



Archaeology meets agrobiodiversity: Valle dei Templi di Agrigento



Almond blossom in the Valle dei Templi. Source: www.parcovalledetempli.it

South of the city of Agrigento, Italy, on a high plateau lays the "Valley of Temples" with the ancient city of Akragas, one of the most important ancient sites in Sicily. But the area with the Greek buildings is home to much more: orchards, vineyards as well as rare bees and the rare Sicilian Grigentana goats.

On the way from the Temple of Concordia towards the Hellenistic-Roman quarter there is an orchard with almond and pistachio trees. Containing more than 300 rare Sicilian varieties, this so-called "Living Museum of the Almond Tree" sticks out. In summer the nuts for the production of creams and nougat are harvested and sold under the park's own label "Diodoros".

In the "Gardens of Kolymbethra" northwest of the temples of Castor and Pollux there are old varieties of orange, peach, plum and apricot. The underground water channels and aqueducts, which supplied the city with water in ancient times, are now used again to irrigate the gardens.

The citrus collection was restored 20 years ago and now houses varieties that were introduced in Sicily around 1700 but are hardly cultivated today.

Vegetables grown nearby by monks in the Middle Ages are also being cultivated again - old varieties that were and are grown according to the irrigation techniques of the Arabs.

For a long time, the protection of ancient sites was focused exclusively on the ancient ruins and not



Gardens of Kolymbethra. Source: www.parcovalledeitempli.it

on the surrounding context. The Charter of Venice, the central and internationally recognised guideline in the conservation of monuments and historic buildings of 1964, left out historic landscapes and gardens and concentrated on preserving ruins as unaltered artefacts. For decades this narrow vision of culture dominated the field. The recognition as UNESCO World Heritage Site in 1997 was also based exclusively on the historical buildings. Indeed, the "Valley of Temples" near Agrigento is one of the largest archaeological sites in the world.

The word "culture" comes from the Latin word *cultura*. *Cultura* means growing or cultivating. Experts from the fields of archaeology and traditional agriculture got into conversation and decided to combine both. In 2000, local authorities enshrined the values of archaeology and landscape in regional law. The aim was to upgrade the more than 900 hectares of land. This was particularly so because the site has preserved a rural structure with fields and orchards. A holistic approach is based on the belief that an archaeological site would be lifeless without taking into account the aesthetic, ecological and anthropological factors of the landscape.

A large part of the surrounding land had been abandoned by farmers in the 1990s. During the restoration, care was taken to reflect both the Greek heritage with products such as olive oil, honey, wine and almonds, and the evolution of the landscape over the centuries, as with the citrus trees that the Arabs brought to Sicily in the 10th century. Today the yield of the gardens is impressively high. In the 1990s, 1500 jars of jam were produced and by 2020 the quantity will be around 42,000 jars, which will be sold in National Trust

shops throughout the country and will finance the garden. The olive oil from the "Saracen trees", some of which are over 700 years old, next to the temples of Juno and Concordia is also very popular and has already won national prizes. The company Val Paradiso, a nearby organic olive oil producer, presses the oil immediately after harvesting. Wine has been a part of Sicily since the Greeks brought grapes here. Beneath the Temple of Juno, next to a busy motorway, there is a vineyard managed by CVA Canicatti, a local cooperative of 300 wine growers. At present 4,000 bottles are produced.

The success of the products also has an impact on the local farming community: ecological practices and innovative technologies are increasingly used. The Sicilian black bee was considered extinct in the region. In 2012 it returned and settled in an abandoned house. It was reproduced on the Aeolian Islands to avoid cross-breeding with other bee breeds and eventually handed over to responsible beekeepers in the region for further breeding. "Al Kharub" is an association that offers employment opportunities to people with disabilities and refugees. The association trains beekeepers and ensures that the endangered native dark Sicilian bee is resettled here. It is an important pollinator of the almond and citrus trees.



Olive oil and other products are sold under the label „Diodoros“. www.parcovalledeitempli.it

The area still has a lot of potential to combine archaeological and agricultural culture and thus to combine past and present in a lively way and to make them experienceable.

Sources:

www.atlasobscura.com/
www.parcovalledeitempli.it
www.reise-nach-italien.de/agrigent.html
https://en.wikipedia.org/wiki/Valle_dei_Templi

Conservation by eating Principle of contradiction for consumers



In the SAVE network we are often discussing product marketing. The Arca Deli Award has been presented to products of rare breeds and varieties for years, in order to draw attention to the special features and quality of the products. A research project in Germany provides answers to the question of how exactly to approach the consumers.

The demand for products of traditional breeds and varieties plays a very important role in conservation work. In communication with consumers, however, the choice of words is crucial. A joint research project of the GEH and the Chair of Agricultural and Food Marketing at the University of Kassel (Witzenhausen site) showed this very clearly. The project dealt with the marketing of animal products, but the core statements are equally applicable to vegetable products.

In March 2020, the joint research project "Marketing concepts for products of endangered livestock breeds" was completed. The University of Kassel turned its attention to consumers and investigated their attitudes to the topic of conservation of endangered breeds of farm animals. The aim of the study was to provide suppliers of products from endangered breeds of farm animals with simple and easily implemented recommendations for communication and product marketing.

The study focused on the use of product and farm brochures, homepages and advertising posters or roll-ups. These belong to the one-sided communication measures where farmers, butchers or traders provide consumers with information about farm animal breeds, their own product range or corporate philosophy in written form. There is therefore initially no personal exchange between consumers and producers, such as at the market or in the farm shop. One-sided communication materials must be designed in such a way that consumers can understand the information directly and without asking questions. Furthermore, the materials should arouse interest and ideally trigger a desire to buy.

In a first step, the researchers selected 54 brochures or flyers which were distributed to consumers by marketers (livestock farmers, butchers, food retailers and breeders' associations). More than two thirds of the brochures were already sorted out in the first selection step because they were not clearly addressed to the target group of consumers. In addition to many technical terms and special knowledge, these brochures described the breeding background of the breeds in great detail. It was also noticeable that those very small fonts were often used and that restless backgrounds made reading the texts difficult. Only 14 brochures used strong pictures and presented in a short and easy to understand way the advantages of the breeds and farms as well as the added value for consumers when buying the products.



In the first consumer study, 32 consumers of different ages and sexes shared their opinions, attitudes and understanding of the problems associated with the endangered breeds of farm animals with the scientists in surveys lasting about one hour. Six booklets were distributed to the participants. Based on the results of the first study, various communication approaches were intensively discussed in three group discussions with a total of 35 participants. Subsequently, approaches for improving the way consumers are addressed were worked out together with the participants.

"Endangered breeds" and their status as a purchase constraint



Many participants were not aware that farm animal species are divided into different breeds. The descriptions that the majority of indigenous breeds are "threatened with extinction" or "endangered" caused a lot of problems of understanding. The study participants could not distinguish between the endangerment of a wild animal species and the endangerment of a farm animal breed. They thought that their consumption and demand would accelerate the extinction of the breeds. Consumers learned a long time ago that in order to preserve and save endangered wild animal species, their products should not be bought. This knowledge prevented an understanding of the exact opposite logic of farm animal breeds. The use of the terms led to the participants refusing to buy meat and sausages of the

breeds. Even after repeated explanations, many participants stuck to their opinion that products from endangered breeds of farm animals should not be bought because of their endangered status. For one-sided communication on product marketing, the terms such as endangered and endangered proved to be inappropriate and even counterproductive. Their use is not recommended.

The slogan "Getting by eating" also proved to be unsuitable for written communication. Consumers have to "think around the corner" to understand the slogan. This was problematic for many participants. Neither intuitively nor with explanations could they understand the message of the slogan. Some participants even rejected the slogan. For them the slaughter and eating of individual animals of a breed was a contradiction to the conservation of the breed. The mention of the small number of animals of endangered breeds also led to the rejection of

consumption. The participants recommended that the number of animals should be increased first before individual animals were slaughtered and their products sold. These ideas prevented consumers from perceiving their own consumption behaviour as an opportunity to support the conservation of endangered livestock breeds in agriculture. The principle of "conservation by eating" and current animal numbers should not be presented in the one-sided communication.

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"Rare breeds" and their special taste as a selling point

The participants reacted very positively to the presentation of products from "old livestock breeds". Most participants commented directly on these



products as something of high quality and special. All participants were willing to buy and eat the products of old livestock breeds. Especially the descriptions of the excellent taste and pictures of prepared meat dishes like steaks encouraged the participants to express their desire to buy. Animal welfare and regionalism were also important to the participants. Their representations were supported. According to the participants, however, the special enjoyment experience of consuming the products should be the focus of the communication messages.

The idea of buying the products "to be able to do something good for diversity in agriculture" and thus to become a "Preserver of Old Breeds" met with favour among the participants. The role of consumers should therefore definitely be presented in a positive light in the communication materials. In writing this could look like this: "Enjoy with a clear conscience - your purchase supports the preservation of the old Red Mountain Cattle breed in regional agriculture".

Understanding problems towards agricultural activities

Most participants had problems understanding agricultural terms and job descriptions. In general, there was little understanding of agriculture and animal husbandry. Descriptions of agricultural activities led to many problems of understanding, although the brochures were addressed to consumers without any relation to agriculture. Even the difference between oxen and bulls or cows and cattle was not clear to many participants. The advantages of cer-

tain animal husbandry systems such as longer grazing periods, rearing young animals in a family group, herd book breeding, extensive grazing or the mention of the specific age of animals for slaughter were also not understood. Explanations in this respect also overtaxed the understanding of many participants. Problems of comprehension led to a break in reading. Many participants were surprised and sometimes even annoyed that the information exceeded their level of understanding. The presentation of agricultural practices and technical terms should therefore be avoided in advertising materials as far as possible. If they are used, they must be explained in an easily understandable way. Comparisons can also help consumers to appreciate special achievements in agriculture. For example, one participant said: "What, the poor pig is slaughtered at twelve months - then it is still a baby pig". The indication of the average slaughter age of pigs in Germany would have been helpful in this case. So the participant could not put the information into perspective and considered twelve months as a short time. As many consumers are reluctant to read extensive information and mainly look at pictures in brochures, attention should be paid to the use of short, concise texts and good picture material.

Source: Arche Nova 3/2020 Katharina Menger / Antje Feldmann, GEH



Shoot testing of apple varieties for fire blight susceptibility



Average lesion lengths after three weeks in relation to the reference variety "Gala Galaxy". Source: Agroscope, Switzerland

For 20 years, various projects have been carried out on behalf of the FRUCTUS association to describe and use fruit gene resources at Agroscope in Wädenswil, Switzerland. This work is co-financed by the "National Action Plan for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture" (NAP-PGREL) of the Federal Office for Agriculture, Switzerland.

In spring 2020, 38 NAP apple concessions and the two reference varieties "Enterprise" (robust) and "Gala Galaxy" (susceptible) was grafted for variety screening for fire blight susceptibility or robustness. As in previous years, the test was carried out with artificial shoot inoculation in the biosafety greenhouse. The relative lesion length was measured one, two and three weeks after inoculation. Varieties were selected which are available in a NAP-PGREL top-graft cuttings garden as well as accessions which are currently in the "Gottshalde" parcel with 750 accessions and which have so far performed promisingly in the ongoing disease assessments for scab and mildew. The accessions "Strawberry Apple 133098" and "Zofinger Sweet

Apple 14-001-1967" were selected to confirm a good test result. Fortunately, 10 accessions could be assigned to the very low or low infestation class. The good results were confirmed for both "Strawberry Apple 133098" and "Zofinger Sweet Apple 14-001-1967". These accessions are potential candidates for future flower testing under field conditions. Six candidates reacted stronger than the suscepti



Fire Blight. Source: wikipedia

ble reference "Gala Galaxy".

The results presented provide information on shoot infestation, not on flower susceptibility under field conditions. For a reliable classification of fire blight susceptibility of an accession or variety, further tests are required. Agroscope standard:

- at least two meaningful, independent drive inoculations (2 years)
- a meaningful flower test or meaningful practical experience with the variety with regard to fire blight

Important information: The names of the varieties shown here have only been verified in very few cases. However, with the help of the "PL-Code" or "Collnumb" the origin can be traced at any time.

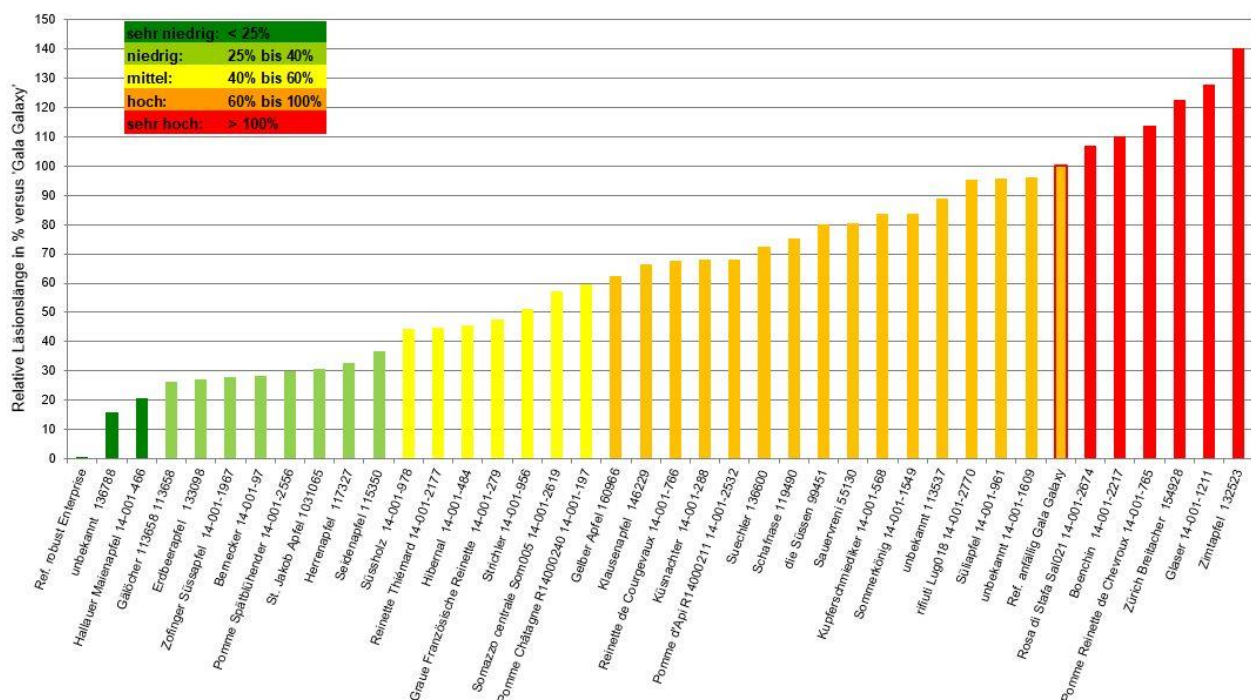
The test results will have a direct influence on the valorisation and thus the use of these rare varieties.

Further information on the projects:

<https://www.agroscope.admin.ch/agroscope/de/home/themen/pflanzenbau/pflanzenzuechtung/obst/genressourcen-obst.html>



Measurement of the shoots. Source: Agroscope



Overview diagram of the shoot test for fire blight susceptibility. Source: Agroscope

ABS regulations in Practice

Support services for implementing policy on access and benefit-sharing (ABS)
in the EU, in particular the EU ABS Regulation – Lot 3

Analysis of implications of compliance with the EU
ABS Regulation for research organisations and
private sector companies



May 2020

The Nagoya ABS schemes primarily concern research and industry. NGOs are affected when it comes to the development of new products or varieties, or when material flows into research projects. The positive and negative consequences of the current ABS regulations (EU 511/2014) have now been examined for the first time.

Here are the main findings of the study "[Analysis of implications of compliance with the EU ABS Regulation for research organisations and private sector companies](#)":

Although the idea of fair access and benefit-sharing is generally well received, the effort to comply with the extensive ABS provisions is too great. Countries outside and inside the EU have different rules on ABS, which leads to uncertainty about the legal framework. This leads to delays and additional costs for users.

Important information is available [in the ABS Clearing House](#) system and/or on the national institutional websites is non-existent or incomplete. Smaller organisations with fewer human resources also have little opportunity to use local and international networks or benefit from legal support.

Negotiating PIC (Prior Informed Consent) and MAT (Mutually Agreed Terms) with local authorities takes a lot of time and energy. Such delays are a huge problem for research projects. In the worst case, delays and inadequate requirements mean that projects have to be stopped and certain genetic resources can no longer be used.

There is great confusion among stakeholders about the differences between the EU ABS Regulation and national ABS regimes. It is crucial to make a clear distinction between obligations under the EU ABS Regulation and those under the national legal framework.

The difference between commercial and non-commercial research is not sufficiently understood. Often scientists do not really know the ABS regulations.

Companies refrain from cooperating with universities if they do not have all the necessary documents. It is often expected that most of the administrative work is done by the universities, which often leads to delays and makes cooperation between the parties considerably more difficult.

EU companies and researchers are at a disadvantage compared to the US, Canada or Japan, for example. In these countries, compliance with ABS regulations is less strict and therefore it is much easier to preserve genetic resources and/or related traditional knowledge. This leads to confusion and legal uncertainty in countries where legal obligations are much more comprehensive. Many respondents indicated that they are forced to obtain genetic resources from countries that do not practice access and benefit sharing.

The current system increases the potential for abuse, as some countries use the ABS laws as a barrier to trade. They thus block the use of certain genetic resources and gain commercial and political leverage. For example, they place very high demands on benefit sharing. For example, there are fears that European companies would lose competitiveness if the scope of the EU ABS Regulation were to be extended to include digital sequence information (DSI).

There is therefore an urgent need to make the ABS regulations better known and more transparent - and to simplify them internationally.

Further information:

https://ec.europa.eu/environment/nature/biodiversity/international/abs/legislation_en.htm

<https://absch.cbd.int/>

Suffolk Punch: Science meets Conservation



Suffolk Punch. Quelle: Wikipedia

One of Britain's rarest horse breeds may have been saved from extinction after scientists successfully bred a filly whose sex was predetermined in a laboratory. The birth of the Suffolk Punch foal was celebrated as a "milestone" in the conservation of the breed that was once the backbone of British agriculture.

The Suffolk Punch is a very original horse breed. The history of the Suffolk Punch horses goes back to a stallion that was born in 1768. This smallest breed of draft horse, which has its origin in Suffolk on the east coast of England, goes back to the medieval "big horse". The Suffolk is an ancient breed that is likely to have had fewer crossings with other lines than most draft horse breeds. With the industrialization and the consequent significant population growth, these majestic horses pulled the plow, mowed the corn and carried the wheat to the mill to feed the cities. With their great endurance and strength, they were probably the best choice for plowing the damp clay soil. The local farmers who bred these horses used them regularly; therefore they were rarely sold outside their home area.

In the plains of Suffolk on the east coast of England there were large arable farms with forty to sixty workhorses until they were replaced by tractors. The horses came to the slaughterhouses. Other large horse breeds such as the Shire and Clydes-

dale were used on smaller farms in Wales and Scotland where tractors were rarely used. The Suffolk Punch population has fallen so dramatically that it has been extremely difficult to rebuild the breed from these low levels since the early 1960s.

Today there are only 72 Suffolk Punch mares left in the UK - and fewer than 300 worldwide. Every filly is therefore vital for the breed. For the first time, the innovative approach of gender-specific determination, "semen sexting", was used. The genetics of the mare "Euston Ruby" and the stallion "Holbeach Iggy" have been specially coordinated as part of a project by the Rare Breed Survival Trust (RBST) and Nottingham Trent University to ensure a viable pregnancy.

The scientists used special sorting machine to sort the semen. To achieve this, they differentiated the DNA content of individual sperm according to the male Y genome. Before going through the flow cytometer (sorting machine), a fluorescent dye is incorporated into the DNA of the sperm cells. They pass through the sorting machine in drops of liquid containing a single sperm cell per droplet. The machine detects the amount of fluorescence each cell emits; an XX sperm cell will have more fluorescence than an XY. A positive or negative charge is applied to the droplet depending on the type of sperm cell in it. Then, the machine can sort them into different collection tubes, based on the charge on the droplet, as it moves through a magnetic field. so that they can be used separately for insemination.

It is estimated that the mechanism works with an accuracy of 96 percent.

The project could also enable successful breeding programs in the future that minimize the risk of inbreeding and genetic decline.

Source:

www.telegraph.co.uk/news/2020/07/14/first-horse-whose-sex-chosen-scientists-born-uk-using-tech-could/
www.thesuffolkpunchtrust.co.uk/
www.britannica.com/animal/Suffolk-horse

The 100 – Year – Experiment



In August 2020, a unique 100-year experiment started in the Svalbard Global Seed Vault, Norway, funded by the Norwegian Ministry of Agriculture and Food and includes partners from all over the world. It will provide information about the longevity of seeds from 13 globally important plants.

The results will be published in the course of the project and provide valuable knowledge that will help ensure optimal seed conservation in the gene banks. As recognized by the United Nations Sustainable Development Goals (SDG 2.5), this is an important step towards securing the basis of our food system for future generations and ensuring food security.

The experiment will give future generations the knowledge of how quickly or slowly seeds die and how often they have to be regenerated.

The first experimental seed samples from the gene bank of the IPK Gatersleben in Germany, barley, peas, wheat and lettuce, were brought to Svalbard. Over the next 2-3 years, seeds from nine other crops will be sent from gene banks in Thailand, India, Portugal, Brazil and Sweden to Svalbard for the study. These seeds will be tested in 2030 and every ten years thereafter until 2120.

The seeds are stored in the seed vault at a temperature of -18 ° C and each sample is sealed in a small package with 400 seeds.

How long can seeds stay alive?

This experiment tries to answer how long seeds remain viable and develops future best practices for

seed regeneration, one of the most important processes in a gene bank.

The longevity of the seed is one of the main concerns of long term seed conservation. Well-dried and frozen seeds of many important food crops are generally believed to be able to remain viable for a very long time: centuries, in some cases even thousands of years. However, these estimates come mainly from the extrapolation of so-called "rapid aging" experiments. In order to validate the theory, concrete information is needed on how long

seeds can maintain their germinability during storage under optimal conditions.

Gene banks regularly test seeds in their collections in order to regenerate them on time and to keep the genetic resources for research and plant breeding viable and available. When genebank technicians identify seeds that are no longer viable, they can regenerate them on time and keep their collections safe.

The most extraordinary thing about this project is that it will take 100 years. The longevity of seeds will be studied in real time. Perhaps in 20 to 30 years differences will be found between varieties and more information about the importance of the initial seed quality for long-term conservation will be available.

The Svalbard Global Seed Vault is a backup facility for the world's plant diversity. Since their opening in 2008, gene banks around the world have brought seed samples from the world's most important food crops into the seed depot for permanent protection. In February 2020, the seed depot passed the threshold of 1 million seed samples from 87 different institutes and organizations.

Source:

<https://www.croptrust.org/blog/launch-of-svalbards-100-year-seed-experiment/>

Newsflash

European Green Deal Call



Becoming the world's first climate-neutral continent by 2050 is a once in a lifetime opportunity to mod-

ernise the EU's economy and society and re-orient them towards a just and sustainable future.

Research and innovation will play a central role in

- accelerating and navigating the necessary transitions
- deploying, demonstrating and de-risking solutions
- engaging citizens in social innovation

The Commission is making available €1 billion under the Green Deal call - the last and biggest call under Horizon 2020. The call is designed to respond to the climate crisis, provide more protection to Europe's biodiversity and habitats under threat, and accelerate a sustainable recovery. See more at:

https://ec.europa.eu/info/research-and-innovation/strategy/european-green-deal_en#latest

Efficiency of a Network for Securing and Access to in situ LR Diversity



In the frame of the H2020 project “[Farmer's Pride](#)” a Proposal of a set of criteria for evaluating the efficiency of a network in securing and giving access to in situ LR diversity was published.

Concerted efforts to conserve landraces (LR) and crop wild relatives (CWR) in situ and on-farm are needed, states the just published study. The essential value of LR and CWR is widely accepted, but changes in land use and management and the replacement by modern cultivars as well as degradation effects and climate change cause an increasing endangerment of both LR and CWR.

With specific focus on LR, different European and non-European in situ conservation networks and their structure have been analysed by the Farmer's Pride Consortium and a collection of case studies produced by the University of Perugia in collaboration with the University of Birmingham. Relying on a detailed analysis of four quite different network case studies, the information reported in the [ECPGR Concept](#) for on-farm conservation and management of plant genetic resources for food and agriculture and the project partners experiences of in situ conservation, a set of criteria for the evaluation of the efficiency of collaboration platforms for in situ conservation of LR is proposed.

See Negri, V., Raggi, L. (2020): [Proposal of a set of criteria for evaluating the efficiency of a network in securing and giving access to in situ landrace diversity](#).

https://more.bham.ac.uk/farmerspride/wp-content/uploads/sites/19/2020/09/MS4_Network_efficiency_criteria_for_LR_access.pdf

First Open-Source-Test for a gene-edited GM crop



Greenpeace, together with other non-governmental organisations, non-GMO food associations and a food retailer, announced that the first-ever public detection method for a gene-edited crop has been

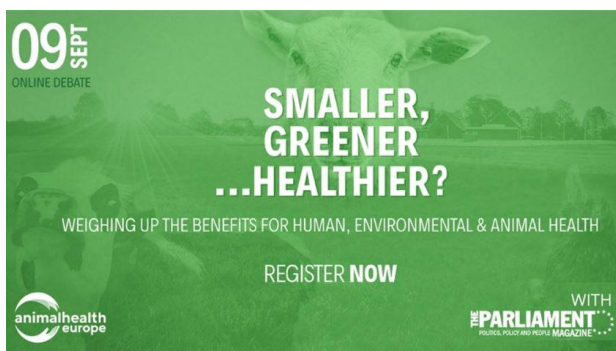
successfully developed and published. [1] The new research refutes claims by the biotech industry and some regulators that new genetically modified (GM) crops engineered with gene editing are indistinguishable from similar, non-GM crops and therefore cannot be regulated. [2]

The new method detects a herbicide-tolerant rapeseed variety that was developed using gene editing, a new form of genetic engineering. It allows European Union (EU) countries to carry out checks to prevent this unauthorised GM crop from entering EU food and feed supply chains illegally. Until now, EU countries were unable to test their imports for the presence of this GM rapeseed, which is grown in parts of the US and Canada.

It also allows food companies, retailers, certification bodies and national food safety inspectors to verify that products do not contain this GM rapeseed.

Source: <https://www.detect-gmo.org>

Smaller, greener, healthier? – Livestock farming in Europe



On September 9, 2020 a webinar entitled "smaller, greener, healthier? - Animal husbandry in Europe: what is sustainability?"

As Europe formulates its strategies to meet the EU Green Deal targets of zero greenhouse gas emissions by 2050, restoring biodiversity and moving to a clean recycling economy, the webinar debate focused on the future of the farm animal sector in Europe. Which sustainability measures will have an impact on animal health and welfare in animal production? The opening speech was delivered by Stella Kyriakides, European Commissioner for Health and Food Safety. Animal health in the context of the Green Deal and its Farm-to-Fork strategy was highlighted.

The panel list:

- Jude Capper, consultant for sustainability in farm animals
- Martin Scholten, Director Animal Sciences, Wageningen University

- Kurt Sannen, IFOAM Organics Europe
- Julie Vermooten, Chair of the Animal health Europe Management Committee
- Norbert Lins, AGRI Committee of the European Parliament

The stimulating debate focused, among other things, on the planned new EU animal welfare label, its possibilities and consequences. A critical question was whether consumers will know and understand what such a label really means. The need for conversion to organic farming within the EU was also discussed. It was agreed that changes are needed within the new CAP. There seems to be agreement in the EMU Parliament to strengthen sustainability in agriculture. The first pillar should no longer be based on the size of the farm and the arable land, but on ecosystems and organic services. It is not yet clear how much money (minimum budget) will be paid to the member states from which resources for the environmental measures of the second pillar.

The principle of the circular economy was emphasised. Up to now, the principle of optimal agriculture has never been discussed in addition to various agricultural systems and economic aspects. Optimal agriculture means a resilient system, multifunctional extensification and ecological intensification. Local breeds, for example, could fit better into such a circular economy.

The Parliament Magazine:

www.theparliamentmagazine.eu

Edinburgh Declaration agreed Calls for global biodiversity action at all levels



Calls for global biodiversity action at all levels

The Scottish Government is leading a global push for measures to be taken to protect biodiversity at all political levels (subnational, regional, local)

The Edinburgh Declaration makes clear that the Scottish Government, along with sub-national governments, cities and local authorities around the world, stands ready to rise to the challenge of meeting the global biodiversity framework after 2020 and

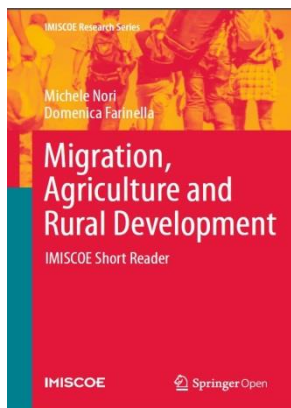
to play a stronger role in its implementation. The declaration is the result of collaboration between international governments and organizations. In response to the Covid-19 pandemic, an international workshop was held in Scotland in the summer in an online format.

The Covid-19 pandemic was an unprecedented global crisis that fundamentally changed every aspect of our lives. However, the dual challenges of biodiversity loss and climate change have not disappeared and must be of central concern to all levels of government.

While Scotland's progress on the current internationally agreed biodiversity goals tends to be favorable compared to the global picture, it is worrying that none of these goals has been fully met at the international level.

The Edinburgh Declaration is available on the [Scotish Government](https://www.scot.nhs.uk/scotish-government/) website.

Migration, Agriculture and Rural Development



This book investigates the dynamics that are reshaping human and natural landscapes in the European agrarian world, with a specific focus on Mediterranean Europe. Focus is laid on more marginal rural settings, where the potential for agricultural intensification is structurally limited. These areas in particular have suffered

from the geographical and socio-economic polarization of development patterns and have paid a relevant burden to the recent crisis.

In these areas, immigration has, to an extent, helped counterbalance the dynamics of an ageing and declining local population, with immigrant communities today relevant not only as an agricultural workforce, but also as new citizens of rural communities.

Contemporary migrations from and to rural areas are to be analysed in relation to the incorporation of

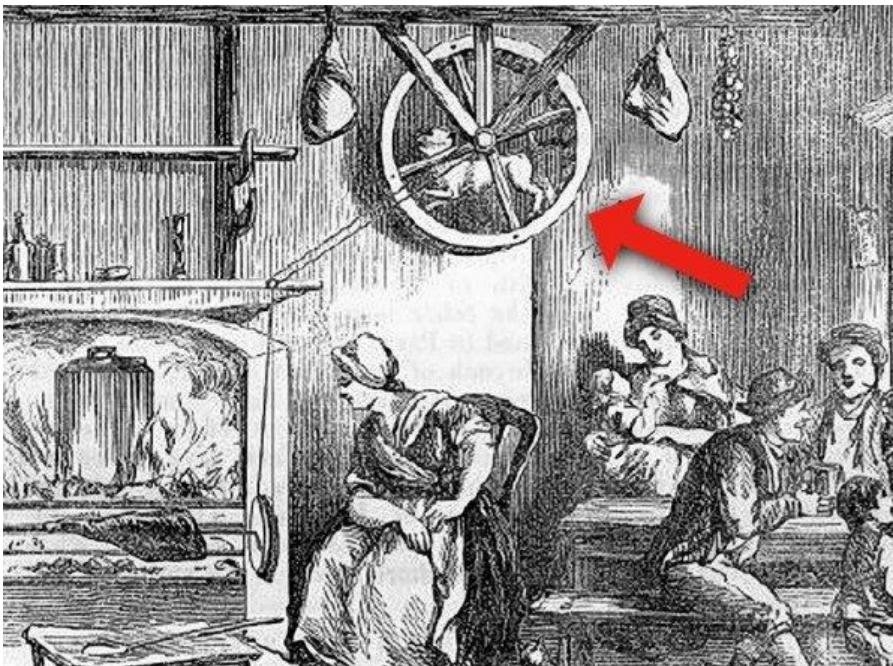
agrarian systems into global markets, agricultural governance, and local territories' struggle between innovation and resilience. Disentangling the critical relationships between the conditions of agricultural work, rural development paradigms, labour markets, and migration policies represents a necessary step to understand the ongoing dynamics of rural mobility and to suggest opportunities and solutions that might accommodate the different interests and needs in Mediterranean societies. The interface between agriculture and migration is fertile, not only in academic terms, but also in socio-economic and political ones.

Download:

<https://www.imiscoe.org/publications/library/8-imiscoe-short-readers-on-migration/136-migration-agriculture-and-rural-development>

Last but not least

The Dog in the Hamster Wheel



Source: https3files.core77.comblogimages2014050Turnspit_Dog_Working.jpg

The *Canis vertigus*, or turnspit, was an essential part of every large kitchen in Britain in the 16th century. The small cooking canine was bred to run in a wheel that turned a roasting spit in cavernous kitchen fireplaces.

They were referred to as the kitchen dog, the cooking dog or the *vernepator cur*

The turnspit was bred especially to run on a wheel that turned meat so it would cook evenly. And that's

how the turnspit got its other name: *vernepator cur*, Latin for "the dog that turns the wheel."

Back in the 16th century, many people preferred to cook meat over an open fire. Open-fire roasting required constant attention from the cook and constant turning of the spit.

When any meat was to be roasted, one of these dogs was hoisted into a wooden wheel mounted on the wall near the fireplace. The wheel was attached to a chain, which ran down to the spit. As the dog ran, like a hamster in a cage, the spit turned.

In 1750 there were turnspits everywhere in Great Britain.

But by 1850 they had become scarce, and by 1900 they had disappeared. The availability of cheap spit-turning machines, called clock jacks, brought about the demise of the turnspit dog.

Source:

www.npr.org/sections/thesalt/2014/05/13/311127237/turnspit-dogs-the-rise-and-fall-of-the-vernepator-cur?t=1600772237200.