SAVE e-News 1/2022
Safeguard for **A**gricultural **V**arieties in **E**urope
The quarterly electronic information service of the SAVE Foundation

SAVE Project Office
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Arche Warder –an extraordinary landscape park

ArcheWarder: Modern species-appropriate enclosures that blend into the landscape. ©Arche Warder

The Arche Warder landscape park is part of the European Arca-Net network, which includes more than 700 institutions and farms in 40 European countries. These Ark institutions make agricultural diversity of traditional local breeds and cultivated plants accessible to a broad public.

In the middle of Schleswig-Holstein, the northernmost federal state in Germany, there is an extraordinary animal park: the Arche Warder. This facility is designed as an aesthetic landscape animal park, in which the needs of nature, animals and people are taken into account and which is also a scientific institution. This holistic approach has a unique selling point worldwide. Nowhere else is there a similar concept (see below) and so many old domestic and livestock breeds exist all in one place.

84 old and endangered domestic animal breeds and 8 original forms (wild animals) live here in a 40-hectare landscape animal park and on 18 outdoor areas with a total of 150 ha.

The animal park presents itself to visitors as a diverse, naturally designed park area in which spacious pastures and modern animal-friendly enclosures fit aesthetically into the landscape. A total of 56 employees work there from a wide variety of different fields: animal care, veterinary medicine, administration, crafts, education, horticulture and gastronomy.

The Arche Warder has 5 pillars as part of its holistic concept:

1. Conservation breeding
Overall, the park focuses on 40 priority breeds in addition to many demonstration breeds. The Arche, for example, has become the largest Park cattle breeder in Germany, the first active breeder of horned Shorthorn cattle and one of only two Posavina breeders in Germany. In addition, a very successful Poitou donkey breeding (with herdbook A animals) is operated.

2. Satellite Stations
(Keeping on selected outdoor areas)

In this way the number of individuals of each breed could be increased considerably; a prerequisite for expanding genetic diversity.

Extensive grazing with sheep in a museum area (Haithabu). ©Arche Warder

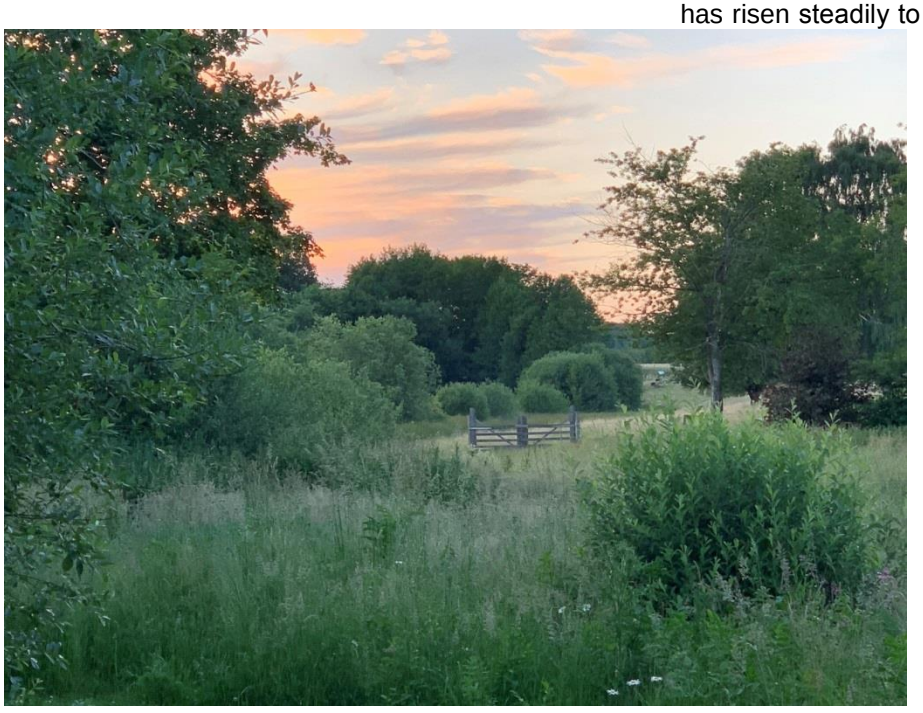
3. Education
The demanding environmental education is carried out by a total of 6 educators.

4. Networking
Over the last 15 years they have managed to establish a functioning network with currently 236 cooperation partners. These include, for example, various breeding associations, zoos and international institutions.

5. Research

In cooperation with the scientific advisory board, whose 11 members come from various universities and research institutions, research projects on the physiological characteristics of old domestic animal breeds are examined. 54 publications are currently published; e.g.: LUDWIG ET AL. Animal Genetics, (2013); BALLWEG ET AL. Veterinary Immunology and Immunopathology, (2016); BECKER ET AL. Journal of Anatomy, (2020).

On the basis of this concept, for the first time a total number of visitors of 114,000 were recorded in 2021. In addition, since 2007 the annual budget has risen steadily to € 4.3 million. The United Nations' two-time award as a "Project of Biological Diversity" was also very pleasing. In addition, numerous press articles and TV reports (a total of 3,650 since 2007) have contributed to significantly increasing both public and political awareness. In 2017, for example, the German magazine “Stern” declared Arche Warder to be one of 50 dream destinations in Germany.



Natural facilities characterize the Arche Warder. ©Arche Warder

Electronic information service of the SAVE Foundation www.save-foundation.net
office@save-foundation.net / Neugasse 30, CH-9000 St. Gallen, Switzerland www.agrobiodiversity.net

Old, robust livestock breeds are particularly worthy of protection, in addition to the aspect of animal genetic resources, since they can play a key role in extensive grazing, which Arche Warder also practices in many places in Schleswig-Holstein. These animals can therefore play an important role in the sustainable maintenance of cultural landscapes and the conservation of biodiversity if the future transformation of agriculture is based on ecosystem services (FRÖLICH Landwirtschafts-Yearbook Schleswig-Holstein, 2020).

Visualization of the visitor center (development history of domestication), opening planned for the 1st quarter of 2023. . ©Arche Warder

Robustness is defined as follows: (1) optimal adaptation to local locations, (2) efficient utilization of nutrient-poor feed and the greatest possible independence from high-energy feed, (3) resistance to local weather influences and climatic peculiarities, (4) stress resistance, (5) uncomplicated birth and rearing of the offspring as well as (6) high immunological competence against pathogens (FRÖLICH ET AL. Deutsches Tierärzteblatt, 2018).

In January 2022, the construction of a “visitor centre on the history of development of domestication” began. This educational institution is an extension of the zoo's offer and is intended to introduce visitors to the importance of livestock for human cultural history via various media and thematic approaches.

The exhibition experience is designed as a journey through time, in the form of modern "edutainment". In chronological order, the various exhibition rooms are each dedicated to a different epoch, such as the Neolithic Age, the Middle Ages or the present.

A committed and competent team, many supporters and a sophisticated and sustainable concept have made the Arche Warder a real flagship of the region and a unique national centre for rare and endangered domestic livestock breeds. We look forward to your visit!

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Note: Are you interested in presenting your ArcaNet institution in the SAVE eNews? Please contact: office@save-foundation.net.

Poitou donkeys grazing a dry grassland in the Ark Warder. ©Arche Warder

Achievements and Challenges of On-farm Conservation in the VERN Grain Network

Sobotkaer Banner Oats. © Kappel, VERN e.V.

For more than 20 years, the SAVE partner organisation VERN (Verein zur Erhaltung und Rekultivierung von Nutzpflanzen) has been bringing gene bank origins of old grain varieties back into use in cooperation with the teaching and research station of the Eberswalde University for Sustainable Development (HNEE) on Gut Wilmersdorf and a network of farmers. At Gut Wilmersdorf, seeds are pre-propagated and basic seeds and starting material is produced for maintenance on farms. Furthermore, potentially valuable historical varieties are subjected to a screening cultivation.

In the grain network, the farms cultivate between 0.5 and 10 ha with historical varieties. The farmers produce their own seeds and exchange it between farms. In the state of Brandenburg, the network cooperates with the official seed certification (LELF), which tests the seed quality.

Overall, the grain network includes more than 100 members from all over Germany. In addition to farmers, processors such as bakeries, mills and breweries are also involved. In order to support the technical exchange and cooperation between farmers and processors and to stimulate the development of value chains, VERN has been organizing autumn workshops together with the Brandenburg State Office for the Environment (LfU) since 2015.

The recultivation of the 'North German champagne rye', which is now cultivated nationwide on around 1000 hectares and was registered by VERN as a conservation variety in 2013, has been particularly successful. Various bakeries offer bread made from 'champagne rye', and whiskey and corn schnapps are also distilled from 'champagne rye' as special products. Other current examples of added value from old varieties are an oat drink made from 'Heidegold' and bread made from 'Mecklenburger Marienroggen', which a bakery chain produces and sells exclusively in the state of Mecklenburg.

Project to improve on-farm conservation

In order to improve the on-farm conservation of genetic resources in agriculture in the long term, VERN as a project sponsor cooperates with 13 farms, the HNEE, the Julius Kühn Institute (JKI) and the seed recognition (LELF-BB) as part of the project " Promotion of conceptual cooperation for market-oriented and site-adapted land management". This project is funded from 2020 to 2022 by the Ministry of Agriculture, Environment and Climate Protection of the State of Brandenburg (MLUK).

An important goal is to overcome identified weaknesses in operational seed work, such as insufficient seed quality or unsatisfactory seed cleaning. In farms that propagate many varieties, the varietal purity was not always satisfactory. In these cases, it is recommended to concentrate on a few, more intensively cultivated varieties. The assurance of the quality of basic seeds is promoted through cooperation with the cooperation partner LELF. In order to improve the cross-company seed exchange in larger batches, systematic communication between the companies is being established in the project.

Propagation plots Gut Wilmersdorf in May. © Köster, VERN e.V.

Propagation plots Gut Wilmersdorf in June. © Köster, VERN e.V.

From a phyto-pathological point of view, the use of farm seeds and seed exchange is a challenge. Own infections, their propagation during the harvest, as well as cross-company exchange are a serious source of fungal diseases and endanger the health of seeds and harvested crops. Common bunt (Tilletia caries) in particular is a problem. For this reason, the harvested crop is checked in cooperation with the LELF and trials on seed treatment are carried out. These tests with hot water pickling and with Tillecur (yellow mustard flour) are accompanied by laboratory tests by the LELF. The results are made available to the companies through advice and information.

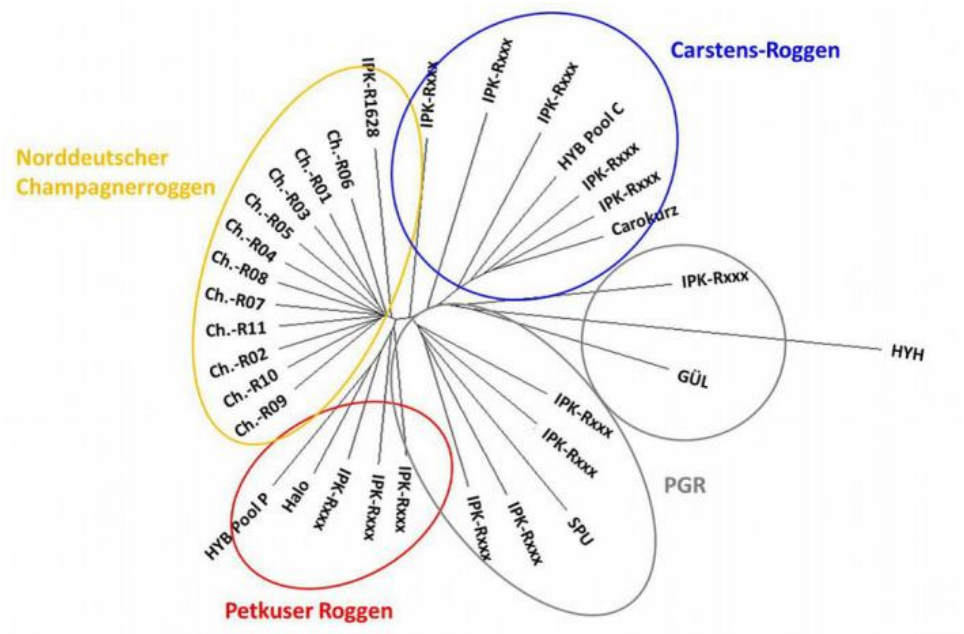
Conservation of cultivar identity in an on-farm conservator network

Using the example of the 'North German champagne rye', it was investigated whether rural and other old varieties change genetically over the years through on-farm maintenance on farms through cross-pollination or through seed mixing and possibly lose their varietal identity. In 2019, the Julius Kühn Institute (JKI) compared the genetic fingerprint of the 'North German champagne rye' with that of its original pattern from the gene bank and that of other rye varieties and gene bank origins.

The genetic fingerprint was carried out using a newly developed detection method, with which several thousand gene locations in the rye genome can be described simultaneously with regard to their genetic diversity.

Samples of 'North German champagne rye' from the long-term conservation of 11 farmers were compared with a sample of the starting material from the gene bank in Gatersleben. Furthermore, samples from the gene pools Petkus and Carsten as well as other gene bank origins were included in the study as references.

The result (see graphic) shows that the 'North German champagne rye' can be clearly distinguished from other rye populations on the basis of its DNA profile. This finding documents that on-farm maintenance was not affected by either pollen input or seed commingling. The phylogenetic analysis also shows that a diversification of the sub-populations has taken place, which is probably due to adaptation to the specific environmental conditions of the 11 conservation farms.



Phylogenetic tree of different rye cultivars. The 'North German champagne rye' can be clearly distinguished from other gene pools. The affiliation of individual patterns to the gene pools PETKUS and CARSTEN is highlighted in color. PGR: Plant Genetic Resources (Genbank Template); (Figure B. Hackauf, JKI)

Contact: Cornelia Lehmann (Chairwoman of VERN e.V.) cornelia.lehmann@hu-berlin.de, https://vern.de/

The Key Role of Crop Wild Relatives

Climate change increases the need for new traits in today's food crops. The wild relatives of our crops,

Source: https://www.cwrdiversity.org/

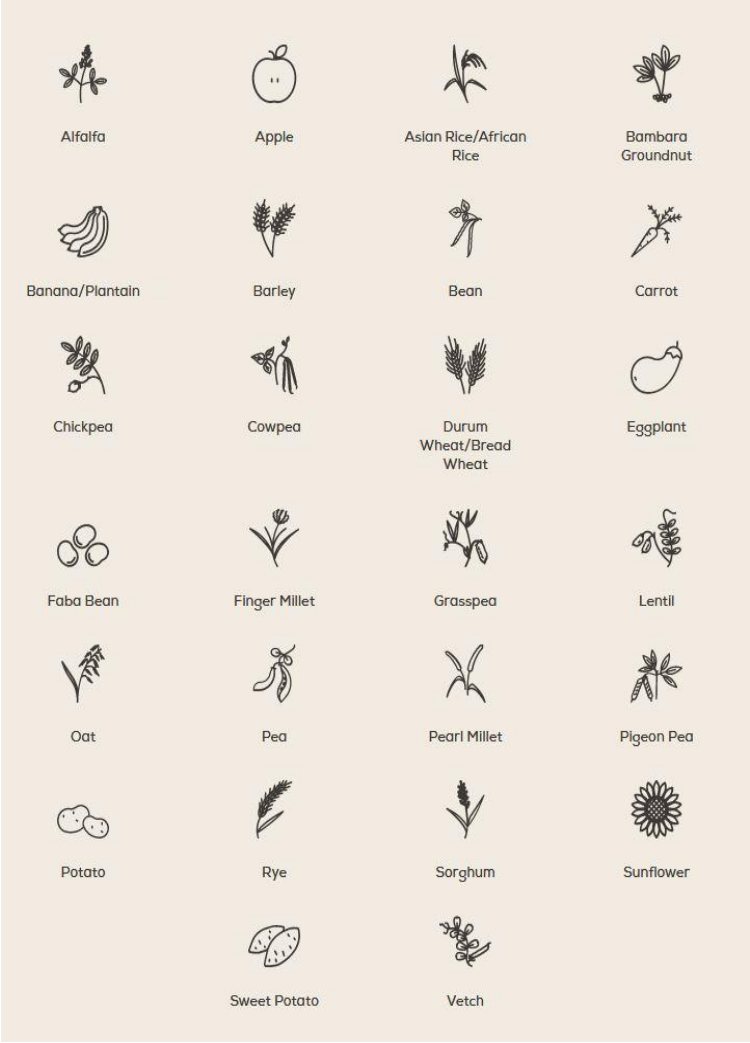
(CWR), play a key role in ensuring genetic diversity in the food and forage crops of the future. CWRs are taxa belonging to the same genus as the cultivated species.

For a long time little attention was paid to the relationship between our crops and their wild relatives in nature. However, the CWR have now become an important research topic. Economically, CWR have made significant contributions to the agricultural industry and world economy. It is estimated that the "wild relatives" of our crops contribute around US$20 billion and worldwide US$115 billion in profits through higher crop yields. The loss of such wild plants represents a significant economic loss for agriculture.

Around 80% of European and Mediterranean plant species can be considered as CWRs and are therefore very important from a socio-economic point of view. Only those species that can interbreed with cultivated species are a CWR diversity reservoir. This can be used so that the plants can adapt to changing environmental conditions. Wild relatives of a given crop are assumed to be in the same gene pool, and even if they appear to be taxonomically different, they can swap genes with their related cultivated taxon.

Led by the Global Crop Diversity Trust and funded by Norway, the Adapting Agriculture to Climate Change: Collecting, Protecting and Preparing Crop Wild Relatives project aims to collect, conserve and protect key species from the wild relatives of our crops to use the breeding of new, improved crops. National and international gene banks and plant breeding programs around the world are working together on this project. The project is a global, long-term effort to collect, conserve and use wild relatives of crops to develop food crops that not only survive, but thrive under climate change. The project has four main components: prioritizing wild relatives of crops based on gap analysis, collecting CWRs in the field, maintaining CWRs in gene banks, and using CWRs in pre-breeding efforts to prepare them for plant breeders.

The project focuses on the wild relatives of 29 crops. These were selected because of their importance and their occurrence in Schedule 1 of the International Treaty on Plant Genetic Resources for Food and Agriculture. An impressive interactive map shows which activities have been or are being undertaken for which plant species and by whom.



29 crops that are being studied as part of the project. Source: https://www.cwrdiversity.org/

Like other wild populations, CWRs growing in the Nordic region are adapted to the local climate and conditions. In particular, there are wild relatives of forage plants, berries and some crop species such as vegetables and cereals. Examples are the wild turnip as a wild relative of the oil plant rapeseed and pak choi, the sea turnip as a relative of the sugar beet and the fodder beet and the wild timothy grass as a relative of the forage grass timothy grass. Special attention is paid to these and other CWR species in the "Nordic Crop Wild Relative conservation" project.

Sources: https://www.cwrdiversity.org/

https://www.nordgen.org/en/projekts/crop-wild-relatives/

Perrino, EV et al (2021) Crop Wild Relatives (CWR) Priority in Italy. Sustainability 2021, 13, 1682. https://doi.org/10.3390/su13041682.

Are seed regulations unconstitutional?

Bean Varieties, Genebank Portugal. SOurce: SAVE

Camille Vallier researches public law issues at the University of Geneva. For her dissertation, she chose a topic that also concerns the SAVE community. She examined the legal issues related to "plant propagating material" or its disclosure to third parties, which is prohibited if a plant is not registered in a national variety catalogue. The legal but not plant breeding expert Camillie Vallier describes national variety catalogues as "obscure". Additionally, their existence is unknown to most. Vallier is not the first to criticize the ban on placing unlisted grain, vegetable, fodder or fruit seeds on the market for commercial use, because the rigid regulations prevent the spread of unwanted plants, but also often breeding innovations. Vallier notes in the Geneva daily newspaper "Le Courrier" that the complexity of the regulations and notes in the register of varieties has developed over the decades into a real legal and administrative Gordian knot. The lawyer tried to unravel and understand this knot strand by strand. In doing so, she broke new ground, because up to now only a few lawyers have dealt in depth with the approval procedure, the rules and regulations in connection with plant varieties. Her verdict is very critical, at least for Switzerland, and it shouldn't be any different in Europe. She says: “The seed regulations do not sufficiently protect the environment and human health. And they affect the economic freedom of the various actors involved in the cultivation and production of seeds. Seed regulation could even be unconstitutional in Switzerland.”

It took the lawyer a whole year to unravel and understand the seed regulations. Because this had never been done before, her work was pioneering. In her specialist interviews, she found that many of those questioned hardly knew what was permitted and what was not in relation to the legal situation and regulations. The regulation of the seed trade in Switzerland is not based on a law in the strict sense. Only one passage in the Agriculture Act indicates that the government "can prescribe for certain species that only varieties that are entered in a variety catalogue may be imported, placed on the market, certified or used in Switzerland." Implementing ordinances determine who in the Federal Office for Agriculture (FOAG) issues a catalogue, which appendix contains the regulations, which criteria apply for including a variety in the catalogue, who makes the decisions, which sanctions apply in the event of violations and much more . According to Vallier, most of the relevant regulations are not applicable in practice. Despite a long search, the lawyer did not find any cases of sanctions. Vallier says in the Courrier: "Hardly anyone has an overview, but most seem to be satisfied with the legally rather fuzzy system."

Today's agricultural policies are rooted in the experiences of World War II and the intention to ensure food security at all costs. For this reason, certain cultivars with disease resistance and high yields were promoted. These varieties were entered in the

first seed books, the predecessors of today's variety catalogues. The criteria for including a new variety in the catalogue are still yield and resistance-oriented today. Other dominant criteria are resistance to cold, suitability for mechanized agriculture, a uniform size, the ability to bake wheat, for example, and similar criteria aimed at satisfying a mass market. Added to this is the requirement that a new variety should meet these criteria better than the varieties already listed. For more than 20 years, however, agricultural policy has no longer focused solely on security of supply, but increasingly has to meet the requirements of sustainable development and the preservation of natural resources, the maintenance of cultural landscapes and the preservation of biodiversity.

Vallier did not find any regulations that stipulate in black and white that seeds that are not listed in the catalogue may not be placed on the market. Instead, she kept finding references to other references and rules. She says: "My work became more and more like a real scavenger hunt." Analysing the legal situation regarding seeds, Vallier concluded that certain restrictions are disproportionate today, even if they were justified in the 1960s. The seed policy, which is unilaterally based on performance criteria, has not only led to environmental destruction, climate change and damage to health, not only in Switzerland. That's why Vallier proposes to lift the limitation of niche crops, expand the entries in the catalogues and relax the conditions to move agricultural policy in the direction of a more sustainable agriculture. However, Vallier is against complete liberalization. There needs to be a system of quality control for seeds to protect to farmers and consumers from unsuitable varieties. But she says also: “The current seed regulation does not lie in the public interest, since the goal to always produce more, conflicts with other Constitutional goals in environmental protection. With other words, it has become unconstitutional.” This unvarnished statement should not only apply for Switzerland, but also for the EU and many nation states.

Sources: https://lecourrier.ch/2021/10/03/des-semences-hors-la-loi-vraiment/
https://archive-ouverte.unige.ch/unige:150840
https://www.unige.ch/droit/publi/vallier/

News from the Girgentana Goat

Girgentana Goats Agrigent. Source: SAVE

The impressive Girgentana goats were bred in the area around Girgenti or Agrigento, a small town in the province of Agrigento in Sicily. Girgenti has been inhabited since ancient times. The archaeological sites in the "Valley of the Temples", a famous UNESCO World Heritage Site, bear witness to this. According to legend, this goat's milk had indeed nourished the father of the gods Jupiter, and its spiralling horns were considered a receptacle of wealth, fertility and opulence. Two thousand years ago, in his "Naturalis historia", Pliny the Elder recalled that Sicily exported the Caprino from Agrigentum to Rome.

Until the 1970s, the Girgentana goat was the "poor man's cow" in Agrigento, as it produced around 3 litres of milk a day. Structural change and rural exodus led to goat farming being abandoned in many places. At the end of the 1980s, some of the Girgentana goats, which look very majestic with their spiralling cork screw horns, were sold to Germany (Tierpark Kleve, Tierpark Warder). The unique appearance of the Girgentana goats became better known and young animals were sold at a collector's price, which the remaining farmers could no longer afford. This heralded the degeneration of the breed, and inbreeding increased.

SAVE Foundation was involved in a conserva-

tion project for an exchange of breeding animals between Sicily and Germany. This was associated with a number of hurdles: the occurrence of blue-tongue disease initially blocked exchanges with Germany.

In the Domestic Animal Diversity Information System DAD-IS of the FAO, a population of only 420 animals was listed in Italy for 1994, today there are around 1500 animals in Italy. According to the DAD-IS, the population in Germany at the beginning of 2022 comprised 56 animals. Today, the milk and cheese tradition is being revived in Agrigento as a "Slow Food Presidium". The Azienda Agricola Montalbo has been one of the few Girgentana cheese producers since 1999. Girgentana keepers have formed an association in the region and supply the Azienda with milk, the Nturcina, as it is called in the local dialect.

The goat breeds can be traced back to the Bezoar goat (Capra aegagrus), which lived around 10,000 BC in the Fertile Crescent. In the case of the Girgentana goat, not least because of its imposing screw horns, it is reasonable to assume that the Markhor or screw goat from Central Asia (Capra falconeri) is also one of its ancestors.

A study on the ancestry of the Girgentana goat, which was published in 2021, has now clarified the genetic relationships. The maternal (mitochondrial DNA) and paternal (Y-chromosomal variations) ancestry of the Girgentana goats was determined using genetic markers. The results show that the Girgentana goat, like most goat breeds, is descended also from the Bezoar goat. No genetic evidence could be found for a participation of the Markhor goat in the development of the Girgentana goat.

It is very interesting to now know more about the origin of the Girgentana. The on-site valorisation should also ensure their survival in the future.

Sources: K. Frölich et al 2021 Is the Markhor the ancestor of domestic Girgentana goat Zool.Gart 89-2 93-101

https://formaggidicapragirgentana.it/

https://www.fao.org/dad-is/en/

Newsflash

Wild Olives: Conservation and Use

Oleaster. Source: Wikipedia.org

The oleaster (Olea europaea L. subsp. Europaea var. sylvestris) is the ancestor of the cultivated olive (Olea europaea L. subsp. Europaea var. europaea). Its distribution area in the entire Mediterranean area overlaps with that of the culture olive. A recently published study summarizes the key findings to date on the genetic identification and conservation of this important resource for future olive cultivation.

Therefore, the role of oleaster may be crucial in the future of olive cultivation. Despite the great potential, the need to thoroughly characterize and appropriately conserve wild olive resources has recently attracted the attention of researchers. This overview study summarizes the main morphological and genetic studies carried out on oleaster trees in different countries of the Mediterranean basin. In addition, the conservation strategies introduced so far and the oleaster germplasm collections were reviewed. Future prospects for using the oleaster to address future agricultural challenges posed by climatic changes and emerging diseases are presented.

Source: Valentina Fanelli, V. et al (2022): Current Status of Biodiversity Assessment and Conservation of Wild Olive (Olea europaea L. subsp. europaea var. sylvestris). https://www.mdpi.com/2223-7747/11/4/480/htm

SUPERB - Forest renewal and adaptation in Europe

In December 2021, the SUPERB project "Systemic solutions for upscaling of urgent ecosystem restoration for forest-related biodiversity and ecosystem services" of the EU research framework program Horizon 2020 started. This is not only about the scattered knowledge about the ecological, social, economic and political factors for successful forest restoration and forest performance. Instead, concrete restoration measures are implemented, which are also being carried out across borders in twelve large-scale demonstration areas in thirteen countries. These areas represent the full diversity of European forests and the stresses they are under, notably from climate change.

Source: https://efi.int/news/superb-promote-forest-restoration-and-adaptation-across-europe-2021-12-01

ProSpecieRara: Animal Expo October 8 & 9, 2022

Every five years, ProSpecieRara and the breeding clubs invite you to the "National Show of Endangered Livestock Breeds". Here you can experience all 32 ProSpecie Rara breeds – from the dark bee to the Freiberger horse – up close, ask questions to experts and perhaps decide to keep and breed one of the old Swiss breeds in the future. .

Various presentations in the arena and market stalls complete the experience.

Vianco Arena Brunegg

Sat, 08.10.2022, 10:00 - 20:00, Sun, 09.10.2022, 10:00 - 17:00 https://www.prospecierara.ch/de/erleben/veranstaltungen/veranstaltungen-detail/events/tier-expo-1.html.

22. Peliti Seed Festival 2022 & 4. Olympic Seed Festival

The Peliti Seed Festival has inspired thousands of people in Greece and abroad. The corresponding seed festivals in Greece, Bulgaria, Cyprus and elsewhere were inspired by this celebration. The Peliti Seed Festival is the first public celebration of the exchange of traditional varieties that took place in the country and in Europe 1999 and continues until today.

This Year the Olympic Seed Festival takes place from 27. – 30. April. The Peliti Seed Festival is on 30. April.

Place: In Mesochori, ParanesΠελίτι / Peliti, Paranesti 660 35, Greece

More Information : https://peliti.gr/categories/english/

GIAHS Sites in Europe

#AgriculturalHeritage

The Globally Important Agricultural Heritage Systems (GIAHS) are agroecosystems inhabited by communities living in a complex relationship with their territory. These ever-evolving areas are resilient systems characterized by remarkable agrobiodiversity, traditional knowledge, invaluable cultures and landscapes, and managed sustainably

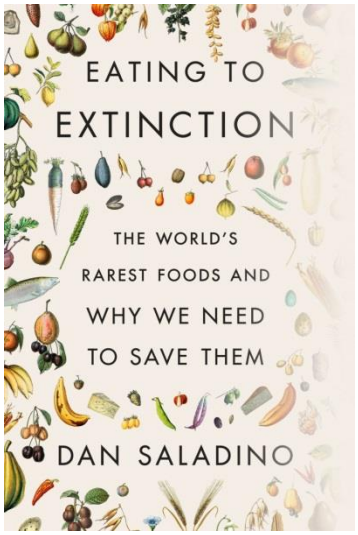
by farmers, pastoralists, fishermen and forest dwellers to contribute to their livelihoods and food security. The Food and Agriculture Organization of the United Nations has designated over 60 sites around the world through the Globally Important Agricultural Heritage Systems Programme.

There are currently seven GIHAS areas in Europe. Italy, Spain and Portugal make up the current network of GIAHS in Europe, which includes olive groves, vineyards, grazing systems and even irrigation systems. Each of these areas has been chosen for its resilience in terms of conserving biodiversity, traditional knowledge, unique cultures and landscapes managed in a sustainable way by farmers, herders, fishermen and foresters, thereby contributing to their livelihoods and food security.

Barroso Agro-Sylvo-Pastral System, Portugal. Source: www.fao.org/giahs

More information: https://www.fao.org/giahs/en/

Eating to Extinction



Over the past several decades, globalization has homogenized what we eat, and done so ruthlessly. The numbers are stark: Of the roughly six thousand different plants once consumed by human beings, only nine remain major Staples today. Just three of these—rice, wheat, and corn—provide 50 percent of all our calories. Dig deeper and the trends are more worrisome still: 95 percent of milk consumed in the United States comes from a single breed of cow, while one in. four beers drunk around the World is the product of One brewer.

In Eating to Extinction, the distinguished BBC food Journalist Dan Saladino travels the world to experience and document our most at-risk foods before it's too late. From an Indigenous American chef refining precolonial recipes to farmers tending Geechee red peas on the Sea Islands of Georgia, the individuals profiled in Eating to Extinction are essential guides to treasured foods the rest of US have forgotten or didn't know existed. Take honey—not the familiar product sold in plastic bottles, but the wild honey gathered by the Hadza people of East Africa, whose diet consists of eight hundred different plants and animals and who communicate with birds to locate bees' nests. Or consider murnong—once the staple food of Aboriginal Australians, this small root vegetable with the sweet taste of coconut is undergoing a revival after nearly being driven to extinction. And in Sierra Leone, there are just a few surviving stenophylla trees, a species now considered crucial to the future of coffee.

Throughout this original and entertaining book, Saladino shows that when foods become endangered, we risk the loss of not only traditional foodways, but also flavors, smells, and textures that may never be experienced again. And the consolidation of our foods has other steep costs, including a lack of resilience in the face of climate change, pests, and parasites. Our food monoculture is a threat to our health—and to the planet. In response, Saladino provides a road map to a food System that is healthier, mote robust, and, above all, richer in flavor and meaning.

Coffea stenophylla. Source: Getty Images

Dan Saladino (2021): Eating to Extinction: the worls'ds rarest foods and why we need to save them. ISBN 9780374605322.

https://www.vox.com/down-to-earth/22906478/food-diversity-extinction-dan-saladino

Last but not least

Apple Scoop

Quelle: https://collection.sciencemuseumgroup.org.uk

Before dentures became universal in Britain, apple scoops were a way for elderly people who barely had any teeth left in their mouths to enjoy the fresh fruit.

The scoops date from the 1600s and were used until the early 1900s. In the heyday of the apple scoops, dentures were a luxury item, often made of ivory or even gold. The particularly valuable replacement teeth were made from the teeth of fallen soldiers or other recently deceased. These bits were nicknamed "Waterloo teeth".

Apple scoops were often made by shepherds from sheep bones. Real works of art with handles like gothic windows, with etched initials or special patterns were created in dedicated carving work. The apple scoops worked so well that the flesh could be separated from the skin with precision right down to the last strip and in the end only the parchment-thin apple skin remained.

Wishing you a productive spring

Your SAVE Team

Source: Timo Klostermeier / pixelio.de