

European Livestock Breeds Ark and Rescue Net (ELBARN)

Ark and Rescue Centres in the context of the National Programme on Animal Genetic Resources in Germany

Babette Balzer, Federal Agency for Food and Agriculture, Germany

Antje Feldmann, Society for the Conservation of Old and Endangered Livestock Breeds, Germany

The National Programme on Animal Genetic Resources in Germany

In 2002 the Coordination Group on Animal Genetic Resources of the German Society for Animal Production (*Deutsche Gesellschaft für Züchtungskunde; DGfZ*) put forward a recommendation for a “National Programme for the Conservation and Sustainable Use of Animal Genetic Resources”. The National Programme was agreed between the Federal Government, the *Laender* and other participants and was approved by the Conference of Agricultural Ministers (*Agrarministerkonferenz, AMK*) on 21st March 2003.

The objectives of the National Programme, which focuses on the species horses, cattle, pigs, sheep, goats, rabbits, hens, geese, ducks, turkeys and pigeons, are:

- long term *in situ* and *ex situ* conservation of the diversity of animal genetic resources in scientifically sound and cost-effective breeding programmes;
- enhance attractiveness of animal genetic resources for sustainable animal production systems by means of description, evaluation, documentation and breeding tests;
- contribute to the conservation and use of agricultural grassland ecosystems and to support the utilisation of animal genetic resources in nature and landscape protection areas;
- support all actions concerning the conservation of animal genetic resources and to establish a transparent system of competence and responsibilities between the Federal Government and the *Laender*, NGOs and private sponsors;
- promote cooperation at national, European and international level and exploit the resulting synergies.

These objectives are to be reached by means of strengthening infrastructure, monitoring, *ex situ* (cryo) and *in situ* (live) conservation, precautionary measures in case of disease outbreak, (financial) support measures and research.

In situ conservation is an important issue since it allows for the maintenance and adaptive management of farm animals in productive landscapes, facilitates continued co-evolution in diverse environments, and avoids stagnation of the genetic stock. The main targets of live conservation with regard to the National Programme are long term conservation of populations with the aim to maintain the genetic variability of and the specific genetic characteristics in breeds, the conservation of the appearance (phenotype) of culturally and traditionally significant breeds (where necessary, without conservation of independent genetic variability) and the sustainable use of as many different breeds as possible.

The Ark Farms in the context of the National Programme

In this context the GEH Ark Farms are acknowledged as a role model for utilisation and support of domestic animals since they specialise on endangered breeds and link activities of their breeders.

The original concept of the GEH Ark Farms, based on the model of the Swiss Ark Farms from Pro Spezie Rara, was introduced in 1995 with the aim to contribute to the conservation of endangered breeds by integrating them into agricultural production and breeding them.

The following is an outline of the situation of the Ark Farms in Germany.

In 2007 there were 75 Ark Farms distributed over 13 *laender* with a clear focus on North Rhine Westphalia (14), Lower Saxony (13) and Bavaria (11). Saxony Anhalt was the only territorial *land* without any Ark Farms.

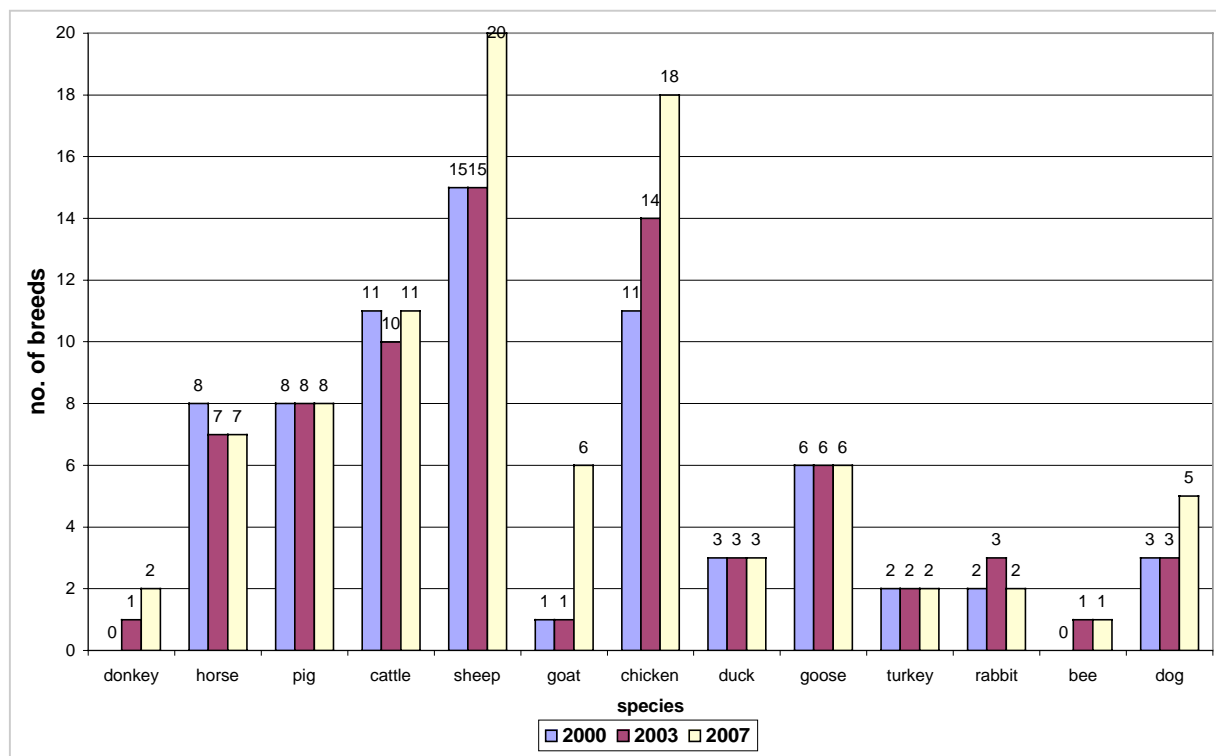
The Ark Farms kept 92 different breeds of 13 species resp. 71 different indigenous breeds from 12 species (there is no indigenous donkey breed). There are some differences regarding the definition of breeds between those listed by GEH and those listed in the National Programme. According to the National Programme:

- the Erzgebirgsziege, Frankenziege and Schwarzwaldziege are subpopulations of the Bunte Deutsche Edelziege;
- the Ostfriesisches Milchschaaf black resp. white are colour variants of the Ostfriesisches Milchschaaf (sheep) and the Graue hornlose Heidschnucke (sheep) a colour variant of Weiße hornlose Heidschnucke;
- the Schwäbisch Hällisches Schwein, Angler Sattelschwein and Deutsches Sattelschwein are subpopulations of the Deutsches Sattelschwein pig breed;
- the Bayerische Landgans (goose), Sachsenhuhn (chicken), Arenberg-Nordkirchner, Lehmkuhlener Pony (horse), Deutsche Landrasse Universal, Deutsches Weideschwein (pig) and are not regarded as (indigenous) breeds;

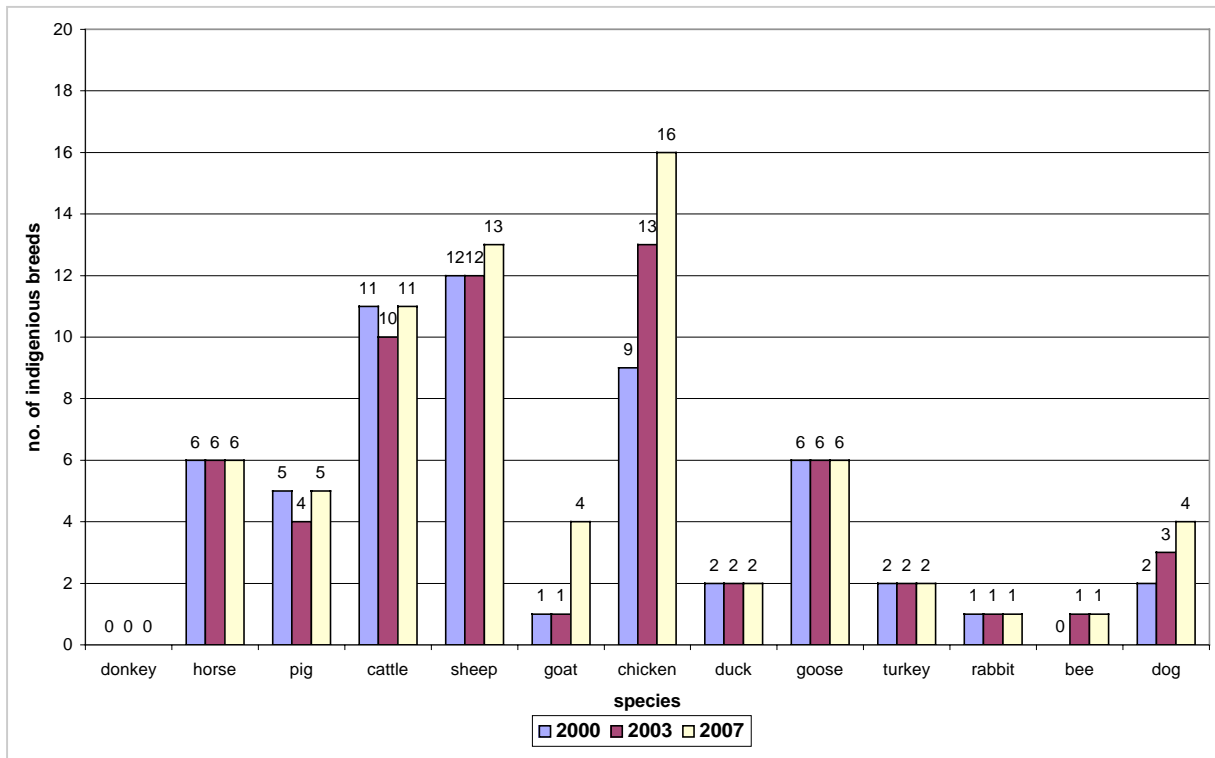
Also, the only two rabbit breeds the GEH attends to are the Angora and Meißner Widder.

However, from the 80 indigenous breeds classified as endangered by the National Programme only three (Merinolangwollschaf (sheep), Rheinlaender and Hamburger chicken) are not found on Ark Farms (2007). The National Programme does not include the species donkey, bee and dog.

Graph 1 shows that the overall number of breeds kept on Ark Farms (resp. Graph 2 regarding indigenous breeds) has changed little in the last seven years. The 31 breeds introduced on Ark Farms since 2000 came along with the approval of new Ark Farms mainly.

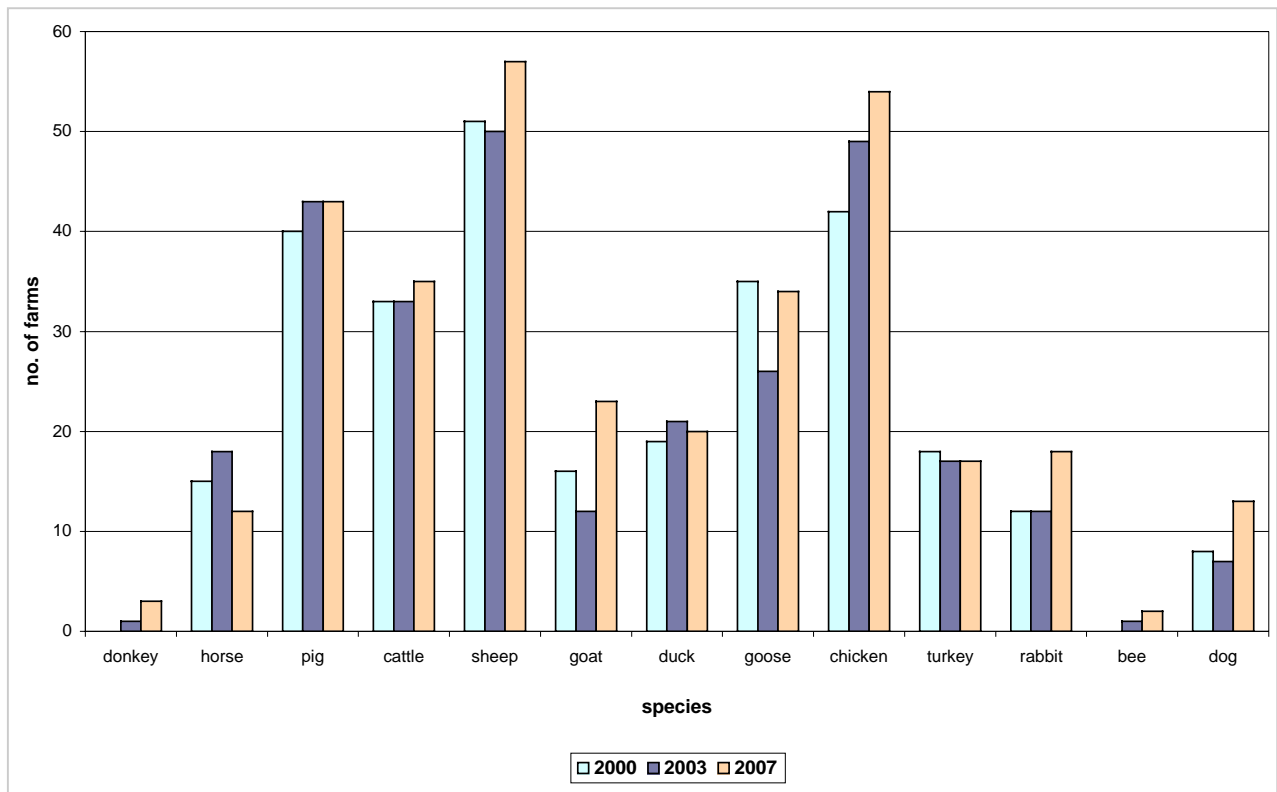


Graph 1: Number of breeds kept on Ark Farms from 2000 – 2007



Graph 2: *Number of indigenous breeds kept on Ark Farms from 2000 – 2007*

Graph 3 gives an overview of how many farms keep at least one breed per species. The favourite species seem to be sheep, chicken and pigs. There is fluctuation with respect to which breeds are kept per farm and the overall number of breeds per farm cross-species.



Graph 3: *Number of Ark Farms with at least one breed per species from 2000 – 2007*

Conclusion and outlook

The Ark Farms offer great potential for the conservation of endangered farm animal breeds under *in situ* on farm conditions both linking breeders with a specialised interest in those breeds and publicly demonstrating the diversity of farm animal breeds and thus raise awareness.

However, the analysis of the present situation reveals that more detailed and comprehensive data on the Ark Farms is required:

- with respect to breeding purposes, on the farmers / breeders themselves and capacities in general.
- For a conclusive statement on the Ark Farms' contribution to sustainable breeding and conservation of a breed there is data necessary on breeding animals (registered in herdbooks of official breeding associations) per farm.
- Information on herdbook registration is also necessary to distinguish the Ark Farms from mere presentation facilities like farm parks and zoos.
- A detailed analysis of regional distribution of the breeds with an evaluation of stocks is desirable both in the context of the National Programme's precautionary measures against the loss of irrecoverable animal genetic resources and with regard to ELBARN's target to establish a rescue net.
- For effective networking it is also felt that more information is needed on the Ark Farms themselves, e.g. marketing or background of the farmers to distinguish amateurs from professional breeders.