

Whey for fattening organic pigs

Problem

According to the EU regulations, the organic farming will be obliged to provide feed derived from 100% organic origin by 2021. To assure the sustainability of the feed supply, the regional feeds and raw materials shall be preferred. It is necessary to look for mutually beneficial collaborations with the organic sector stakeholders, such as food industry.

Solution

Whey is an alternative source of high-quality protein for fattening pigs (figure 1). It can supply one-third of their protein needs. At the same time whey is an important by-product of the cheese producers, as it represents approximately 70 to 80 % of the milk volume. Collaboration of organic cheese companies with the nearby organic farms can be mutually beneficial.

Benefits

- Whey is a natural ingredient derived from fresh milk and is characterized by its high nutritive value, palatability, and digestibility.
- It promotes feed intake in the post-weaning period.
- Whey fosters animal performance and gut health.
- Whey contains high-quality protein. It can supply one-third of the protein needs for fattening pigs.

Practical recommendation

- Whey is a quite seasonal product; hence, this determines the period when it can be used and the number of pigs that can be fattened.



Figure 1: Whey in a cheese factory. V. Rodríguez-Estévez, Universidad de Córdoba



Figure 2: Fatteners drinking whey. V. Rodríguez-Estévez, Universidad de Córdoba

Applicability box

Theme

Pigs

Context

Farms close to an organic cheese factory.

Application time

Year-round (more availability during spring and summer).

Required time

None; but no more than two days of storage.

Period of impact

3 to 6 months, depending on the slaughtering age and weight.

Equipment

Special equipment is needed, such as an automatic system for liquid feeding and two storage tanks, so that they can be cleaned between batches. Other cheaper option is tanks (these can be portable) connected to drinking troughs (figure 2). High salt content and low pH can deteriorate steel feeders and other equipment.

Best in

Growers and fattening pigs.

- Whey can deteriorate very easily; two storage tanks are needed for hygiene reasons.
- Do not feed whey stored over 2 days.
- Sweet whey is the by-product remaining after the production of soft cheeses, while acid whey comes from hard cheeses and has a lower pH. It is important to consider that salt is added to the cheese before pressing; hence, the remaining liquid whey can contain as much as 10 % dry matter of salt.
- Pigs should be provided with water access ad libitum to avoid salt toxicity. Additionally, reduction or elimination of supplemental salt in the diet formulation should be considered.
- Salt and lactose contents should be considered to determine the daily intake rate. Fresh whey contains approximately 5% lactose, and growing pigs tolerate feeds containing up to 20-30% lactose (less for the older ones). Hence, whey should be analysed to determine the threshold for its inclusion before formulating pig diets.

Further information

Video

- The video [“Whey for the pigs”](#) shows pigs drinking whey.
- The video [“Suero lácteo en la alimentación de cerdos | La Finca de Hoy”](#) (Spanish) shows pigs drinking whey.

Further reading

- EWPA (n/d). [Whey in animal nutrition](#). A valuable ingredient.
- Rodríguez- Estévez, V. and Mata Moreno, C. (2007). El suero de quesería, un recurso ganadero. In: *La fertilidad de la Tierra*, Vol 31, pp. 12-15.
- Scholten, R., van der Peet-Schwering, C., den Hargot L., Schrama, J. and Verstegen, M. (2001). Uso de diastas líquidas y co-productos líquidos para porcino. In: *ANAPORC*, Vol 209, pp. 101-116.

Weblinks

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

About this practice abstract and OK-Net EcoFeed

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