



Lemons out of the Cold



Harvesting mandarins on the Chakva state farm, a painting by Mikhail Beringov, 1930s. Source: www.lowtechmagazine.com/2020/04

In the countries of the former Soviet Union, tea is traditionally drunk with lemon. The acidic vitamin bomb has been known there since the 16th century. In the Russian Empire, citrus fruits were reserved for the nobility. Tsar Peter the Great was a lover of these fruits. A large greenhouse (Oranienbaum) was therefore set up near St. Petersburg.

Lemons also grew in the Kremlin in Moscow, in the so-called "Ranzhera chambers" under the Kremlin. The outdoor plantations on the coast of western Georgia were only around 160 hectares in the 1920s. The climate there is generally mild but even short frosts can destroy entire citrus plantations.

After the Russian Revolution, the Soviet Union sought to achieve the highest possible level of self-sufficiency - including in the production of citrus fruits. The cultivation was finally driven forward in regions in which it can get down to -30°C in winter and the ground can be frozen to a depth of 50 cm. In contrast to the harsh winters, the summers in these regions are usually very hot and windy. A not exactly ideal climate.

How can these fruits be grown successfully in regions that seem completely unsuitable for citrus cultivation? Three methods were used for this:

Progressive frost adaptation

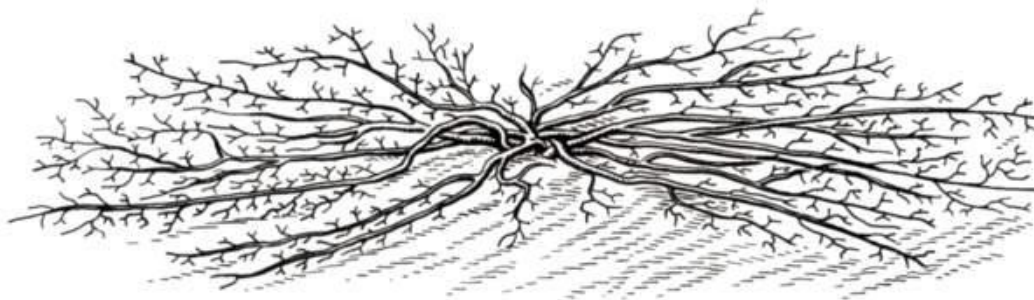
More and more cold-resistant varieties were specifically bred. The "progressive frost adaptation" (progressive cold-hardening) is a strategy that was originally used for apricots and wine: seeds from particularly suitable trees were planted a little further north or in areas with a frost hazard. The seeds of these plants then a little further north and so on. With this method, the seeds adapt slowly. The attempt to plant seeds directly from the mild climate into a frostier one was unsuccessful. In addition to this adaptation to frost, correspondingly robust varieties were also collected, which were crossed with local varieties.

Dwarf and semi-dwarf trees

The common doctrine is to cut citrus plants as little as possible. However, wind, drought and frost made it necessary in Russia to keep the trees small. In addition, small trees are easier to cultivate by hand than large ones. As early as the 1920s, dwarf and semi-dwarf trees were worked with the crowns that were as compact as possible. It is much easier to protect small trees. In addition, the trees were planted as densely as possible. Up to 3,000 citrus trees could stand on one hectare. To counteract the extreme summer heat, the top leaves were sprayed with lime. This lowered the temperature by around 4°C in summer.

Creeping forms

To guard against wind and cold, even more extreme forms of growth were used: extremely flat



growth. For this purpose, small stems growing at an incline from the ground were used to raise the main branches of the crown in a fan shape. Another method was to let the trunk grow straight up about 15cm and then raise the crown in a fan shape parallel to the ground. Tests over a period of ten years showed that in winter the air at the level of the creeping crown was on average 2.5°C to 3°C warmer than the air two meters higher. Conversely, in hot summers it could be up to 20°C cooler on the ground than above the crown. The wind has a speed of around 10.4 m per second at a height of around 2 m, and only 1.8 m per second near the ground. In the winter of 1942/43,



Creeping culture (apple). Source: <https://frukti-yagodi.ru/formirovanie-kroni-molodoj-yabloni-sxema/>

temperatures on the Black Sea coast dropped to -15°C . The creeping trees, surrounded by two layers of gauze and wind protection curtains, were not damaged at all, while the similarly protected trees with larger trunks froze to the roots. Even the yield of the creeping forms was higher than that of the trees.

Cultivation in trenches

Where the ground freezes and winter temperatures of -15°C are normal, creep growth is no longer sufficient. In these regions, the plants were placed in trenches 0.8 to 2 m deep, depending on the degree of frost. The trenches were trapezoidal and dug east-west so that more light could get to the plants. In winter, the trenches were covered with two centimeter thick wooden planks and, depending on the climatic conditions, one or two layers of straw mats. So the soil heat stayed in-side and the precipitation outside the trenches. Citrus plants can tolerate 3-4 months of darkness a year if the air in the crown is $1-4^{\circ}\text{C}$. The metabolism of the plant then slows down and the frost resistance is strengthened.



Union and the competition from global trade is too great.

In the former Soviet Union, wild fruit was also used to provide vitamins. The native frost-resistant species were selected again and again, so that large-fruited, mild varieties were created that are far superior to lemons in terms of vitamin content and robustness. (www.wildobst.info).

Growing creeping plants in trenches was very labour intensive. But there was enough manpower and there was no need to invest in equipment or buildings. Today this type of cultivation is no longer practiced, because the human labour force is also low in the countries of the former Soviet

Source:

<https://solar.lowtechmagazine.com/de/2020/08/fruit-trenches-cultivating-subtropical-plants-in-freezing-Temperatures.html>

Culture, nature and UNESCO



United Nations
Educational, Scientific and
Cultural Organization



Intangible
Cultural
Heritage

The UN's 2030 Agenda names 17 sustainability goals to promote peace and prosperity. In addition to the point "Measures to protect the climate", at least seven other goals are directly or indirectly related to global warming. Including the prevention of hunger and poverty, sustainable production and consumption, life under water and on land. Climate change affects not only biodiversity but also the existing world heritage sites such as national parks or biosphere reserves and thus of course the economic basis of the rural population in the area. World Heritage sites combine the

ecological, social and economic aspects of sustainable development and therefore serve as model regions, such as the Wadden Sea in the Dutch-German-Danish coastal area. But these areas are threatened, as became clear at this year's meeting of the UNESCO World Heritage Committee. Floods, droughts and other extreme weather conditions do not stop at protected areas. Of course, this also has economic effects. A bog area during a drought is dry and loses its charm. UNESCO had the impending effects of climate change on protected areas investigated in 2007 and has now updated the findings, among other things, on how climate change can be countered.

better understand other climatic epochs, hydrological and geological programs, but also studies with native people who have already defied many climatic changes. The educational programs are varied and extend to programs promoting agrobiodiversity in Brazil or the development of water-saving options in South Africa. General environmental education programs under the title "green citizens" complete the efforts to improve people's environmental knowledge. In addition to studies on the possible ethical and social changes that climate change will cause, the systematic observation of changes in the UNESCO protected areas deserves special mention. Goal 17 of the UN goals is based on global

partnership. It is a prerequisite for this global observation network of UNESCO.

An example of such an observation area is UNESCO Biosfera Engiadina Val Müstair in the alpine area in south-eastern Switzerland. There are some ob-

servation



The climate protection measures in UNESCO areas also affect traditional cultivated plants and livestock breeds. Indeed, the 2003 Convention on Intangible Cultural Heritage includes: customs, representations, expressions, knowledge and skills that communities, groups and, where appropriate, individuals consider to be part of their cultural heritage. This also includes breeding animals and plants. These varieties, which have often been established for decades, also play a role in the UN's sustainability goals regarding the fight against hunger and the preservation of terrestrial ecosystems - of course beyond the protected areas.

The fact that the protected areas – which make up 10 million square kilometres worldwide – deserve special attention, because they also function as model regions. It is therefore interesting where they fight climate change on the one hand and where they adapt. UNESCO meets the climate challenges in 30 programs. They concern scientific research, education, communication and culture, as well as education for sustainable development. This includes research in the earth's ice mantle in order to

items. For example, the behaviour of the alpine flora. There are some plant species that need a certain number of frost days, otherwise they will die out. This in turn has consequences for insects. What is interesting, however, is the draining water. Angelika Abderhalden, landscape ecologist and managing director of the biosphere reserve explains: "The seasonal runoff varies greatly. The main drainage time starts earlier and earlier. This has an impact on the irrigation of agriculture in lower-lying areas. Because when the demand for water increases there, most of the meltwater is gone. In our case, the Inn, this affects the Danube countries, in our neighbourhood west of the watershed on the countries on the Rhine to Holland and south on the Po Valley. Abderhalden exchanges climate observations with those in other UNESCO areas. "The international anchorage is important. We learn from other regions in terms of conducting studies, adapting to climate change and communication, and they hopefully learn from us too."

Tomatoes from participatory breeding fared better in the damp Summer



Participatory and organically bred tomato varieties made it through the wet summer of 2021 well - Dr. Bernd Horneburg, head of the organic tomato project at the University of Kassel established. The decisive factor is the high resistance of the new varieties against late blight and brown rot.

In the organic field tomato project, researchers, professional and hobby gardeners, and others involved are breeding new varieties without benefiting financially from so-called intellectual property rights. The project has produced nine new varieties since the nationwide start in 2003. The varieties Primabella, Resibella, Rondobella, Vivagrande and in the home garden Sunviva proved to be particularly resistant to late blight and brown rot (*Phytophthora infestans*). The past damp summer was the acid test.

The years 2018 to 2020 were favorable for the cultivation of tomatoes outdoors: It was dry and hot, the *P. infestans* infestation played little or no role. That was different in 2021: In many gardens, varieties with low or medium resistance were so badly damaged that the yield remained low. Commercial cultivation in film tunnels and unheated greenhouses was also severely damaged in some cases because the tomato plants remained moist for a long time at low temperatures and high humidity and were infested. Varieties that were bred in the field tomato project, on the other hand, were able to extend the season and greatly increase the yield.

The agronomist Horneburg, who researches and teaches at the University of Kassel in the field of ecological plant breeding and agrobiodiversity, attributes this to the broad breeding approach based on the diversity of tomatoes: through participatory

breeding in a wide variety of locations, it is possible to develop varieties that can deal with strongly changing climatic conditions. Annual meetings, the "tomato days", ensure the exchange between those involved. On Tomato Day, observations and data are exchanged in order to breed the best varieties for very different soil and climatic conditions. Instructions and scientific results are publicly available on the project homepage. The taste is considered with tasting a part of every step of the breeding process.

Phytophthora infestans is a harmful fungus that can adapt to its environment and break resistance. Horneburg: "One of the project's strengths is the network's" sensor function ": If varieties lose resistance in one place, a new solution is sought directly in the abundance of breeding lines."

The organic field tomato project aims to counter large seed corporations. Patents are also often applied for properties of tomatoes; If a new variety contains corresponding characteristics, license fees are due or the use is prohibited altogether - an obstacle to the development of improved varieties. The patents for tomatoes are held by a few companies. In the field tomato project, on the other hand, breeders, cultivation, trade, advisors and consumers jointly determine the goals and select the best breeding lines: knowledge, plants and seeds are exchanged to look jointly for new, promising varieties. The Sunviva and Vivagrande varieties are even protected as common property by the Open-Source Seed Initiative.

The project not only serves to breed resilience: "The quality of home-grown tomatoes is unbeatable and they contribute to a lively variety of varieties," confirms Horneburg. In 2003 he founded the tomato project, and in 2020 he brought it to the University of Kassel. In some years there are over 30 locations across Germany. With a consumption of 28 kg per person, tomatoes are the most popular vegetables in Germany. Over 75 percent of the fresh produce comes from greenhouses abroad, processed tomatoes often even from over-seas. Tomatoes that are organically grown in the field use 34 g of CO₂ equivalents per kg of tomatoes, tomatoes use 99g when produced in conventional foil tunnels and up to 1,570 g in heated greenhouses.

Source:

www.uni-kassel.de/go/freilandtomatenprojekt.

A New European Wool Association- EWA

Simon Gill M.Sc B.Sc LTCL, EWA Board Member



At the IX World Congress of Coloured Sheep held in the Sanctuary of Oropa, Biella in May 2019, a group of 28 delegates gathered and decided that a European Wool Working Group should be established. At first this group had the intention of meeting remotely using zoom to discuss and share information on a two to three times a year basis.

During their discussions it became evident that there was the opportunity and drive to form a new pan-European organisation to represent the interests of both sheep farmers and wool producers. These discussions resulted in first a small working team that worked preparing the legal documentation for registration and also the development of the objectives of the new organisation.

It was decided that the Association was to be registered in Belgium and also registered in that country as a Sector Branch Organisation operating across the EU member States. The delegates from the Biella conference are now the founder members of this new Association and decided on the name "The European Wool Association" or EWA in its shortened version. The first Founders Meeting was held in October 2021 to accept the bye-laws and elect the first interim board and to allow for general membership of EWA to be available in 2022 for all interested parties.

Just because EWA is registering in Belgium as a Sector Branch Organisation, does not mean it represents the interest of farmers and processors in just EU member states. It was long decided that the membership would be open to new members from all countries recognised as being "European" which of course still include the Countries and territories of the United Kingdom and extends as far as Russia and Turkey and into the North Atlantic to include Iceland. The list extends to over 52 eligible Countries and States.

A key policy objective of EWA is to develop opportunities for sustainable solutions for developing supply and manufacturing chains for European Wool. Another key objective is that all European Wool should be utilised and not discarded. EWA

believes in the principles of a Circular Economy. This is a particular concern in the Balkan Peninsula where, for the lack of opportunities, many hundreds of tonnes of wool are left to decompose, much of it on farm. It is, however, appropriate to use new technologies that upcycle unutilised wool at farm and in primary processing across the whole of Europe.

EWA has another particular concern for the protection of the many coloured sheep and the wool they produce across the whole of Europe. The wonderful wool of all sheep can be utilised by a growing number of crafts people and artists but still many of the breeds and strains of European sheep are threatened as are the livelihood of their shepherds. Activities of the EWA planned for 2022 include studies and pilot projects to create short chain solutions for collection sorting and processing of European fleeces. The projects identify a need for the use of the whole fleece, not only the best part to be scoured and turned in a resource for yard or felt production but also the wastes which can be up-cycle into valuable fertilisers.

In an industry now dominated by large wool collection merchants and large scouring plants EWA will support all those who plan to "go small" again. There are facilities across Europe that can be utilised for smaller scale processing and the production of wool materials that can then be processed by local or other European bases artists and crafts people and whose products can be traced and presented as 100% European when presented for sale on markets. To this end the Association is investigating the development of a "European Wool Stamp" with an associated Quality Assurance programme from farm to consumer and the development of platforms that will assist small producers market and sell on the global market. It is planned to be used at all stages of the production cycle from farm to consumer markets. Importantly we want the farmers to benefit from these chains and that wool, again, becomes a income generating commodity for them.

More information can be found on the European Wool Association Face Book Group. This is a public group for news and discussion and has already more than 1.3 thousand members from 51 Countries Worldwide. It is EWAs main communication and media outlet at this time. The first of Bi-Annual newsletters will be published in 2022.

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[#europeanwoolassociation](https://www.facebook.com/europeanwoolassociation) [#EWA](https://www.facebook.com/EWA)

Marketing of the Black Alpine Pig



Rescuing the Alpine Pigs

Most of the autochthonous pig breeds and types of pigs in the Alps are extinct. Only a few relict specimens in various valleys have survived. 2013: Discovery of the last Veltliner pigs but, due to inbreeding, with no hope of saving them. Then a relict group of Samolaco pigs was found and a little later in the South Tyrolean Ulten Valley the last Ulten piebalds. Thus, it was not possible to rescue every single phenotype, but at least the eco-type of the old alpine mountain pigs. These were previously widespread throughout the central and south-eastern Alpine region.

The three relic groups were merged into a gene pool by the Alpine network Pro Patrimonio Montano (PatriMont). So at least the "ecotype" of the old Alpine pigs was conserved, a mountainous type with long legs and a short torso. Since they are black or black-spotted animals, they are now bred

under the name "Black Alpine Pig" (or suino "Nero delle Alpi"), a name that was already used in the old specialist literature for the "Community of Black Alpine Pigs" (e.g. JR Steinmüller, 1827). The black alpine pig is of necessity a composite breed but is based on remnants of actual alpine breeds. The conservation project aims at a marketable animal that offers a chance for sustainable alpine farming again. The last eight years have been successful: today there are again 75 breeding groups with 232 breeding animals in the Alpine region of four countries (AT, CH, DE and IT) (May 2021).

Due to their light, strong build, the Alpine pigs are made for mountain farming. Thanks to their dark colouring, they are not at risk of sunburn and - unlike modern breeds - can be outside all day. Thanks to their modesty and robustness, they are predestined for extensive outdoor keeping in mountain areas.



Culinary

The black alpine pig represents a robust and alpine pasture pig, it was widespread in the alpine region before the more demanding high-performance breeds became ubiquitous. In an alpine season of



Black Alpine Pig Products Marketplace

Alpine terroir from Pro Patrimonio Montano
PatriMont.org, manufactory for mountain delights

Find in your area

Farm shops, processors, restaurateurs



[Farm shops](#)



[Processors](#)



[Culinary](#)

[all together](#)



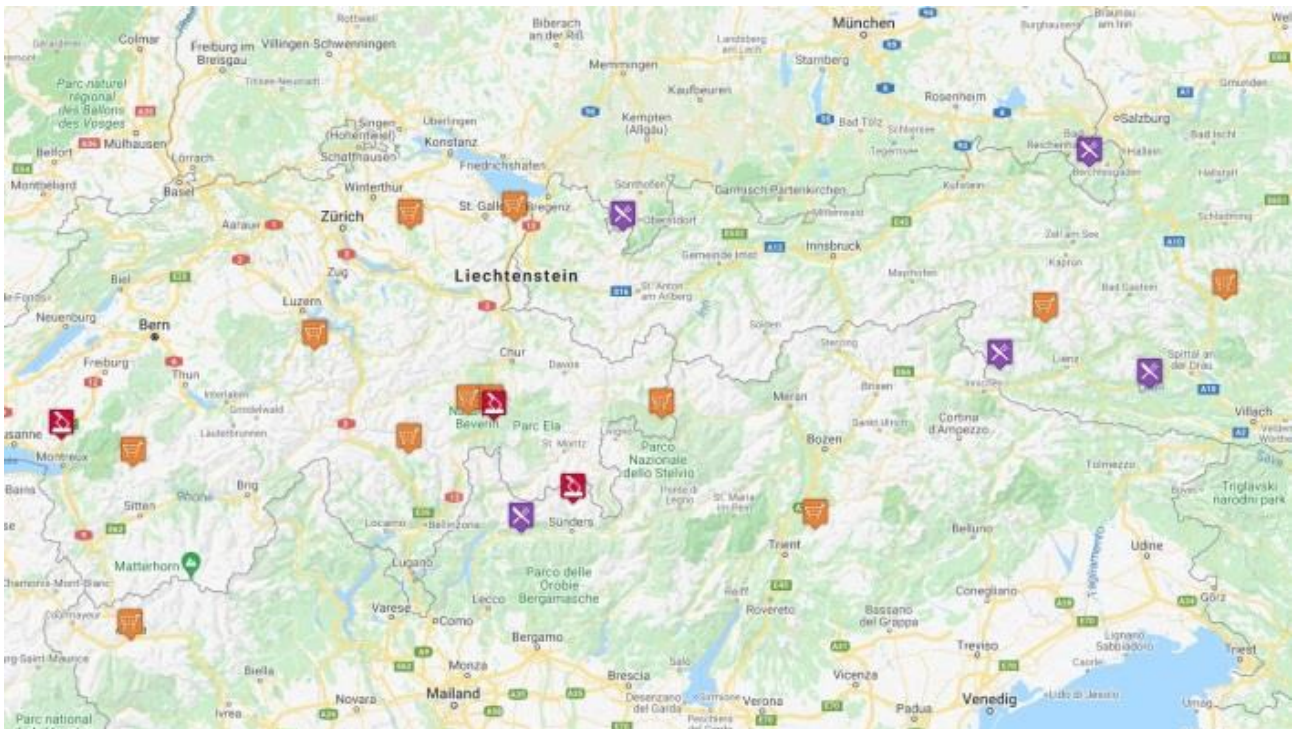
mostly around 90 to 100 days, the pigs made use of the great variety of aromatic mountain grasses and herbs. By consuming these plants, valuable omega-3 fatty acids accumulate in the meat of pigs, which modern pork lacks. Due to the constant movement of the animals and the slower growth due to extensive husbandry, the meat is also more compact and the fat, as a flavour carrier, is better distributed in the body (marbling).

The conservation of old breeds requires their “use”, the utilization of their products. In banal terms, this means “conservation by eating”. The tastier it is, the better the sales. Since Alpine pigs are kept very

and pay the required price. This is an opportunity for innovative mountain agriculture.

The prices for Alpine pork products are not unaffordable, but they are a bit high. After all, the farmer must raise the animals much longer than today's competitive breeds. To do this, he must be able to achieve higher sales for the products. To be able to justify the added value, however, the farmer or fatterer has to adhere to a number of guidelines regarding keeping and feeding. For this he can then “label” his products..

Marketplace



extensively and consume “down-to-earth” feed, the products are of high quality. For the consumer, however, the rearing time two to three times longer than today's performance breeds means a higher price. A study by the Graz University of Applied Sciences shows that the meat is therefore label-worthy: It shows a 1.4 times more favourable ratio between saturated and unsaturated omega fatty acids. Haute cuisine is already reacting to this. Superior hotels pamper their guests with sophisticated, new-old menus. A new trend has started!

Products from extensive farming, traditionally prepared, above-average in taste and from the region have a future. Marketing to date shows that there is increasing interest in high quality meat today. The customer no longer wants products from animals that grow to slaughter weight in record time but prefer slowly developed meat that has already matured in the body. The alpine pigs can deliver this

In order to inform the general public in publications and in general communication about purchasing options for Alpenschwein products, a “marketplace” was created on the web. The website www.alpenschwein.market is linked to PatriMont and is based on the zoomable Google map. It uses various icons (flags) and contact details to advertise farm shops, processors and restaurants where Alpine pig products can be bought, ordered or enjoyed. Each provider presents itself on a subordinate, advanced website shortly before. Take a look at the marketplace, click on a destination and go to the individual provider websites via the hotspot that is displayed! There you will find detailed offers with contact details, opening times, etc.

More info:

Web: www.patrimont.org
<https://patrimont.org/en/participation/products-marketplace>

Common Agricultural Policy: Business as usual?



On November 23rd, the European Parliament, the Council and the EU Commission gave the green light to the reforms for a new Common Agricultural Policy (CAP) for 2023 to 2027. A reformed common agricultural policy should become more environmentally friendly, fairer, more flexible and more transparent. During the negotiations on the reform package, Parliament insisted that strengthening biodiversity and compliance with EU rules and obligations in environmental and climate protection are the key to implementing the reformed Common Agricultural Policy (CAP), which will come into force in 2023. The Commission will now assess whether the Member States are complying with these commitments with their CAP strategic plans. But is a transition to more agro-ecological and more sustainable models, which are urgently needed for Europe's food and agriculture sectors, really supported?

What exactly does the new CAP provide? First pillar and eco-schemes

At least 25% of the funds of the first pillar should flow into eco-regulations, whereby in the first two years the share only must be at least 20% (so-called "learning phase"). If you spend on environmental protection measures, nature conservation and disadvantaged areas, you can reduce the share for Eco Schemes by the corresponding amount.

Direct payments will still make up 75% of the first pillar. These are, however, linked to certain ecological conditions. Areas in good agricultural and ecological condition - GAEC). That sounds good at first. However, there are many exceptions: If member states must develop a management system for bogs and wetlands, for example, this regulation can only come into force for such areas 2 years later. There are so many exceptions for crop rotation areas that one can hardly speak of a mandatory regulation.

40% of the funds from the 1st pillar, i.e. the direct payments, including the "Eco-Schemes", are automatically taken into account for climate protection. This calculation can only be revised in 2026 at the earliest. Only recently it was determined by the European Court of Auditors that the CAP funds,

known as climate protection, had been ineffective in recent years.

10% of the direct payments from the 1st pillar must go to small businesses. However, there is no cap on direct payments. The "social dimension" is given expression by linking direct payments to compliance with workers' rights from 2025 onwards. The average income of European farmers is currently 50% below the average income of the rest of the population. Less than 2% of CAP recipients receive 30% of the total direct payments budget. The new CAP will not change that.

Second pillar (measures in the field of rural development, environmental and climate protection)

At least 35% must be spent on environmental and animal welfare measures. However, half of these funds can be counted towards Less Favoured Areas Compensation Payments (ANC). It remains to be seen whether this can in turn lead to positive environmental effects.

Green Deal and Farm-to-Fork

There is (so far) no legal obligation on the part of the member states to bring the national strategic plans into line with the goals of the "Green Deal" and the farm-to-fork strategy.

A real system change, as it has so often been conjured up, is therefore not taking place, as the main weight continues to rest on the direct payments of the first pillar. However, the member states have more leeway if they want to introduce more environmentally and climate-friendly agriculture. One can only hope that as many member states as possible will make use of this leeway.

During the negotiations, the EEB, BirdLife and Greenpeace EU set ten priorities for a CAP compatible with the Green Deal. The CAP reform that has now been decided meets only two of these ten requirements, the three organizations found after an analysis.

Critics speak of "greenwashing" and of the fact that a third of the EU budget is put into a policy that is incompatible with the European "Green Deal". The European climate and environmental goals are unlikely to be achieved with this compromise.

The previous GAP regulations were replaced after December 31st, 2020, by transitional regulations valid until the end of 2022. If approved by the Council, the new rules will apply from January 1st, 2023.

Sources: www.eurovia.org/ini-report-on-farm-to-fork-a-step-in-the-right-direction-but-more-ambition-is-needed/; www.europarl.europa.eu/news/en/

African Swine Fever: a Strain on the meat industry – a drama for small- holders



Recently [Grain](#) published a dossier about the African Swine Fever and its consequences for the pig industry versus smallholders. The picture is very dark for the smallholders. Here is a small part of the whole article:

What are ASF-free compartments and zones?

Corporations and governments are preparing for a new normal in which ASF is a constant threat and for many countries, a constant presence. Such a situation, given the immediate bans imposed on pork imports from ASF countries, could be hugely disruptive for global pork companies, which have their operations concentrated in the large surplus pork producing countries.

So, to keep the exports flowing, even in times of ASF outbreaks, corporations are working with the OIE, FAO, and the big pork exporting countries, such as the US, Canada, France, China and Russia, to get global acceptance for exports from "zones" or "compartments" that can be considered ASF-free, even with ASF in the country. Zones are territories where all farms have to abide by the same "standard of biosecurity" and the movement of pigs and presence of diseases is supposed to be heavily monitored, making it difficult if not illegal for small farms and small-scale meat processors to operate in these areas.

Several exporting countries have already signed deals with importers to get their zone plans recognised so that pork from ASF-free "zones" can continue to be exported in case of an ASF outbreak elsewhere in the country. Canada has mutual ASF zone deals with the EU and the US, and an export agreement with Singapore, as does Australia.

France is said to have recently concluded an agreement with China to have its zone plan recognised, but Germany, which has ASF within its territory, has struggled to do the same.

Zones, however, are just a steppingstone to what the big meat companies are really after - global recognition of compartments. A compartment, according to the recently developed OIE guidelines, is a population of animals contained in one or more establishments with a specific animal health status, maintained under a defined biosecurity management system that separates it from other animal populations. It is essentially a meat corporation's vertically integrated production system, in which all of its various farms, contract suppliers and meat plants are recognised as one "compartment" adhering to a set of biosecurity practices, which are supposed to keep ASF outside of its operations. A corporation's ASF-free compartment could continue to export pork even if it has farms or a meat processing plant in an ASF-infected territory.

What should be done?

The current control measures that governments and international agencies are pursuing against ASF are not working. Not only are they having a disastrous impact on small farmers, but they are not stopping ASF, which remains a serious problem in countries where these measures have been tried, from Eastern Europe to Asia. In Russia, for example, where authorities have ruthlessly curtailed small scale pig farming and set up compartments for the large operators, 560,000 pigs died from ASF outbreaks in just three months, from November 2020 to January 2021.

The current control measures that governments and international agencies are pursuing against ASF are not working. Not only are they having a disastrous impact on small farmers, but they are not stopping ASF, which remains a serious problem in countries where these measures have been tried, from Eastern Europe to Asia. In Russia, for example, where authorities have ruthlessly curtailed small scale pig farming and set up compartments for the large operators, 560,000 pigs died from ASF outbreaks in just three months, from November 2020 to January 2021.

The international response to ASF is not stopping its global spread either. By privileging corporate control over pig production and exports, these measures amplify the risks for transmission across borders. This is not only true for ASF and other

animal diseases but also for human diseases. Factory farms and industrial feed plantations are increasingly recognised as sites for the emergence of new diseases that can infect humans, while corporate meat processing plants, as we have seen with the Covid-19 pandemic, are major vectors in the transmission and amplification of disease, with especially deadly consequences for workers and their families.

A vaccine against ASF could help, and there are signs that one could soon be available. It would give small farmers confidence to restock their herds after ASF outbreaks and to keep on swill feeding and free-ranging their animals. But it is far from clear that a vaccine, if it is developed, will be made widely available to small farmers.

ASF was long ignored when it was confined to Africa. Now that it is threatening the industrial pig farming sector, there is more interest. But licensing deals are already being cut with pharmaceutical companies by the public labs developing ASF vaccines, and this could easily push prices out of reach for small farmers.

There is, at present, no global programme for the development and deployment of vaccines with a plan for how to make the vaccines accessible to small farmers.

The big meat corporations do not seem to have much interest in a vaccine. They worry that the use

of vaccines on their farms and in their contract farming operations would be costly and could mess with the ASF-free status they require for exports, since, with some of the vaccine types, it would be difficult to determine if traces of ASF found in pork are from the vaccines or the disease.

In China, companies experimenting with illicit vaccines ended up spawning a new variant of ASF that is less lethal and thus more prone to escape detection and evade control measures. Why would corporations agree to vaccinate their pigs when ASF is proving to be so good for their bottom lines?

Vaccine or no vaccine, ASF is now firmly entrenched in the global pork industry, and it will continue to spread. If the current approach to the disease promoted by the FAO, the OIE and governments, in close coordination with corporations, is not challenged, ASF will annihilate small-scale traditional pig farming-- and all the biodiversity, culture and local economies that it sustains - and replace it with factory farms.

Source: <https://grain.org/e/6741>

Newsflash

European Strategy for Genetic Resources



An overarching Genetic Resources Strategy for Europe, bolstered by individual strategies for plant, animal and forest genetic resources, was launched on 30 November 2021 in Brussels at a meeting of MEPs, EU policymakers and other stakeholders.

The strategies aim to strengthen conservation and sustainable use of genetic resources in Europe, which are the fundamental basis of sustainable

agriculture and forestry, food and nutrition security, climate change adaptation, and for supporting Europe's bioeconomy and competitiveness.

The strategies respond to a call from European Commission to "provide a framework in which the existing mosaic of European, national/regional structures can join forces to develop and implement ambitious approaches and

strategies for the management of crop, forest and animal GenRes".

The overall Genetic Resources Strategy for Europe is a product of GenRes Bridge, funded by the EU under the Horizon 2020 Framework Programme. It brought together 17 partners to draw up a strategic vision that will secure genetic resources and enable Europe to meet its commitments under the Europe-

an Green Deal, as well as under global policy frameworks and legislative instruments, including the Sustainable Development Goals.

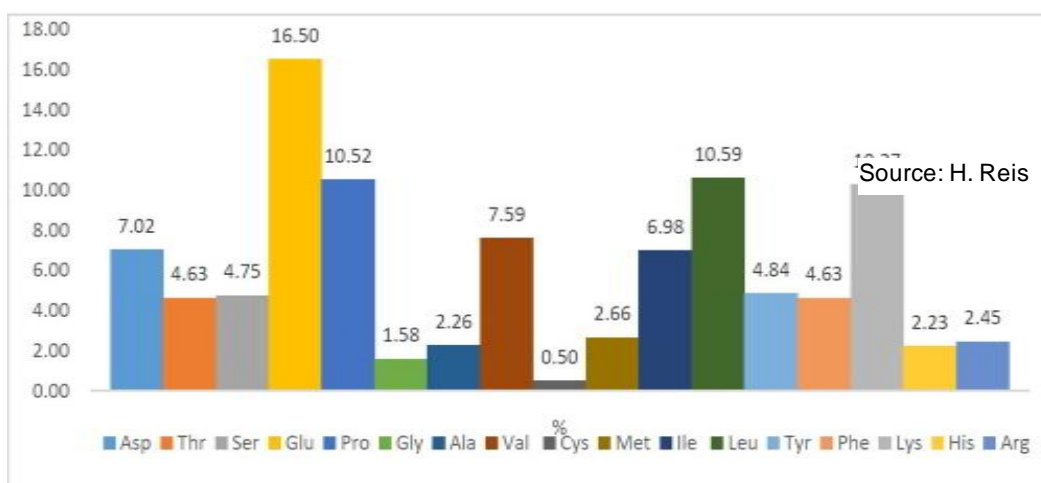
The three domain-specific strategies for plant, animal and forest genetic resources were produced by the three European genetic resources networks, [ECPGR](#) (the European Cooperative Programme for Plant Genetic Resources), [ERFP](#) (the European

Regional Focal Point for Animal Genetic Resources) and [EUFORGEN](#) (the European Forest Genetic Resources Programme).

Source:

www.genresbridge.eu/30-nov-2021/launch-of-the-strategies/

The rich Milk of the Balusha Sheep



Amino acid content in sheep milk Balusha expressed in %.

We have already reported that the Balusha sheep is a very special breed in Kosovo. Investigations of the milk quality have now shown that their milk is also very special: All of the amino acids that are essential for us are found in the milk of the Balusha sheep. The presence of essential amino acids makes this product even more nutritious as we know that essential amino acids cannot be synthesized in the human body. All branched-chain amino acids were found in the milk samples analyzed: leucine, isoleucine and valine.

Leucine, valine and isoleucine are relatively abundant in the food supply and account for 15 to 25% of the total protein intake with dairy products. Of the

aromatic amino acids, phenylalanine and tyrosine are present, while tryptophane is

absent.

Based on the results, we found that Balushë sheep yoghurt contains almost all the essential amino acids that the human body cannot synthesize but must take in through food.



This unique breed of sheep is not only a cultural heritage and a genetic treasure trove, it is also very valuable for human consumption. The breeding and maintenance of this breed is therefore particularly important.

Deserta Grande Goat

In the SAVE eNews 02/2019 we reported about the feral goat of Deserta Grande Island, a part of the Autonomous Region of Madeira (Portugal). In the frame of an EU LIFE project, the situation of the islands was investigated. Goats have been introduced on the Madeira archipelago since its discovery in the 15th century. Furthermore, it is documented that on Burgio island the feral goat population was eradicated through rodenticides as a col-

lateral effect of invasive rodents poisoning. On Deserta grande about 200 individuals survived. But the population numbers are not clear at all. There are different sources with different data, e.g. in the Life Recover Natura Report (LIFE12 NAT/PT/000195) where the eradication progress is described, there are very different population numbers. In 2019, the Portuguese State approved a Law (Decreto-Lei Nº 92/2019) which considers the

goat species as an invasive species in the Madeira archipelago, providing legal coverage for the slaughter of animals on these islands. We can fully understand that feral goats can become a problem for biodiversity. But the goats are also a part of biodiversity and a valuable genetic resource. Investigations on the behaviour of the goats and their genetic traits are urgently necessary. SAVE asked the Madeira government for a statement but up to now we did not get any answer. The drama around the Deserta Grande Goat is exemplary for the conflict between nature protection and agrobiodiversity. Since we collected information about feral populations in Europe, we are continuously confronted with this problem. SAVE currently is looking for the best way to bring together the nature protection community and the keepers of rare livestock breeds. Often this problem needs to be solved by very individual solutions. On Deserta Grande island for example it should be possible to capture a nu-

cleus stock of the animals and keep them in a controlled area. We will keep you informed.



Traditional Varieties and Breeds of Dalmatia



This book, which deals with the traditional varieties and breeds of Dalmatia is an important part in the effort to create an inventory of the existing state of agro-biodiversity in

Dalmatia, a region that is extremely rich in terms of biodiversity and in giving the general public the opportunity to be more familiar with the importance of the traditional breeds and varieties. It provides

comprehensive information about all the breeds of domestic animals and species and varieties of cultivated plants that have been proved to be very important for the life of the people in this area over the centuries. Accordingly, we are sure that it will turn out to be an invaluable supplement to every library that values Dalmatia, originality, tradition and biodiversity. In Croatian and English language.

Download: <http://adipa.hr/tradicijske-sorte-i-pasmine-dalmacije>

COVID-19: Livestock and Pets



Information on risk mitigation measures for livestock and agricultural professionals:

FAO has prepared this document at the request of members to provide information for communications

with livestock professionals (including farmers, producers, veterinarians, paraveterinarians, community animal health workers). It is recommended to use this information to provide practical guidance on how to prevent severe acute respiratory syndrome coronavirus 2, SARS-CoV-2 (the virus causing COVID-19), spreading between humans and animals in a farm setting, given that some animal species have shown to be susceptible to the virus. Up to now pigs and cattle showed low susceptibility to the virus.

See: FAO. 2021. COVID-19 and animals: Information on risk mitigation measures for livestock and agricultural professionals. Rome: <https://doi.org/10.4060/cb2549en>

Last but not least

Danger from the Air



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When a drone does more damage in a herd than a wolf:

For Félix Portello, drone flights did more damage than the wolf this summer. The predator killed 2 sheep, the drone 14 in the area of Villard-Reculas in the massif of Oisans, a ski area in winter and hiking area in summer. In summer up to 1000 people are in this region every day. Hikers and Mountain bikers find an exciting route here. On August 11th, a drone flew over his flock of sheep several times and stopped in a valley not far from a cliff. The drone

flew over the herd again and again. The sheep were filled with panic and ran in all directions - including the cliff. 14 animals plunged into the depths. The shepherd managed to locate the pilot. He wore a virtual reality headset and felt comfortable as it was in a video game. The shepherd finally caught the drone and destroyed it.

The owner of the drone, a vacationer in his twenties, then filed a complaint with the Gendarmerie Bourg d'Oisans. At the beginning of November, Felix was summoned to the public prosecutor's office for damage to property and risked a fine of 400 euros. For him the world is upside down. The shepherds of the region appeal to politicians to change the current legislation and to ban drone flights over wild animals and farm animals.

Source:

<https://www.francebleu.fr/infos/insolite/quand-un-drone-fait-plus-de-degats-dans-un-alpage-que-le-loup-1634657705>

Happy Holidays and Best Wishes for 2022

Your SAVE Team



<https://manchee.com.au/merry-christmas/>