

Thematic Group on 'The CAP's role in supporting sustainable and competitive livestock systems'

Diversity of pig husbandry systems in mEATquality

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Consumers generally believe that extensive livestock farming is synonymous with better meat product quality



Main Objective of mEATquality

to provide consumers with quality pork and broiler meat by developing scientific knowledge and novel solutions with farmers and chain partners to address societal demands, environmental concerns and economic needs

STEP
01



Surveys

of variability in husbandry practices related to extensiveness and of consumer preferences.

STEP
02



Experiments

on specific farm husbandry factors in relation to meat quality characteristics and consumer appreciation.

STEP
03



Sustainability

explorative studies on novel techniques to assess sustainability, quality, and authenticity.

STEP
04



Communication

of best practices, EU Meat Database, videos and tutorials.

Diversity of pig husbandry systems



Four factors that may affect meat quality:

Breed – Feed – Space - Enrichment

mEAT quality



80 assessments of intensive/extensive pig farms in DK PL ES IT

Farms	Intensive	Extensive	Factor	Positive	Negative
Space/pig (m ²)	0,5 ÷ 1,33	25 ÷ 10.000	Local breed	<ul style="list-style-type: none"> ↑ Genetic diversity ↑ Subsidy from the CAP 	<ul style="list-style-type: none"> ↓ ADG ↑ FCR ↑ Production cost Not present in all countries
Pigs sold/year (n.)	75 ÷ 20.384	17 ÷ 400	Forage/diet	Easy to implement if grazed or mixed directly with feed (i.e. low costs with agri-industry by-products)	Time to provide it daily if not mixed with feed
Fattening duration (d)	63 ÷ 270	90 ÷ 630	Environmental enrichment	Low to moderate management requirements Positive (mostly) for welfare	↑ Production cost (time to provide new objects regularly, costs of materials)
Live weight at slaughter (kg)	110 ÷ 155	140 ÷ 210	Space allowance	<ul style="list-style-type: none"> ↑ welfare and ADG for lean pigs fed ad lib with 2.1 m²/pig vs 0,7 m²/pig in DK ↑ welfare for heavy pigs feed restricted with 1.9 vs 1,15 m²/pig in IT 	↑ Production cost (pen set up, or ↓ number of reared animals)
ADG (g/d*pig)	640 ÷ 1090	200 ÷ 720			
FCR	2,3 ÷ 3,0	3,3 ÷ 6,8			
Mortality (%)	0,1 ÷ 5,0	0,2 ÷ 5,0			
GM* (€)	-0,05 ÷ 1,33	-1,95 ÷ 4,84			

* Gross Margin per Live Weight Produced per Labor Unit



Four factors of extensiveness and pork quality

Comparative experimental tests in DK, PL, ES and IT provided results for a specific husbandry system and breed

- Traditional **breeds** = meat with darker redder colour, higher fat content, higher pH values and lower drip loss (better water holding capacity)
- Provision of **roughage** = increased drip loss, while carob increased redness, moisture, protein and texture (tougher) with reduced fat content. Omega-3 positively affected the fatty acid profile and texture
- Environmental **enrichment** = increased the unsaturated fatty acids and moisture content
- More **space** in conventional indoor housing = improved meat tenderness, reduced fracturability and *n*-3, *n*-6, PUFAs

Opportunity for livestock farmers from differentiating their products consists of the **consumer's reward for exclusive product attributes** such as taste and nutritional value and/or **non-exclusive product attributes** such as those related to better protection of the environment, biodiversity, landscape and animal welfare (EU CAP Network, 2025)



Economic resilience of pig farms

Farm economic resilience affected by:

- › **Robustness** as resilience of resources like the degree of modernity, investment potential and human capital (i.e. potentially higher gross margin per labor unit in extensive farms)
- › **Adaptability** as entrepreneurship (i.e. greater flexibility in supplier relationships and stronger collective action in intensive farms)
- › **Transformability** as propensity for transformation of the farming system (i.e. more limited in intensive farms)



Thanks for your attention

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