

SAVE e-News 3/2022

Safeguard for Agricultural Varieties in Europe

The quarterly electronic information service of the SAVE Foundation



SAVE Project Office

Neugasse 30, CH 9000 St. Gallen, Switzerland / www.save-foundation.net / office@save-foundation.net

SAVE Annual Meeting 2022



SAVE Meeting 2022 in Germany: Visit to the Arche Warder. ©SAVE

Members of the SAVE network met again in-person for the first time since 2020 for a meeting which took place in Kattendorf in southern Schleswig-Holstein, Germany. They discussed two topics intensively: the "Arca-Deli Award" and above all, the different interpretations of the term "rare animal breeds" and the different support systems across Europe associated with it. The situation in Denmark also raised discussions, due to the statements of their representatives, Susanne Hovmand and Stig Benzon. It was clear that the politics there mainly implement the interests of industrial agriculture and attaches little importance to the conservation of rare breeds and varieties.

On the first day of the meeting, after a short round of introductions through "pitch talks" and the meeting of the foundation board, the participants visited the impressive Demeter farm Kattendorfer Hof, a solidarity agriculture organisation (Solawi) with a remarkable economic success. A Solawi farm is supported by customers who pay a fixed monthly fee and in return,

receive vegetables, fruit, cheese and meat which are currently produced. Customers of the Kattendorfer Hof develop a close relationship with the producer of the food. They can see the respective animals from their consumption of milk and meat. For the farm, this customer loyalty brings planning security. In addition, the farm has five shops outside the village. Four of them are in Hamburg. Laurence Dungworth, a Brit-born farmer, proudly guided us through the cattle and pigsties, where one thing is particularly striking: the calm and serenity that the animals radiate.

With a large product range, members are sometimes overwhelmed. Solawi means: The harvest is distributed among the members. The products are in a store and members pick what they need. Basically, the people are good and the more common problem is that they take too little with them because they are considerate of the other members. "It takes time for a member to get a feel for their fair share," explains



black and white lowland cattle Kattendorfer Hof. ©SAVE

Dunworth, who has almost never seen anyone take too much consistently.

On Wednesday afternoon, the participants visited the Arche Warder, where Park Director Kai Frölich openly admitted that it is a little bit of Disney, because of the natural-looking landscape with its opening lines of sight which were designed by human hands



Angler saddle pigs, Kattendorfer Hof ©SAVE

and that the whole tour was well thought out to correspond to the concept. While this is also common in other parks, Warder made it well and the construction of a new educational center on the topic of domestication should certainly fascinate many.

On the second day, the hosts; the Society for the Conservation of Old and Endangered Domestic Breeds (GEH), welcomed those present. Everyone

knows Antje Feldmann, but on Thursday, GEH President Karl-Heinrich Göpel and the representative of the Schleswig-Holstein regional group opened the busy morning before Lisa Anschütz from Archehof Windeck, a multiple Arca Deli Award winner, who presented her ideas on the valorisation of products. The fact that the Glan cattle is butchered at the farm means that the animal skins remained to be burnt after slaughtering. But because of not wanting to burn them, she developed leather and wool, from the Glan cattle and of her Bentheim sheep respectively, combining them for processing. She vividly explained the difficulties of finding suitable craftsmen, such as leather tanners, in Germany, or more so the whole of Europe. Even if Lisa Anschütz and her husband combine a few professions with slaughtering, boning, leather processing, wool production, spinning, design and others, they depend on external help, which is hardly available in Europe anymore. In her master's thesis, an economics student calculated the production costs and came up with a considerable amount of over 300 euros for a bag made of leather of wool, such as Lisa Anschütz's products. That is realistic, but it shows the dilemma of products made with rare breeds or varieties. They are never mass-produced, which makes marketing more difficult as they are automatically located in the high price seg-



Arca Deli Award Produkts from Archehof Windeck. ©SAVE

ment. Every producer needs a solution for this.

On Wednesday afternoon, the participants visited the Arche Warder, where park director Kai Frölich openly admitted that it is a bit Disney, because the natural-looking landscape with its opening lines of sight was designed by human hands and the whole tour was well thought out correspond to the concept. While this is also common in other parks, Warder did it very well and the construction of a new educational center on the topic of domestication should certainly fascinate many.

The final morning was marked by the discussion about the definition of rare local breeds. Danijela Bojkovski, ERFP (European Regional Focal Point), connected and illustrated the proximity of her work



Park Cattle Arche Warder. ©SAVE

on the goals of the SAVE Foundation. National organizations from practically all European countries are affiliated with the ERFP with the common goal to conserve endangered breeds as these are primarily of regional importance. For the SAVE partners, these links are useful and particular attention was paid to the ERFP survey on the definition of endangered breeds, their legal protection and support for breeders in the different countries. Not all countries have responded and now, SAVE partners want to motivate their country representatives to do so. The available information already made it clear how different the definitions are in the member states. This was again clearly explained with Switzerland's Philippe Amman from ProSpecieRara. In principle, two questions of whether a breed is a native or whether it is endangered lies Philippe Ammann, while looking ahead, wondered what would happen to new crosses. And that every old and endangered breed once was also new. He advocated opening for new breeds, which are endangered from the start on as there are only a few. Other members of the SAVE network have a different opinion though and only

want to support traditional breeds that have predicated the old. Ultimately, it is about financial support and distribution struggles, as Waltraud Kugler suspects.

Arca Deli awards were also presented in 2022. Six awards were presented with the rules recalled. Only products from rare breeds and varieties from an Arca-Net sites with appropriate labelling are eligible and the award is only valid for one product. The price is to be used exclusively for the corresponding product and is not related to the production site.

A bitter loss is looming for the SAVE network. "SAVE mother Waltraud Kugler will leave us at the end of the year," SAVE President Geert Boink deeply regretted, emphasizing how much Waltraud Kugler has helped shape the development of the project office in St. Gallen and the entire network. As the person responsible for the projects, she repeatedly managed to give SAVE new impetus with her initiatives, both as a network and in the practical area.

Without her and the founder Hans-Peter Grünfelder, the SAVE Foundation would not be the organization it is today - with its broad recognition in national bodies and at European level. As a farewell, Waltraud Kugler received a commemorative gift from each country organization represented on the Board of Directors. To the relief of those present, Waltraud Kugler assured that she would continue to accom-



SAVE Meeting mit Poitou Eseln in der Arche Warder. ©SAVE

pany SAVE beyond her retirement.

Meeting presentations: <https://www.save-foundation.net/en/network/conferences>

Rewilding and Animal Welfare Standard



Semi-feral Horses in Livno, Bosnia-Herzegovina. ©SAVE

In 2014, SAVE Foundation published the results of the study "Wild livestock populations in Europe" with an information system on the species and breeds found in European countries. The "Rewilding Europe" movement, which was still very young at the time, was and is often criticized in terms of animal welfare.

"Rewilding" is understood to mean the large-scale restoration of ecosystems with the aim that the entire system regulates itself through natural processes - i.e. without human intervention. The reintroduction of grazing animals plays a major role in this. In individual projects, the question arises as to whether domesticated breeds or non-native breeds should be used, depending on the country and natural area and/or, elk, bison or Koniks versus local breeds such as gray cattle, Haflinger or water buffalo. And what are the welfare implications of breed choice? How can the welfare of released populations be effectively assessed? In the case of grazing and pastoralism, the animals are observed and regularly cared for by a veterinarian. This was also the case with semi-feral attitude.

What animal welfare standards apply to reintroduced livestock breeds? Are they worse because the well-being of the individual is less important? The fact is when farm animals which have been released into the wild, they are in constant interaction with wild animals and also with parasites and diseases. Treating the released animals does not help in the long term. They must build their own resistance and learn to

take care of themselves. That's the conventional wisdom of proponents of the rewild-thing.

Today, most farm animal welfare standards are based on "inputs"; they describe what must be provided to the animals in terms of specific resources such as housing, space, food, veterinary care and management practices. In the absence of these inputs, animal welfare is immaterial. Is it more guaranteed – or is it not? The "welfare outcomes", the effects of these standards on the health, physical condition and behavior of the animals themselves are recorded in a "welfare outcome assessment".

It is a practical and scientifically based assessment method that aims to provide a more objective, accurate and direct picture of animal welfare.

The Rare Breeds Survival Trust (RBST) in the UK is proposing to use an animal welfare assessment system to address the welfare challenges of using domesticated species in rewilding projects. The RBST has long been a proponent of conservation grazing with native breeds of domesticated species and has established animal health and welfare standards based on the "five freedoms".

The "Five Freedoms" represent a form of output standards. They are:

- Freedom from hunger and thirst through easy access to water and a diet designed to maintain health and strength.
- Freedom from discomfort by providing an appropriate environment.
- Freedom from pain, injury and disease through prevention or prompt diagnosis and treatment.
- Freedom to exhibit normal behaviour by providing adequate space, appropriate facilities, and appropriate companionship of conspecifics.
- Freedom from fear and want by ensuring conditions and treatments that avoid mental suffering.

The article was compiled from a blog by RBST, UK: <https://www.rbst.org.uk/Blog/rewilding-and-animal-welfare-standards>.

Renaissance of the original bean in Switzerland

Philipp Holzherr, ProSpecieRara



Lötschental bean, ©ProSpecieRara

With the dwindling mountain agriculture, the field bean fell more and more into oblivion. Years of trials and a lot of passion have made the old culture a sought-after product again. The farmer from Graubünden Marcel Heinrich is also involved.

In fact, he did not want to take another risk. Marcel Heinrich is a mountain potato pioneer and has helped to revive rare potato varieties from ProSpecieRara in top gastronomy over the past 19 years. And now, the same with broad beans?

It did not take much persuasion, however. He was quickly drawn to the original bean, so in 2016 Marcel Heinrich began testing old broad bean varieties on his family farm Las Sorts. Already in the second year, he had to decide on a variety, because the further expansion of his production should also include seed propagation. As a plant with cross-pollination, this must be done in isolation from other varieties in the field bean.

With varying degrees of success, but always with a lot of passion, the Heinrich family takes care of the old cultivated plant. "Meanwhile I'm a big fan," enthuses Marcel. «As a farmer, I notice how the soil becomes really good after the field beans. And customers feedbacked how the intensive taste makes a wonderful hummus, for example.»

From the mountains to the mountains

The "primeval bean" had been used for thousands of years, but gradually disappeared from the scene as agriculture in the mountains dwindled. A few years ago, the first cultivation attempts that are made again

in the Valais variety garden Erschmatt. Three varieties emerged that are suitable for practice.

The experiment with the Heinrich family in the Albula Valley took place again in a mountainous area - for a good reason: most of the field bean varieties in Switzerland that have survived come from mountainous regions and are ideally suited for this. At high altitudes, field beans hardly dealt with pests and at the same time, they are very cold-tolerant and can also withstand frost. As a nitrogen-fixing legume, it is ideal for crop rotation with potatoes.

It is, therefore, also ideal for the Las Sorts operation. In the meantime, the field beans are an integral part of the production and several tons are harvested every year. Cultivation was optimized with the support of the Research Institute for Organic Farming (FiBL). Thanks to the targeted use of companion plants, Marcel Heinrich was able to save countless hours of manual work. These fill the space between the rows of beans in a controlled manner and suppress weeds that would have to be weeded out manually. "We are currently testing with the forest perennial rye, another ancient culture. In the first year he could give an undersow for the field beans and in the second year a rye crop. However, such systems are always dependent on the soil conditions. In about two years, I hope to find the ideal way of growing the broad beans," says Heinrich and laughs. The optimization process is not yet complete, but a major goal has been achieved: the "original bean" is being used and valued again.

Field beans on the rise

The ideal partner company for processing the largely unknown broad beans was found in the Landolt corn mill in Näfels. The friendly small business has developed a whole range of broad bean products: in addition to whole broad bean kernels, there is flour, semolina and broken beans.

For vegans and top gastronomy

Word gets around about the "new old product" broad beans through workshops and personal recommendations. Resourceful top chefs create recipes and processing companies work on new products such as broad bean tofu or miso..

The broad bean products and recipes are available at: www.bergkartoffeln.ch or www.maismuehle.ch Recipes also at: www.prospecierara.ch/rezepte (search for «Ackerbohne»).

Ukraine: National gene bank up endangered



Logo of the Ukrainian National Genebank in Charkiv.

alarmed: the national seed bank of Ukraine in Charkiv could become a victim of the war. A large part of the accessions are yet to be stored as backup duplicates in Svalbard and could be lost forever.

The Ukrainian gene bank (<https://yuriev.com.ua/en/pro-institut/>) near Charkiv was established in the 1990s as part of the Plant Genetic Resources of Ukraine project, an initiative of the Ukrainian Academy of Agricultural Sciences. By early 2021, 151,300 specimens from 544 crops and 1,802 plant species had been collected. In terms of size and diversity, the gene bank is one of the 10 largest gene banks in the world.

In May 2022, it was reported that Ukraine's national gene bank had been destroyed by a Russian attack. A team of experts from the Food and Agriculture Organization (FAO), various European research and government institutions and the Crop Trust examined the situation on site. Fortunately, it was not the national seed bank in Kharkiv that was involved, but that an agricultural research station near the city was

Scientists are

destroyed by the attack, with test fields also damaged.

There are around 1,700 seed banks worldwide, including the massive Svalbard Global Seed Vault – also known as the Doomsday Vault – on the Norwegian island of Spitsbergen. 4 percent of Ukraine's unique collection is kept here along with a million other specimens from around the world. Researchers hope that next year, the share of Ukrainian accessions can be increased to 10%. Collecting and transporting seeds from a war zone is a major challenge. An international team of experts is currently trying to save Ukraine's national seed bank. If no backup copies are deposited in other seed banks, these varieties could be lost forever.

The country cultivates important crops such as wheat, oilseed rape, sunflowers and barley on large areas and therefore, has an enormous variety of varieties with a large genetic spectrum in the national seed bank. For millennia, Ukraine has been a breadbasket, formerly for the region, now for the whole world.

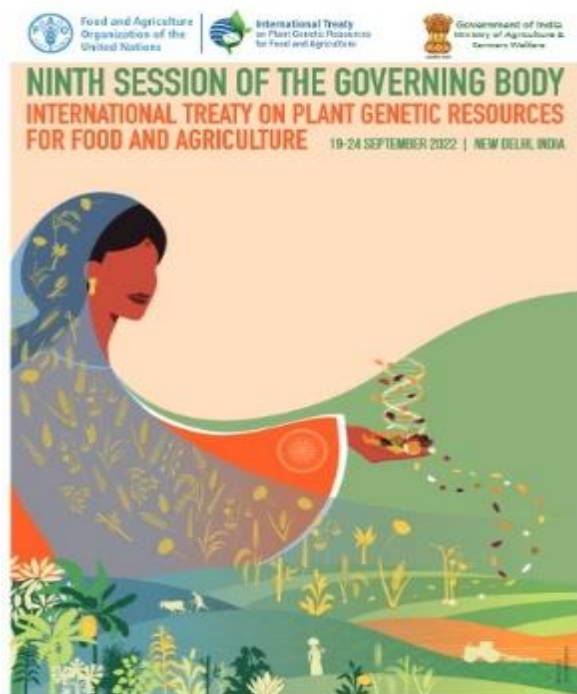
Sources: <https://thred.com/change/ukraines-valuable-seed-bank-is-at-risk-of-being-lost-to-war>

<https://ukrainet.eu/2022/05/23/gene-bank-destroyed/>



a bombed wheat field in Ukraine. © <https://www.thinkglobalhealth.org/>

Pay Tribute to the Guardians of Plant Diversity



The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) aims to ensure that plants that feed the world continue to exist and remain available for the common good of all. This also applies to nurturing these seeds and plants worldwide.

The International Treaty's Multilateral System of Access and Benefit-Sharing which is contained in the treaty, is currently the largest global gene pool for the sharing of plant genetic material for food and agriculture. Around 1,000 transactions worldwide take place in this system every day.

The International Treaty is the first legally binding international instrument that formally recognizes the tremendous contribution of indigenous people, small farmers as traditional custodians of the world's food crops and calls on nations to protect and promote their rights.

The 9th meeting of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture (GB-9) from September 19th to 24th this year contains the following core messages, which are to be negotiated in depth:

1. Crop conservation is critical to the future of humanity: The world is currently facing the triple threat of climate change, biodiversity loss and increasing food insecurity. The global COVID-19 pandemic and the recent war in Ukraine have exposed our common vulnerabilities and are warning signs that we

must strengthen multilateral cooperation to save, share and nurture the building blocks of our food. Preserving plant diversity today ensures food security tomorrow.

2. To ensure a sustainable future, a sustainable present is essential. It is crucial to preserve the crop diversity that we still have. Gene banks around the world play a critical role in protecting the seeds and other plant material that grow into the crops that feed us. It is imperative that due attention is paid to multilateral collaboration to conserve and share the seeds of plants that feed us in the UN Global Biodiversity Framework, which is expected to mark an equally major turning point - for the conservation of biological diversity, such as the Paris climate agreement which was for the climate.

3. Farmers are among the unsung heroes and custodians of global plant diversity and directly contribute to global food security. Small farmers and indigenous communities have been managing crops and plant genetic resources for food and agriculture worldwide for millennia and should be properly involved in the national and international policies such as the UN Global Biodiversity Framework.

4 Every segment of society has a role to play in conserving the diversity of plants that feed the world. The responsibility for conserving plant diversity and plant genetic resources for food and agriculture is universal. To address the significant risks of crop diversity loss, we must mobilize support from all sectors of society, including strengthening indigenous resource mobilization and developing new innovative funding programs.

Farmers, gene banks, seed companies, the food industry, consumers, teachers, parents, governments and others, all play an important role in promoting, supporting and safeguarding the crop varieties so that present and future generations can enjoy a healthy and varied diet that contains the greatest possible variety of plants. This requires new ways to mobilize support for the sustainable use of the existing abundance of food crops and for the conservation of these valuable resources for future generations.

At press, the conference had not yet ended. SAVE will report regularly on further developments.

Sources

<https://www.fao.org/3/cc1912en/cc1912en.pdf>

<https://www.fian.org/en/press-release/article/seeds-treaty-must-guarantee-peasants-indigenous-peoples-right-to-seeds-2990>

The Triglav National Park Quality Label



The Triglav National Park Quality Mark represents high standards for the conservation of a unique heritage from small local productions and a respectful attitude towards traditions, environment and climate in the Julian Alps Biosphere Reserve.

The Julian Alps Biosphere Reserve (JABR) and the Triglav National Park (TNP) are not only pearls of nature conservation but also hotspots of traditions and cultural heritage. This is reflected in the quality of life of the local residents as well as in the local products.

Sustainability can play an important role in sustaining and expanding economic activities such as green tourism, local crafts and organic farming while promoting self-sufficiency. Almost every municipality in the Julian Alps has its own local brand.

Now a uniform Triglav National Park quality mark should ensure more transparency:

The TNP quality mark is a unique, free certification system. It is open to all who live and work throughout the JABR area in accordance with the goals and purposes of TNP. It stands for special quality, which has been documented by officially certified quality systems and environmental standards.

The TNP quality mark is divided into different categories, mostly related to agriculture. There are currently 18 providers; 8 of which are schools. The high

standards are reflected in the preservation of a unique heritage made up of small-scale production and respect for tradition and the environment. Quite important to note is the cooperation between different economic sectors (especially in remote, sparsely populated areas) which could be the key to the prosperity and continued balanced development of the local community. Another strong factor is the merging of existing national and internationally recognized environmental standards. The development of such local brands aims to improve the added value of local services and products in a sustainable and nature-friendly way. The quality mark can actively contribute to the economic development of the area and motivate local people to protect and preserve nature for future generations.

More information: <https://www.tnp-kakovost.si/sl/content/zktnp/kako-se-pridruziti-zktnp.html>



<https://www.julische-alpen.info/julische-alpen/>



Newsflash

On the Origin of European Sheep



©Sergej Ivanov

The results of the study “On the origin of European sheep as revealed by the diversity of the Balkan breeds and by optimizing population-genetic analysis tools”, published in *Genetics Selection Evolution* volume 52 (2020), contributes to the spread of the

different breeds of sheep is better understood in Europe. Thanks to SNP profiles, it was found that these regional sheep populations in the Balkans show significant genetic overlaps. However, they are also very different from the breeds of the surrounding regions.

The study on the Balkan breeds is a decisive addition to the previous studies with genome-wide SNP array analyses. Both the Balkans and Italy were probably hubs for the spread of sheep breeds to the rest of Europe. The prehistoric and historical gene flows are thus mapped more clearly. Better understanding of the genetic background of the breeds leads to a better understanding of the adaptation to the environment through human selection.

Source: Ciani, E., Mastrangelo, S., Da Silva, A. et al. On the origin of European sheep as revealed by the diversity of the Balkan breeds and by optimizing population-genetic analysis tools. *Genet Sel Evol* 52, 25 (2020). <https://doi.org/10.1186/s12711-020-00545-7>

The Right to a safe, healthy and sustainable Environment



©<http://www.bulgarianagriculture.com>

A clean environment is fundamental to maintaining human dignity, equality and freedom. It is now undisputed that environmental protection is a basic prerequisite for the realization of human rights standards. In October 2021, in a ground breaking resolution, the UN Human Rights Council recognized the right to a safe, clean, healthy and sustainable environment for the first time. The consensus from the

UN General Assembly in July 2022 serves as an important catalyst for measures to implement environmental justice, tackle the climate crisis, protect nature and end environmental pollution.

Human rights and environmental protections have developed independently of each other for a long time. So far, these have been two separate areas of international law, which have been shaped and enforced by different bodies at national and international level. Not a single UN human rights treaty covered the right to a clean or sustainable environment. No attention was paid to the human rights dimension when drafting environmental protection law. The two subject areas have been converging since 1970s. Over time, mutual dependency was increasingly discussed: human rights and environmental protection are dependent on each other and must be strengthened together. Agro-biodiversity is also a recognized part of biodiversity and thus, of maintaining a healthy environment.

Sources: <https://www.humanrights.ch/de/ipf/basis/rechtsquellen-instrumente/uno/entstehung/recht-umwelt-menschenrecht>

Intangible Cultural Heritage in Greece: Local Varieties



©<https://www2.aua.gr/en/news-events/nea/agricultural-university-athens-has-undertaken-initiative-inscription-element-local>

On June 24 this year the inclusion of the item "Local and Native Agricultural Varieties: Knowledge and Practices" in the National Register of Intangible Cultural Heritage of Greece has been approved.

The Agricultural University of Athens, in collaboration with the Greek Gene Bank of the Hellenic Agricultural Organization – DIMITRA, has taken the initiative to include this element "Local and Native Agricultural Varieties: Knowledge and Practices". The local and indigenous agricultural varieties form a fundamental characteristic not only of the rural dwellers, but also

of the memory and gastronomic experience of the urban space. These are the varieties that have been bred and cultivated for centuries, contributing to agricultural biodiversity.

"Rodi Ermionis", "Prespa beans", the dried figs "Taxiarchis" from North Euboea, einkorn wheat "Kaploutzas", exquisite Greek grape varieties, "Englouvis" lentils from the island of Lefkada, oil and table olives, fava "Feneou" and "Santorinis", "Corinthian" raisins-currant, the "Katsouni" pea variety of Amorgos island are local and indigenous varieties.

The title of the entry in the Intangible Cultural Heritage of Greece: "Local and Native Agricultural Varieties: Knowledge and Practices" is the result of scientific

research work across Greece and decades of collaboration between the two institutions, farmers' associations and individuals of rural communities.

From now on, knowledge and practices related to local and native agricultural varieties will be recognized by a major UN body. This recognition marks a new starting point in conservation efforts.

Source: <https://www2.aua.gr/en>

Agrivoltaics: Solar Pastures



Solar energy is an important pillar of energy transition. But large photovoltaic systems require sustainability and respect for the rural environment in which they are built.

Under these premises, the concept of "agrivoltaics" was created, which combines the symbiosis between the traditional activities of the primary sector (agriculture and animal husbandry) and photovoltaic systems through grazing. Solar grazing means that flocks of sheep in the areas of a photovoltaic system

keep the vegetation short. Sheep are particularly suitable as natural "lawn mowers".

The photovoltaic modules also offer the sheep shade and protection from rain or snow. Medium-sized robust breeds seem to be particularly suitable for this type of grazing.

It has been shown that this coexistence is beneficial for both livestock farmers and actors in the energy sector: grazing can take place on the same area occupied by a solar system. The animals move freely between and under the modules. Elaborate mowing work is eliminated or greatly reduced, and the use of weed killers becomes obsolete. There is now a non-profit American Solar Grazing Association (ASGA) in America.

Source: <https://solargrazing.org/>

Last but not least

Moon Farmers



©<https://www.thedailybeast.com/scientists-grew-plants-in-lunar-soil-for-first-time-ever>

Researchers from the University of Florida showed that plants can successfully germinate and grow in lunar soil (lunar regolith) and how they biologically respond to the completely different soil structure. Research questions were and are: What happens when you grow plants in lunar regolith, something totally outside of a plant's evolutionary experience?" What would plants do in a moon greenhouse? Could we have moon farmers?

The [Artemis program](#) plans to bring humans to the moon, which will then serve as a hub for missions to further depths of space. The study is therefore an important step in finding out whether it is possible to grow plants on the moon or during space missions - be it for food crops or for oxygen production.

Even in the early days of lunar exploration, plants played an important role: Plants helped determine that soil samples brought back from the moon contained no pathogens or other unknown components that would harm life on Earth, but these plants were only included pollinated in lunar regolith and never actually grown in it.

Surprisingly, the germination experiments succeeded. However, the plants grew smaller than those grown on terrestrial soil as a physical indication that the plants were working to cope with the chemical and structural makeup of the lunar soil.

A piece of agriculture of the future: moon farmers...

Source: Communications Biology: <https://www.nature.com/articles/s42003-022-03334-8>.

We wish you a successful harvest season Your SAVE Foundation Team



Source: <https://www.plantplanet.de/>