

The conservation of old native breeds is justified for, among other reasons, their cultural values. However, recent studies have indicated that local breeds can be associated with several other important non-genetic conservation values.

Old farm animal breeds are of socio-cultural value

WHAT IS A CULTURAL VALUE?

Cultural heritage is a complex fusion of numerous elements and comprises knowledge based on a series of achievements, expressions, reflections, appreciations, beliefs and traditions. Cultural heritage provides an opportunity to locate oneself temporally, spatially and socially. Cultural heritage evolves, and what occurs today, even if it seems mundane, can become part of tomorrow's cultural heritage. This is the situation for old local livestock breeds whose cultural values were hardly discussed 40 years ago, but are now foremost in the minds of the animal genetic conservation community.

Local farm animal breeds are often characterized by distinctive markings that are typically associated with their cultural value. These breeds have played a significant role in our economic and cultural history. The native farm animal breeds of the North are typically based on original domestic animal stocks that accompanied humans as they migrated to the northern areas of Europe thousands of years ago. The first breeding associations and herd books were established for these local animal populations in the 1800s, when animal breeding activities began and breeds were defined.

It is characteristic to the native breeds that they occur in relatively confined geographical areas and bear a strong stamp of the locality. They can be of unique local symbolic value, as in the case of the Icelandic horse and its cultural value for Icelanders.

WHAT ARE THE CULTURAL VALUES OF NATIVE BREEDS?

The cultural values of native breeds can be discussed at various levels. They serve as witnesses to the agricultural history of a particular area and represent a vehicle to advance local traditions in the future. Native breeds are also valuable for scientific and educational purposes.

Numerous native breeds have been used in traditional agricultural systems. The summer pastures of local breeds have often been located in mountainous or otherwise distant areas, and the migration of herds to the summer pastures through villages has been a significant event in the annual rhythms of everyday life of many people. Through their grazing on summer pastures, many native breeds have shaped the current traditional landscapes that now comprise important ecosystems and which feature in the efforts to conserve cultural and biological diversity.

Breeds are naturally linked to food culture: milk and meat of old breeds has been used to create local, traditional dishes. Wool is needed for traditional handicraft products, including clothing, and is often shorn from native sheep breeds. Native breeds have also inspired artists



and influenced the cultural traditions associated with particular localities. The longer a native breed and its ancestors have been raised in their traditional areas, the greater the cultural significance of the breed.

An old breed can be connected to the nation's collective memory, and represent a watershed in a people's history. It is well know that the ancestors of Iceland's native breeds arrived on the Viking ships. The Finnhorse played a significant role on the battle fronts during the Second World War and the Eastern Finncattle walked beside their owners when the evacuees of Finnish Karelia fled from the occupied areas.

New products based on local breeds represent new forms of food and handicraft culture. Conservation through utilization is currently emphasized in the maintenance of farm animal genetic resources and several projects to develop breed-based production and branding of the local breeds have begun in the Nordic countries.

FEW STUDIES HAVE BEEN CONDUCTED

The distinctive values of native farm animal breeds have only been studied in a few research projects. In the ECONOGENE project funded by the European Union and co-ordinated by the Italian University, Università Cattolica del Sacro Cuore in Piacenza, genetic and nongenetic values of the local sheep and goat breeds of central and western European origin were examined. In Finland, Agrifood Research Finland (MTT) co-ordinated and conducted two studies that focussed on values



of Finnish native cattle and sheep breeds and those of an endangered Siberian cattle breed, the Yakutian cattle of the Sakha Republic in Russia. The data necessary to evaluate the distinctive nongenetic values of farm animal breeds are typically obtained by interviewing animal owners, authorities, researchers and other stakeholders, and from demographic records, historical archives and media analyses.

The Finnish research group identified six different value categories that describe the importance of native breeds for animal owners, different stakeholders and for society in general. In addition to the cultural value, native breeds also were of ecological, economic, social, political and ethical value.

Native breeds are of conventional economic value, but can represent an essential component of everyday life for some people, particularly in marginal rural areas. The Yakutian cattle, which have adapted to the harsh environment in Siberia, represent one such example. In such cases additional economic values are closely related to ecological values. Conservation of native breeds is vitally important to secure the genetic diversity of a domesticated species. The genes of native breeds can, for example, enter a crossbreeding program to develop a new breed.

The social values of native breeds are linked to a people's welfare and interests, securing control of their own lives, and in establishing ideological rights and social relationships. For example, the rural people of northern Siberia have traditionally relied on their cattle during times of great social upheaval, as represented by the Russian revolution, and more recently, the collapse of the Soviet Union. From the point of view of social sustainability, native breeds provide numerous opportunities to improve a people's physical and mental welfare, which benefits individuals and society as a whole. Raising endangered native breeds also increases interactions between people and promotes social diversity and social capital.

In addition to social and cultural studies, molecular genetic investigations can also increase our knowledge and the awareness of the cultural importance of local breeds. Such studies have shown that several Nordic native breeds share prehistoric ancestries and can reveal ancient migratory routes of domesticated animals. A recent study on the molecular genetics of sheep indicated that northern European sheep breeds, such as Gutesheep

in Sweden, Finnsheep and Icelandic Sheep, have unique pre-histories and can be considered true original breeds on the European scale.



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