



Brussels Laces: Reform for Diversity



Source: SAVE, Diversity Garden of VEN, Greiffenberg, Germany

The EU in Brussels is currently reforming the seed marketing law, in which the regulations for the sale and exchange of seeds are being revised. Seed initiatives have come together to respond to the expected tightening.

The UPOV Convention (UPOV = International Union for the Protection of New Varieties of Plants) has existed since 1961. It defines the conditions under which seeds can be produced and placed on the market. UPOV is also internationally responsible for developing the rules for new plant varieties. A seed trade regulation is intended to increase the trade in seeds, but also the productivity of agriculture. With the 1991 Convention, the rights of breeders were strengthened so drastically that the exchange of seeds and propagating material between farmers was practically forbid-

den. In order for a variety to be traded, it must be listed in the official catalogue. Traditional, local and regional varieties are rarely listed because the effort for registration is too great, and the DUS criteria (Distinctness, Uniformity and Stability) can hardly be met for local varieties. The current EU legislation provides for a niche for local varieties in which the exchange in small quantities is restricted to their region of origin. Traditional varieties and rural land races may therefore only be sold to a limited extent. The seed companies can market their high-performance hybrid varieties because they are registered and meet the required performance characteristics.

Back in 2013, when the EU presented a proposal for seed reform, the sustainer organizations successfully fought back with a Europe-wide cam-

paign. The EU proposal intended to further expand the industrial standard and at the same time to restrict the distribution of seeds to farmers even more. The proposal was rejected by the EU Parliament in 2014, not least because of the commitment of the sustainer organizations.

The EU's new reform proposal is now being close-



ly monitored by the organizations that maintain it, as well as by farmers' organizations and organic plant breeders. A study commissioned by the EU ([Data gathering and analysis](#) to support a Commission study on the Union's options to update the existing legislation on the production and marketing of plant reproductive material) was recently published, in which the key aspects and Problem analysis in the production and marketing of plant reproductive material was analysed. It recognizes that the procedure for registering conservation and amateur varieties is too time-consuming and expensive and that there is insufficient flexibility in the categorization of new varieties and their requirements. It is also stated that the current legislation hinders the conservation and sustainable use of plant genetic resources. The need to build on more sustainability is also emphasized.

This statement is very much to be welcomed, as it gives reason to hope that a future regulation will pay more attention to conservation varieties. However, there are also indications that the EU wants to equate exchange and marketing.

An impact assessment of a reform of the seed marketing reform was recently [published](#). One of the problems identified is that the total of 12 directives on the production and marketing of seeds are not coordinated, which leads to unequal implementation practices and competitive conditions. In particular, it is noted that it is not clearly defined whether or not seed conservation networks belong to the plant reproductive material under the legislation. The current legislation also prevents innovation and use of new technologies and adaptation to political developments such as the Farm to Fork strategy. Several options for aligning the definitions and structure of the legisla-

tion are presented. It is noted: " Exempting the marketing of limited amounts of plant reproductive material, in particular by seed conservation networks for non-profit purposes, would incentivise plant reproductive material diversity, and boost and promote the marketing of more local and traditional products."

The right to seeds has been enshrined in international law in the United Nations Declaration on the Rights of Smallholders and Other People Who Work in Rural Regions ([UNDROP](#), Peasants Rights) since 2018. In a joint letter in April 2021 to the responsible EU Commissioners Frans Timmermans, Stella Kyriakides, Janusz Wojciechowski and Virginijus Sinkevičius, the organizations that support the organization referred to this right. The answer came at the end of May: The EU declares the WTO (World Trade organization) and UPOV (see above) contracts for legally binding, but not UNDROP, the "Peasants Rights".

So it is still important to observe the development critically. [Noah's Ark](#), the Austrian seed conservation organization, is at the forefront. EC-LLC (see following article) now organizes monthly webinars with the title "Seed Policy Dialogue". Various legal and technical topics relating to the conservation and development of seeds are discussed in a technically sound manner. Registration and further information on the Seed Policy Dialogue: <https://liberatediversity.org/seed-policy-dialogue/>.

The "Sprouts from Brussels", a monthly newsletter, provides information on current political and legal developments in the field of cultivated biodiversity.

This is a great help to find your way in the jungle of EU politics, to form an opinion and to act accordingly.



Seeds of change

European Network EC-LLD

Matthias Lorimer - European Coordination Let's Liberate Diversity! (EC-LLD)



During the past four years, the partners of the European [Dynaversity](#) project have analysed and described the networks and actors involved in the dynamic management of agrobiodiversity. The main objective is the consolidation and enlargement of the European Coordination [Let's Liberate Diversity!](#)

Agrobiodiversity needs to be used, and only in this way will we be able to ensure its conservation and preservation for future generations. The motto used by FAO back in the early 2000s was "Use it or lose it" (note: This was also the topic of the SAVE conference 2007 in Guastalla, Italy with regard to livestock breeds), and until today, according to ECPGR data (European Cooperative Programme for Plant Genetic Resources), of the 1097 edible plants (out of 391,000 known plant species), only a small fraction is consumed. Thus, the obvious impoverishment of agricultural biodiversity can also be seen on our plates, which, besides irreversible genetic erosion, may lead to the total absence of foodstuffs for healthy and diversified diets.

Agricultural biodiversity is present both in the natural ecosystem in situ (in the progenitors of cultivated plants, the so-called Crop Wild Relatives) and within 1750 (ex-situ) seed banks around the world. But besides the ex-situ approach, which mainly ensures their static preservation within the gene banks, the only way to effectively maintain this heritage is through open field (on-farm) cultivation.

Briefly: the more agricultural biodiversity is cultivated, the greater the possibility of ensuring food security! This requires a combination of different conservation approaches and uses (in situ, ex-situ, on-farm) and that everyone, from producers to consumers, becomes an active part of this agrobiodiversity recovery process.

Dynaversity

The main objective of the European Horizon 2020 project "DYNAVERSITY" was to facilitate dialogue and the exchange of knowledge and practices

between the various parties involved in the conservation of agricultural biodiversity.

The most innovative aspect of the many activities was to study the social factor in agricultural biodiversity management. Until then, this theme had remained mainly within the scientific community, with little involvement of social actors. On the other hand, Dynaversity wanted to involve farmers, seed savers, NGOs, gardeners, hobbyists and citizens in the debate, combining scientific research with social involvement, a necessary component for promoting change not only on paper but in the field. To ensure

EC-LLD emerged from the annual meetings of the European Movement for Agricultural Biodiversity, known as Let's Liberate Diversity! The NGO is based in Belgium and has an office in Italy. Since 2005 there have been ten annual meetings supported by EC-LLD and held in various European countries. These events aimed to further develop the topic of agricultural plant diversity by linking the work and experience of the actors involved and promoting the horizontal expansion of knowledge and know-how. At the same time, EC-LLD organizes Let's Cultivate Diversity! (LCD), a knowledge exchange specially designed for farmers, processors and specialists in the sector, on a farm and thus "in the field". The topic of agrobiodiversity in all its practical and theoretical aspects is discussed.

this process, Dynaversity involved two teams of sociologists.

In almost four years, many activities and dissemination materials have been produced, including a glossary, ten video animations, three manuals on the management of the Community Seed Banks, the photo exhibition and countless moments of exchange of practices, knowledge and seeds between farmers, citizens and stakeholders.

Building the European Network

The project enabled the European Coordination Let's Liberate Diversity! (EC-LLD) for the first time to have a paid Secretariat to follow all animation, facilitation and networking activities. The voluntary work of the members covered the Secretariat and coordination activities until then.

Within this framework, EC-LLD has mapped the social players and communities that, at European level, use and reproduce old varieties, local varieties, or populations. During the four years of the project, some 56 organisations dealing with agricul-

EC-LLD-Webinars

EC-LLD organises monthly multilingual webinars called "Seed Policy Dialogue", whose opening theme is the newsletter written by Fulya Batur, an expert on seed policy. In these webinars, the different political, legal and technical issues about seeds and biodiversity are addressed, such as the new reform of the European seed law, new genome editing techniques, the Farm2Fork strategy, the Biodiversity 2030 target.

tural biodiversity were mapped in over 32 countries (including Eastern Europe). From the map, it is possible to see the path of EC-LLD over time, its current members and other identified entities that will be involved in the coming months. These are all networks of networks or organisations with single members, ranging from 100 to 7000 people in the best-structured associations!

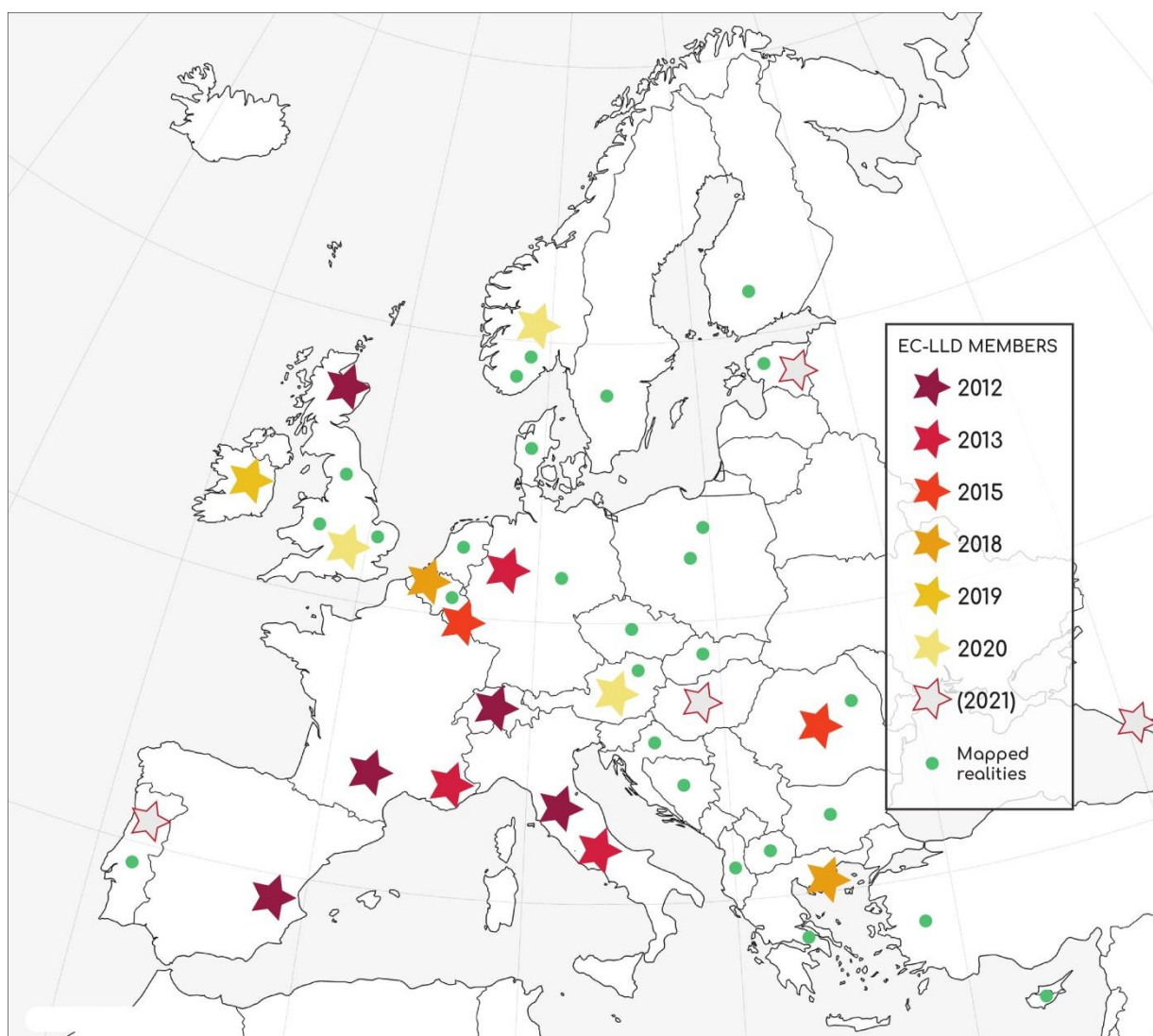
Thanks to the Let's Liberate Diversity! meetings, some organisations were invited to participate in DYNAVERSITY activities to bring these actors together. During this process, some asked to join EC-LLD, and this led to an increase in the number of members (from 12 to 16) and the coverage of 12 countries in the European region: besides the Central European area, many Scandinavian and Eastern European countries were involved, reaching a wider pool than the founding members of EC-LLD.

Becoming a full member of the network is the culmination of a social journey of trust and recognition of the importance of the work done to safeguard and use agrobiodiversity on-farm.

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About Cows of Luck and Genes



Swiss Brown Gurten. Source: Pinterest, Duthilleul Camille

Some animals of usually monochrome cattle breeds have distinctive white markings with a white belt, forehead patch or white back markings. In some cases, such colour variants are recognized as independent breeds, such as the Belted Galloway, Lakenvelder, Welsh Black, Sheeted Cattle or at least some of the European Brown Swiss Cattle.

As recent research shows, these markings are based on missing melanocytes in the skin, so there is partial albinism. The markings - especially the back piebald marking - were mentioned in writings as early as the 11th century. In the 19th century, cattle with belts, back checks or a stain on their foreheads were considered "cows of luck" in a herd, at least in eastern Switzerland, and fetched high prices. The Appenzell or Toggenburg Gurten cattle were known and appreciated until around 1870. With the emerging trade with Italy, it disappeared in eastern Switzerland because the Italians paid higher prices for monochrome Brown cattle. With the emerging breeding in the herdbooks, only single-coloured Brown Swiss cattle were allowed in Switzerland, Austrian Vorarlberg and Tyrol as well as in the German Allgäu. But this drawing was never completely extinct in the Brown Swiss cattle.

As early as the late 1950s, it was suspected that the white marking was due to a mutation. In the 1980s it was proposed in the Allgäu to keep the cattle with markings in a separate herdbook. It was feared that the displacement crossing of Original Braunvieh with Brown Swiss would lead to the disappearance of this color variant. In the Allgäu at that time the

opinion prevailed among breeders that Gurten cows would give more milk than monocoloured ones.

Since inseminations of Swiss origin in the Allgäu population resulted in both belted and monocoloured animals, it was assumed that the colour variants are inherited heterozygously. However, the white skin markings are depigmented due to a lack of melanocytes and are inherited as a dominant inheritance, as a genetic test with 186 microsatellite markers from 88 animals in Switzerland showed. With the help of DNA sequencing, the "colour-sided" variation in the

white-blue Belgian cattle was examined and the results compared with the sequencing of a Swiss Gurten cow. It turned out that a part of chromosome



Blüem-/Ryf-pigmentation. Source: vet.magazin.com

6, the so-called KIT gene, had doubled and was "deposited" on chromosome 29 in the white-blue Belgians. In the Brown Swiss cow, the duplication remained on chromosome 6. The sequence of the additional copy shows characteristic similarities with the inset on the «Belgian» chromosome 29. This means that the gene copy in the Swiss cows is from chromosome 6, so to speak jumped to chromosome 29 and back again - and the «Belgian mutation» is therefore older than the «Swiss» one. In the course of the last few centuries, white-blue Belgians must have been crossed into the Brown Swiss population. It was clearly shown that the "Blüem" mutation is inherited dominantly. In 2012 it was possible to demonstrate for the first time that genes in mammals can jump and can regroup via ring-shaped intermediate stages. Today, Brown Swiss breeders have access to a genetic test to detect this "colour gene".

The researchers confirmed these results by analyzing DNA from additional cattle breeds, including belted Mongolian, Yakut cattle and domesticated yaks, and found the same variants in all of them, suggesting that the two genes identified are likely in the most, if not all, of the cattle are responsible for the markings.

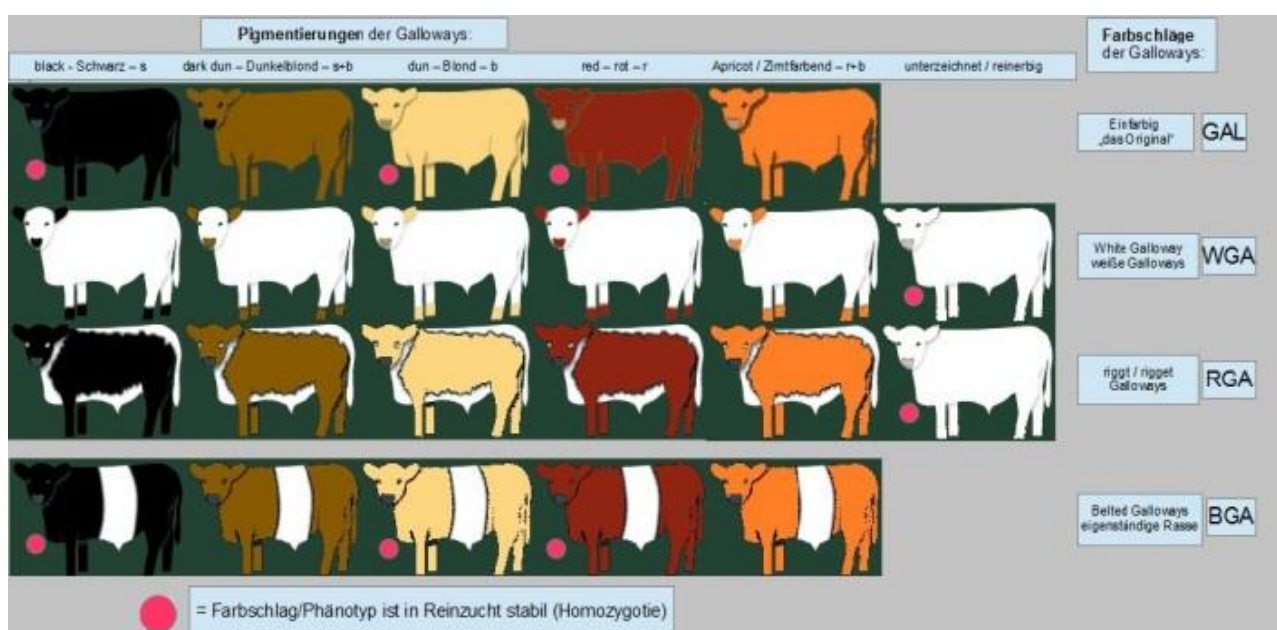
These colour variants would not exist today, at least with the Brown Swiss, if "stubborn" farmers had not kept the "Blüem", "Gurt" and "Wyssrugg" variants. Until the 1990s, the colour variants were not evaluated and not included in the herdbook - a loss for the breeder if he kept those animals.

In the meantime, the variants are recognized in the herdbook for Original Braunvieh as well as in the Brown Swiss and treated according to the breeding book rules in Switzerland. After all, the markings of the Brown Swiss cattle are part of Switzerland's cultural heritage, as evidenced, for example, on old paintings. The colour variants are also recognized in the local herdbook in the Austrian provinces of Vorarlberg and Tyrol. In the Bavarian Brown Swiss breed, bulls with white markings are excluded from the licensing and entry into the herdbook A. Cows are not accepted as mother cows for breeding bulls.

The "Belted Galloway" has long been recognized in Great Britain as an independent breed.

What the genetic disposition looks like in the Lakenvelder cattle in the Netherlands is not yet known. However, the following story supposedly happened towards the end 1970s: A Dutch breeder bought an original Brown Swiss bull calf with belt at a cattle show in the Swiss Appenzeller Land and brought it to Holland. The bull got the name of the Swiss breeder and was included in the herdbook of the Lakenvelder cattle, which also have a white belt.

Source and further information: Dr. vet. Klaus Schedel, GEH, Germany: Klaus.Schedel (at) t-online.de (Summary of two articles in Arche Nova, GEH 04/2020 and 01/2021)



Pigmentation of the Galloway cattle breeds. Source: Wikipedia.org

Breeding Strategies and Husbandry Systems



Karakachan sheep in the Pirin Mountains, Bulgaria. Source: SAVE

takes place again and again - be it as "crossbreeding", as "blood freshening" or - most often - to increase performance. In science there is a tension between "crossing is helpful" and "crossing is dangerous". There are different crossbreeding practices around the world. It is not just a matter of degree differences. It is therefore important to distinguish what kind of crossbreeding is being made and why. Pastoral races are constantly evolving because the livelihood / production system is always linked to the grazed landscape. The main goal in this type of farming is therefore not to optimize the characteristics and genes of the individual animal, but to achieve an optimal adaptation of the herd as a whole to the constantly changing

environmental conditions. This includes not only genetic resources, but also epigenetic gene expression with its complex learned behaviours. This includes, for example, feeding competence, social organization, experience with the terrain, attachment to the shepherd, adaptation to cold or heat,

In January 2021 there was an interesting debate in the FAO DAD-Net ([Domestic Animal Diversity Network](#)) about the sense and nonsense of crossbreeding in pastoralism and in other systems. The discussion was triggered by a contribution by Saverio Krätli (IUAES Commission on Nomadic Peoples, Nomadic Peoples Journal MA, PhD) and Fred Provenza (prof. Em. Of Behavioral Ecology, Utah State University, USA). The contribution is summarized here. We look forward to hearing your thoughts on the topic:

For most of the endangered breeds in Europe, a clear breed standard is drawn up and the desired characteristics are defined. Animals that do not meet these characteristics will not be included in the herdbook (see the previous article). In the pastoral system, however, herdbook breeding plays a very subordinate role.

Crossbreeding of foreign breeds took place and



Jesus-Garzon-Nomadic-Shepherd-Spain Source:ARC-EU

etc. Animal behaviour researchers refer to these competencies as "animal culture". Mother animals and social groups are cross-generational connections to the landscape. Learned behaviours and skills include anatomical and physiological changes in organ systems, including the microbioma, as epigenetically expressed genes enable ongoing joint creation in ever-changing environments. Although these behaviours are not innate, they are transferrable and therefore inheritable, albeit not genetically determined.



Source: www.wikimeat.at

Social and cultural connections with landscapes are beyond the scope of classical genetics and mainstream animal sciences. Recent research is using a different, less gene-based approach: Scientists train farm animals to eat invasive plants that are considered unpleasant, or to train them not to eat otherwise tasty plants, for example to enable sheep to be used to manage vineyards.

Breeding and crossing to increase the variability in the herd increase the diversity of livestock. It is a functional and continuous improvement in a herd's ability to interact with the environment. Crossing towards an "ideal" optimum, on the other hand, reduces the variability within the population and reduces the diversity of domestic animals.

However, one approach in no way excludes the other: It can make perfect sense to breed and cross on classic characteristics of the individual animal. The different approaches reflect the different traditions in animal husbandry: In pastoral systems, the operative logic consists in working with nature and using its variability as an opportunity. In animal production systems that follow the tradition of mainstream animal science, the goal is to "emancipate" production from the environment with the animal's metabolism at the centre. Both systems should have their place. In light of impending climate change, an approach to breeding and ultimately animal husbandry that focuses on interacting with a changing landscape seems to become increasingly relevant beyond pastoral development.



Flock of sheep in The Netherlands. Source: SAVE

Patent on barley and beer upheld



The European Patent Office (EPO) in Munich, Germany, has rejected a joint appeal filed by NGOs against a patent on barley owned by Carlsberg (EP2373154) on June 8th this year. The patent claims non-genetically bred barley plants, their harvest and the beer produced thereof. No Patents on Seeds! is concerned about serious negative impacts such patents can have, as these might also be granted on vegetables, fruits and other food plants.

Such patents harm diversity in the field, progress in breeding and the interests of consumers. It is expected that there will be even more patents on barley and beer in the future.

The Carlsberg Group has already registered around a dozen similar patents. For this purpose, the genome of the barley is systematically searched for genetic variations that could be useful and that have to be patented.

The case of a German barley breeder shows how patents on seeds can hinder the breeding of new varieties and also block them. It does not even have to be a patent infringement. The reason: The technical and legal uncertainties associated with such patent applications are far too high a hurdle for many breeders.

The example of a barley breeder Karl-Josef Müller, an organic breeder from Cultivari described his situation: “After more than twenty years work of breeding barley, and just before we wanted to register our new variety in 2020, we discovered that Carlsberg had filed a patent application on barley with similar characteristics. Consequently, we would

have had to shoulder not only the costs of registering our new variety, but also the costs of sorting out totally unexpected legal questions. This is something we simply could not afford.”

Several gene variants (mutations) are described in the Carlsberg patent application. Cultivari does not know whether these mutations are also present in their own variety. But in this case, Cultivari was very lucky: the Carlsberg patent application (WO2019134962) in

question appears to have been withdrawn at the beginning of 2021. Cultivari has, therefore, decided to now register its new variety.

No Patents on Seeds! is demanding clear political decision-making: even though European patent law prohibits claiming conventionally bred plants and animals as technical ‘inventions’, there are several loopholes which must be closed. A clear line must be drawn between random mutations and methods of genetic engineering.

No Patents on Seeds! is demanding a moratorium is put in place before further, similar patents are granted and until these problems are resolved. A petition has been set up and already has around 200.000 signatures.

No Patents on seeds! has been active in an international coalition for more than 10 years to fight increasing monopolisation of the resources needed for our daily food. The following organisations were involved in the opposition against the Carlsberg patent EP2373154: Arbeitsgemeinschaft bäuerliche Landwirtschaft (AbL), AG der Umweltbeauftragten in der EKD (AGU), ARCHE NOAH, BUND Naturschutz, Brot für die Welt, Campact, Evangelischer Dienst auf dem Lande, Gen-ethical Network, IG Nachbau, ProSpecieRara, Slow Food Germany, Munich Environmental Institute and Verband Katholisches Landvolk. Source: www.no-patents-on-seeds.org

Traditional knowledge and Language

A recently published study by the University of Zurich, Switzerland, analysed the interrelationship between traditional knowledge and indigenous language. According to this, around 75% of medicinal plant applications worldwide are passed on in just one language.

Today around 7,400 languages are spoken worldwide, most of which are not written language. Fewer and fewer of these languages are passed on to the next generation. The traditional knowledge of indigenous cultures therefore is in danger of being lost.

PhD Rodrigo Cámara-Leret and Jordi Bascompte, Professor of Ecology at the University of Zurich, examined how knowledge of indigenous medicinal plants is linked to the respective mother tongue. In North America, in the north-western Amazon and in New Guinea they analysed 3597 medicinal plants and over 12000 uses of them.

The research team also wanted to find out how much of this unique knowledge could be lost if either language or plants became extinct. They used the Glottolog Catalog of world languages on the one hand and the Red List of the International Union for Conservation of Nature IUCN on the other.

It has been proven that each indigenous language has a unique knowledge of medicinal plants and thus also passes on knowledge about biological diversity from one generation to the next. If languages die out, traditional knowledge about the effects of medicinal plants is irretrievably lost, even if the plants themselves are not threatened with extinction.

In view of the dramatic loss of many indigenous languages, the United Nations declare 2022-2032 as the International Decade of Indigenous Languages.

SAVE and its partners as well as all actors in conserving agrobiodiversity are also aware of this problem: Traditional knowledge of crops and livestock in Europe is increasingly being lost because it can no longer be passed on due to the cultural-linguistic development and is going to be forgotten. In all of our projects and activities, we try to point this out and, in addition to breeds and varieties, also collect knowledge and promote networking among the actors.

With the "Fundus Agri-Cultura Alpina" project, we have dared to attempt to collect and bundle traditional knowledge in agriculture. We are aware that there is a lot of traditional knowledge in the Alpine region and in other regions of Europe that is only passed on orally from generation to generation. Gathering this knowledge is an ongoing task. But

even the knowledge that was once written down is very difficult to collect.

Since spring 2021, the "Fundus Agri-Cultura Alpina" is going to be expanded to include the French Alpine region. The SKEK (Swiss Commission for the Conservation of Cultivated Plants), based in Bern, sets out to collect knowledge about our cultivated plants and livestock, cultivation techniques and customs in this region of the Alps. SAVE supports the SKEK in this project phase with advisory capacity and with regard to the necessary IT adjustments and updates. We are happy to receive your suggestions, updates, texts or images for entries: You can register as an editor at <https://fundus-agricultura.wiki> or contact us directly:

office (at) save-foundation.net,
info (at) cpc-skek.ch

Source: Rodrigo Cámara-Leret & Jordi Bascompte. Language extinction triggers the loss of unique medicinal knowledge. Proceedings of the National Academy of Sciences USA. June 8, 2021. DOI: [10.1073/pnas.2103683118](https://doi.org/10.1073/pnas.2103683118)

Newsflash

Arca-Net in a new Look



For more than 15 years now, SAVE-Foundation has been collecting institutions in the "Arca-Net" that maintain, breed and use traditional breeds and varieties and are in any way accessible to the public. At www.arca-net.info, those interested can find out where arc farms, open-air museums, livestock parks, arboreturns and variety gardens can be found. Arca-Net is therefore a win-win situation for those interested in and for the operators of the facilities. Those involved in the conservation of agricultural diversity want to maintain contact with the

public and show the unique regional diversity of livestock breeds and cultivated plants, because love and thus support comes from the senses. Visitors have the opportunity to experience the agrobiodiversity of a region up close and - in more and more cases - to try them and take products home with them.

Every operator of a facility receives individual access to their page from SAVE. There additions and corrections can be made, images and / or plant lists can be uploaded.

After more than 15 years, the old system was getting on in years and it became more and more difficult to make entries. With the support of the SAVE supporter, we have now been able to renew the platform and make it more convenient for the institutions for entries. The search functions for visitors have remained the same, as well as the "index card system", to which the entries are divided.

There are currently 752 institutions across Europe in the Arca-Net. We are continuously working on updates and additions. The changing interns from different countries of origin are particularly helpful in the SAVE project office.

If you cannot find your facility in the Arca-Net, please contact us and we will check together whether your facility complies with the guidelines.

We wish all tourists a great holiday and lots of fun looking for the right facility in the Arca-Net near your destination!

Contact: office@save-foundation.net

Litter Fruit Meadows recognized as intangible cultural Heritage



In March 2021, litter fruit meadows in Germany have been included in the nationwide register of immaterial cultural heritage. The association "Hochstamm Deutschland" (www.hochstamm-deutschland.de/) submitted the application in autumn 2019, which

has now been recognized by the culture ministers in Germany. As a next step "Hochstamm Deutschland" is now striving for transnational, European-wide recognition. For this purpose, European cooperation partners are still needed.

Extract from the nationwide directory:

Since the middle of the 20th century, the litter fruit meadows have been declining across Europe. This means not only a cultural space for human experience is disappearing, but also an ecologically valuable habitat for animal and plant species. The litter fruit meadows is kept alive through volunteer work.

Biodiversity is an integral part of litter fruit meadows. They are species-rich biotopes that are home to numerous animal and plant species. They emerged from an agricultural and cultural development and are directly linked to human knowledge. Many stock of trees were cleared in the 20th century, which led to the loss of large areas of litter fruit meadows. Today less clearing than dwindling knowledge, a lack of skills and appreciation, the high expenditure of time and effort and the lack of profitability endanger the existence.

At the heart of orchard cultivation are the labour-intensive and time-consuming conservation and management of the litter fruit meadows and fruit processing. Traditional craft techniques are an integral part of the practice. The cultivation of litter fruit meadows also includes various customs and rituals such as the replanting of trees at births and numerous public events such as fruit-, cider- or fruit blossom festivals. In addition to agricultural knowledge and the associated handicraft techniques, knowledge of thousands of cultivated fruit types and the suitable locations for cultivation is indispensable for maintaining litter fruit meadows cultivation.

Source: <https://www.unesco.de/kultur-und-natur/immaterielles-kulturerbe/immaterielles-kulturerbe-deutschland/streuobstanbau>



Agroforestry in Germany



Agroforestry is the integration of woody vegetation, crops and/or livestock on the same area of land. Trees can be inside parcels or on the boundaries (hedges).

Agroforestry can be applied to all agricultural systems, in all parts of Europe. Agroforestry systems are obtained by planting trees on

agricultural land or introducing agriculture in existing woodland/orchards (e.g. silvopasture).

Europe has a unique heritage of traditional agroforestry systems with a high environmental and cultural value, and there is a high potential for innovative modern agroforestry systems.

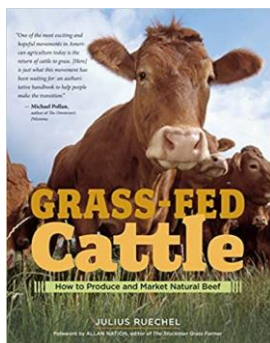
An [Innovation concept book](#) has been published as a result of the project AUFWERTEN offers recommendations for action for a stronger implementation of agroforestry in Germany.

The handbook "Trees as an enrichment for agricultural land – an innovation concept for a broader implementation of agroforestry in Germany" comprehensively analyses the current situation of agroforestry in Germany and provides ideas and impulses for an improvement of the framework conditions. Its intention is to convey the essential possibilities and opportunities of agroforestry in a concise form in such a way as to facilitate thinking in contexts.

The user will therefore find numerous cross-references to tools and methodological formats to successfully take the necessary steps on the way to more agroforestry. Both practical experience and conceptual ideas are presented concisely and topic-specific. The present innovation concept is aimed at all farmers and service providers who want learn about the basics and applications of agroforestry, but also at representatives of local authorities, planning authorities, agricultural consulting companies, students and the interested public. It also focuses on aspects that may be of interest for agricultural administration and policy at various levels. In German language.

Source: <https://euraf.isa.utl.pt>, <https://agroforst-info.de>

Grass-fed Cattle



Julius Ruechel grew up on a conventional cattle farm in British Columbia, Canada. In this comprehensive guide, he covers every aspect of raising healthy and thriving grass-fed cattle, and offers advice on herd selection, pasture management, medical care, necessary equipment, winter pasture, slaughter procedures, and more. With tips for creating a viable business plan and identifying niche markets for beef, Ruechel offers everything you

need to know to set up a profitable and environmentally friendly pasture farm. Although the book is tailored to Canadian-American conditions, there is also plenty of food for thought for European conditions:

www.grass-fed-solutions.com/cattle-books.html

Ruechel also operates an (English-language) website which he calls "Online Guide to Low-Cost Grazing of Cattle". This website is very informative and entertaining at the same time - or do you already know the "Thanksgiving Dinner Effect"?

www.grass-fed-solutions.com

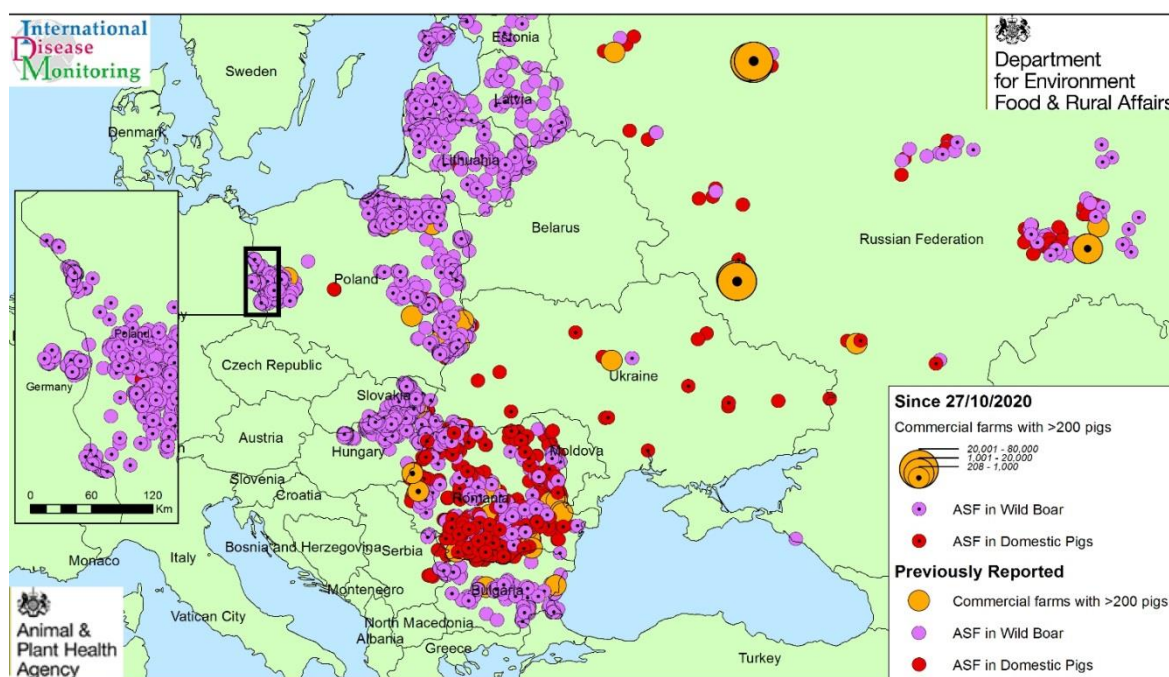
African Swine Fever – Latest News

African swine fever is a viral disease of pigs and wild boar that is usually deadly. There are neither vaccines nor cures. For this reason, it has serious socio-economic consequences in affected countries. Humans are not susceptible to the disease. Between 2016 and June 2020, 1.3 million pigs were lost to ASF in Europe.

From Russia and Belarus, the disease spread to the European Union. The majority of outbreaks occurred in small businesses and could be contained relatively quickly. The disease continues to spread

locally among wild boars, where containment is much more difficult.

So far there is a lack of precise data on wild boar populations in Europe. But effective containment measures can only be taken with clear data. [EFSA](http://efsa.europa.eu) (European Food Safety Authority) is therefore funding the [ENETWILD](http://enetwild.eu) project, which aims to collect and harmonize data on the geographical distribution and frequency of wild boars across Europe.



Source: www.gov.uk/guidance/african-swine-fever, ASF-Jan-021

Last but not least

A Symbol of Political Resistance and Delicacy: the Tulip Bulb



In 1636, at the height of the tulip mania, tulip bulbs were trading on the Amsterdam

Stock Exchange for as much money as a house on the Grand Canal. An unfortunate sailor is said to have been thrown into jail for eating a valuable tulip bulb.

During the hungry winter of 1944 in Holland, the Nazis blocked the supply of food in densely populated regions such as Rotterdam, Amsterdam and The Hague in retaliation for acts of sabotage. The official ration was only 340 calories a day and more than 20,000 people died.

In their search for high-calorie food, the Dutch authorities came across the tulip bulbs, which are

traditionally grown in large quantities in West Holland. The authorities started campaigns and sent out "special ambassadors" with recipes in which tulip bulbs were promoted as a substitute for potatoes, cabbage and much more. Today, tulip bulbs can be found on the menu of selected gourmet restaurants. The organic Yokohama tulip bulb is one of the most expensive ingredients in these dishes, because it takes five to seven seasons and a lot of manual labour for the bulbs to grow ready for consumption. That ultimately makes them more expensive than caviar. While people had to eat old, seasoned and therefore dry and bitter tulip bulbs during the war, today they are fresh and juicy. But be careful: the germ of the bulb can cause intestinal problems and must be removed. And: Organic tulip bulbs can also be contaminated with pesticides. In the meantime, you can even buy "consumption tulip bulbs" in Holland. The tulip bulb went through a tremendous cultural change over the centuries: from a luxury object in the 17th century to a symbol of resistance in World War II to a delicacy in the 21st century.

Source: www.atlasobscura.com

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