Bern University
of Applied Sciences

Portrait of BFH-HAFL

BFH-HAFL: always close to the action

The School of Agricultural, Forest and Food Sciences HAFL in Zollikofen is a department of Bern University of Applied Sciences BFH. The School, situated just outside Bern, is oriented towards the current needs of the market and society. It continuously adapts its teaching, research, services and further education to meet new economic and social developments.

BFH-HAFL has over 900 students, lecturers and staff. A campus with outstanding infrastructure has developed over the years as student numbers have increased. There are, for example, well-equipped laboratories, pilot plants, a greenhouse and a hall of residence. Students can not only live on campus, but also use the varied sports and leisure facilities, such as a swimming pool, sauna and climbing wall.

Taking sustainability seriously

Sustainability is more than a buzzword for BFH-HAFL. It is the very core of its degree programmes, research and services projects. On the campus, too, BFH-HAFL pays close attention to treating nature and the environment with care. The newest extension meets the 'Minergie-P-ECO Standard' requirements. Furthermore, BFH-HAFL draws a substantial amount of green electricity and its own solar collectors heat the water in the hall of residence.

BFH-HAFL's vision

BFH-HAFL brings together people, nature and technology for sustainable development. As a leading think tank, it produces and communicates knowledge for today's and tomorrow's world – and it does so in a sound, inventive and flexible way.

Degree programmes: unique x 5

BFH-HAFL offers five degree programmes which are unique in their form: BSc programmes in Agriculture, in Forest Science, and in Food Science & Management (Food Technology), and two MSc programmes (Life Sciences) in Agricultural and Forest Sciences, and in Food, Nutrition and Health.

The degree programmes offer fascinating, forward-looking topics with a strong practical approach. Application-oriented education is one of BFH-HAFL's most important hallmarks. In addition to acquiring the basic principles of their degree disciplines, students deal with current issues in the agricultural, forest and food industries.

Honing profiles

Thanks to the attractive range of majors and optional modules, students can design a degree programme to suit their interests and needs. They can also acquire additional skills for their professional futures in the minors Management and Leadership, Teaching and Advising, Climate Change and Sustainable Land Use, and New Technologies.

Widening the focus

BFH-HAFL students receive a holistic education, and are well prepared to take responsibility for nature, people and resources. The manageable size of the School fosters interdisciplinary learning and strengthens the synergies between teaching and research. Students develop a transdisciplinary perspective and learn how to look 'beyond borders'.

Top quality required

BFH-HAFL demands the highest quality of its degree programmes. It consistently tailors them to the current needs of the market and society and imparts only the most up-to-date knowledge. BFH-HAFL lecturers are experts in their fields, with proven methodological and scientific skills and extensive practical experience. They guarantee high-level education.

Majors in the four degree programmes

BSc in Agriculture

- Agricultural Economics
- International Agriculture
- Animal Science
- Equine Science
- Plant Science and Agroecology

BSc in Forestry (Forest Science)

- Forests & Society
- Forest & the Timber Industry
- Mountain Forests & Natural Hazards

BSc in Food Technology (Food Science & Management)

- Food Technology
- Food Business
- Consumer Sciences & Marketing

MSc in Life Sciences – Agricultural and Forest Sciences

- Value Chains and Rural Development
- Sustainable Production Systems
- International Management of Forest Industries
- Regional Management in Mountain Areas

MSc in Life Sciences – Food, Nutrition and Health

The brightest on the labour market

BFH-HAFL graduates bring with them the skills needed to take managerial positions in their industries. During their studies they acquire the most up-to-date know-how, gain experience with successful working methods and improve their social competence.

Having completed this holistic education, they are much sought after employees. The professional knowledge students bring with them together with the application-oriented approach of the degree programmes result in an ideal mixture of theory and practice. This is why graduates are often an important link between operational and strategic levels in their subsequent activities.

Prepared for the real world

Bachelor and Master graduates from BFH-HAFL are familiar with the challenges of their particular industry and can make innovative contributions to the operations. Regula Haldimann, product manager at Claro Fair Trade, confirms this: 'Thanks to the highly practical relevance of the modules and the lessons given by professionally experienced lecturers from the food industry, I was able to enter the professional world immediately after my studies.'

In demand on the market

In addition to their discipline-specific skills, BFH-HAFL graduates also bring with them the ability to work in a team, to analyse problems systematically and to master tasks on their own initiative. As a result, the doors to the professional world are laid wide open to them. Alumni surveys show that most BFH-HAFL graduates find an attractive position shortly after graduating.

Partners: in the lead by joining forces

One of BFH-HAFL's greatest strengths is its wide-ranging and diverse network. In Switzerland and all over the world, it has more than one hundred partnerships across its range of activities.

BFH-HAFL works with private companies, other educational institutions, public administrations and non-profit organisations. This cooperation enables BFH-HAFL to apply its know-how around the globe, be that in education, service projects, further education or research. Exploiting synergies enables BFH-HAFL to achieve its goals even better.

For example:

Studying across borders

BFH-HAFL runs two of the majors in its MSc in Life Sciences – Agricultural and Forest Sciences degree programme in cooperation with Weihenstephan-Triesdorf University of Applied Sciences (HSWT) in Munich. Students spend one semester of their studies in Munich, and in so doing they can earn, in addition to the BFH's MSc in Life Sciences, HSWT's MSc, in either International Management of Forest Industries or Regional Management in Mountain Areas.

Researching with European partners

Fungi, bacteria and wireworms: the diseases and pests affecting potatoes are numerous and result in significant potato crop losses every year. Together with partners in France and Germany, BFH-HAFL is researching strategies to combat these risks. The BFH-HAFL researchers have discovered bacteria, previously unknown in Switzerland, which cause blackleg. They have developed a method to identify affected seed stock at an early stage. They are also testing sustainable and environmentally safe measures against wireworms and optimising them for practical application.


Out
standing

Research: tracking innovation

Research at BFH-HAFL is oriented towards current challenges in the agricultural, forestry and food industries.

Highly qualified researchers develop scientifically-based and practice-oriented solutions – customised to the needs of particular users in the private sector, government and non-profit organisations.

For example:

Simulating forest growth

BFH-HAFL researchers have created a tool to simulate forest growth (SiWaWa), which enables users to test the effects of their silvicultural measures and delivers detailed information about the condition of the stock being investigated.

Images influence eating behaviour

Whether consumers choose sweetened lemonade or mineral water depends on many factors, including environmental stimuli. BFH-HAFL scientists are investigating whether appropriate artwork on vending machines or wall decoration at home can foster healthy eating behaviour.

Biofuels from corn stover and wood

BFH-HAFL is researching a biochemical-catalytic process which will, in the future, allow agricultural by-products to be converted into fuels and chemicals. This kind of biofuel is similar to fossil diesel and so can be used in existing engine types.

Producing pork sustainably

Together with various research partners, the BFH-HAFL project team is analysing pork production in Switzerland. The goal is to mitigate the negative environmental impact along the whole value chain and reduce the use of antibiotics.

BFH Centres promote interdisciplinary research

BFH-HAFL is heavily involved in two BFH research centres, namely the BFH Centre for Food Systems and the BFH Centre for Wood – Resource and Material. In both research areas, BFH is the only Swiss university covering the whole value chain, from primary production to end-users.

BFH-HAFL research areas

Food processing and consumption

- Food processing
- Food business and consumption

Resource-efficient agricultural production

- Plant production systems
- Livestock systems and horse care
- International agriculture and rural development
- Sustainability and ecosystems
- Agricultural economics

Multifunctional forest management

- Forest production
- Mountain forests, natural hazards and GIS
- Forests and society
- International forest science

Knowledge systems and knowledge transfer

Services: getting to the heart of the matter

BFH-HAFL offers a wide range of services, enabling clients from industry and public administration to apply the know-how and experience from BFH-HAFL teaching and research to their specific needs.

Nationally and internationally, BFH-HAFL develops innovative and customised solutions for problems specific to the agricultural, forest and food industries. Issues concerning markets and value chains or the sustainability of production systems are addressed, as are matters concerning changes in rural society or challenges posed by climate change. Its specialist experience in education makes BFH-HAFL a crucial and competent partner when it comes to advising on didactics and methodology. Its staff also carry out feasibility, planning and evaluation projects on request.

For example:

Supporting sustainable agriculture

BFH-HAFL staff have developed an analytical model with which the sustainability of agricultural operations can be comprehensively measured. In addition to assessing sustainability, the project team identify measures by which it can be increased. So far over 2,500 farms in 56 countries have been investigated as part of this project.

Testing taste

Sensory analysis, food testing in which all the senses are used, is an important instrument in the food industry. All properties of a product must be appreciated by consumers if that product is to sell well. BFH-HAFL offers various food testing services in its sensory laboratory: its staff train test supervisors, support partners in designing the test, and evaluate and interpret the results. Futhermore, BFH-HAFL can rely on a wide network of experts and laymen to quickly and efficiently recruit participants for specific sensory tests.

Broaching current issues

BFH-HAFL has been organising an annual forest economics seminar on behalf of the Federal Office for the Environment (FOEN) since 2007. The two-day event has become an important platform for Swiss and international forest economists and practitioners to discuss current issues in forest management and the timber industry – an ideal exchange between science and practice.

Further education: keeping a finger on the pulse

The agricultural, forest and food industries are going through rapid change. To ensure that professionals can keep pace with developments in their sector, targeted further education courses have become indispensable. BFH-HAFL offers specialists a wide range of further education courses. The focus is always on combining the latest scientific findings with practical knowledge.

By taking BFH-HAFL further education and training courses, professionals create new career opportunities for themselves. Participants on these programmes acquire the latest specialist knowledge relevant to their work environment thanks to BFH-HAFL's exceptionally practical research and services projects and its cooperation with partner institutions and experts.

Learning with the industry
BFH-HAFL conferences and seminars are ideal platforms for researcher-practitioners to present the latest findings from the field of applied sciences. The intensive exchange between theory and practice also supports the dialogue on political and technical challenges, and concrete courses of action. Industry representatives also use these events to maintain and extend their networks.

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