

# 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

#### Publishers

Research Institute of Organic Agriculture (FiBL)  
Ackerstrasse 113, Postfach 219, CH-5070 Frick  
Phone +41 62 865 72 72, [info.suisse@fibl.org](mailto:info.suisse@fibl.org), [www.fibl.org](http://www.fibl.org)

IFOAM EU, Rue du Commerce 124, BE-1000 Brussels  
Phone +32 2 280 12 23, [info@ifoam-eu.org](mailto:info@ifoam-eu.org), [www.ifoam-eu.org](http://www.ifoam-eu.org)

**Author:** Barbara Früh

**Contact:** [barbara.frueh@fibl.org](mailto:barbara.frueh@fibl.org)

**Review:** Antoine Roinsard, ITAB; Lindsay Whitstance, ORC

**Layout:** Andreas Basler, FiBL

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**Project website:** [ok-net-ecofeed.eu](http://ok-net-ecofeed.eu)

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