

## **T-2-2 NEW DEVELOPMENTS AND GOALS IN MEAT QUALITY EVALUATION – EMPHASIS ON LOCAL PIG BREEDS**

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The quality perception of pork, as other animal-source foods, is multidimensional. It includes the inherent attributes such as safety, sensory, technological and nutritional properties (intrinsic quality) but also credibility cues associated with the perception of the conditions of pig rearing (extrinsic quality). The latter thus refers to cultural, ethical (including animal welfare) and environmental aspects of pork production, including the origin (geographical or country). In recent years, the way in which pigs are reared (particularly in terms of animal welfare and environmental impacts) has become increasingly important to consumers and their perceptions and beliefs about the quality of pork.

In this context, European local pig breeds and their specific production systems occupy a special position and value. Meat from local pig breeds is generally characterised by a particular intrinsic quality. These local breeds and their (usually extensive) farming systems represent an exceptional agricultural biodiversity and are also a prerequisite for unique regional pork products high quality (interactions between genetics and environment). Such products are part of the culinary heritage and „traditional“ know-how, often recognized by official quality labels linked to geographical origin. Local pig breeds also have extrinsic quality characteristics that are important to consumers. They are reared in extensive, low-input production systems, often outdoors and in some cases in organic systems, which are more in line with societal expectations and perceptions of extrinsic cues (such as animal welfare and environment) of pork quality. In addition, they are usually fed with locally available feeding resources, are also generally more resilient and adapted to local agro-climatic conditions. These characteristics make production systems with local breeds more adapted than „conventional“ breeds and systems to the concept of sustainable food systems.

There are three indicators of food system sustainability, i) economic sustainability – that it is profitable throughout, ii) social sustainability – that it has broad-based benefits for society, and iii) environmental sustainability – that it has a positive or neutral impact on the natural environment. Pig production systems of the future should be in line with available natural resources while focused on providing high-quality food products.

This presentation makes an overview of the multiple dimensions of pork quality and situate local breeds considering their extrinsic quality attributes, especially in terms of environmental impacts. As part of the TREASURE project, an environmental impact assessment of three local breeds was conducted. A case study on the Krškopolje pig breed showed the advantages as well as the challenges for improvement, to meet the new consumer's demands on both intrinsic and extrinsic quality dimensions of pork.

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