

# Silage as bulk feed for pigs with restricted feeding

## Problem

The preparation of pigs for fattening can be based on a food restriction diet with a later compensatory growth. To facilitate this feeding management, bulk rations based on by-products are recommended.

## Solution

Brewer's yeast is a liquid by-product with a high protein content (> 47% of dry matter). It is also rich in B vitamins and other nutrients, which can be preserved in a silage mixture.

## Benefits

Making silage allows for the preservation of liquid and fibrous by-products, and it improves feed digestibility. Feeding silage increases the digestive system volume for the subsequent fattening phase and, as it is a bulk feed, reduces the stress of pigs under restricted feeding.

## Practical recommendation

- Silage is a solution for the conservation and use of by-products.
- Pigs will readily eat silage once they are adapted to its consumption.
- It is essential to correctly balance and calculate the daily ration, especially when animals are feed restricted.
- The mixing of components, which must be very well chopped and packed without leaving any air (for anaerobic fermentation) (figure 1), is very important for the silage preparation.
- For growing pigs, the feed ration can be reduced by 10-15% so that they can eat about 240-320 g of silage/ day at the beginning (young growers) and end up eating 750 g/day. One week is recommended for progressive adaptation of any kind of pig to the new diet.

## Applicability box

### Theme

Pigs, feeding and ration planning

### Context

Most suitable for pig farms with regional access to appropriate by-products and a source of fibre.

### Application time

The time to produce the silage is when the by-products are available.

### Required time

Any silage requires 21 days for its stabilization (pH reduction) and, once it is stabilized, it can remain preserved for years. Pigs need to be progressively adapted to silage consumption.

### Period of impact

After pig's adaptation to silage consumption its impact in the increase of the digestive system development requires 2 months.

### Equipment

A contractor can make the silage, or it can be home-made with a basic equipment (see further information). No special equipment is necessary once silage is chopped and wrapped. It can be stored outdoors; a feeder or concreted surface (figure 2) are enough to feed it.

### Best in

Food-restricted growers, before the fattening phase, and gestating sows.



**Figure 1. Silage wrapping.** Photo: Carolina Reyes-Palomo



**Figure 2. Growers eating silage on concrete surface.** Photo: Carolina Reyes-Palomo

## Further information

### Video

- Check out the following video "[Feeding pigs: effect of silage](#)" for further instructions (English).
- Check out the video by Ecovalia "[Trial on feeding of growing Iberian pigs with brewer's yeast silage](#)".
- These videos by Asistencia Técnica Agrícola and Arthur Fried show systems to home-make silage: [Ensilaje para cerdos con batata, bermuda y mata ratón](#) and [Silo bolsa uso](#)

### Further reading

- Presto Ákerfeldt, M., Holmström, S., Wallenbeck, A., Ivarsson, E. 2018. Inclusion of intensively manipulated silage in total mixed ration to growing pigs – influence on silage consumption, nutrient digestibility and pig behaviour. *Acta Agriculturae Scandinavica, Section A-Animal Science* 68: 190-201.

### Weblinks

- Feeding pigs silage <https://organic-farmknowledge.org/tool/36927>
- Feeding pigs silage <https://www.innovativefarmers.org/field-lab?id=32043828-0af5-e611-80ce-005056ad0bd4>
- Silage feed advice for pig farmers <https://orgprints.org/28047/3/28047.PDF>
- Feeding silage to pigs <https://www.soilassociation.org/our-work-in-scotland/scotland-farming-programmes/field-labs/feeding-silage-to-pigs/>

## About this practice abstract and OK-Net EcoFeed

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

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