



Bundesanstalt für
Landwirtschaft und Ernährung



Connection of Underutilized Genetic Resources for Food and Agriculture with Organic Farming





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1. Introduction

- Most initiatives for utilization of rare GRFA are certified organic.
- Affinity of organic consumers to biodiversity and rare GRFA
- But: a lot of organic farms do not use rare GRFA yet.



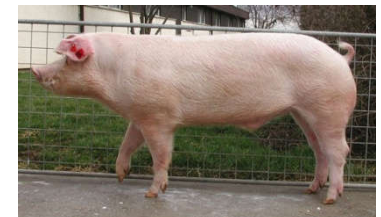


2. EU legislation for organic farming

Regulation (EC) No. 889/2008:

Article 8 „Origin of organic animals“:

*“(1) In the choice of breeds or strains, account shall be taken of the capacity of animals to adapt to local conditions, their **vitality** and their **resistance to disease**. In addition, breeds or strains of animals shall be selected to avoid specific diseases or health problems associated with some breeds or strains used in intensive production, such as porcine stress syndrome, PSE Syndrome (pale-soft-exudative), sudden death, spontaneous abortion and difficult births requiring caesarean operations. **Preference is to be given to indigenous breeds and strains.**”*





3. GRFA for a credible organic farming sector

Credibility:

- Key for willingness to pay a **higher price** for organic products (credence products)
- Consequently key for future of organic farming sector

Customer expectations:

- **Implementation of EU legislation** for organic farming

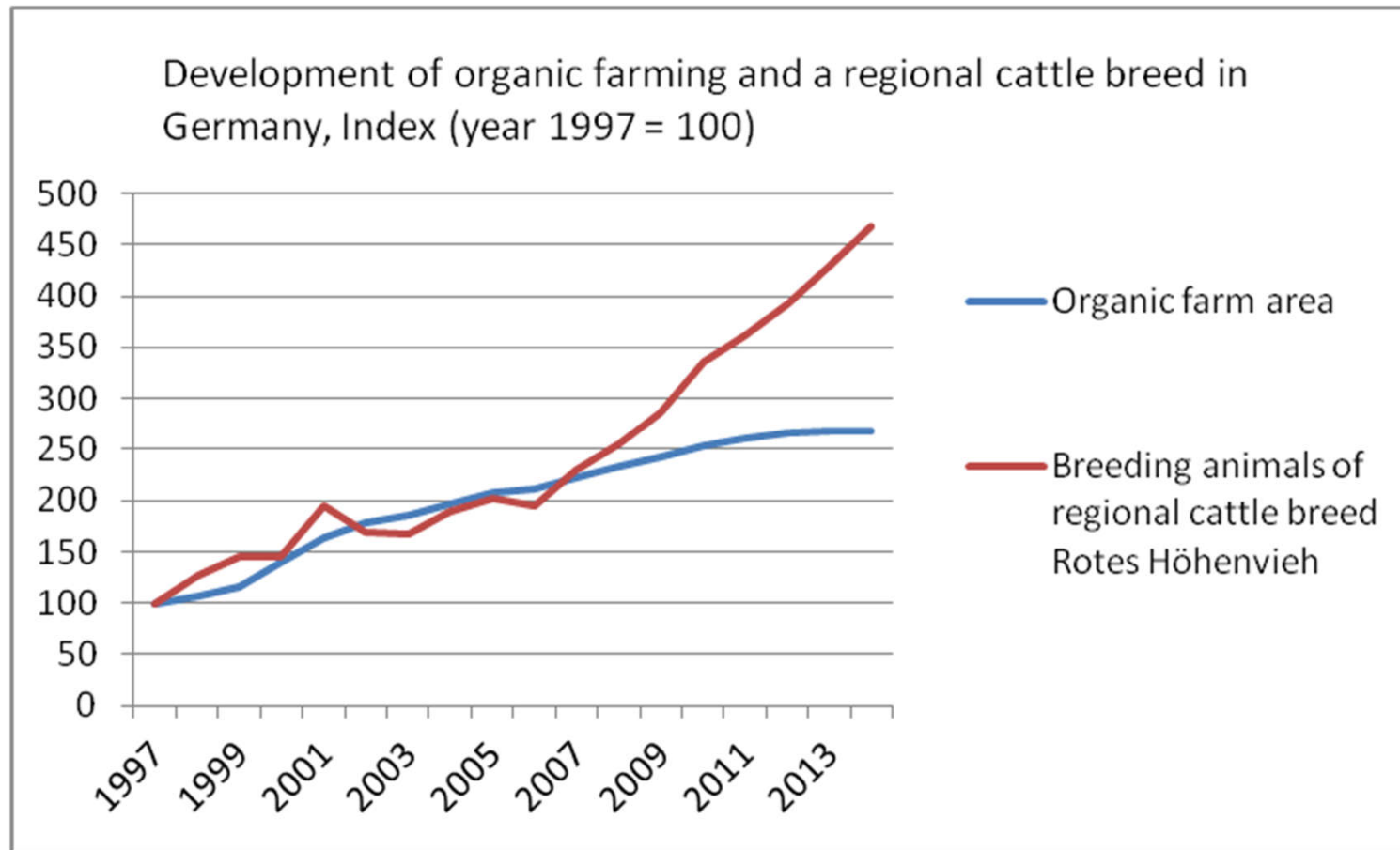


includes use of indigenous breeds



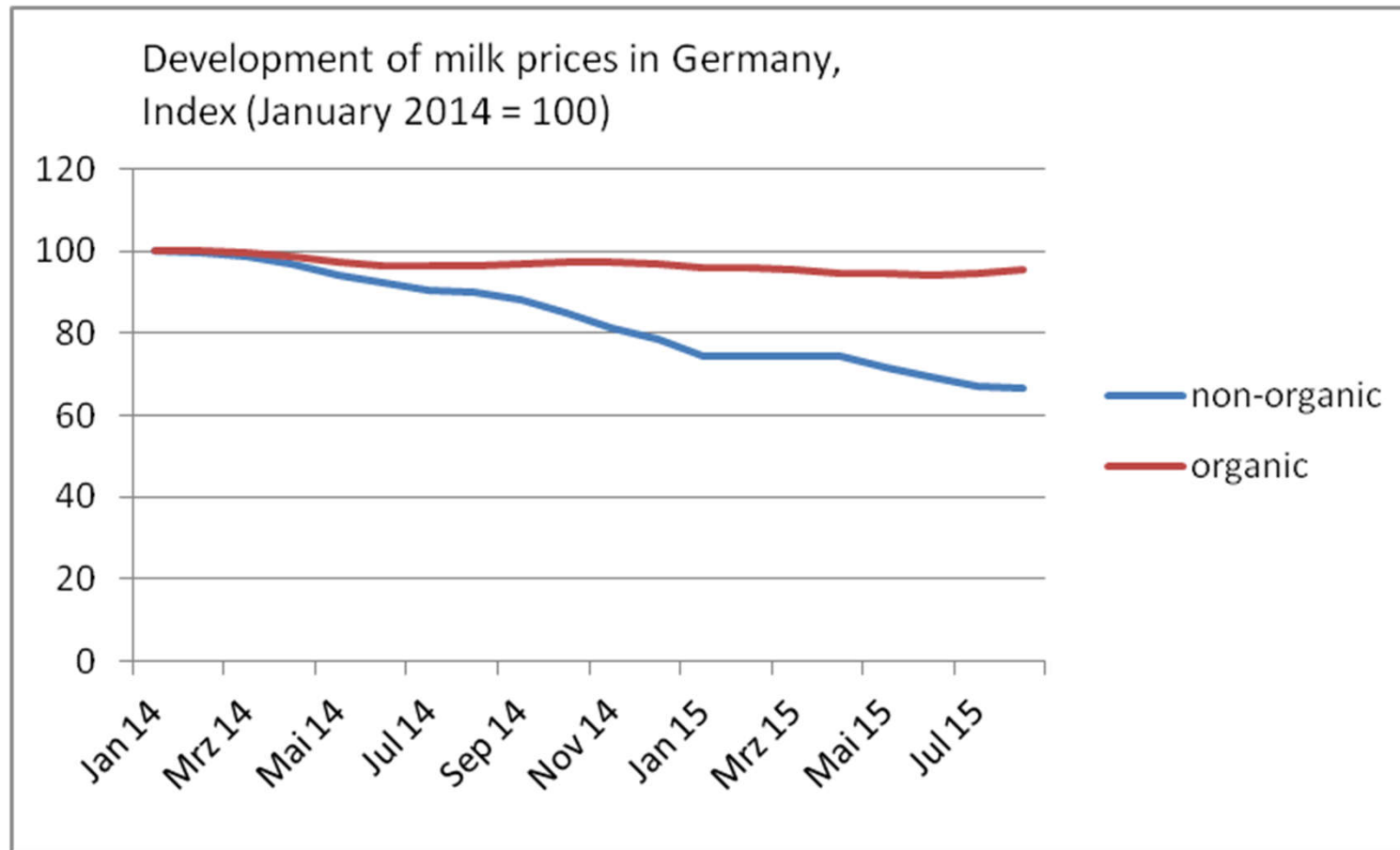


4. GRFA for a successful organic farming sector





5. Example dairy cattle: The right cow for organic milk





6. Example emmer wheat: species for organic products

Emmer wheat (*Triticum dicoccum*):

- One of the oldest wheat species
- Nearly no economical relevance in Europe in 20th century

R&D projects funded by Federal Scheme for Organic Farming and Other Kinds of Sustainable Agriculture of the BLE:

- Improving the resistance to the agent of leaf rust (*Puccinia triticina*) of einkorn wheat (*Triticum monococcum*), emmer wheat (*Triticum dicoccum*) and spelt wheat (*Triticum spelta*) cultivated in **ecological agriculture**, (2002-2003)
- Development of materials and strategies for a sustainable breeding of **emmer wheat** (*Triticum dicoccum*) for **organic farming** in Germany (2011-2014)
- **Today popular in several organic products**





7. Conclusions

- Rare GRFA have the potential to **push the value chain development** in the organic farming sector
- Use of **indigenous breeds** is a question of credibility of organic farming.
- **Utilization of rare PGR** in organic farming are promising, but investments are needed.





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