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Italian Pigs: Stories of gone Breeds

Riccardo Fortina, Università di Torino – RARE

Nero Siciliano pig family. Source: Bigi ,D., Zanon, A. (2008) Atlante delle Razze Autoctone

Black pigs seem to be established in Italy since a long time: Already in 1820 Francesco Toggia stated in his essay “Intorno all’educazione, miglioramento e conservazione delle razze de’ porci” that Italy hosts many pig populations of mostly black colour. Toggia did not speak about pig breeds, but certainly distinguishes between various populations in different regions of Italy. From Toggia one can infer that already in the beginning 19th century some pig populations had become rare or were at risk of being mixed with others.

A century later Ettore Mascheroni in “Zootecnica Speciale III. Suini 1927” lists 22 pig breeds (31 if the “varieties” are counted) and notes that some of them especially in northern Italy are close to extinction, mainly due to crossbreeding.

In 1948, Idelfonso Stanga in the tractate “Suinicultura pratica” reports that "... the farmers of Upper Italy uniformly tended towards white pigs (York-Shire and Large-White).". He underlined in particular the situation of the Mora Romagnola breed, almost entirely used to obtain hybrids: "... the province of Forlì possesses almost all of the heads of the Large-White breed and of the so-called Fumata or Brinata breed, which is a crossing of the local Romagnola or Castagnona breed with Large-White .”

Today ANAS (Associazione Nazionale Allevatori Suini, Italian Association of Pig Breeders) lists the following breeds:

- Apulo-Calabrese (synonyms: Calabrese – Nero calabrese - Pugliese - Nero pugliese - Nero dei Monti Dauni meridionali - Nero di Capitanata - Nero lucano - Nero abruzzese - Nero reatino - Nero dei Monti Lepini – Nero maremmano)

- Cinta Senese (synonyms: Cinta - Cinto - Cinto toscano - Cinturello umbro - Cinturino umbro)
- Nero Siciliano (synonyms: Nero dei Nebrodi - Nero delle Madonie - Nero dell'Etna)
- Casertana (synonyms: Pelatella - Napoletana – Teanese)
- Mora Romagnola (synonyms: Mora - Bruna romagnola - Castagnina - Forlivese - Bolognese – Faentina)
- Sarda
- Nero di Parma

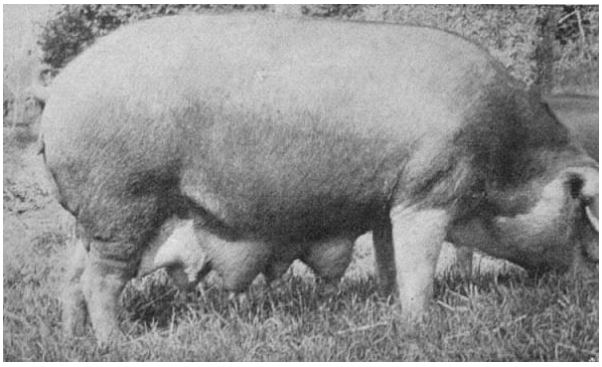
The recognized hybrids are Suino della Marca, Impero and Nazionale.

This brief historical review shows that a breed is not forever; there are many Italian pig breeds that have become extinct over the years, but there are also many new breeds created for the new needs of breeders and consumers. Many of these "new" breeds recover characters that, at least outwardly, recall those of the extinct breeds.

Nero di Parma. Source: http://deliziami.eu/2017/04/26/suino-nero-parma/

This is the case of Nero di Parma, a new breed which recalls the now extinct Parmigiana Nera. Rozzi (1937) described it as follows: "The black pig breed Parmigiana belongs to the group of Iberian pig breeds, having as distinctive characteristics the high fertility and a marked adaptation to grazing and creeping". The current Nero di Parma is reminiscent of the ancient Parmigiana but is the result of recent crossings and selections starting from some females with traces of slate in some farms of Santa Margherita di Fidenza and Pellegrino Parmense, and a dark boar in Bardi.

The Suino della Marca (or Marchigiano): "... in its mountain variant ... has a reduced size, black coat and very tasty meat. Today, unfortunately, this breed seems definitively disappeared ... " Today we are creating a new synthetic 3-way breed that recalls the ancient Marchigiana breed (Law 37/99 - New breed of pig for semi-wild rearing: an instrument for the enhancement of marginal areas).



Marchigiana. Source: www.agraria.org

In the Alps, the "Mountain Network Pro Patrimonio Montano" (PatriMont https://patrimont.org/en/) is carrying out a project for the rescue of the Alpine black pig starting from black or spotted animals found in the central-eastern Alps. According to Patrimont, "most of the autochthonous pig breeds in the Alps are extinct, but some single animals have been kept in the various valleys. The project brings them together in a genetic pool and keeps them together. So at least the ecotype of old Alpine pigs should be preserved. The black pig of the Alps will be a breed composed of residual animals of various alpine pigs. The project aims to present a suitable animal for the market that offers us the prospect of a sustainable mountain pasture.

In order to save frequently unique and unrepeatable traits, very interesting conservation measures have been taken.

Nero Lucano. Source: www.basilicatafoodewine.it/i-prodotti-regionali/le-tipicita/94-suino-nero-lucano

For example, the Nero Lucano, an ancient autochthonous genetic type belonging to the Apulo-Calabrese strain, was at risk of extinction towards the end of the last century. Since almost 15 years, ALSIA, the University of Basilicata and the Regional Breeders Association implements the guidelines given by the Basilicata Region on the protection of biodiversity and are working together and unceasingly to recover first, stabilize and enhance the breed then.

In Emilia Romagna, "La Mora was rescued by the valiant breeder Mario Lazzari. In his small company near Faenza ... after a long search in Romagna ... he found just over a dozen and gave life to a breeding starting with only 3 sows and a boar. To date there are 850 specimens, registered with the Provincial Breeders Association (APA) of Ravenna, as suitable for reproduction ". Although often forgotten, it should be remembered that this rescue was made possible thanks to the work of Riccardo Fortina, then President of RARE, who bought 8 sows and 2 boars from Lazzari realized a recovery program at the University of Turin, distributing in turn the new born to various Romagna farmers.

Alongside these rigorously safeguarded and exploited activities, unfortunately there are also attempts to "reconstruct" extinct breeds that are traceable to purely commercial operations without any scientific basis.

This is the case of the Nero Friulano pig, which Mascheroni reported as extinct in 1927 but according to the recent press (www.mondodelgusto.it - 2011): "It disappeared in 1976, the year of the earthquake, but not completely, as it is true that "in a place that you would never guess" D'Orlandi in 2005 discovered animals still bred today, he introduced three in his enclosure and started the reproduction "; and again (2014) "... the first prototype of black pig from Friuli Venezia Giulia is a cross between the Piedmontese and the Slovenian ones (www.leonarduzzi.eu/dorlandi-candidato-alle-primarie) or "Now the true autochthonous Friulanoe pig, or the "black of Fagagna", with the death of the last two specimens in '82, has become extinct, even if very similar animals have been spotted in very few specimens in the Balkan countries (from Croatia to Romania) "(www.ilfriuli.it, August 2018).

Nero Friulano. Source: http://www.mondodelgusto.it

The Garlasco breed of Lombardy (extinct in 1948) was miraculously recreated in 1967: “in Molino del Conte, near Cassolnovoda, a pregnant sow, gave birth to four pigs with a grey coat. Then, at the Castagnola farm in Garlasco, the pigs were mated to get more black pigs." (La Provincia Pavese, 2008). Today "... the black pig of Garlasco, also known as Pursè Negar, is the subject of a careful recovery ... Some subjects have begun a path of genetic recovery starting from the few specimens, including a sow named Judith, which presented all the peculiarities of Pursè Negar" (2017).

Garlasco pig. Source: www.carneitaliana.it/blog/maiale-nero-garlasco

The report highlighted that an increasingly strong demand for local charcuterie products from native breeds has stimulated the implementation of projects to recover local breeds threatened with extinction. These projects have generally been successful, and alongside them we have also witnessed the creation of new pig breeds with characters that, at least outwardly, recall those of the extinct local breeds.

These breeds (created or re-created) have stimulated the birth of new realities in animal husbandry on small scale with undoubtable advantages for local economies. Only in a few cases there have been attempts to give the name and traits of definitively extinct breeds to new hybrids of pig; on these purely commercial undertakings one would have to carry out an adequate communication and a disallow of granting names and traits to no-longer existing or reconstructable populations.

The pig is a symbol of prosperity, fertility and lots of good luck in many cultures. Swine farmers were known to always have food. Keeping pigs was a sure way of insuring your family’s well-being. As the old Irish saying goes; “The pig is the gentleman who pays the rent” (https://goodlucksymbols.com/pigs)

BEVOG / NUVOG: Description and use of fruit genetic resources in Switzerland

Jennifer Gassmann, Agroscope Switzerland

Experimental plot BEVOG, Agroscope. Source: Agroscope

Most of the traditional Swiss fruit species are described and recorded for the national database at Agroscope, Wädenswil on behalf of the NGO „Fructus“. Since 2005 more than 2000 varieties of apple, pear, plum and wild cherry are documented and photographed. In addition, hundreds of apple varieties could be checked for resistance to apple scab, powdery mildew, Marssonina and fire blight. The favoured candidates enterd the apple breeding programme of Agroscope and are tested for their suitability in Cidre production,

From 2000 to 2005 the nation-wide Swiss fruit and berry inventory took place. 5300 accessions of apple, pear, plum and cherry were recorded at their original place (in situ). In a second step these catalogued plants have been propagated through grafting and planted in so-called conservation collections. The diversity of Swiss fruit varieties is decentrally secured at over 40 locations in this way. To date these collections are mainly introductory collections, which are used to conserve genetic material but also to describe and identify varieties. As part of the projects to identify the fruit genetic resources (BEVOG, BEVOG II and BEVOG III) since 2007 the bulk of these varieties (so-called accessions) was described in detail with the help of standardized pomological descriptors and documented with photography. In the case of stone fruit, the data situation is the most advanced. Also the apple over 80% of accessions could already be described. The biggest need for description is currently with the pears.

Molecular genetic analysis

In the last years genetic fingerprints of over 99% catalogued accessories were obtained. Some hitherto unknown accessions were identified and some genetic duplicates recognized. The results from the molecular genetics analysis thus allowed an optimal operation of the conservation collections.

Field trial without fungicides

On a trial plot the first 630 of 1300 apple accessions were planted in an open cultivation (status 2007). The location in Horgen, Zurich (408m above sea level), is characterized by a typical lake influenced climate, i.e temperate but warm. In 2008-2015 the trees remained entirely without fungicides and were tested for resistance or susceptibility to apple scab and powdery mildew. About one third of the assessed accessions during the entire trial showed no or little symptoms. In 2014-2015 data for Marssonina susceptibility were collected as well. End of 2015 the final trial 100 top candidates in terms of scab and mildew resistance were defined. The trees on the trial area were cut down end 2015 and a selection of 30 top candidates was defined. Among the candidates are representatives that appear to derive from German-speaking Switzerland through their name, for example „469191 Brienzer“ and „83062 Kaiser Feldapfel“ which carry their place of origin in their name. All the 30 top candidates now are used in another project of the research institute of biological agriculture (FiBL) with cooperation from PomaCulta and Agroscope, which judge their cultivation in biological agriculture. In the same place 2016 a new plantation was set up, where the remaining 750 apple accessions from the inventory 2017-2022 are tested under the same conditions.

Fire blight screening in the greenhouse. Source: Agroscope

Fire blight screenings

400 apple accessions were tested for their sprout sensitivity to fire blight. In order to judge this the visible length of lesions were checked after 1, 2 and 3 weeks after a deliberate infection of the sprout tip, in relation to the length of the sprout. The tests showed that about one third of all accessions tested can be classified as "low susceptibility" (<25%). These accessions are the focus of additional analysis. In the following years there will be research on flower infections in the field

Use of apple accessions

The „NUVOG" project is about using selected apple accessions for the breeding and working to „Cider". In the last four years about 16 cross-breeds were carried aout at the research group for breeding and genetic resources of fruits. Owing to their advantageous fruit and tree properties the varieties „82267 Schorenapfel" and „Wehntaler Hagapfel" were used as pollen source. The „Roter Lederapfel", 74448 Süsser Zila" and „82256 Siebensüss" have an extraordinary and spicy aroma and are thus particularly interesting for Cider production. In total, 41 varieties were turned into pure Ciders. In November 2018, the „variety guide Cider" appeared.

Preliminary assessment

Conservation through increased use is a goal of the national plan to maintain and sustainably use of plant genetic resources for nutrition and farming (NAP-PGREL), but it's not realistic for every variety. In a comprehensive outlook data about pomology, phenology, disease resistance, processing traits and storage capacity could be collected. In general one observes that traditional old varieties are not more robust that the newer ones. There is a lot of variance. It also turns out that many accession investigated do not satisfy the modern quality requirements consumers have; for example in terms of skin colour, thickness, firmness of the fruit, sap content and storability. The probably most important potential of the fruits however is the variety in appearance, taste and aroma. Niche uses and alternative uses and innovative ways to improve quality have no limits here. In addition one can assume that consumers in the future will wish for fruits that need fewer pesticides. Here the old varieties can make a relevant contribution. Thus the fitting varieties offer a great chance to sustainably produce, which are adapted to the relative conditions.

The projects BEVOG III, NUVOG, WEBEVOG and NEVA were carried out 2015-2018 on behalf of the FRUCTUS organization at Agroscope in Wädenswil and to a large part funded and supported by National Action Plan for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture (NAP-PGREL)

Scoring in the field. Source: Agroscope

More information:
www.agroscope.admin.ch/agroscope/de/home/themen/pflanzenbau/pflanzenzuechtung/obst/genressourcen-obst.html

A new age begins for gene banks

– the entire content of one collection has been analysed.

Growing of accessions of the barley collection of the Federal Ex situ Gene Bank at the IPK in Gatersleben. Source: IPK Gatersleben

Biodiversity is more than just species diversity. Another important aspect of biodiversity is genetic diversity within a species. In crops this shows in the form of a variety of plant varieties. An international researcher consortium for plant genetics and crop research (IPK Gatersleben) has now characterized one of the world's most comprehensive collections of barley varieties – in total over 22000 seed types.

In the academic journal "Nature Genetics" the scientists describe the beginning of a new age for gene banks, which develop from mere collections to bio-digital resource centres.

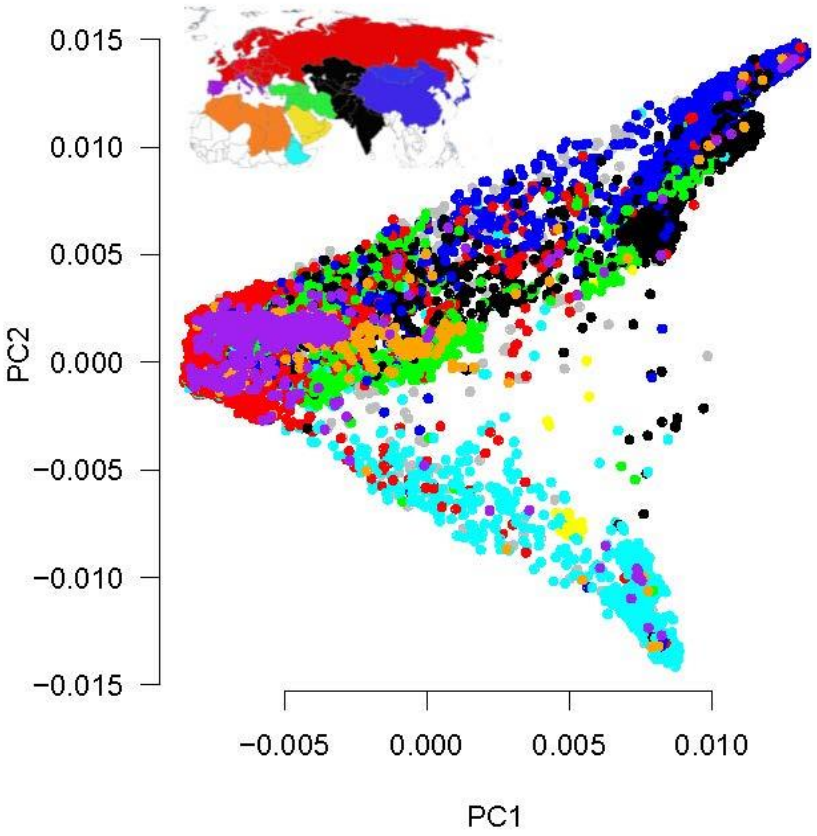
In order to secure and research the genetic diversity of crops, samples of types, varieties and wildtypes are collected in so-called gene banks. One of the world's most comprehensive collections for many crops including barley is the German federal ex situ gene bank at the IPK Gatersleben. Researchers of the Deutschen Zentrums für integrative Biodiversitätsforschung (iDiv, the Julius Kühn-Instituts (JKI), Bundesforschungsinstitut für Kulturpflanzen Quedlinburg and the Georg-August-Universität Göttingen work together with teams from China, Japan and Switzerland and under the leadership of the IPK Gatersleben. International cooperation has cleared up how comprehensive the IPK collection of barley is. Of each of the over 22000 seed types one plant was genotyped. This way one could directly identify genetic duplicates in the collection, opening the door for new quality management techniques but also for an efficient use of the collection in breeding and research. Crop lines which deserve closer attention can now be detected more directly than today.

Professor Dr. Nils Stein (IPK Gatersleben and Georg-August-University Göttingen) says: "With this publication a large selection of a worldwide collection is now comprehensively described with molecular methods in a gene bank – with other words, the worldwide natural diversity of one of the most important crops is now visible with one view." For this Stein and his team used the "genotyping-by-sequencing" (GBS) method. The basis for this work is the full DNA sequence of the "Morex" variety. This "anchor" sequence is since 2017 available in high quality. In order to characterize the complete genomes of all barley types and their wild forms the researchers looked for so called single nucleotide polymorphisms. In total over 171000 of these small variations of DNA which affect only one base pair each, were found. "A density, which in the barley genome (about 5 billion base pairs) is suffi-

Diversity of barley; Source: IPK Gatersleben

cient to detect tiny differences but also duplicates", Stein continues.

"Many conclusions can be taken on origin, area of occurrence and similarities can be taken this way. With digitization and public access the results can be obtained with a modern database system and can be combined with passport data of gene banks but also with one's own research and breeding" adds Dr. Martin Mascher from IPK an iDiv, another participant to this publication. The combination of historical data of gene banks with molecular analyses shows impressively what possibilities gene banks have. Only with modern methods and research approaches and in joint work of teams one can succeed to use and conserve the treasure of genetic diversity. Prof. Dr. Frank Ordon of the Julius Kühn Institute emphasizes: "Seeing as plant breeding increasingly has to deal with varying environmental conditions such as heat, drought, new pathogens, but also changes in fertilizer and pesticide use, detailed knowledge on genetic variability and its use is essential for the breeding of adapted varieties. Genes controlling important traits thus can more easily found in wild types and common varieties and used in breeding."



Genetic structure mirrors geographic origin. Each coloured dot represents a gene bank sample. Cultivars and landraces coming from the same region of the world are also neighbours in an analysis of genetic structure. Thus, genetic data can complement traditional passport data to guide the selection of old landraces that may become valuable for breeders. Source: IPK Gatersleben

The practical value of a collection like the IPK one was hitherto limited, as comprehensive genetic information on the seeds was missing. Thanks to the new analysis for barley one can obtain a more precise database search for the 22626 seed types. The publicly accessible BRIDGE "Data Warehouse" developed during the project is the starting point for a bio digital resource centre.

Original publication: "Genebank genomics highlights the diversity of a global barley collection", Sara G. Milner et al.; Nature Genetics (2018). DOI: 10.1038/s41588-018-0266-x

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The Levend Erfgoedhoflabel

A label supporting long term conservation of rare breeds by controlling on quality initiatives

Olivier Heylen, SLE Belgium

Image of the LHH shield, an enamelled plate one can hang up easily to visualise the Living Heritage Hub

The Flemisch Steunpunt Levend Erfgoed (SLE) works on the protection and conservation of the authentic Belgian indigenous livestock breeds. These breeds became nowadays mostly (very) rare. After more than 25 years of efforts, a lot of authorities, associations, organizations, companies and individuals are willing to cooperate in order to save those breeds. All the various efforts and actions needed updating and to enable appropriate support, SLE developed a special label 'Levend Erfgoedhoflabel'. This label is supporting also a qualitative and sustainable way of saving authentic rare breeds. The location (and owner) participating in and honoured by such label is seen as an example how authentic rare breeds can be kept, saved (grown or bred) and shown to the broad public.

There is no exact translation of "Levend Erfgoedhoflabel" in English, but it means something like 'Living Heritage Hub Label'. Actually the dutch word "hof" refers to the locality where the rare breed is housed. The word "hof" in general points to a fenced garden in the classic way but traditionally it refers to large old farms that were associated with castles (and formerly belonged to lords) or that were in their own so called "castle-farms". Actually in medieval times "hof" was strictly associated with castles (even today the residence-palace of the king of Belgium and with it the King himself, with the whole entourage, is defined as the "hof") and in fact referred to as well the locality of the castle itself as to its dependencies with all of their specific feodal functions and characteristics (jurisdiction at a so called "laat-hof" and a "leen-hof" as a loan from lords to farmers). Understandably the word "hoeve" (= just any farm) was derived from "hof". It's exactly the farm which is a typical place were mostly animals are kept. Some of these farms helped to prevent old Belgian breeds from extinction. But with the Heritage Label the "hof" can be any place, or any locality (not necessarily a farm or professional farm). But at least old Belgian breeds should be kept in a 'Living Heritage Hub'. Aside this crucial condition there are some additional ones…

The label is only awarded when there is a guarantee and an engagement concerning that specific location: a 'Living Heritage Hub' need to take care of our indigenous breeds. The animals are raised in circumstances which form a good practice example.

The introduction to the Levend Erfgoedhoflabel was held at the Ghent meeting, at Zwijnaarde castle in Octobre 2018 – picture by Benedict De Laender (SLE board)

They promote and inspire others. They are the ambassadors “on the field” to whom can be referred to meet the old breeds. There are other more technical requirements and conditions (e.g. registration of the animals in databases depending on the species group).

Everybody or any organisation or firm who breeds or just grows animals of Belgian indigenous breeds can apply for the label, but this only location-specific. They get recognition for their efforts keeping the breeds alive. In that way and in the long run there ‘ll grow in our region a network of gene pools where indigenous breeds are kept.

To become partner they have to subscribe and promote the mission of SLE. As already highlighted there are also some requirements, some general and some specific, but essentially everyone who make efforts keeping them alive, can in principle achieve the label.

On the other side, SLE commits to provide the necessary support. SLE promotes the Living Heritage Hub Label (LHHL) and activities associated with it. Also the sale of their breed-conforming animals will be highlighted. SLE offers a forum to exchange information and experiences. And last but not least, SLE helps searching for solutions in case problems would rise. As we will indicate below, still other -sometimes indirect- advantages exist.

The recognition is valid for 5 years, partner- and location-bound. After signing the cooperation charter together, the partner and SLE hang the recogniotion shield on the wall. The shield of the LHH-holder contains the name of the holder, the name of the commune, and the original year of recognition. The shield actually is an enamelled plate and remains the property of SLE. A silver-on-gold version was also considered for the true favourites but, hanging on the facade of a building, the durability of the shield could not be guaranteed. And to be really honest: the true gold is in the animals, the shield is just a symbol.

Companies, authorities or other associations who do not breed/grow animals themselves, but who take initiatives to actively (and visually) promote the conservation of our old breeds, is seen as a ‘Living Heritage Hub Label-promotor’. The authorithy/company therefore refers to at least one specific LHHL-holder to promote it. This way also products from LHHL-holders can be promoted (e.g. meat from rare breed sheep, cheese or ice-cream from milk coming from old goat races…). Also for this a contract is signed between the LHHL-holder and the promotor (only generally supervised by SLE) or between the promoter and SLE (with SLE in case of general actions, e.g directing towards tourism, general information, educational initiatives, …). The LHHL-holder, controlled systematically by SLE as to guarantee conditions are fulfilled, will not only benefit from promotion offered by the promotor but will automatically also generate an autocorrective cycle: promotors not respecting agreements will collapse as LHHL-holders will not tolerate impropre (mis)use (putting themselves into risk of losing the LHH label during SLE inspection). At the other site promotors are keen on standing for a quality product that covers fully what it suggests…

This way it will become possible for example for authorities such as cities (that mostly do not keep animals themselves and so can not receive the LHHL itself) to support LHHL-holders more systematically e.g. by defining boundary conditions concerning the species, race, origin and registration of animals used by shepherds that offer paid grazing facilities to manage nature reserves, parcs etc. For the city (commune, firm,…) this means they become LHHL-promoter -that is already an honour in itself- and can refer to it in very diverse ways (on their website, during events, …) in the context of sustainability and conservation of biodiversity including genetic patrimony.

But there is even more. As products derived from indigenous breeds are also eligible for ‘LHHL-promotor’, they can create in its own a dynamic in the (economic) market, offer full opportunity for branding and so on. This will initiate feed-back loops to the LHHL-holders and consequently to the indigenous breeds themselves. Finally this is the ultimate goal of SLE: keeping the breeds alive, preferably in a sustainable way putting guarantees on the long term succes. Steunpunt Levend Erfgoed wishes that the next generation can admire them fully alive!

The Flemish goat (“Vlaamse geit”) grazing on spring flowers covered pastures near the castle “Hof ter Laken” situated north of Brussels (Booischot, Belgium) - picture by Olivier Heylen & Ann Walraevens (SLE board)

To announce the LHH label to the broad public, SLE organised recently a meeting for journalists and for members of the organisation. It took place at the Zwijnaarde castle just near the historic city of Ghent. A lot of interested people took the time to join us and we also had the pleassure of receiving our fellows (SZH) from The Netherlands. Several lectures were given and also the renewed website of SLE (www.sle.be) -in Dutch- was shown for the first time: two novelties born in few minutes. However the pregnancy period took some longer time… Once some typical child diseases are gone, the rare breeds will profit for sure.

Questions and more information: info@sle.be

International Pomologist Meeting 2018 in Mayrhofen, Tirol

Already since about 17 years pomologists from many countries meeteach year in autumn. It began with a loose network of people which work on identifying and conserving traditional fruit varieties. At that time there was an actual boom: everywhere in the German-language world societies and projects arose which work on conserving old varieties. It quickly became clear that networking was necessary. The first meeting took place on the initiative of the Swiss organization Fructus 2001 in Wädenswil, the second meeting a year later in Schiltern at the Verein Arche Noah in Austria. Interested people came together and exchanged experience in pomology and the diversity of fruit varieties.

Over the years the meetings evolved to a two-day process with excursions, organized every year by another partner. The pomologists' meetings became ever larger and more professional. What remained unchanged is the informal network. There is no shared structure, no official organizatory committee. And yet every year organizations and people are willing to organize this meeting. This is unique and indicates the great interest of many people, for who it is important to continue the International Pomologists' meeting.

In the meantime, the connoisseurs of fruit varieties have met in Switzerland, many states of Austria and Germany as well as in Liechtenstein, Italy, Romania, Czech Republic and Alsace.

This year the "Landesverband der Baumwärter Tirol" was the host and invited to Mayrhofen into the beautiful Zillertal on the 24.-25. November 2018. Together with the research institution Laimburg, South Tyrol, the assembly set up a diverse programme. The interesting presentation encompassed topics like «trends in modern apple breeding», «chemical and sensory studies of old apple varieties» and «latest breeding of red fleshed vatieties». In addition regional projects were presented which aim to maintain and promote traditional fruit varieties. Impressive was the presentation of an initiative in the Salzburg Pinzgau, where the local fruit and gardening group together with a private entrepreneur was active and created new products like floor plates out of apple pomace. The "Verein Arche Noah" presented the successfully established project tree sponsorship: between trees and their sponsors to some point there is a strong bond, which increases the awareness of the sponsor. Another successful recipe is the consumer region «Stanzer Zwetschke». The town of Stanz and the surrounding villages are known for their many distilleries. The initiants used this and created the local festivity «Stanz burns» which has attracted many thousands of visitors. At the end was a visit to the orchard of the Swarowski company in Wattens. In the outside area an attactive variety garden of fruit trees was established.

Aside from the interesting program the breaks between have been very useful for exchange, network and inspire each other.

For 2019 too there already are hosts: The Liechtenstein "Verein Hortus" together with the Swiss asso-

ciation Fructus invites to the wonderful border region of the Alpine Rhine valley.

Newsflash

Mutagenesis is genetic modification of organisms (GMO)

Confédération paysanne

Syndicats pour une agriculture paysanne et la défense de ses travailleurs

With „mutagenesis“ one labels all procedures which, unlike transgenesis, allows one to change the genome of living species without adding foreign DNA. With mutagenesis seeds can be developed which are resistant to certain herbicides.

The Confédération paysanne, a French farmers‘ association, together with eight other organisations sued in the French Conseil d'Etat (supreme administrative court), against a French rule which exempts organisms created by mutagenesis from the current GMO Directive. The Directive in particular demand that GMO after checking for risks on the environment and human health require licensing, and sets out requirements for labelling, traceability and monitoring.

Before the adoption of the GMO Directive only conventional or accidental mutagenesis methods on whole plants were used. Technological advance now means that there are methods through which directed mutations can be obtained in vitro, for example to create herbicide resistance in a plant. These methods carry the same hitherto hard to judge risks like transgenesis, where foreign DNA is introduced (see SAVE eNews 4/2017).

Following this suit the French Conseil d'Etat wanted to know from the European court whether the organisms created by mutagenesis are GMO and thus subject to the GMO rule.

In its judgment the European court stated that organisms created by mutagenesis are GMO, since the mutagenesis process obtains changes to genomes that cannot happen in natural ways. This also applies for procedures that were established only after the rule was enacted. The risks are considered to be the same as with transgenesis. The exclusion of these procedures from the GMO Directive is not justified. Consequently the GMO Directive applies to organisms created through mutagenesis methods invented after the guideline was passed.

With respect to taking of genetically modified plants in the common catalogue of species the court explained that the term “genetically modified variant” has to be understood as a reference to the term genetically modified organism in the guideline. Thus for these variants a particular procedure has to be followed to avoid negative consequences for human health and environment before they are circulated.

Source:
http://curia.europa.eu/juris/documents.jsf?num=C-528/16

CAP 2020 Reform Plans harshly criticized

The European Commission in July 2018 made a reform proposal for CAP. In the meantime, the European Court of Auditors has checked the reforms proposals for CAP after 2020 and in part harshly criticized them. In its position statement Nr.7/2018 the Court criticized that the current proposal for the Common Agricultural Policy still envisages direct payments as the main expense. The claim of the new CAP to be friendlier to the environment and more performance based, is not really met by the proposal.

The proposal of the commission sees the following important changes with respect to the current CAP:

- A CAP strategy plan for each member state for all CAP expenses (direct payments, measures to develop rural areas and measures to support markets)
- Attempt, to approach a performance-based system.
- Attempt to make new estimates about how effective the new expenses are (reports of outputs and new concept of lawfulness and orderliness)
- Changes in the control instances (changes in the role of the regulatory bodies)

The Court of Auditors in its 10 point conclusion list finds among other things, that:

In light of the fact that most of the CAP budget is still used for direct payments to owners of farms, it is noteworthy that the member countries have no obligation to make reliable and comparable statistics about the available income of farms.

Despite the efforts of the Commission and the demand to have a more environment-friendly CAP the proposal does not reflect increased aspirations in environmental and climate protection. The Court recognizes that the proposal has instruments for environmental and climate targets. Since the member states have to enact these in their own strategies, an effective control of the Commission on the measures is barely possible.

The member states will still have to apportion direct payments on acreage. Many environment and climate targets won't work thus. The Court also notes that direct payments are not economical enough to support sufficient revenue for farms.

The legal framework is reduced from five to three regulations. The European Agricultural Guarantee Fund (EGFL) and the European Agricultural Fund for Rural Development (ELER) will be merged. This however won't simplify CAP much as the complexity in other areas such as environmental protection rules will still increase.

The performance based rules in the new CAP is in principle welcome. However, clear, quantified and specific EU goals are missing. This creates insecurity about how the Commission would judge the CAP strategy of member states and thus whether the EU goals are reached is not measurable.

Source:
https://www.eca.europa.eu/Lists/ECADocuments/OP18_07/OP18_07_EN.pdf

Consultation: UN Decade of Family Farming (2019-2028)

In December 2017, the United Nations General Assembly proclaimed the UN Decade of Family Farming 2019-2028 to serve as a framework for developing public policies to support family farming worldwide. An extraordinary opportunity, the Decade can significantly contribute to the achievement of the Agenda 2030 in an inclusive, collaborative and coherent way, by addressing family farming from a holistic perspective and eradicating rural poverty in all its forms.

To facilitate the implementation of the Decade, a global action plan will be developed based on the needs and priorities of all relevant stakeholders. The following consultation aims to gather and structure actions and expected outcomes at global level, and to provide a reference framework for commitments and activities by all actors at regional and national levels. Your experiences and inputs are requested here to build this action plan in a participative manner. The results of the consultation (the action plan) will be presented at the launch event of the UN Decade of Family Farming.

The survey should take about 30 minutes to complete. Be assured that all information you provide will be kept confidential. Please respond by 31 January 2019. You are welcome to share the survey within your networks: www.fao.org/family-farming/detail-events/en/c/1172771/.

“The Earth Map” Project

The Earth Map project which is recently launched on Kickstarter as an international collaborative artwork, illustrates the variety of the planet with soils collected from each individual country. The project is meant to connect the nations of the world both with respect to their natural landscapes and with respect to the unique cultures that permeate the space within their borders. It is not close connected to conservation of Agrobiodiversity – but it is worth to have a look at. Soil is the preliminary need for all agriculture.

Links:

THE EARTH MAP Kickstarter Campaign page: https://kck.st/2J17EpP

Website: www.Theearthmap.org

The Story Behind (video) : https://bit.ly/2Adzixp

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And this too: Walnuts as bringers of Luck

The Earth Map project which is recently launched on Kickstarter as an international collaborative art-work, illustrates the variety of the planet with soils Would you have known that the walnut is one of the oldest European plants at all? Walnuts exist since the Cretaceous in Europe.

Today the wild form of the walnut (Juglans regia) is only found in Iran. With the Romans the nut was known as "Jovi glans", oak of Jupiter,

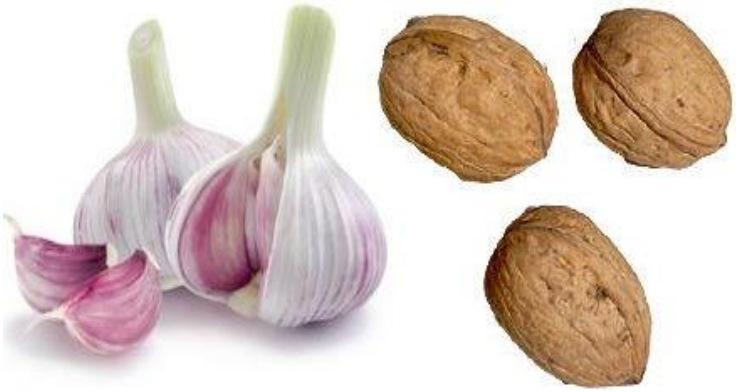
because the tree was considered a bringer of luck and lust. The demand "Sparge marite nuces" (Spread the nuts, husband!) comes from Virgil and is considered a blessin-wish for having many chil-dren.

The walnut is also seen as a sign of Christ. From this perspective the bitter cover stands for the bitter Passion of the Christ and the shell for the wood of the cross.

The kernel symbolizes the god nature of Christ.

In Ukraine on Christmas Eve garlic and walnuts are put underneath the tablecloth at the edge of the table, as a symbol for the connection of the relatives

(like the toes of garlic) and for the health of every family member (health should be "strong as a nut")



We wish for the new year:

Strength like a nut

and holding together for the agrobiodiversity like the toes of garlic.

In this sense: Prosit (lat.) = "may it succeed".

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