

Improved concrete outdoor runs in housing systems for growing-finishing pigs: temporary access to pasture

Description

In organic temporary pasture systems, pigs are housed indoors with access to an outdoor run year-round and pasture or woodland for predetermined periods during the day.

In general, the main aim of this system is diet supplementation by the provision of forage. Access is then typically granted for several hours during the day, but only during the pasture growing season to protect the sward. When the primary aim of pasture access is exercise and the prevention of boredom, access is often granted year-round on relatively small pieces of land, but only for short periods, such as one hour, twice per day.

Pastures that are used as exercise or foraging areas for pigs should always be flat. In addition, they should be located near the stable, otherwise herding the pigs back indoors gets labour intensive. To protect the sward, pasture access should never be granted when the ground is wet.

According to EU and Swiss regulations, temporary access to pasture cannot be the only access to open air areas but is always an addition to other outdoor areas, like an outdoor run.

Legislation

- Biosecurity measures are critical when keeping pigs on pastures. In several European countries, such as Germany, France and Italy, a double-fencing of outdoor pig enclosures is required to prevent nose-to-nose contact with feral pigs. Most environmental and water protection laws furthermore restrict the installation of pig pastures close to bodies of water, groundwater recharge sites or areas at risk of flooding

Applicability box

Theme

Pigs

Farm type

Indoor housing with outdoor run and temporary access to pasture

Production stage

All stages of pig production

Welfare Environment Cost



- Nose-ringing of pigs in temporary pasture systems is forbidden in the EU since “nose-ringing is only allowed when the animals are kept in outdoor husbandry systems” (Dir 2008/120/EC).
- In Switzerland, nose-ringing of pigs is not allowed in any production system (Swiss Animal Protection Ordinance (AniPO, SR 455.1).



A mobile piggyery helps to incorporate organic pigs in crop rotation and pasture management.



In this system, a cultivated pasture can represent up to 40 % of the fattening pigs' diet.

Relevance for animal welfare

Temporary access to pasture or woodland stimulates the innate exploration and rooting behaviour of pigs, thus allowing the expression of species-specific behaviour. This significantly reduces frustration and boredom in pigs, preventing in turn harmful, misdirected exploration behaviour, such as tail and ear biting. The increased physical activity furthermore improves the pigs health and locomotor system. If the pasture is sufficiently large, foraged grass can contribute significantly to the diet and improve the health of the digestive system, while reducing feed expenses.

Relevance for environmental impact

- With suitable stocking rates, the grazing pigs will provide nutrients, e.g. nitrogen and phosphate, whilst their foraging behaviour will stimulate new growth that utilises the nutrients.
- However, it is essential that pasture deposited manure is not concentrated in one area and that large areas of pasture or forest are not left as bare soil since this could lead to excess leaching and ammonia losses.
- Overall, access to pasture or forest should reduce emissions, reducing losses during manure storage and subsequent spreading.

Cost and labour

- Depending on how much time pigs spend on the pasture, appropriate infrastructure has to be purchased. Fencing and drinkers are the minimum investments. An estimation of the cost of pasture infrastructure for Switzerland can be found in the FiBL technical leaflet on the outdoor rearing of pigs (see further information).
- If well managed, cultivated pastures can contribute up to 40 % of the diet of fattening pigs. Unless access to the pasture is automated or permanent, daily labour will be required to herd the pigs in and out of the pasture. In rotational pasture systems, the position of pasture infrastructure furthermore needs to be changed every 6 to 21 days. Lastly, labour is required for reseeding, as well as the sanitation of pasture and equipment. On the other hand, if pigs spend considerable amounts of time on the pasture, most of their defecation will happen there, reducing the required amount of labour for cleaning and changing bedding material.

Recommendations / requirements

- **Land:** Requirements for the land strongly depend on the amount of time pigs spend on the pasture per day. The more time is spent, the bigger the pasture has to be. Forage pastures, for instance, usually provide around 300 to 500 m² per sow and year. Exercise pastures, on the contrary, can be as small as 8 m² per pig and year.
- **Pasture management:** A rotational system, in which pastures are grazed 4 to 6 days and then rested at least 30 days, ideally longer, is optimal for pasture growth and maximises pasture productivity. Most farmers reseed uprooted areas of the pasture after the pigs have left. To protect the sward and prevent rooting, pigs should be herded into the pasture when hungry and back indoors when satiated. Another possibility is to designate a specific area for rooting, which is made attractive by scattering beet or maize cubes.
- **Fencing:** Outdoor lots for pigs should be double fenced and be wild boar proof to prevent the spread of highly contagious diseases, such as the African Swine Fever.
- **Health:** Humid and muddy areas on the pasture can increase the risk of endoparasites. Therefore, pastures should regularly be rotated, all pasture equipment sanitised, and faeces regularly analysed for worm infestation.



Further Information

- **EU (2008):** Council (EU) Directive 2008/120 laying down minimum standards for the protection of pigs. At: eur-lex.europa.eu [Link].
- **Jenni A. et al. (2019):** Outdoor rearing of pigs. Research Institute of Organic Agriculture (FiBL), Frick, Switzerland. FiBL Order No.: 2503. Available in German and French at: www.fibl.org [Link].
- **Menke et al. (2016):** Pasture feeding of pigs, GÖT technical guide. Available in German only at: orgprints.org [Link].
- **Früh et al. (2022):** Welfare and environmental impact of organic pig production, A collection of factsheets, Research Institute of Organic Agriculture FiBL, Frick. Available at shop.fibl.org, publication No. 1300, Best practice examples, chapter no. 3.1–3.9, pp. 63–98 and Innovative farming, chapter no. 4.0–4.4, pp. 99–122 [Link].

Imprint

Publisher:

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Permalinks: orgprints.org → [power](https://power.projects.au.dk), projects.au.dk → [power](https://power.projects.au.dk)
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The project “POWER – Proven welfare and resilience in organic pig production” is one of the projects initiated in the framework of Horizon 2020 project CORE Organic Co-fund (<https://projects.au.dk/coreorganiccofund/>) and it is funded by the Funding Bodies being partners of this project (Grant Agreement no. 727495). The opinions expressed and arguments employed in this factsheet do not necessarily reflect the official views of the CORE Organic Cofund Funding Bodies or the European Commission. They are not responsible for the use which might be made of the information provided in this factsheet.



