- Lactating sows, suckling piglets, weaners and growing-finishing pigs housed indoors with concrete outdoor run.





Animal welfare

At the farm, animal welfare appears to be good. Only a few sows show skin lesions, which is likely due to the small number of animals per group and the relatively stable group structure. Both factors prevent dominance fights.

Although short, pasture access contributes to physical exercise, adds roughage to the sow's diet, and allows foraging behaviour and mental stimulation to the sows. Restricting the pasture access to evening hours virtually eliminates the risk of sunburns for the animals.

A challenge the farmer faced during the implementation of pasture access in his hilly area was that sows sometimes scratched their low-hanging udders on the ramp leading to the pasture. The farmer constructed a concrete ramp to fix this issue.

Environmental impact and productivity

The paddocks are well maintained permanent pastures. The vegetation cover was about 90 %.

The lactating sows with piglets and the weaners and growing-finishing pigs are housed indoors with a concrete outdoor run. Pens are cleaned every day.

The farm has a medium to high level of carbon footprint (greenhouse gasses = GHGs) in the breeding system of 6.88 kg CO₂ equivalents per kg of weaned piglet, and in the finishing system per kg of finished pig of 4.70 kg CO₂ equivalents.

Due to the extensive housed time, emissions from manure handling and storage are a significant source, with the remainder largely from embedded

Table 1: Animal welfare assessment

Age group	Welfare parameter	Assessment during project period
Weaners	Runts	Detected in 4 out of 6 pens
Finishers	Skin lesions (scratches)	Detected in 1 out of 4 pens
Finishers	Eye inflammation	Detected in 1 out of 4 pens
Weaners and finishers	Diarrhoea	In 3 pens normal, in 7 pens mild signs
Weaners and finishers	Ocular discharge, ear lesions	Not detected
Sows	Thin sows	In 1 out of 145 sows
Sows	Skin lesions (scratches)	In 43 % of all sows
Sows	Shoulder lesions; vulva lesions, deformation	In 3-4 % of all sows
Sows	Swellings	In 8 % of all sows
All animals	Soiling	In 2 out of 10 pens <33 %; 8 % of all sows
All animals	Ectoparasites	Not detected
All animals	Sunburn	Not detected in weaners or finishers, but in one sow
All animals	Lameness	Not detected in weaners or finishers, but in 6 % of the sows
All animals	Short tails	Not detected in weaners or finishers, but in one sow

Table 2: Environmental impact and productivity

Productivity	Sow
Average no. of litters / sow / year	2.0
Average no. of piglets weaned/ litter	10.4
Average no. of litters / sow until culling	4.2
Environmental Impact	Sow
GHGs ¹ / kg piglet weaned	6.88
Terrestrial eutrophication [molc N] ²	0.46
Marine eutrophication [kg N] ²	0.106
Water footprint [m ₃] ²	0.103
Environmental Impact	Finishers
GHGs ¹ / kg finished pig	4.70
Terrestrial eutrophication [molc N] ³	0.303
Marine eutrophication [kg N] ³	0.068
Water footprint [m ₃] ³	0.073

¹Green house gases [CO₂ equivalent] per [kg] piglet weaned

²per [kg live weight] piglet weaned

³per [kg live weight] finished pig (full life cycle)

emissions within the purchased feeds and building infrastructure. However, the farm is relatively productive with 20 weaned piglets per sow per annum, and a finisher live weight gain of 0.83 kg per day.

Labour and cost

- The farmer spends on average 5 to 10 minutes daily with pasture management, including opening and closing gates and driving pigs in and out of the pasture. The process does not take long since the farmer always uses the same pasture, and so the sows are used to the routine.
- Infrastructure: The farmer constructed a concrete ramp to facilitate pasture access for sows and invested in appropriate double-fencing.

Take away lessons

- Pasture access does not need to last long or require significant investments to contribute to animal welfare.
- Short periods of pasture outings during the day can benefit the pigs' health, behaviour and diet while keeping labour and investment demands to a minimum.



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