

# IFAJ Post-Congress-Tour Austria 2024

## *Schweiz – Liechtenstein – Österreich*

### Programm Ostschweiz und Fürstentum Liechtenstein

#### **Sonntag, 18. August 2024**

- 09:05 Uhr Abfahrt mit der SBB (IC 81) von Interlaken West über Zürich nach Sargans
- 12:02 Uhr Ankunft in Sargans und mit einem Bus nach Vaduz
- 12:30 Uhr Mittagessen und Betriebsbesichtigung bei der Familie Konrad auf dem Bauernhof «Neufeldhof», Neufeldweg 9, Vaduz, Fürstentum Liechtenstein
- 14:00 Uhr Besuch des Weltacker Plus, ([www.weltacker.li/blog](http://www.weltacker.li/blog)); Impulse für eine verantwortungsvolle Nahrungsmittelproduktion: vielfältig - ressourcenschonend - regional
- 16:45 Uhr Spaziergang durch das Städtchen Werdenberg (die kleinste Stadt der Schweiz mit 55 – 60 Einwohnern) mit seinen sehr gut erhaltenen mittelalterlichen Häusern
- 18:00 Uhr Bezug der Unterkunft im Landwirtschaftlichen Zentrum SG, (LZSG) in Salez
- 18.30 Uhr Apéro; 19:00 Uhr Abendessen im LZSG

#### **Montag, 19. August 2024**

- 07:00 bis 07:55 Uhr Frühstück
- 08:00 bis 09:00 Uhr Begrüssung / Vorstellung LZSG durch Markus Hobi, Leiter LZSG in der Aula mit kurzem Rundgang Anlage / Holzneubau, Umgebung  
Information über die Ausbildung der Landwirte durch Martin Willi, Leiter Bereich Beruf Landwirt, bzbs,
- 09:00 Uhr Rundgang Praxisversuche Pflanzenbau / Pflanzenzüchtung  
mit Benedikt Kogler, Lehrer/Berater  
Einsatz neuer Technologien im Pflanzenbau mit Bernd Robbert, Lehrer, Berater
- 09.50 Uhr Besichtigung Obstanlage: Resoprojekt, Eignungsprüfung resilienter Sorten mit Richard Hollenstein, Lehrer/Berater
- 10:50 bis 11:30 Uhr Besichtigung Staatswinget (400 Rebsorten, national eine der bedeutendsten Sortensammlungen) mit Simone Aberer, Fachstellenleiterin Weinbau
- 11:40 Uhr Mittagessen
- 12.30 Uhr Abfahrt nach Feldkirch, Bahnhof
- 13:17 Uhr Abfahrt mit Bahn (RJX) Richtung Wien,
- 17:03 Uhr Ankunft in Salzburg, Hauptbahnhof

## **IFJA Post-Congress-Tour Austria 2024**

### **Switzerland – Liechtenstein – Austria**

#### **Programme Eastern Switzerland and Principality of Liechtenstein**

##### **Sunday, August 18, 2024**

- 9.05 am departure by train from Interlaken West via Zürich to Sargans
- 12.02 am arrival in Sargans and transfer by bus to Vaduz
- 12.30 am lunch and tour of the farm at family Konrad “Farm Neufeldhof” Neufeldweg 9, Vaduz, Principality of Liechtenstein
- 2.00 pm visit at Weltacker Plus ([www.weltacker.li/blog](http://www.weltacker.li/blog)); ideas and inspiration for responsible food production: diverse – resource-efficient – regional
- 4.45 pm walk through Werdenberg (Switzerland’s smallest town, about 60 inhabitants) with its well-preserved medieval houses
- 6.00 pm moving into the accommodation at the Landwirtschaftliches Zentrum St. Gallen (LZSG) in Salez
- 6.30 pm aperitif; 7.00 pm dinner at the LZSG

##### **Monday, August 19, 2024**

- 7.00-7.55 am breakfast
- 8.00- 9.00 am auditorium; introduction of the LZSG by Markus Hobi, director of the LZSG; short tour of surroundings, new wood-construction  
information on a farmer’s education by Martin Willi, head of vocational training for farmers
- 9.00 am tour practical tests crop production / plant breeding with Benedikt Kogler, teacher and consultant  
application of new technologies in crop production by Bernd Robbert, teacher and consultant
- 9.50 am visit of fruit plantation; Reso-project: suitability test of resilient varieties with Richard Hollenstein, teacher and consultant
- 10.50-11.30 am visit of Staatswinget (400 types of vine, nationally one of the most significant collections of varieties) with Simone Aberer, head of wine production
- 11.40 am lunch
- 12.30 am departure to Feldkirch, station
- 01.17 pm departure by train to Salzburg
- 05.03 pm arrival in Salzburg, main station

## 1) Agriculture in Liechtenstein

In 2020 there were 95 recognized farms in Liechtenstein. 85 Farms are full-time farms and eight farms are part-time farms. On these farms, agriculture is the only one or the most important economic activity. A total of 306 people is directly employed in agriculture in Liechtenstein. The majority (60%) of the agricultural area is permanent grassland. The remaining 40% is arable land, with approximately two-thirds of the arable land used for growing crops animal feed is used. The degree of self-sufficiency with food is estimated at around 50% and is in a similar range to that for Switzerland. Most of the establishments (75) are in the valley area.

In mountain zone I (Schellenberg and Planken) there are four companies (all in Schellenberg) in 16 companies are located in mountain zone II (Triesenberg).

The farms in Triesenberg are on average only half the size (22 ha) of the farms in the valley (41.9ha). The farms in Schellenberg are in between (34.8 ha).

In 2020, an agricultural area of 3,584 hectares cultivated, that is a fifth of the country's area. The agricultural area refers to the area cultivated by recognized agricultural holdings. Including the areas managed by non-approved farms and considering the inland Alps (2019). One speaks in this context of agricultural land. The landscape typical of the country was shaped by the work of the farmers. The cultural landscape is used and valued by the population as a place to live and relax. It is also of crucial importance for biodiversity, as it is the habitat of many plants and animals.

In Liechtenstein, agriculture has a long tradition and makes a difference important contribution to supplying the population with high-quality, regional Food and to preserve the natural basis of life and to maintenance of the cultural landscape. At the same time, it faces major challenges. The current framework conditions, the subsidy programs in neighboring countries and international competition mean that basic security for agriculture through state services is still absolutely necessary, including compensation for public services.

The very high share of leased land in the agricultural areas of 95% leads to administrative and financial for the farms.

Like hardly any other economic sector, agriculture is dependent on climatic conditions and correspondingly strongly on climate change affected. Agriculture must therefore adapt to progressive climate change with sustainable management methods. At the same time is agriculture is one of the causes of climate change and must work together with other economic sectors and the population to reduce it contribute to greenhouse gas emissions. In the course of progressive climate change, the irrigation of agricultural crops will play an increasingly important role in the future.

## 2) The global field (project "Weltacker")

Seven and a half billion people are now sharing this planet. While that number continues to grow, the size of the Earth remains the same. This raises many questions for our future, including whether or not there will be enough food. Dividing the total global surface area of arable land (around 1.5 billion hectares) by the number of people on the planet gives us this figure: 2000 square metres per person. It is on this piece of land that everything Mother Earth supplies you with must grow: wheat, rice, potatoes, fruit, vegetables, oil, sugar... not to mention all the animal feed that does not stem from meadows and pastures. On top of that we also need to grow cotton for our clothes, tobacco for smokers, "bio" gas or diesel, and other so-called renewables on our field.

We've laid out your own individual 2000m<sup>2</sup> with the global average of each crop. More than half of the field would be cultivated for just four crops: wheat, corn, rice and soybeans. Other cereals, tubers and oil crops would also be dominated by very few types and varieties of plants.

Of course, the smaller gardens are full of hundreds of varieties, but the area they cover is only a small fraction of all arable land. With the exception of rice, the larger part of vast monocultures is dedicated to non-food uses, such as animal feed or fuel.

We can look forward to interesting Well - People are becoming more empowered, shopping more consciously. Locally produced foods are popular. - More and more people are interested in where the food comes from, how it is produced, whether it is seasonal, how much transport was necessary... - Sustainability, transparency and protection of resources are increasingly decisive for purchasing - But who is aware that many staple foods could be covered by the regional offer? - And this is where we start with the Vaduz food field. • Make the regional offer visible. • Grow new crops (buckwheat, flax, hops, edamame, rice, sweet potatoes and much more) - Realize the first world field in the Oberland in 2019 together with Gemeinde Vaduz and the Konrad family - 2021 Vaduz nutrition field was opened • Important milestone, big step in development: ◇ from 2,000 m<sup>2</sup> to 12,000 m<sup>2</sup>

Kitchens, canteens, restaurants and supermarkets – these are the places where we manage our 2000m<sup>2</sup> field: Every meal we eat, every food purchase we make, can be seen as an indirect order to our agricultural producers. However, what each of us really consumes varies enormously.

Our eating habits differ according to age, income, culture, energy requirement and many additional factors; however, the average European consumes nearly a tonne of food a year.

Expressed in energy, this works out at around 3,500 kilocalories a day. This amount might see the kitchen slightly cramped, and you certainly don't want to eat that much every day! So, isn't it a consolation that we throw away nearly half of our food on its journey from farm to plate?

<https://www.2000m2.eu/production/>

Contact:

Florian Bernardi

Klaus Büchel Anstalt

Consulting, Engineering Research & Development

Wegacker 5

FL-9493 Mauren

phone: +423 / 375 90 50

Mail direct: [florian.bernardi@kba.li](mailto:florian.bernardi@kba.li)

## Landwirtschaft

Zahlen zu anerkannten Landwirtschaftsbetrieben, Nutztierhaltenden, Förderungsleistungen, Milchlieferungen, Milchverarbeitung und Weinernte werden aus administrativen Daten erhoben. Die Daten werden periodisch alle 3-4 Jahre veröffentlicht.

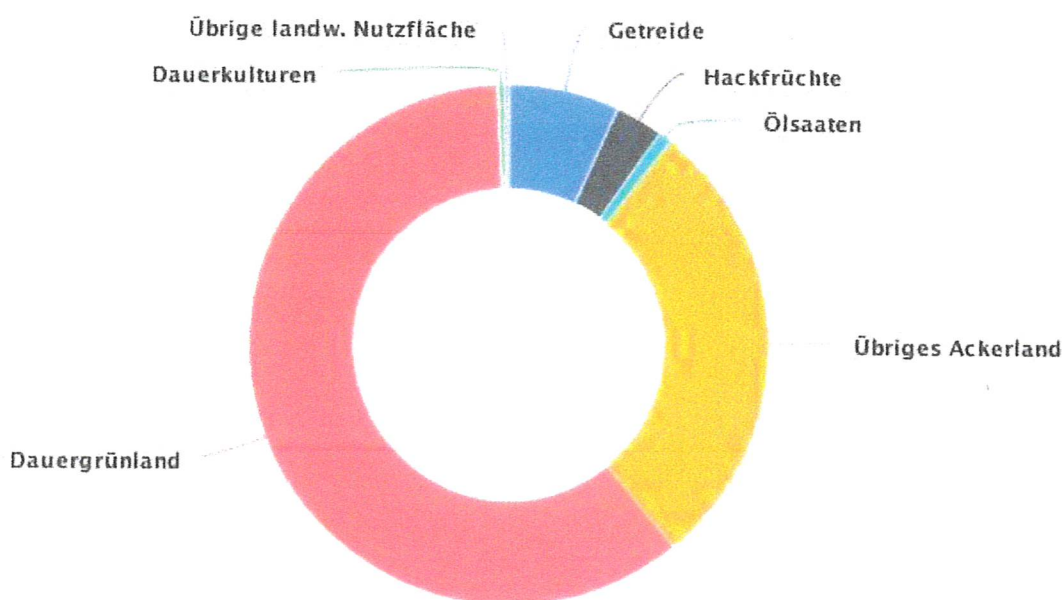
### Landwirtschaft 2020

#### Publikation

### Weniger, aber grössere Landwirtschaftsbetriebe

30.09.2021 – Im Jahr 2020 gab es 95 anerkannte Landwirtschaftsbetriebe in Liechtenstein. Diese bewirtschafteten eine landwirtschaftliche Nutzfläche von 3'584 ha. Die durchschnittliche landwirtschaftliche Nutzfläche pro Betrieb lag bei 37.7 ha. Im Jahr 2016 bewirtschafteten die 102 anerkannten Landwirtschaftsbetriebe eine landwirtschaftliche Nutzfläche von 3'592 ha. Dies entsprach einer landwirtschaftlichen Nutzfläche von durchschnittlich 35.2 ha pro Betrieb.

### Landwirtschaftliche Nutzfläche nach Kultur 2020



Amt für Statistik Liechtenstein

### Anteil der Bio-Betriebe steigt



In Liechtenstein produzierten im Jahr 2020 38 anerkannte Landwirtschaftsbetriebe bzw. ein Anteil von 40.0% nach den Richtlinien des biologischen Landbaus. Sie bewirtschafteten dabei eine landwirtschaftliche Nutzfläche von 1'470 ha. Im Jahr 2016 waren es 38 Betriebe bzw. ein Anteil von 37.3% gewesen, die eine landwirtschaftliche Nutzfläche von 1'366 ha bewirtschafteten.

## Rindviehbestand pro Betrieb erhöht sich

Die 76 anerkannten Landwirtschaftsbetriebe mit Rindvieh hielten im Jahr 2020 durchschnittlich 82.1 Stück Rindvieh pro Betrieb. Im Jahr 2016 waren es 75.5 Stück Rindvieh pro Betrieb gewesen. Insgesamt hielten die anerkannten Landwirtschaftsbetriebe im Jahr 2020 6'237 Stück Rindvieh. Dies sind 425 Stück Rindvieh mehr als im Jahr 2016.

## 4'868 Grossvieheinheiten

Den 325 Nutztierhaltenden (inkl. anerkannte Landwirtschaftsbetriebe) in Liechtenstein gehörten im Jahr 2020 insgesamt 4'868 Grossvieheinheiten (GVE) aller Tiergattungen. Die Nutztierhaltenden hielten im Jahr 2020 6'327 Stück Rindvieh. Davon waren 2'281 Milchkühe. Im Jahr 2016 gab es in Liechtenstein 6'232 Stück Rindvieh (davon 2'232 Milchkühe) und insgesamt 4'795 GVE aller Tiergattungen.

AMT FÜR STATISTIK

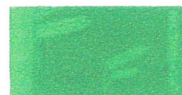
Diese Informationen zum Thema Landwirtschaft wurden ursprünglich in der Landwirtschaftsstatistik 2020 publiziert.

## Publikation



[PDF] Landwirtschaftsstatistik 2020

Landwirtschaftsstatistik 2020



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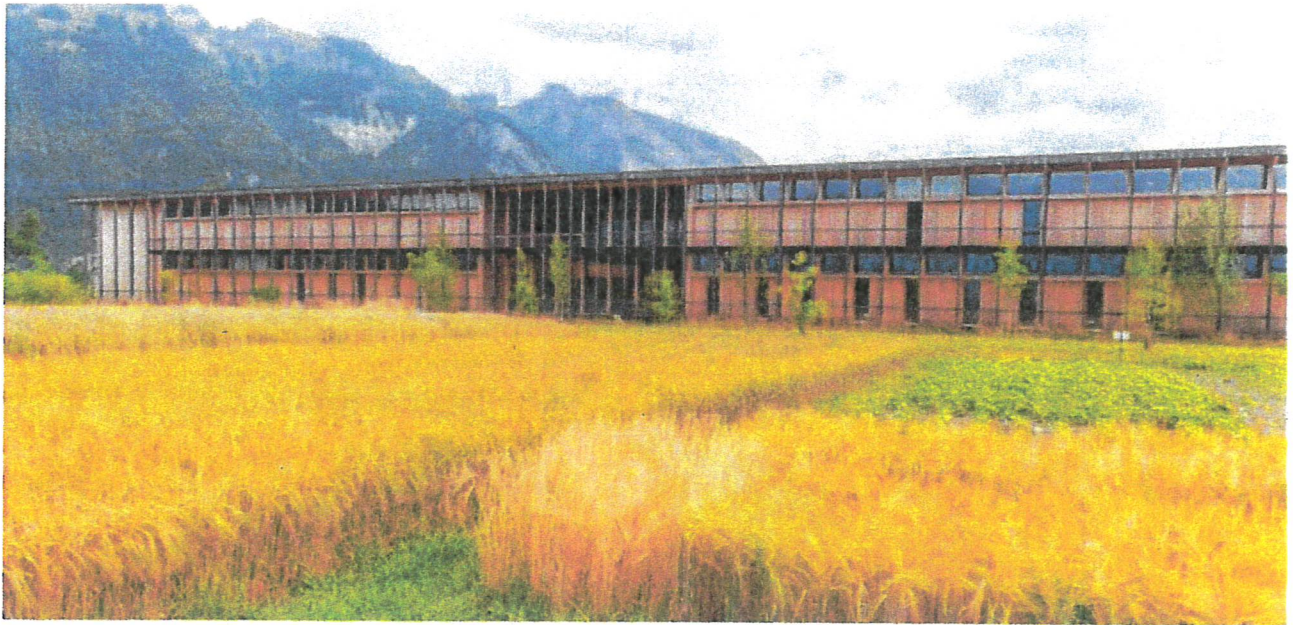
Publikations-ID: 361.2020.01.1

Publikationsarchiv

## Ansprechpersonen

Thomas Erhart

thomas.erhart@llv.li



**Agricultural Training and Advice Center of St.Gallen, Switzerland; [www.lzsg.ch](http://www.lzsg.ch)**

### **We introduce ourselves**

Welcome to the Landwirtschaftliches Zentrum St.Gallen (LZSG) in Salez. The LZSG is an innovation center for agriculture, nutrition and rural area in the canton of St. Gallen. Together with partners from education, research, plant breeding and food processing, the LZSG supports farmers in the production of high-quality products. The field trials in Salez and Flawil are used to test crops and varieties that are better able to withstand pests and diseases and having high crop yields **under changing climatic conditions**. With regard to changing eating habits, a wide range of varieties of potatoes, beans, Ribel maize, polenta maize, oilseeds, berries, vines, fruit and vegetables are growing in our fields.

### **Our mission**

The LZSG is a part of the office of Agriculture in the Economic Department of the canton St.Gallen with the following mandate: The LZSG promotes site-adapted and resource-conserving agriculture, supports farmers in adapting to climate change, enables them to use digitalization/smart farming and increase biodiversity and initiates and supports value-adding product development and implementation.

### **Our services and facilities**

The main focus of the LZSG activities is providing agriculture advice, further education courses and field trials and on teaching on behalf of the Agricultural Training Centre Buchs Sargans (bzbs). The LZSG runs a conference center in Salez with classrooms, multi-purpose rooms and offices for the advisory services. The facility includes workshops for wood- and metalworking, a school cheese dairy and a school slaughterhouse. Learning sequences and practical experiments take place on the company's own farm with milk production, pig farming, fodder and arable farming. Over 400 grape varieties are cultivated in the Frumsen state vineyard and further innovative trials are carried out in the Frumsen and Flawil orchards and on the arable land in Flawil.

### **Agriculture meeting point in St. Gallen**

Various people meet at the LZSG: Apprentices who want to become farmers; school classes and students who carry out project weeks on agricultural topics; people who are interested in agriculture and nutrition and improve their knowledge in practical courses as well as farming and non-farming organizations that meet in the particularly climate-friendly and multi-award-winning new wooden building (Constructive Alps) in the middle of species-rich variety gardens and test fields.





## **Vocational training for farmers (Training Centre Buchs Sargans, bzbs)** (Martin Willi, head of vocational training for farmers)

bzbs Rheinhof is one of the three largest vocational schools for Farmers in Switzerland. Every year, around 110 students obtain their vocational qualification.

The farmer training programme lasts 3 years. We work together with 230 training companies (farmers). The students change their training company every year. The school-based training programme comprises a total of 1600 lessons. In the first and second year 360 lessons each, in the third year 880 lessons. The training contents are: Animal production, crop production, mechanization, general education and business management. The curriculum is the same throughout Switzerland.

We also offer professional qualifications, which includes the federal professional examination, the master craftsman's examination and training to become a farmer with a federal professional examination.

## **Test Field in crop production and plant breeding** (Benedikt Kogler, consultant and teacher)

The focus of the plant cultivation trials at the agricultural center in Salez is on three main areas, the political agricultural report of St. Gallen from 2023 defines them as followed:

1. Plant health  
To save resources and reduce the use of pesticides is becoming more important, one example for the efforts in this direction is the potato late blight resistance-breeding program.
2. Variety trials  
The aim here is to find new crops and varieties that are adapted to new climatic challenges and expand the existing crop rotation. One example are legumes. Not only testing varieties is important, also developing new niche products is a way of establishing new value-added opportunities. The agricultural center of St. Gallen is currently working in a breeding project on a traditional variety, the so-called "Schwefelbohne" (sulphur bean), the aim is to bring this very tasty bean back on the fields of the Rhine valley.
3. Biodiversity promotion areas on arable land  
In this field, political guidelines are tested to ensure competent and proactive consulting of the farmers.

The projects on the side are always in cooperation with partners from other institutions. The national and international partners are public institutions (Universities, Agroscope, etc.), private companies (Breeders, consultants, sales companies) and farmers.

## **Digitalization / smart farming** (Bernd Robbert, consultant and teacher)

The Agricultural Center focuses also on innovative technologies in the context of training and consulting to optimize modern crop production. Investments at LZSG are being made in various systems. Here is a selection:

- Farm Management Information System (FMIS): This digital tool enables precise planning and documentation of fieldwork.
- Steering Systems: Automated GPS technology ensures precise control of tractors and optimizes overlaps, increasing efficiency.
- Soil Sensors: They allow for the real-time collection of important soil data, particularly soil moisture, optimizing resource usage.
- Drones: These are used to monitor plant growth and for the targeted application of fertilizers and pesticides.
- Satellite Images: They provide valuable information about the condition of the fields and support decision-making for crop actions.





### **the Frümisen orchard (resilient fruit varieties)**

(Richard Hollenstein, consultant and teacher)

#### **Resilient varieties for sustainable Swiss fruit growing Varieties for the future**

Which fruit varieties are ready for climate change?

We develop methods for assessing stress tolerance and robustness. Best quality on the shelf

How do changes in cultivation affect shelf life and quality?

We test this in storage trials and find out what consumers like.

Less crop protection with robust varieties. Which varieties are successful when grown with less crop protection?

We test it in the field.

The RESO project connects stakeholders along the entire value chain and pools expertise for future-oriented fruit growing

### **the Frümisen state vineyard (over 400 grape varieties)**

(Simone Aberer, consultant and teacher)

The Rheinhof Agricultural Center in Salez replanted the vineyard here on the southern slope of the Alpstein in 1987. This state wingert serves as a test and demonstration vineyard for the winemakers of St. Gallen. You will receive valuable inspiration for modern vine management.

This vineyard also has a special collection of varieties with over 400 varieties. These include important varieties that have a connection to Switzerland. In addition, numerous curiosities were planted, as was the case with the oldest vine from the canton of SG. The Blauer Thuner (Peloursin) variety was found in Quinten at the "Alte Post" house. Of course, guided tours of the Staatswingert can also be booked.

The vineyard fulfill many different tasks:

- It serves the training and further education of our St. Galler winemakers
- New findings from research are put into practice
- Guided tours for interested groups can be booked

The vineyard is around 1.7 hectares in size, with around 90 ares Pinot Noir makes up the majority. Followed by Müller-Thurgau, Johanniter, Divona and numerous other varieties that are used for wine production. And other products such as "Traubenschorle" or Marc.



## IFAJ International Federation of Agricultural Journalists Presentation LZSG

19. August 2024

Markus Hobli, director LZSG

Volkswirtschaftsdepartement

## Agriculture of St.Gallen

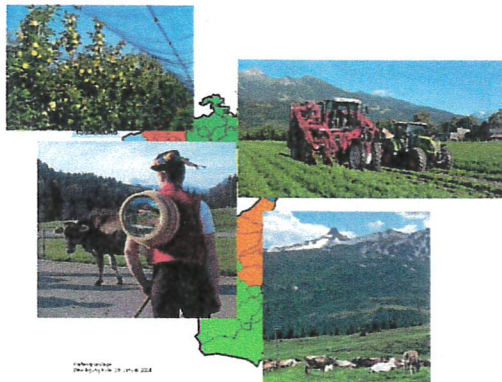
3700 farms  
72'000 hectares agricultural area  
20 hectares average area  
140'000 cattles (66'000 cows)  
160'000 pigs  
1'000'000 chickens



19. August 2024  
Seite 2

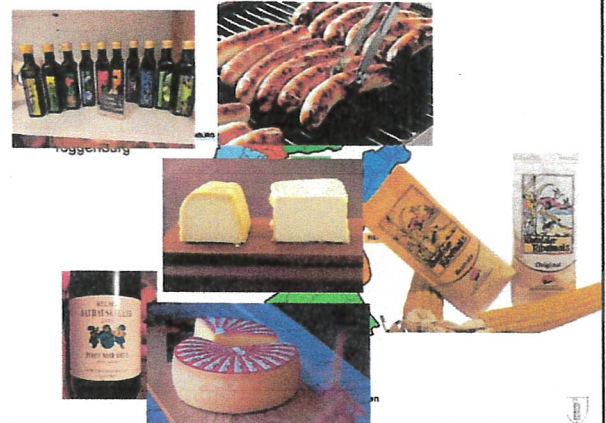


## The St.Gallen regions und their agriculture



Kanton St.Gallen

## Typical foods of St.Gallen



## Welcome to the center for agriculture!

LZSG Salez with conference center and  
offices for the advisory services



LZSG Flawil with offices for the  
advisory services



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Kanton St.Gallen  
Landw. Zentrum SG

## Vision LZSG

The LZSG is a centre of innovation for agriculture, nutrition and rural areas in the canton of SG. It fulfils its public interest mission in a network with universities and universities of applied sciences, research and farmers' organisations.

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Kanton St.Gallen  
Landw. Zentrum SG



### Our mission

The LZSG promotes site-adapted and resource-conserving agriculture, supports farmers in adapting to climate change, enables them to use digitalization/smart farming and increase biodiversity and initiates and supports value-adding product development and implementation.



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### Teaching on behalf of the Agricultural Training Centre Buchs Sargans (BZBS)



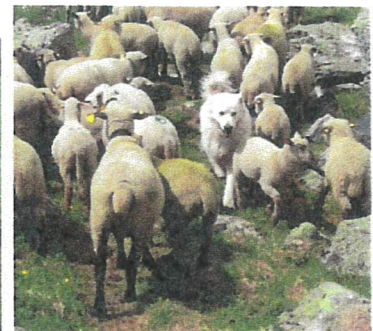
### Agriculture consulting and courses



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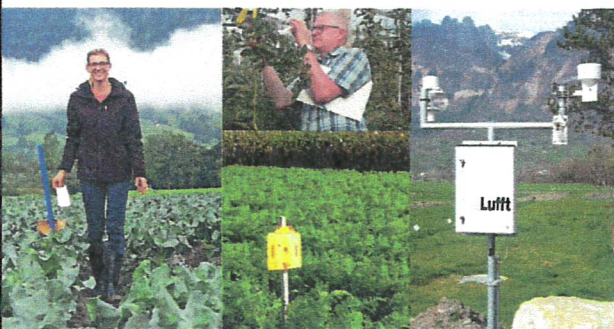
Kanton St. Gallen  
Landw. Zentrum SG

### Herd protection consulting

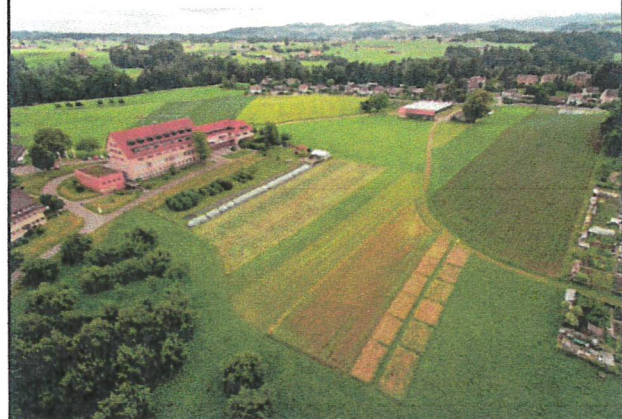


Kanton St. Gallen

### Plant protection service for vegetable growing, fruit growing, arable farming, berry growing, viticulture



### Test fields in Flawil

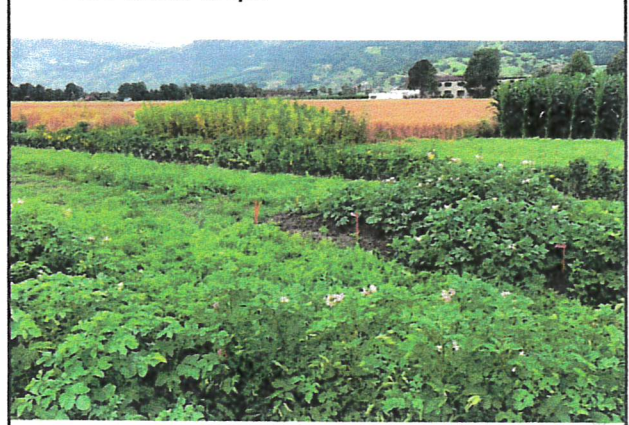




**Test fields in Salez**



**varieties arable crops**



**Plant Breeding**



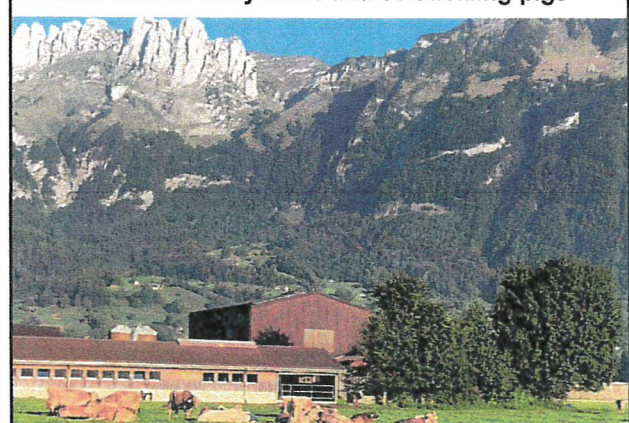
**Fruit plantation with resilient fruit varieties in Frumsen**



**Vineyard with collection of 400 grape varieties**



**Farm with 50 dairy cows and 35 suckling pigs**





## Beitrag Martin Willi

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Kanton St.Gallen  
Landw. Zentrum SG

## Our climate-friendly new wooden building

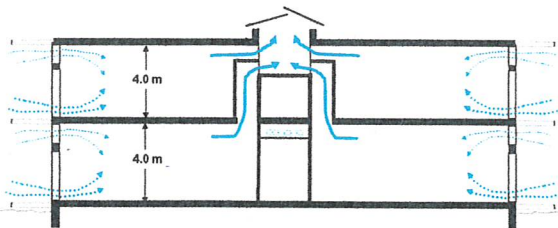


Bild: Seraina Witz, Atelier für Herrsch-Hallenschen-Kochenhofstrasse, Zürich

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Kanton St.Gallen  
Landw. Zentrum SG

## natural cross ventilation technology



Kanton St.Gallen

## we control our indoor climate by hand



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Kanton St.Gallen  
Landw. Zentrum SG

## building materials



1300 m3 wood  
1000 m3 concrete  
oak in places exposed to the weather  
spruce on exterior facade  
silver fir in interior fittings  
floor covering with clay casein  
folding table in ash  
plasterboard for fire protection



Lehmkaseinboden

Kanton St.Gallen  
Landw. Zentrum SG

## art in construction

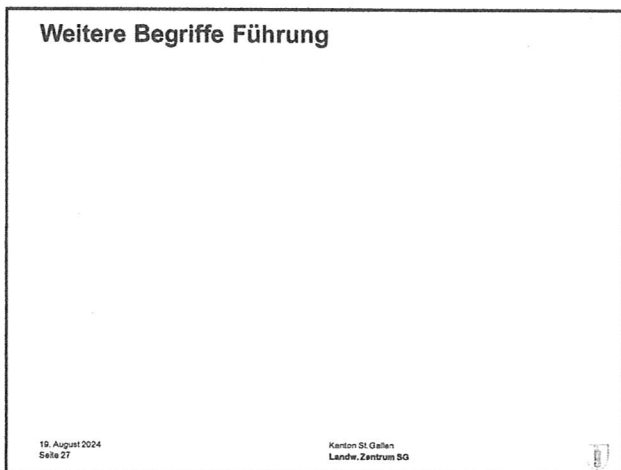
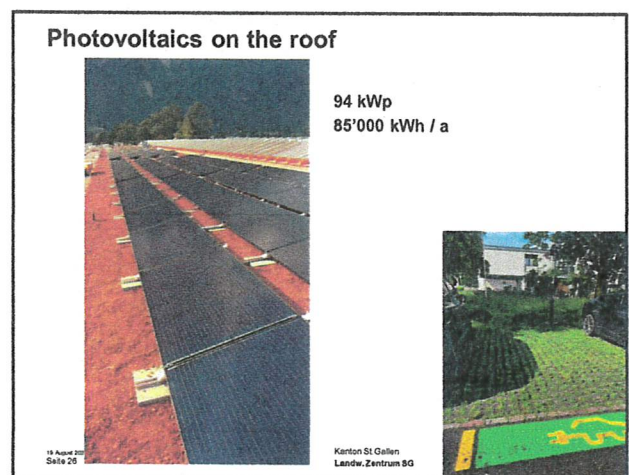
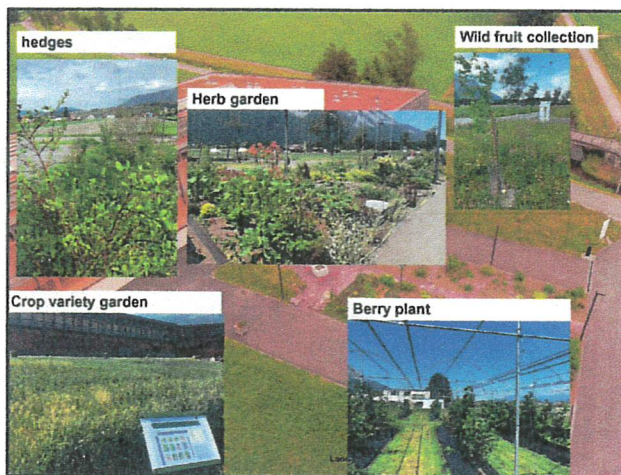


bees built honeycombs as a template

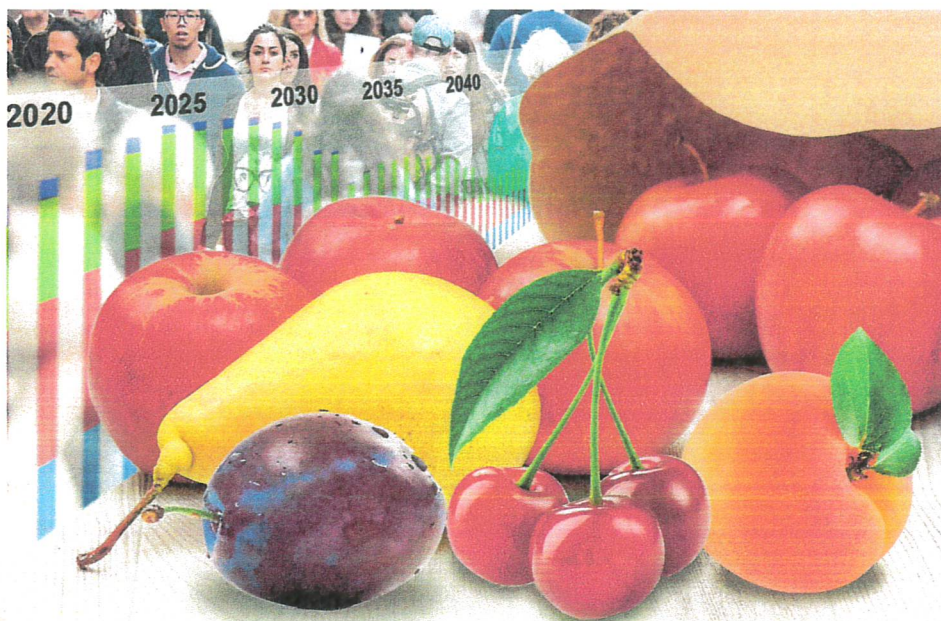


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Kanton St.Gallen  
Landw. Zentrum SG







## Resiliente Sorten für einen nachhaltigen Schweizer Obstbau



### Sorten für die Zukunft

Welche Obstsorten sind bereit für Klimaveränderungen?  
Wir entwickeln Methoden für die Bewertung von Stresstoleranz und Robustheit.



### Weniger Pflanzenschutz mit robusten Sorten

Welche Sorten sind im Anbau mit weniger Pflanzenschutz erfolgreich?  
Wir testen es im Feld.



### Beste Qualität im Regal

Wie beeinflussen Veränderungen im Anbau Lagerfähigkeit und Qualität?  
Wir prüfen es in Lagerversuchen und finden heraus, was bei den Konsument\*innen gut ankommt.

**Das Projekt RESO verbindet Akteure entlang der gesamten Wertschöpfungskette und bündelt Kompetenzen für einen zukunftsorientierten Obstbau.**



[www.reso.agroscope.ch](http://www.reso.agroscope.ch)



**FiBL**

**Tobi**  
Früchte mit Biss

Kanton St.Gallen  
Landw. Zentrum SG



**fenaco**  
de la terre à la table



LIEB | EGG

LBBZ Schluechthof Cham

Landwirtschaftliche  
Hochschule Luzern

bbzn.lu.ch

INFORAMA



EBCRAIN

Mit freundlicher Unterstützung des Bundesamtes für Landwirtschaft BLW: Finanzhilfe für Projekte zur Förderung der Pflanzenzüchtung und Sortenprüfung



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun Svizra

Eidgenössisches Departement für Wirtschaft, Bildung und Forschung WBF  
Agroscope