



**Opinion paper of the Advisory Board
Animal Genetic Resources**

**Landscape management and
contract-based nature conservation
with endangered
native livestock breeds**

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Summary

The aim of this opinion paper is to draw the attention of public administrations and associations to the diversity of domestic livestock breeds and their endangerment, as well as their skills in landscape management and contract-based nature conservation. This offers a good opportunity for cooperation between nature conservation and agriculture with mutual benefit. This opinion paper deliberately does not claim to be a scientific publication, but there is currently insufficient scientific evidence on the use of certain breeds in different types of landscapes. The opinion paper is intended to be much more of a plea and a recommendation to involve domestic livestock breeds more closely in contract-based nature conservation and landscape conservation. In this way, synergies between nature and species protection and the preservation of the diversity of native livestock breeds can be created.

The Federal Republic of Germany has committed itself to national and international agreements, both at the level of nature conservation and in the field of conservation of animal genetic resources for agriculture and nutrition. The use of (endangered) native livestock breeds in landscape management embodies a meaningful symbiosis of the two areas. This could also have a symbolic character for a future constructive cooperation between nature conservation and agriculture. There are already many successful projects in which our native livestock breeds have proven their suitability for landscape maintenance. For example, a field study has shown that Weiße Hornlose Heidschnucken and their crossbreeds are insensitive to St. James' ragwort. From the point of view of the Advisory Board Animal Genetic Resources, however, the use of these breeds should be expanded even more widely. In order to better prove the suitability of the native breeds for landscape maintenance and contract-based nature conservation, the federal and state governments should support practical research in this area with the involvement of the participating associations.

In the annex to this opinion paper you will find species-specific examples of the use of domestic livestock breeds in landscape management.

1.Introduction

1.1 Many domestic livestock breeds are threatened with extinction

Germany has a wide variety of domestic livestock breeds. However, this diversity is under threat. According to the current classification by the Advisory Board on Animal Genetic Resources (Working Committee of the German Society for Breeding Science, DGfZ) and the Federal Office for Agriculture and Food (BLE), 58 of the 81 native breeds of the animal species horse, cattle, pig, sheep and goat are considered endangered.

The reasons for this are manifold. Through mechanization in agriculture, horses and cattle were replaced as draught animals, old cattle and sheep breeds were replaced by more specialized and efficient breeds, and old pig breeds lost importance due to the increasing demand for lean meat.



Figure 1 The current risk situation (as of October 2022). 58 of the 81 native German livestock breeds of the species horse, cattle, pig, sheep, and goat are classified as endangered. (source: BLE).

Only through the work of conservation initiatives these breeds were able to be preserved. In addition, opportunities are constantly being sought to use the comparatively less productive breeds more in agriculture, forestry and landscape management. True to the motto 'protection by use' or 'preservation by eating', the use of the breeds in agriculture is the most sustainable way to stabilise populations.

An overview of all domestic livestock breeds and their endangerment categories can be found via following links:

<https://www.genres.de/en/sector-specific-portals/livestock/red-list-of-livestock-breeds>

<https://tgrdeu.genres.de/en/red-list>

1.2 Why preserve the old livestock breeds?

The diversity of livestock breeds is of enormous importance for agriculture and food-security. Only by preserving genetic diversity will it be possible in the future to react to changes in consumer behaviour or in agricultural processes, also influenced by climate change. In addition, positive traits, such as the robustness of the old breeds, can be incorporated into today's breeding programmes.

The use of domestic or regional livestock breeds in contract-based nature conservation and landscape management is of high ecological importance. The breeds are

adapted the conditions and environmental influences of their area of origin and thus specialized caretakers of those landscapes.

Last but not least, the cultural value of indigenous livestock breeds is immense. In times of progressive globalization, the aspect of regional identity, to which regional livestock breeds also contribute, is becoming increasingly important. Furthermore, the preservation of biodiversity for future generations is a task for society as a whole.

1.3 International agreements on the conservation of domestic livestock breeds

The Federal Republic of Germany has committed itself in several international agreements to preserve the diversity of livestock breeds.

The **Convention on Biological Diversity (CBD)**, in addition to the aspects of species protection, also addresses the conservation and sustainable use of genetic resources for food and agriculture, including livestock breed diversity. Germany has also consented to the **World Plan of Action on Animal Genetic Resources (GPA on AnGr)**, including its 23 strategic priorities for the conservation and sustainable use of animal genetic resources of the Food and Agriculture Organization of the United Nations (FAO).

The 17 Global **Sustainable Development Goals (SDGs) of the United Nations**, which include the preservation of the genetic diversity of farm animals, are supported by Germany.

The **EU Animal Breeding Regulation** (Regulation (EU) 2016/1012) provides for special rules and derogations for endangered local breeds and calls for their conservation. The **EU Organic Farming Regulation** (Regulation (EU) 2018/848) explicitly recommends the prior use of indigenous breeds.

1.4 National agreements for the conservation of domestic livestock breeds

At national level, the **National Programme for the Conservation and Sustainable Use of Animal Genetic Resources** is of particular importance as a sectoral contribution to the strategy "**Conserving agrobiodiversity, unlocking and sustainably use potentials of agriculture, forestry and fisheries**" of the Federal Ministry of Food and Agriculture (BMEL). It contains important facts and definitions as well as goals and measures to preserve the diversity of native livestock breeds in Germany.

The programme has recently been updated and extended, including a sub-chapter on landscape conservation, which explicitly recommends the use of indigenous livestock breeds.

The **National Animal Breeding Act** (§ 1 paragraph 3 No. 4, TierZG, 2019) also requires that 'genetic diversity and the cultural heritage of indigenous breeds shall be preserved'.

1.5 Governmental support for the breeding and keeping of endangered domestic livestock breeds

Under EU law, the breeding of endangered domestic livestock breeds can be supported financially. Payments are mostly granted under the second pillar of the EU Common Agricultural Policy.

In Germany, endangered livestock breeds are supported mainly on the basis of Article 28 of the EAFRD Regulation. This is done as state measures or as a joint support measure of the federal and state governments on the basis of the joint task for the improvement of agricultural structure and coastal protection (GAK). These support measures can also be co-financed with EU funds.

An overview of the federal states' support measures can be found here:
<https://tgrdeu.genres.de/en/support-measures>

2. Grazing in landscape management and in contract-based nature protection

Keeping landscapes open is one of the main objectives of landscape conservation and nature conservation. The aim is to maintain a high biodiversity and at the same time an attractive cultural landscape, as many endangered plant and animal species are bound to open habitats. Without proper care and management measures, these areas bush over and are lost - and with them the species diversity.

Keeping open habitats by grazing with livestock is an established concept. When selecting the most suitable livestock species and breeds, various aspects should be taken into account. One of the decisive factors is, whether the animals can and should remain in the pasture all year round or only during the vegetation period, but also whether they are suitable for the habitat at all. In agricultural grazing, there is the additional claim of economic meat production. The different livestock species and breeds have different demands on the soil conditions, the climate and the feed composition of the site to be grazed. If certain plant species are to be preserved, the feeding behaviour of the different livestock species also plays a role.

In Germany, grazing of nature conservation areas or landscape management is carried out in numerous landscape conservation projects with foreign breeds or species (e.g. Galloway cattle, water buffaloes). It is precisely this direction of use with comparatively lower economic constraints that would be ideally suited to use and thus preserve endangered native breeds.

Many advantages of the use of grazing over other management methods have already been included in corresponding recommendations from the points of view of nature conservation and animal husbandry. In addition to appropriate husbandry and animal welfare, as well as the protection of nature and species, there are also cultural demands for the preservation of a landscape. The selection of domestic livestock breeds and their visibility underscores the uniqueness of a cultivated land.



Figure 2 Graue Gehörnte Heidschnucken in a heathland (source: Westend61 via Getty Images).

Regionally typical livestock breeds can be used to address the regional population and also to increase acceptance among the local population for appropriate landscape and nature conservation measures. The aspects of a region's identity also play a major role in tourism and can thus generate revenue and jobs.

However, the livestock breeds themselves are also a cultural asset worth preserving. Because the valuable permanent grassland, the heaths and the dikes were formed and preserved by our native livestock breeds. It is obvious that these livestock breeds will continue to be predestined for the preservation of the habitats they have created.

When caring for the landscape with grazing animals, the aspects of herd protection must always be considered. The return of the predators wolf and lynx present great challenges towards animal owners. State support should be increased and the demands of livestock farmers should be taken into greater account.

2.1 Areas of application for endangered livestock breeds

Old and endangered livestock breeds have their advantages especially where the husbandry of more demanding breeds ecologically and economically does not make sense.

In agriculture, endangered livestock breeds are mainly found on extensive farms - including on marginal yield areas, where, despite severe conditions, high-quality meat, milk, wool and egg products are produced. Many animal owners are also concerned about keeping their livestock in species-appropriate husbandry forms such as suckler cow husbandry, grazing fattening or free range forms. Breeds whose performance potentials are appealing to the farm from this point of view have also been able to develop positively in recent years. Examples are the Rotes Höhenvieh, the Rhönschaf, the Coburger Fuchsschaf, the Schwäbisch Hällisches Schwein or the Bavarian goose.



Figure 3 Glanrinder in the Eifel region (source:

In forestry, back horses are used as a forest and biotope protecting measure. The use of grassland in historic hutewood forests with cattle, pigs and sheep or the grazing of young crops and fire protection strips are currently of interest.

In the agricultural downstream sector, very interesting opportunities for the inclusion of endangered breeds have been developing for years. Examples of those opportunities are for example the grazing of grassland areas in open-air and farm museums and in the area of educational institutions such as on school farms or Ark farms as well as in the grazing of marginal yield sites and protected areas, the integration into special landscape conservation projects but also in biosphere reserves, national parks etc..

2.2 Endangered native breeds related to a particular region or landscape

The adaptedness of the animals to the prevailing environmental conditions, their vitality and robustness are often characteristic strengths of old native breeds.

Over centuries, certain breeds have evolved in their respective regions, turning them into real 'specialists' for the care of those regions. It should be noted that

- each type of landscape imposes specific requirements on the animals and their husbandry systems;
- the specific characteristics of the animals are the result of centuries of breeding and adaptation to regional conditions; and
- grazing animals have formed and preserved the cultivated landscape and its defining elements (e.g. dry grasslands, forest pasture, heath).

The name of the old breeds already indicates their regional origin and distribution as well as the corresponding adaptation. The Glanrind comes from the Glan-Donnersberger area in the Hunsrück and the Eifel, the Rhönschaf from the area of the Rhön and the Dülmener horses from the Merfelder Bruch in Dülmen in the Münsterland area.

The positive characteristics of these breeds are diverse. In order to recognise them, it is necessary to define performance not only on the basis of purely quantitative traits, such as the quantity of milk or the daily gain.

The particular suitability of old domestic breeds becomes clear when the animals are confronted with more difficult environmental conditions such as steep slopes, moist meadows and pastures, moderate feed quality or extreme climate.

The peculiarities of alpine sheep breeds and Bentheimer Landschaft and their suitability for certain habitats were tested in a model and demonstration project. For this purpose, the suitability of Alpine Steinschafe for alpine pastures and the suitability of Bentheimer Landschaft as heath sheep were tested in a field assessment. We here see the need for further research to restore already lost knowledge about the abilities of our native breeds.



Figure 4 Landscape maintenance with Dülmener horses in their natural habitat in the Merfelder Bruch near Dülmen (source: BLE).

Due to the historical forms of land use in Germany, a rich variety of landscapes has developed. Pasture animals have shaped open landscapes such as dikes, moors, heaths, dry grasslands and grasslands in the high and middle mountains for centuries.

Within Germany, for example, very different demands are placed on grazing animals as landscape keepers. The requirements in the area of alpine pastures are different from, for example, the care of peatland sites. However, due to the still wide range of native breeds, the regionally very different requirements can be completely covered.

3. Contact

As a contact point for the authorities responsible for the landscape conservation projects, the office of the advisory board is always available:

Information and Coordination Centre for Biological Diversity (IBV)

Federal Office for Agriculture and Food (BLE)

Deichmanns Aue 29

D-53179 Bonn

Holger Göderz (holger.goederz@ble.de; +49228/6845 3370)

Lisa Balzar (lisa.balzar@ble.de; +49228/6845 3671)

List of domestic livestock breeds in Germany:

<https://www.genres.de/en/sector-specific-portals/livestock/red-list-of-livestock-breeds>

Further information on the conservation and sustainable use of animal genetic resources in Germany:

<https://www.genres.de/en/expert-committees/expert-committee-on-animal-genetic-resources>

<https://www.genres.de/en/sector-specific-portals/livestock>

<https://tgrdeu.genres.de/en/>

The The Society for the Conservation of Old and Endangered Livestock Breeds (GEH) e.V. and the associations of animal breeding organisations are happy to help you with the search for animals from native livestock breeds:

The Society for the Conservation of Old and Endangered Livestock Breeds (GEH)

Walburger Straße 2

D-37213 Witzenhausen

Tel.: +495542 1864

E-mail: info@g-e-h.de

www.g-e-h.de

German Equestrian Association e.V.

Federal Association for Equestrian Sports and Horse Breeding

Freiherr-von-Langen-Straße 13

D-48231 Warendorf

Tel.: +492581 6362-157

Email: mkuyppers@fn-dokr.de

<https://www.pferd-aktuell.de/>

Association of German Sheep Breeding Organisations (VDL)

Claire-Waldoff street 7

D-10117 Berlin

Tel.: 0303 1904-540

Email: s.voell@bauernverband.net

<https://www.schafe-sind-toll.com>

Federal Association of German Goat Breeders (BDZ)

Claire-Waldoff-Straße 7

D-10117 Berlin

Tel.: 0303 1904-297

Email: s.voell@bauernverband.net

<https://www.ziegen-sind-toll.com>

Federal Association of Beef and Pigs (BRS)

Adenauerallee 174

D-53113 Bonn

Tel.: 0228 91447 0

info@rind-schwein.de

<https://www.rind-schwein.de/>

4. Appendix - Species-specific use of domestic livestock breeds in landscape management

In the following, it is shown how the different animal species are used for landscape management with native livestock breeds.

4.1 Landscape management with native horse breeds

In Germany, there is a large number of native horse breeds, some of which are highly threatened with extinction. Many of these breeds are also excellently suited for landscape management. In many projects, however, non-native breeds (e.g. Konik horses) are also used, although in Germany, too, native horse breeds are perfectly adapted to year-round outdoor keeping: An example would be the Dülmener.

Dülmener

The Dülmener originates from the Merfelder Bruch, where it is also referred to as the Dülmener Wildpferd. In this term, their semi-wild life is expressed. The name already indicates the excellent suitability of this breed for extensive grazing and landscape management. The Dülmener wild horses were mentioned for the first time in 1316. In order to preserve the wild horse population, Duke Alfred von Croy established a protected area in the Merfelder Bruch in 1847, which still exists today. Today, the Dülmener is highly threatened with extinction. In 2022, 41 broodmares and 8 breeding stallions were left in the breeding programmes of German breeding organisations.

In the meantime, the suitability of the Dülmener for landscape maintenance has also been tested in other areas of northern Germany, which are very similar to their original habitat. Thus, the breed has proven itself in the Lüneburger Heide which is a heathland. In addition to the positive aspects of nature and species protection through gentle grazing, the use of these animals could also contribute to the preservation of a local cultural asset.

Examples of landscape management with the Dülmener:
In the Merfelder Bruch: www.wildpferde.de
In the Lüneburger Heide: www.vererein-naturschutzpark.de

Heavy horses as draught horses

Conservation works can also make an important contribution to the preservation of native horse breeds, as they give the working horse breeds - in the spirit of their original purpose - economic importance again. This is because working with horsepower means protecting the soil by reducing the density, protecting living beings by slowing down the pace and using 'softer' technology (e.g. beam mowers instead of rotary mowers), reducing noise pollution and carbon dioxide emissions. For example, heavy horse breeds can be used very well for mowing grassland, hay swaths and horse grazing in

the nature reserve as well as for wood ridges, debusting and transport work, as well as for carriages and draught horses.

The **interest group for draught horses e.V. (IGZ)** with its ten state associations represents the interests of a large number of horse owners who use their horses for agriculture, forestry and nature conservation. Quality training is ensured through licensed training officers. The IGZ also carries out regular timber backing and ploughing show events. In a specially kept list, all back horse farms organized in the IGZ are recorded in each federal state.

Examples of the use of heavy horse breeds:

<https://www.arche-hof-kellerwald.de/https://www.nebershof.de/>

<https://www.damasky.de/>

4.2 Landscape management with native sheep breeds

In the following, the native sheep breeds, that are typical for landscape conservation, are briefly presented:

Characteristic for the Lüneburger Heide is the breed **Graue Gehörnte Heidschnucke**. But also the breeds **Weißer Hornlose Heidschnucke** and **Weißer Gehörnte Heidschnucke** have been native to northern Germany for centuries. Like the **Skudden**, the Heidschnucken belong to the small-framed country sheep and are considered to be particularly undemanding and eager to browse. They are also superior to other breeds on greenland-fallow areas, as they also accept tasty woods such as peat birch, grape cherry, trembling poplar or pine. Heidschnucken can also use the broom heath as food source and help to crush and decimate the unwanted spider webs in the heathlands. In addition, they are able to achieve meat growth on dwarf shrub heaths or other nutrient-poor sites. Skudden are also well adapted to light soils with lean vegetation in harsh climatic conditions and, like the Heidschnucken, are among the rare and endangered breeds.

The **Rauhwolliges Pommersches Landschaf** is an old country sheep breed, which was formerly bred in the coastal regions of Mecklenburg-Vorpommern, especially on Rügen, but has meanwhile found distribution throughout northern Germany.

Animals of the breed are kept on poor sandy and moor soils and also on wet pastures. They are also popular today because of their long-growing blended wool, which varies in colour from steel blue to grey and is used regionally to produce textiles.

Coburger Fuchsschafe and also **Rauhwolliges Pommersches Landschafe** were originally only common in climatically rougher, humid and cool low mountain areas. They were able to cope well with the low-yielding, humid locations. They were also used for the so-called forest pastures. The population numbers of both breeds have recently recovered after a drastic decline in the seventies.

Alpine sheep breeds include **Weißer Bergschafe, Braune Bergschafe, Schwarze Bergschafe, Gefleckte Bergschafe, Alpine Steinschafe, Brillenschafe and Krainer Steinschafe**. Animals of these breeds are still kept mainly in the alpine region and in the foothills of the Alps, but also in low mountain ranges. They are considered robust and sure-footed and are characterized by hard claws. Because of these characteristics, they have become increasingly more popular in demand in recent years for landscape management. Nevertheless, the population numbers are still low, especially in the Schwarze Bergschafe, but also in other alpine breeds, so that they are considered endangered.

Meat sheep, merino breeds or dairy sheep can also be used to care for biotopes on grasslands, fallow lands and semi-dry grasslands. Due to their body weight, their higher daily gains and their higher milk yield, they are a bit more demanding in terms of feed base and nutrient content. Appropriate breeds that are at the same time endangered breeds are e.g. **Weißköpfige Fleischschafe, Schwarzköpfige Fleischschafe, Merinofleischschafe, Merinolangwollschafe and Ostfriesische Fleischschafe**.

Table 1: Assignment of sheep and goat breeds to landscape types in Germany (modified according to AID 'Landschaftspflege mit Schafen')

Biotope type	Time and duration, limitation	Breeds	Preparatory or complementary measures
Divorced bog	year-round, small-scale grazing in a favourable climate and forage supply; High bogregeneration complexes may need to be spared	Weißer Hornlose (Moor) Heidschnucke, Weiße gehörnte Heidschnucke, Bentheimer Landschaf	Debush August-March Mow October-March
Sand heath	year-round grazing, rotation; especially in autumn and winter grazing of the broom heath areas with newly emerging calluna are to be spared for about 3 years	Graue Gehörnte Heidschnucke, Bentheimer Landschaf (+ Goats)	Debush August-March Mow October-March
Juniper heath	Spring and summer pasture	Heidschnucke or other country sheep breeds (+ Goats)	Mow October-March Debushing of the juniper-replacing trees August-March
High and mountain heath	spring and summer pasture; especially in autumn grazing of the broom heath	Country sheep breeds, especially Berg-, Rhönschaf, Coburger Fuchsschaf (+Goats)	Debush August-March Mow October-March
Semi-dry and dry grassland (pastures)	Depending on the protection objective, spring and summer pastures are sub-plots with endangered species susceptible to deterioration and treading (e.g. orchids) and Succession stages not to be grazed only partially or only in the multi-annual rotation process	Country sheep breeds (+Goats), possibly meat sheep breeds (Schwarzköpfiges Fleischschaf)	Mowing between June and October, depending on the floristic and vegetation protection target, required for matted areas before grazing Debush August-March
Silvergrass floor	Spring and summer pasture	All domestic sheep breeds	Debush August-March
Economic-grassland uncl. Wet meadows	Partial parcels of spring and summer pasture with species that are susceptible to biting and treading (e.g. Orchids) are not to be grazed during their flowering phase	All domestic sheep breeds	Mowing 1-2 times a year in mid-June and September
Dikes and dams	grazing in the Growing season	All domestic sheep breeds, preferably meat breeds	
Salt marshes in the foothills of the dike	grazing in the Growing season, low stocking density with 1-4 sheep /ha	Weißköpfiges Fleischschaf, All domestic meat sheep breeds	
Fallow land	Spring and summer pasture	All domestic sheep breeds, preferably regional country sheep breeds	Mowing at intervals of several years from October debush August-March
Slope locations in the Alpine region (Almen)	Summer pasture on the alpine pastures, erosion-prone areas must be avoided	Mountain sheep, alpine breeds	

4.3 Landscaping with native cattle breeds

Various cattle breeds also serve the population's desire for regional identity, but have often been displaced from the population's consciousness by the strong presence of English and French beef cattle breeds (e.g. Galloway, Limousin). In the following, some regionally typical cattle breeds suitable for landscape maintenance and contract-based nature conservation are presented.

The **Hinterwälder cattle**, for example, is known as an endangered cattle breed for a very good production performance even under extensive conditions. The animals graze the so-called Allmenden in the high altitudes in the southern Black Forest, because they move very confidently in the steep slopes and cause significantly less erosion damage than heavier cattle breeds. And even with a comparatively high intake of qualitatively less valuable feed such as bristle grass and bald oats, the light cattle breed with a withers height of 115 - 120 cm and a weight of 400 - 450 kg produces an acceptable milk yield of 4,500 - 5,000 kg in adult cows under these conditions.

The **Murnau-Werdenfelser cattle** is the native robust breed par excellence. Its area of origin ranges from the Alps to the Murnau moss. There, it must persist both in harsh high-mountain climates and in wet locations. In particular, the adaptation of the Murnau-Werdenfelser to moist locations makes this breed also attractive nationwide for landscape maintenance and contract-based nature conservation at corresponding locations. With its hard, dark claws, it has a special adaptation to the grazing grounds in the wet meadows of the Murnau moss and moves extremely safely in the steep and rocky mountain regions. The weather resistance is another advantage of the Murnau-Werdenfelser. Due to these, it is also ideally suited for the sites, which are often grazed by water buffaloes. In Bavaria, the Murnau-Werdenfelser cattle is still predominantly bred as a dual-use breed for milk and meat production. In addition, breeding is increasingly developing outside Bavaria, which specialises in suckler cow husbandry and is therefore suitable for landscape maintenance.

Grassland differs in terms of fodder growth due to the frequency of precipitation and soil conditions. Many species-rich grassland areas are extensive sites, but tend to produce only a lower feed quality. But even for these sites there are specialists among the native cattle breeds that cope well with these conditions. Particularly adaptable here is the **Rotvieh alter Angler Zuchtrichtung** from northern Germany. This original dual-use breed is increasingly used in suckler cow husbandry. In addition, the Hinterwälder Rind (see above) and the Rotes Höhenvieh are also regarded as undemanding 'landscape keepers'.

Originally from Great Britain, Shorthorn beef has been bred in northwest Germany for 180 years, making it the oldest beef cattle breed in Germany. Even today, the **German Shorthorn cattle** is kept there partly on nature reserves. A special feature of the animals, which is not insignificant for the landscape aesthetics, is their roan coat. From 2007 to 2011, the Federal Office for Agriculture and Food funded a project of the

Federal Environment and Nature Conservation Germany (BUND) and the Institute of Organic Agriculture of the Thünen Institute, in which, among other things, the German Shorthorn cattle was tested for landscape maintenance in the Elbe River Landscape Biosphere Reserve. Since the German Shorthorn beef has proven itself there, animals of this rare breed still graze in the biosphere reserve today.

The Allgäu is inconceivable without **Braunvieh**, which conquered other regions from there - especially in southern Germany. However, Braunvieh is not the same as Braunvieh. The **original breeding direction** is a robust dual-use breed, which is still characterized today by its low demands on feed. From the middle of the 20th century, however, American Brown Swiss animals were increasingly crossed in the course of the intensification of agriculture. This should increase the milk yield. At the last minute, the last original Allgäu Braunvieh cattle could be identified and a conservation breeding program for this original farm animal breed could be set up. The old breed of Braunvieh is more suitable for landscape conservation and contract-based nature conservation than the modern breed of Braunvieh.

Example of landscape maintenance with Braunvieh alter Zuchtrichtung:
http://www.guenztal.de/guenztal/web.nsf/id/pa_de_guenztal_weiderind.html

The cattle breed **Gelbvieh** originally comes from Franconia and is therefore often called Gelbes Frankenvieh. The Gelbvieh are bred for two directions of use: Double use (milk and meat) and meat use. Since milking can hardly be organised in landscape management it is advisable to use meat for this purpose.

Example of landscape care with Gelbvieh:
<https://www.lpvobermain.de/projekte/detail/53>

The Advisory Board on Animal Genetic Resources

The Advisory Board for Animal Genetic Resources is a working committee of the German Society for Breeding Science (DGfZ) e.V., which deals with specific questions of animal genetic resources. The members of the Advisory Board are representatives of the federal and state governments, science and animal husbandry. The primary task of the Advisory Board is to initiate the implementation of the objectives described in the National Programme for the Conservation and Sustainable Use of Animal Genetic Resources in Germany, in some cases to coordinate and carry out expert assessments. It is important to transport the tasks and ideas into the subordinate areas of animal breeding, especially the research institutions and umbrella associations, and to control them in a targeted manner.