CORE Organic Country Report ᆕ



CORE Organic Country Report Austria

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Content

1	History	10
2	Organisation	10
3	Mapping research programmes	12
3.1	PFEIL 05 (2002 to2005)	12
3.2	PFEIL 10 (2006 to 2010)	13
4	Financing	15
5	Research facilities	16
5.1	Research facilities which are related to the Federal Research Institutes	16
5.2	Other research facilities	17
5.3	On-farm research	18
5.4	Funding of research facilities	18
6	Initiation of research and stakeholder engagement	18
6.1	Stakeholder engagement	18
6.2	Initiation of research	19
7	Selection criteria and evaluation procedures	20
7.1	Selection and establishment of projects	20
7.2	Monitoring progress in ongoing projects	20
8	Utilisation of research	21
9	Scientific education & research schools	21

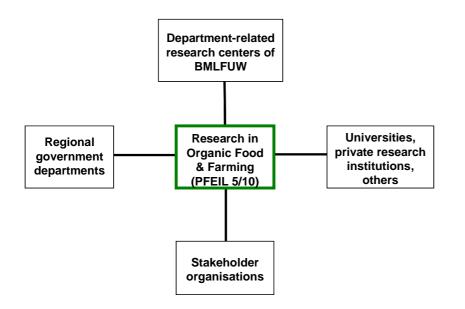
1 History

Austria has a long tradition in organic farming. The first organic farms were established in Carinthia (Kärnten) in the years 1927 to 1935.

- 1980 the "Ludwig Boltzmann Institute for Biological Agriculture and Applied Ecology" was founded (now Bio Forschung Austria).
- 1981 A university lecture "Introduction to organic farming" at the University of Natural Resources and Applied Life Sciences (BOKU) Vienna was offered for students as a voluntary course
- 1991 The Research Initiative for Organic Farming came into existence as an informal alliance of scientists conducting work in the field of organic farming
- 1992 A guest-professorship "Organic Farming" at the University of Natural Resources and Applied Life Sciences (BOKU) Vienna was established
- In the years 1994/95 the Research Initiative for Organic Farming carried out work on the research project "Integral Key Topics and Methodological Criteria for research on Organic Farming" with the goal of clarifying the future content and methodological approach of research in organic farming under special consideration of Austria
- 1996 The Institute for Organic Farming (IfÖL) at the University of Natural Resources and Applied Life Sciences (BOKU) Vienna was established
- 2000 Start of lectures on organic farming "Introduction in organic farming" as compulsory subject at the University of Natural Resources and Applied Life Sciences (BOKU) Vienna and the possibility to choose organic farming as main focus for graduate studies in "Agriculture". Also courses on Organic Farming in arid, semiarid, subtropical and tropical climate were introduced.
- In 2001 the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW⁾ involved all stakeholders on the issue of future developments in Organic farming and launched a Bio-Enquête. The outcomes of these discussions were integrated in the Action Plan Organic Farming (2001-2002).
- In February 2001 BMLFUW presented the first Action Plan for Organic Farming. The Action Plan for Organic Farming provides recommendations for policy development and funding priorities in the areas of education and training, extension services, research, marketing, consumer information and public relations, quality management and quality control. The establishment of a regular discussion platform on organic farming "Biologische Landwirtschaft" involving all stakeholders was one of the recommendations of the Action Plan.
- In July 2003 the second Action Plan was published. At present the 3rd Action Plan for Organic Farming for the years 2005-2008 is in place.

2 Organisation

In Austria research activities in the area of organic food and farming are mainly financed by the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW). To some extent research activities are funded in cooperation with other regional government departments ("Bund-Bundesländer Kooperation"), the City of Vienna, stakeholder organisations or in cooperation with private funders.



Organic Farming Research in Austria is mainly carried out by three types of organisations:

Universities

- University of Natural Resources and Applied Life Sciences in Vienna (BOKU)¹
- University of Veterinary Medicine, Vienna (VMU)²
- University of Innsbruck, Mountain Agriculture Research Unit³

Private research institutions:

- Bio Research Austria (formerly Ludwig Boltzmann Institute for Biological Agriculture and Applied Ecology)
- FIBL Austria⁴

Federal offices and research centers

- Agricultural research and education centre Raumberg-Gumpenstein⁵
- Federal Institute for Less-Favoured and Mountainous Areas⁶
- Federal College and Office for Viticulture and Pomology⁷

¹ Universität für Bodenkultur / University of Natural Resources and Applied Life Sciences in Vienna (BOKU)¹, Vienna, http://www.nas.boku.ac.at/oekoland.html?&&L=0

² Veterinärmedizinische Universität Wien /University of Veterinary Medicine Vienna, http://www.vuwien.ac.at/content/e809/e1118/index_ger.html

³ Forschungsschwerpunkt Berglandwirtschaft an der Universität Innsbruck / University of Innsbruck, Mountain Agriculture Research Unit, http://www2.uibk.ac.at/berglandwirtschaft/index.html

⁴ Forschungsinstitut für biologischen Landbau / Research Institute of Organic Agriculture (FiBL), Wien http://www.fibl.org/fibl/portrait-oesterreich.php

⁵ Höhere Bundeslehr- und Forschungsanstalt für Landwirtschaft Raumberg-Gumpenstein / Agricultural research and education centre Raumberg-Gumpenstein, Irdnin, http://www.gumpenstein.at/

⁶ Bundesanstalt für Berbauernfragen / Federal Institute for Less-Favoured and Mountainous Areas, Wien, http://www.bergbauern.net/2005/content/section/5/237/

- Federal Agency of Water Management⁸
- Federal College and Research Station for Horticulture⁹
- Federal Institute of Agricultural Economics¹⁰

Stakeholder organisations:

Since January 2005 all existing farming associations have been united under the umbrella of Bio Austria. Bio Austria acts as the union of over 14 000 organic farmers, a network for organic farming in Austria and a competent contact point for organic food and farming.

3 Mapping research programmes

In Austria there is no specific programme dedicated solely to organic food and farming research. Organic food and farming research is embedded in the Programme for Research and Development (PFEIL) of the Federal Ministry for Agriculture, Forestry, Environment and Water Management (BMLFUW).

3.1 PFEIL 05 (2002 to 2005)

With PFEIL 05¹¹, the Programme for Research and Development for the period 2002 to 2005, for the first time a research programme of several years has been established, implemented and carried out. In the programme, the tasks as defined by the Federal Ministries Act Amendment 2000 on Applied Research in the fields of agriculture, forestry, environment and water management were fulfilled. The pertinent responsibilities were distributed among the ministry-related research centres, contracted research and, to a limited extent, corporate research entities under public law outsourced by the Ministry.

PFEIL 05 was concentrating all research activities on the Ministry's four strategic key areas:

- Rural Areas (RA)
- Agriculture and Food (AF)
- Water (W)
- Environment and Waste Management (EW)

Organic farming is one of the 31 subject areas defined within the four strategic key areas. PFEIL 05 provided increased budget allocations for 9 defined key areas for the whole programme duration; organic farming was one of these defined priority areas.

¹¹ PFEIL 05 - Programm für Forschung und Entwicklung im Lebensministerium, http://www.landnet.at/article/articleview/17626/1/5106

⁷ FHöhere Bundeslehranstalt und das Bundesamt für Wein- und Obstbau in Klosterneuburg / ederal College and Office for Viticulture and Pomology, http://bundesamt.weinobstklosterneuburg.at/start.php

⁸ Bundesamt für Wasserwirtschaft / Federal Agency of Water Management, Wien, , http://www.baw.at/

⁹ Höhere Bundeslehr- und Forschungsanstalt für Gartenbau Schönbrunn in Wien / Federal College and Research Station for Horticulture, http://www.hblagart.bmlf.gv.at/

¹⁰ Bundesamt f
ür Agrarwirtschaft / Federal Institute of Agricultural Economics, Wien, http://www.awi.bmlfuw.gv.at/index.html

Within the priority area Organic farming the following subject areas were defined in PFEIL 05:

- Improvement of plant production
- Improvement of livestock farming
- product quality, production standards

3.1.1 Distribution of funding

The total expenditure for organic food and farming research for the years 2002 to 2004¹² amounted to € 2 987 579. The distribution within the different subject areas is shown in Figure 1.

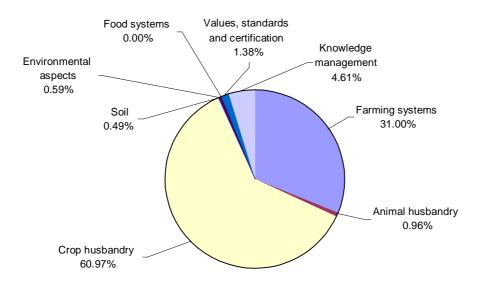


Figure 1: Organic food and farming research funding PFEIL 05 (2002 to 2004) in Austria according to subject areas

3.2 **PFEIL 10 (2006 to 2010)**

3.2.1 ABOUT PFEIL 10

PFEIL 10¹³ is the new Programme for Research and Development in the BMLFUW for the period 2006 to 2010. Organic Farming will continue to be an issue with high priority in this programme. In the programme PFEIL 10 the following strategic areas in accordance with the guiding principle of the Ministry have been defined:

- Basis of life
- Living space
- Food

Within these three strategic areas 21 key areas in total have been defined. Organic farming is one of these key areas within the programme.

¹² Figures for the year 2005 will not be available before July 2006

¹³ Programm für Forschung und Entwicklung im Lebensministerium PFEIL10: http://www.landnet.at/article/articleview/43399/1/5106/

PFEIL 10 provides for an increased allocation of funds for 8 out of 21 defined key areas for the programme duration. The key area organic farming is one of the priority areas, where an increase in funding compared to the expenditure of 2004 for the period 2006 to 2010 is planned.

Within the priority area organic farming the following subject areas and tasks are defined in the programme PFEIL 10:

Quality, Products and Marketing

- Uniform quality standards and production rules for organically produced food with an emphasis on health, product quality and quality of life
- Influence of legal norms (especially VO 2092/91) on the development of organic farms and biological agriculture in general
- Strategies for the conversion of enterprises, model farms and aspects of labour economy, further development of organic farming
- Development of schemes for the improved marketing of organic products

Plant Production

- Development of holistic production systems which consider the factors of site, plant nutrition, plant protection, cultivation techniques, ecology, resistance and tolerance
- Use of varieties and genotypes with due consideration of sound use of energy and resources
- Improvement of biological plant protection, alternative fertilisation systems
- Organic production in special sectors (i.e. vegetables, ornamentals)

Animal Production

- Profitability of animal husbandry in organic agriculture in harmony with animal welfare
- Composition of specific feeding rations
- Suitability of breeds for organic agriculture
- Development and examination of new stable systems that are suited for organic animal husbandry and allow to reach conformity with the standards, studies on the design of facilities to give the animals space to move (stable floor, cleanness, hygienic safety, labour economics, possibility for the animals to root and grub)
- Development of suitable therapeutic agents for organic animal husbandry

3.2.2 Areas of application of PFEIL 10

PFEIL 10 applies to contracted research according to the Research Organisation Act (Forschungsorganisationsgesetz – FOG) and to federal offices and research centres of the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW).

The following federal offices and research centers are under the direct responsibility of the Ministry. They are conferred state tasks of evaluation, control and of higher education and carry out research activities to a varying extent:

- Federal Agency for Water Management
- Federal Office for Wine-Growing
- Federal Institute for Agricultural Economics
- Federal Institute for Less Favoured and Mountainous Areas
- Federal Institute for Alpine Dairy Research

- Agricultural research and education centre Raumberg-Gumpenstein
- Federal College and Research Centre for Agriculture, Agricultural Engineering and Food Technology Francisco Josephinum at Wieselburg
- Federal College and Office for Viticulture and Pomology
- Federal College and Research Centre for Horticulture at Schönbrunn

3.2.3 Implementation

The programme PFEIL 10 defines the framework within which the federal research centres and contract research is implemented.

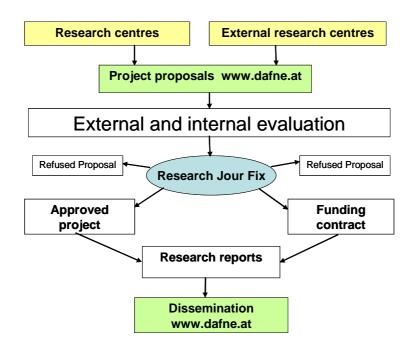


Figure 2. Organisation of research in organic food and farming in Austria. The Homepage www.dafne.at is a web-based platform for research project management

4 Financing

Research in organic food and farming is mainly funded by the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW).

The Budget of BMLFUW is divided into:

- Funds for contract research
- Expenditure for research of federal offices and research centres

The total budget for research in organic food and farming for the years 2000 to 2004 amounted to \notin 4.45 million (see Table 1). This figure includes the budget for external research and the budget for research activities of the federal research centres. More than 50% of the expenditure for organic food and farming was allocated to federal research centres (in total \notin 2.6 million for the years 2000 to 2004). The other part was allocated to contracts with external organisations (in total \notin 2.04 for the years 2000 to 2004).

All research expenditure of the federal research centres of BMLFUW is part of the institutions' total annual budget. The actual budget spent on research of these research centres can only be calculated at the end of each year in the annual financial statement.

				PFEIL 05			
Subject area	2000	2001	2002	2003	2004	То	tal
Farming systems	14 535	73 121	32 554	617578	276 151	1 013 938	22.76%
Animal husbandry	54309	17 846	12 566	16 134	0	100 855	2.26%
Crop husbandry	484 636	632156	474 459	588158	758 775	2 938 185	65.97%
Soil	10 493	28 241	0	14 535	0	53 268	1.20%
Environmental aspects	0	0	0	0	17 500	17 500	0.39%
Food systems	25 812	17 267	0	0	0	43 079	0.97%
Values, standards and certification	0	0	11 300	22 000	8 062	41362	0.93%
Knowledge management	25 084	83 014	5 300	459 88	86 521	245 907	5.52%
Total	614 868	851645	536179	1304392	1147 009	4 454 093	100.00%

Table 1: Organic food and farming research funding (2000 to 2004) in Austria according to subject areas and in total (in Euro)

5 Research facilities

5.1 Research facilities which are related to the Federal Research Institutes

Agricultural research and education centre Raumberg-Gumpenstein Institute for Organic Farming and Biodiversity			
Contact person:	Dr. Andreas Steinwidder, Altirdning 11, A - 8952 Irdning, Phone: +43-3682-22451-400 http:/www.raumberg-gumpenstein.at		
Infrastructures	Research farm and animal research facilities: "Moarhof"	The Institute of Organic Farming and Biodiversity is a leading competence centre for research and consultancy on organic farming in Austria. There are resources directly used for applied research, including grassland, dairy cows and other cattle. There are facilities for accommodating cattle and recording their individual intakes, yield etc. The experimental and education farm covers 45.3 hectares (42 hectares grassland, 3.3 hectares arable land) 30 dairy cows, 20 calves, 15 growing cattle, 40 piglets, 60 pigs, 12 sows. The focus lies on research in organic dairy farming, animal nutrition (feeding experiments), preventive animal health, grassland management and organic plant production under harsh climatic conditions. There are possibilities for group feeding and in the future also for individual feeding of 30 cows (CALAN-System). Currently in conversion.	
	Research farm and animal research facilities: Research station Wels-Thalheim	The herd of the research station comprises 30 sows with piglets. A laboratory for blood examination and microbiology and the gene bank for endangered productive livestock are situated at this research unit. There are possibilities for group and individual feeding of pigs. The focus lies on preventive animal health, animal husbandry (pigs), biodiversity of productive livestock and organic legislative activities. Converted since 2005.	

Research farm: Research station Lambach/Stadl- Paura	18.4 hectares (15 hectares arable land, 3.4 hectares grassland) are available for research work on organic plant production (cereals, legumes, pasture) including fertilization, quality measurements, investigations on alternative plants (i.e energy plants), developing ecologically acceptable methods to minimize the damage caused by diseases and investigations on nutrient cycles. Currently in conversion.
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Federal College and Office for Viticulture and Pomology			
Contact person:	Dr. Ferdinand Regner, Wienerstr. 74, A - 3400 Klosterneuburg, Phone: +43 2244 2286-32, http://bundesamt.weinobstklosterneuburg.at/		
Infrastructures	Experimental fields at research and education farm "Agneshof" and "Haschhof"	At the research and education farm "Agneshof" near Vienna 1 hectare of vineyards are used for different experiments concerning organic viticulture and 2.5 hectares fruit plantations (apple, pear, apricot) at the education farm "Haschhof" are used for experiments about pomology.	
	Laboratories	At the college in Klosterneuburg laboratories for chemical, biological and molecular analysis are located.	

5.2 Other research facilities

University of Natural Resources and Applied Life Sciences Vienna (BOKU), Department for Sustainable Agriculture , Division of Organic Farming

Contact person:	Prof. Dr. Bernhard Freyer, Gregor Mendel Straße 33, A - 1180 Wien, Phone: +43147654-3750, http://www.nas.boku.ac.at/oekoland.html		
Infrastructures	Long-term crop experiment MUBIL"	 This long term field experiment concerning the monitoring of the effects of conversion to organic farming on soil, water, flora and fauna is performed at the organic farm "Rutzendorf" of the BVW GmbH (Federal experimental station Ltd.) in the Marchfeld and started in 2003. The experimental area covers 142.9 hectares cropland (organic since 2003) and provides the basis for the monitoring of the different aspects of the conversion to organic farming. A scientific concept for the conversion from conventional farming to organic farming is developed and put into practice. The effects of the conversion to organic farming onto soil, water, flora and fauna are estimated by specific parameters. The effects of three different organic fertilizer strategies onto the soil properties and crop production are compared. The importance of 	

	permanent habitat structures (hedge rows, groves, etc.) is characterized, and new habitat structures shall be planned and laid out.
Research farm Gross-Enzersdorf	This 26 hectares cropland in Pannonian climate was converted in 1998. A movable greenhouse (240 m ²) is available for crop rotation studies. Cultivation of cereals, oil seeds, legumes.
Laboratories	A laboratory for analysis of total C and N with a DOC/TNb analyser, for analysis of mineral nitrogen, N mineralisation, soil microbial biomass, Arginine ammonification and mycorrhizal colonisation is available at the University of Natural Resources and Applied Life Sciences (BOKU) Vienna.

5.3 On-farm research

Various experiments of the different research institutions are carried out in cooperation with organic farmers and agricultural schools or colleges. These are mainly projects concerning crop husbandry and farming-system analyses. The contracts depend on type and duration of the experiments and are not permanent.

5.4 Funding of research facilities

There is no specific extra funding for the research facilities of external institutions. For the federal research centres the costs of research facilities are included in the individual budgets of the institutions and therefore financed within the research activities.

6 Initiation of research and stakeholder engagement

6.1 Stakeholder engagement

6.1.1 Research Initiative for Organic Farming

The "Research Initiative for Organic Farming" (Forschungsinitiative Biologischer Landbau – FBL) - see also chapter 1 - prepared the ground for defining the content and also the methodological approach of research in organic farming under special consideration of Austria.

The group of researchers of the FBL carried out a review in 1994/95 on "Integral Key Topics and Methodological Criteria for Research on Organic Farming". Based on strategic and methodological analyses, definition of priority areas and methodological criteria for research in organic farming in Austria conclusions and recommendations for financing organic farming research were defined.

6.1.2 Bio-Enquête and Action Plan – Developments in organic farming

In 2001 the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMULF) involved all stakeholders on the issue of future developments in organic farming and launched the so-called Bio-Enquête. These discussion fora involving different stakeholders take place every year.

The third Action Plan on Organic Farming 2005-2006 identifies initiatives and actions in the areas funding schemes, extension services, education, research, marketing and public awareness.

6.2 Initiation of research

6.2.1 Initiation of the research programme PFEIL 05

The programme areas of PFEIL 05 were defined by the policy departments of the BMLFUW and the federal research centres. PFEIL 05 covers all research activities of BMLFUW (research at the federal research centres and contract research), see also chapter 3. In the programme PFEIL 05 several priority research areas were defined, in which research activities should be intensified. The area of organic farming research has been identified as one of the priority areas.

6.2.2 Initiation of the research programme PFEIL 10

Based on the experiences of PFEIL 05 and based on an internal mid-term evaluation of the programme PFEIL 05 the first ideas for a concept for a new programme PFEIL 10 were drawn up and discussed with policy departments and department related research centres. The whole Austrian agricultural and environmental research community was also invited to contribute ideas to PFEIL 10. To develop the future research strategy of BMLFUW was also the main goal of a stakeholder conference that took place in June 2005. All these inputs contributed to the draft for PFEIL 10. To gather further inputs BMLFUW organised a stakeholder conference in November 2005 to discuss the final draft of PFEIL 10. Organic farming research will continue to be a priority area for research also in the new programme PFEIL 10.

6.2.3 Establishment of research groups and initiation of research projects

PFEIL 10 serves as a basis for decision-making of

- awarding contracts,
- calls for tenders,
- initiatives and
- co-operations of the R&D activities of the BMLFUW.

6.2.4 Contract research

In this area R&D projects are granted on the basis of demand, preparation and implementation of the political goals in the four strategic key areas.

Usually project proposals can be submitted any time. The instrument of predefined competitive calls for proposals has only been used in one exceptional case in the programme PFEIL 05.

In order to obtain added value PFEIL 10 is increasingly counting on calls for tenders and cooperations and networking with other programmes.

7 Selection criteria and evaluation procedures

7.1 Selection and establishment of projects

Contract research (external)

Applications for external projects can be submitted any time only in electronic format via www.dafne.at. Before proposals are evaluated they are checked if they are within the scope of the programme PFEIL 10. The evaluation of project proposals is carried out in a written procedure by involving external experts and experts from relevant policy departments.

Evaluation criteria

- Importance for agriculture, forestry, environment and water management
- Consistency and overlapping with other federal research programmes
- Project management and scientific excellence
- Importance of the problem and contribution to problem solution
- Urgency of the problem solution in question
- Adequacy of the project volume
- Use of scientific networks
- Realisation of the expected results in cooperation with the future users

For each of the criteria the experts are asked to rate the proposals with scores from 1 to 5 (1 = excellent, 5 = unsatisfactory) and to give explanations for their assessment.

Based on the results of the evaluation the funding decision on individual project proposals is taken in regular meetings of the "ForschungsJourFixe" (involving staff members of all the different policy departments of the Ministry).

Federal research (internal):

For internal project submissions (i.e. research projects submitted by the ministry-related research centres) the authorisation for the realisation of the project will be given by the competent departments of the Ministry after consultation with the above mentioned research jour fixe. Funds for research are made available from the budget at the disposal of the relevant departmental office. Cost projections and reporting constitute the basis for the internal research controlling in the departmental offices.

7.2 Monitoring progress in ongoing projects

One of the key activities of the Department of Research and Development of BMLFUW is to coordinate, evaluate and manage the research projects in accordance with the overall objectives of the whole research effort. This is done by means of the following management activities:

- Continuous dialogue with the project leaders in order to ensure that the individual projects are conducted according to plans, and, if necessary, ensure that plans are changed.
- Evaluation of periodic progress reports and final reports
- Motivating maximal publication and communication activity, partly through reports and partly through external meetings and information sessions
- Striving for the greatest possible synergy in the allocation of resources

- Encouraging the review and evaluation of research findings in both national and international fora
- Presentation of the most interesting research results to a broad range of stakeholders (PAP-Präsentation aktueller Projekte)

8 Utilisation of research

Knowledge dissemination is integrated in research projects funded by BMLFUW. For this purpose all funded projects contain a special paragraph on dissemination activities planned and for which target groups.

BMLFUW provides financial support for advisory services in Austria. The advisory service in Austria is free of charge to all farmers. The Chamber of Agriculture has established a special advisory service for organic farmers.

Almost 90% of the organised organic farmers are members of "Bio Austria¹⁴". This farming association offers most of the private consultation service.

BMLFUW supports within the frame of its national funding scheme for innovation (Innovationsförderung)) also some applied research and technological development in the areas crop production, animal production, processing and marketing for organic food and farming.

9 Scientific education & research schools

Higher education at university level is undertaken at the University of Natural Resources and Applied Life Sciences (BOKU) in Vienna. Since 2005 the Master study "Organic Farming" exists. Lectures, seminars and excursions concerning organic farming issues take place at the following BOKU institutes:

- the Institute of Agricultural Environmental and Energy Engineering
- the Department of Livestock Science
- the Institute for Agricultural Economics
- the Institute for Organic Farming (IföL)

Some lectures are given at the University for Veterinary Medicine, at the Research Institute for Biological Agriculture and the Institute for Alpine Agriculture at the University of Innsbruck.

¹⁴ Bio Austria, Wien, http://www.bio-austria.at/

Country Report Austria - 22 -