

Relevance of roughage feeding to pigs

Problem

A species-appropriate pig diet consists of different feed components with different structures. However, such a diet is technically, and in terms of ration planning, more complex to produce than a feed that is always of the same structure.

Solution

Integrate roughage feeding into ration plans and use the farm's potential for feed production.

Benefits

Roughage feeding promotes animal health and welfare and can, at the same time, reduce feed costs on the farm. A good structure and a high crude fibre content of a ration serves as enrichment, improves the feeling of satiety and improves stomach health (Picture 1).

Practical recommendation

- With combined feeding, the energy requirement of pregnant sows can be reduced by up to 50 % in the first stage of gestation and up to 20 % in the last stage of gestation by providing energy-rich roughage products like grass or corn silage (Picture 2).
- For pregnant sows, the daily feed intake capacity for clover grass and maize silage is 2-4 kg fresh matter.
- In addition to clover grass silage (with a high protein value), a cereal and minerals mixture without protein-rich feed components should be used.

Applicability box

Theme

Pigs, Feeding and ration planning

Geographical coverage

In all countries

Application time

Any time

Required time

The time needed to harvest the roughage and feed animals

Period of impact

Immediate impact

Equipment

Machines for harvesting and ensiling, for delivering feed to animals as well as a feeder.

Best in

Gestating sows and finishing pigs



Picture 1: Feeding roughage, in this case, fresh grass, to sows and piglets. Photo: BOKU



Picture 2: A round bale feeder for the ad libitum feeding of rain-protected straw, hay or silage to pregnant sows. Photo: Antje Schubbert

- In addition to maize silage, a very protein-rich concentrate is needed. The daily intake of 3.5 kg maize silage per sow can compensate for a concentrated feed quantity of up to 1 kg per day compared with pure concentrated feed.
- In addition to grass silage, 85 % of complete feed requirement for pregnant sows could be provided.
- Feeding silage to suckling piglets and weaned piglets prevents diarrhoea.

Further information

Video

- The video "[Feeding pigs: effect of silage](#)" is available on Organic Farm Knowledge.

Further reading

- Früh, Barbara and Mirjam Holinger (2019) Organic Pig Farming: Key Characteristics, Opportunities, Advantages and Challenges. In: *Improving Organic Animal Farming. Burleigh Dodds Series in Agricultural Science*, pp. 287–306., doi:10.19103/as.2017.0028.16
- Patzelt, Sybille et al. (2011) Bedarfsgerechte Fütterung von Biosauen und ihren Ferkeln, FiBL, 2011, Merkblatt 1569
- Research Institute of Organic Agriculture (FiBL) (2019) [Feeding Pigs: Effect of Silage](#). Video. Research Institute of Organic Agriculture (FiBL), Frick.
- Holinger, Mirjam et al. (2015) [Improving Health and Welfare of Pigs - A Handbook for Organic Pig Farmers](#). Research Institute of Organic Agriculture (FiBL), 2015.

Weblinks

- Further documents can be found on the [Organic Farm Knowledge website](#).

About this practice abstract and OK-Net EcoFeed

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