



Pig native breeds for outdoor farming

APPLICABILITY

Theme/Keywords

Pig native breeds, crossbreeding, meat quality

Geographical coverage

Pig native breeds are present in most EU countries

Required time

The time needed to create and select female and male genetic lines from which cross-bred between native and improved commercial breeds can be obtained (1-2 years)

Period of impact

The first impact is expected after the first production cycle with cross-bred pigs

Best in

This practice is suitable for outdoor farming systems: extensive production, free-range and organic production.

Problem

Pigs reared outdoors are more often subjected to unfavourable climatic conditions than pigs reared indoors. Native breeds are more adapted to the outdoor environment, compared to conventional breeds and their crossbreds, as the breeding goals of the latter have been focussed more on productivity than on dealing with adverse weather conditions.

Solution

Pigs obtained by crossing local native breeds with conventional commercial breeds are better adapted to the outdoor environment; compared to pigs of conventional breeds. They are also more efficient and productive; compared to native breeds.

Benefits

Native pig breeds, compared to conventional commercial breeds, are characterized by:

1. Better rusticity and adaptability, often coming from centuries of natural selection and traditional breeding practices
2. Higher level of resilience to diseases and environmental stressors
3. Richer genetic diversity
4. Local cultural importance
5. Higher meat quality.

However, they are also characterized by poorer production performances (i.e. ADG, FCI, prolificacy).

Practical recommendations

The genetic choice of cross-bred pigs for free-range and extensive breeding should take the following factors into account:

- ✓ Adverse climatic and soil conditions in fenced areas for outdoor farming;
- ✓ Climatic conditions during the rearing/fattening cycle(s) (i.e. seasonal or continuous throughout the year);
- ✓ Availability of breeding stock of native breeds adapted to the local environment;
- ✓ Market demand for high-quality meat from free-range pigs.

It is advisable to use conventional commercial breeds (e.g. Large White) in cross-breeding to achieve higher prolificacy and better maternal aptitudes in the female line.



Figure 1: Cinta Senese free-range pigs (CRPA)

On-farm application

System approach

Keep track of boar and sow crosses to avoid consanguinity in pure breed animals and monitor the productivity performances to select for the characteristics (e.g. prolificity, fertility, maternal attitude, carcass quality) that a farm wants to improve. Adopt farm strategies to enhance the value of pig products by processing them directly or through third parties and selling them directly on the farm or through alternative channels, such as the farm shop, farmers' markets, e-commerce or solidarity purchasing groups.

Evaluation

Keep track of farm expenses and calculate the cost of pig production at least on an annual basis and make sure it is covered by a fair and remunerative market price.



Figure 2: Mora Romagnola pigs (CRPA)

FURTHER INFORMATION

Videos

[Local agrifood cycle production example with Mora Romagnola breed](#)

[Mora Romagnola](#)

Weblinks

[H2020 TREASURE project.](#)

<https://treasure.kis.si/>

About this practice abstract and *mEATquality*

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***mEATquality*:** The *mEATquality* project aims to provide consumers with better-quality pork and broiler meat and animals with a high level of welfare by developing scientific knowledge and practical solutions together with farmers and chain partners.

The *mEATquality* project, an H2020 project, is coordinated by Wageningen Research (The Netherlands) and is a multidisciplinary team of 17 partners organisations representing 7 EU countries. The project is running from October 2021 to September 2025

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