

Acorns for fattening free-range pigs

Problem

Montanera is a traditional feeding system where pigs forage for acorns. Iberian pigs foraging for acorns during their finishing phase has economically contributed to conserving the "dehesa", a high nature value (HNV) farm-land based on agroforestry, currently consisting of more than four million hectares in the southwest of the Iberian Peninsula

Solution

This natural resource is used to fatten pigs without any kind of compound or supplementary feed. During the last 2-3 months of fattening, pigs can gain more than 40 kg of body weight from grass and foraged acorns.

Benefits

In the montanera system, the mean average daily gain for fattening pigs is ≥ 0.75 kg/day. Their body fat has a high concentration of oleic acid (around 55%) and very low concentrations of linoleic and palmitic acids; which is very important for the quality of pork and the cured products.

Applicability box

Theme

Pigs - Animal husbandry - Feed and nutrition - Production systems - Ration planning

Geographical coverage

South West of Iberian Peninsula; partly adaptable to other Mediterranean areas and forests with *Quercus* species (the best species is *Q. ilex rotundi-fovia*).

Application time

Autumn and winter.

Required time

None if there are adult trees; approximately 15 years to have the first mast of acorns if it is necessary to establish trees and the surface is certified as organic.

Period of impact

1.5 months to influence meat quality and fatty acid profile

Equipment

None for free grazing; only a stick to knock down acorns if there is a swineherd with the pigs.

Best in

Fattening pigs (especially in fatty breeds)

Practical Recommendations

- The fattening performance is very much influenced by the age of pigs and their compensatory growth; hence, pigs should be as old as possible (≥ 1 year) and adapted to grazing.
- Grass is necessary as a source of protein to compensate for the low protein levels in acorns.
- The food conversion rate is 10.5 kg of whole acorns of *Q. i. rotundifolia* to gain 1 kg, besides the contribution of grass; to establish the stocking rate, consider that an adult evergreen oak produces ≈ 11 kg of acorns/year).
- Iberian pigs peel acorns to avoid the high content of tannins in the shell. However, during peeling, approximately 20% of the kernel can be wasted.



Photo 1: Pig foraging acorns (Vicente Rodríguez-Estévez, University of Córdoba)



Photo 2: Group of Iberian pig fatteners grazing in a dehesa estate (Vicente Rodríguez-Estévez, University of Córdoba)

Further information

Video

- The video "[Cerdos Comiendo Bellotas en la Dehesa](#)" shows a swineherd knocking down acorns.
- The video "[Cerdos ibéricos comiendo bellotas en una dehesa de Extremadura](#)" shows a herd of Iberian pigs foraging acorns.

Reading

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Weblinks

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

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