

Innovative farming in Switzerland: breeding Berkshire Pigs outdoors year-round

Description

While it is common to fatten pigs outdoors during the vegetation period, only a few farmers manage to relocate all parts of pig breeding and fattening, including farrowing, year-round to the outdoors. The Swiss company “KURO” is one of the few in Switzerland which does this. Crucial to their system are a group of Berkshire breeding sows and boars, as well as prefabricated, mobile outdoor huts imported from the UK. The farmer does not own the land he uses but rents it from neighbouring farmers on a yearly basis. The farmer also created his own feed mixture, which excludes soy, with local millers. All meat is marketed directly to consumers and restaurants via a mail-order service, a pick-up point and shop.

Pig breed and breeding system

The Berkshire pig is a robust, English heritage breed. The farmer breeds his sows one to two times per year, depending on consumer demand. For breeding, 3 to 5 sows are grouped with one boar into a farrowing group. For each sow, one insulated farrowing hut with piglet shelter is available. Huts are bedded with a thick layer of straw but not heated otherwise, albeit this would be possible. Farrowing is staggered throughout the year, including during winter. Sows farrow 4 to 9 piglets and remain in their farrowing group until piglets are weaned at 3.5 months of age.



Farm portrait

Location

Canton Zurich, Switzerland

Topography

Flat

Farmland

1 ha for breeding the sows,
2.5 ha for growing-finishing pigs

Size of pig herd

15 sows, 1-3 boars,
70-90 growing-finishing pigs

Farming system

- All pigs are housed outdoors, in mobile huts, year round.
- Growing-finishing pigs are housed in groups.
- Sows are housed in farrowing groups but have individual huts.





This farm's robust sow breed also farrows outside in winter with the protection of the huts.

Fattening of weaners

Weaners are separated according to sex into groups of 35 to 45 pigs since males do not get castrated. They are further fattened for 12 months and slaughtered at an average weight of 100 kg (females) to 110 kg (males). The farm fattens about 80 to 100 animals per year, depending on consumer demand.

Pasture management

Before moving pigs onto a new piece of land, the farmer sows rye into the pasture, later foraged by the pigs. Due to limited land access, the farmer only changes the plots he uses about once per year. This results in the complete destruction of the sward, which is undesirable from an environmental point of view. However, after the pigs leave, plots are plowed and used for cropping such that the accumulated nutrients are integrated into a system of crop rotation. Ideally, the farmer would like to change plots every three months.

Animal welfare

Animal welfare appears to be highly satisfactory in this system. The farmer has not observed fighting within the groups. Furthermore, piglet losses are very rare. Due to the breed's thick fur and black pigmentation, the pigs are not sensitive to sunburn and withstand cold temperatures. They are therefore perfectly adapted to being raised outside.

Table 1: Productivity

Productivity	
Average no. of pigs fattened/ha/year	40
Feed usage/day/growing-finisher [kg]	1 - 1.2
Average weight at slaughter [kg]	100
Average age at slaughter [months]	15.5

Table 1: Animal welfare assessment

Age group	Welfare parameter	Assessment during project period
Finishers	Soiling	In 5 out of 10 pens
Finishers	Faeces	All normal
Finishers	Runts	Not detected
Finishers	Ocular discharge, eye inflammation	Not detected
Sows	Soiling	1 out of 8 sows soiled with mud
Sows	Thin sows	Not detected
Sows	Vulva lesions, deformations	Not detected
All animals	Ectoparasites	Not detected
All animals	Skin lesions (scratches)	Not detected in finishers, but in 3 % of the sows
All animals	Ear, shoulder, tail lesions, swellings or short tails	Not detected
All animals	Lameness	Not detected
All animals	Sunburns	Not detected



To enrich the sows' and piglets' diets, the farmer sows rye into the pasture.

Environmental impact and productivity

The fattening and breeding of pigs outdoors year-round reduces ammonia emissions. However, significantly more land is used than in traditional pig fattening, where animal feed is usually outsourced. To prevent nitrogen leaching, preserving the grass sward is essential and needs to be improved in the current system.

Labour and cost

- Farrowing huts cost CHF 1,500 to CHF 2,000 (€ 1,400 to 1,800), depending on the accessories.
- The farmer requires about 2 to 4 hours per day for feeding and routine tasks. Moving all of the infrastructure to a new plot requires about 2 weeks of time.
- The direct marketing of meat requires additional time, but the profit margin is higher compared to selling to retailers.

Take away lessons

- Berkshire pigs can be successfully bred and fattened year-round outdoors.
- The system requires large pieces of land and a frequent rotation of the pasture to prevent the destruction of the sward.
- The integration into a crop rotation is necessary, such that accumulated nutrients are used.
- Good communication with the general public and other involved stakeholders is required to ease concerns and educate about the outdoor keeping of pigs during winter. The farmer uses information boards.

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