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A Compared Analysis of Four German Pig Breeds

**Florin Daniel BOGOȘEL¹, Ioana Cristina ȚÎRLEA¹, Loredana VĂDUVA^{1*},
Cornelia PETROMAN¹**

¹ Banat's University of Life Sciences "King Mihai I", Faculty of Management and Rural Tourism, Timisoara

*Corresponding author's e-mail: loredana_heber@yahoo.com

Abstract: Four pig breeds are considered German: Angeln Saddleback or Angler Sattelschwein or Angler Sadelvin, Bentheim Black Pied or Schwarz-Wesses or Buntas Bentheimer Schwein, Husum Red Pied or Rotbunte Husumer, and Swabian-Hall. The authors have compared these pig breeds from several perspectives – conservation status, other names, nicknames, country of origin, traits (weight of male and female), characteristics / description, breeding history, and variant to identify the best pig breed to acclimate to the conditions of Romania for their productive qualities.

• Introduction

Native pig breeds are a source of biodiversity. According to Rischkowsky & Pilling (2007), pigs' genetic resources can be approached from four perspectives – flows of animal genetic resources, structured breeding programmes, conservation programmes, and genetic improvement methods to support sustainable utilization.

From the perspective of the flows of animal genetic resources, pigs are among "the big five" (together with cattle, sheep, goats, and chickens. This flow started with the combination of European and Asian genetic material in the 18th century that laid the foundation for the creation of modern European pig breeds, and continued with national, regional, and commercial pig breeding programmes (focused on home markets) in Europe and North America after 1945, and with hybrid breeding programmes (focused on producing fattening pigs) in the late 1970s. European breeds (the Large White, Landrace, Hampshire, and Piétrain) and a North American breed (Duroc) dominated the worldwide distribution of pigs.

As far as the structured breeding programmes (whose objectives included feed conversion rate, fertility, and proportion of lean meat production) are concerned, pig breeding was a priority in 44 countries (i.e., 33%) but only 36 countries (i.e., 27%) reported the existence of structured breeding programmes and only 10 (i.e., 7.5%) were outside Europe and the Caucasus or North America before 2007.

• Material and method

The material investigated in this paper consists of four rare German local pig breeds – Angeln Saddleback, Bentheim Black Pied, Husum Red Pied, and Swabian-Hall. The research method used in the paper is the comparative method, and the research tool is aggregate data analysis (which employs available bodies of published or other data [...] describing the characteristics of an entire population or similar aggregate of individuals – The Free Dictionary).

• Results and discussions

In synthesis, the three pig breeds and one variant are characterized by the following:

- Conservation status: Angeln Saddleback and Bentheim Black Pied are rare breeds (i.e., breeds that have a very small breeding population, usually from a few hundred to a few thousand), Husum Red Pied' status is critical (Food and Agriculture Organization of the United Nations) or unknown (Domestic Animal Diversity Information System), and Swabian-Hall is still available but in small numbers;
- Country of origin: all four pig breeds are from Germany;
- Characteristics / traits: Angeln Saddleback, Husum Red Pied, and Swabian-Hall are large pigs, while Bentheim Black Pied is medium-sized; their meat is fatty (this is why the interest in their meat decreased over the years), yet the meat of Swabian-Hall has a Protected Geographical Status in the European Union; Angeln Saddleback and Swabian-Hall sows are excellent, prolific mothers;
- Breeding history: all four breeds are German (i.e., they were established in Germany from English (Berkshire, Cornwall, and Saddleback / Wessex), Chinese (Meishan), and German (Landrace and local) breeds; two breeds were established in the 19th century (Husum Red Pied and Swabian-Hall), and two breeds were established in the 20th century (Angeln Saddleback and Bentheim Black Pied).
- Scientific name: common to all four breeds (*Sus domesticus*).

• Conclusions

These four breeds are recommended for acclimation in Romania for the following reasons:

- Pig weight (Angeln Saddleback, Husum Red Pied, and Swabian-Hall); Sows' fertility (Angeln Saddleback and Swabian-Hall); Sows' production of milk; Sows being excellent mothers; Good adaptation to outdoor systems of management; Long-lived animals (Swabian-Hall); Pork of choice after the return to old traditions (Swabian-Hall).