



CZECHIA



Agriculture, Food, Fisheries and Forestry Research Facilities

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State or Federal Research Facilities, Institutes or Organisations

Ministry of Agriculture of Czechia

<http://eagri.cz/public/web/en/mze/>

The Ministry of Agriculture is the central body of the State administration of agriculture, water management, the food industry and forest management, hunting and fishing outside the National Parks.

Areas of Competence/Research/Faculty/Department

1. Plant and Livestock Production
2. Food Industry
3. Organic Production and Organic Food
4. Water Management
5. Forestry
6. Soil

Czech Academy of Agricultural Sciences (CAAS)

<https://www.cazv.cz/en/about-caas/>

The agricultural research covers natural, technical and socio-economic sciences in the field of agricultural and forestry primary production, processing and use of agricultural and forest products and raw materials, food for the population and food quality, protection of animal and plant health, protection and use of basic natural resources, land and water, as well landscaping, development of rural space as a whole, educational activities and public enlightenment. In this sense, its activities go beyond the scope of several ministries and individual scientific disciplines.

Areas of Competence/Research/Faculty/Department

1. Department of Plant Production
2. Department of Plant Protection
3. Department of Animal Production
4. Department of Veterinary Medicine
5. Department of Food Technology and Technique
6. Department of Human Nutrition and Food Quality
7. Department of Forestry
8. Department of Soil Science
9. Department of Water Management
10. Department of Agricultural Engineering, Energy and Construction



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11. Department of Economy, Management, Sociology and Information Technology

Crop Research Institute (CRI)

https://www.vurv.cz/?p=index&site=institute_en

The Institute conducts basic and applied research, ranging from traditional studies of genetics, plant breeding, plant nutrition, agroecology, plant health, and the safe storage of crops and agricultural produce, to the fast-developing fields of molecular biology, biotechnology, food and feed safety, and the use of biowastes and biomass for energy production. Moving to the forefront of CRI research are the issues of sustainable agriculture production and organic farming with the aim to maintain high soil fertility, support natural processes and biodiversity, reduce water pollution and overall minimise the negative impacts of agricultural production on the environment and human health.

Food Research Institute Prague

<https://www.vupp.cz/en/>

The Research Institute of Food Industry (since 2007, the Food Research Institute Prague) was founded in 1958. The Institute is a complex workplace that fulfils the tasks of basic, cross-sectional and applied research in chemistry, biochemistry and food technology, nutrition and food engineering and technology. The Food Research Institute Prague (FRIP) focuses mainly on improving the level of our population's diet and on restoring the food supply in our market. It focuses on improving the processing of food products from the start of production to their final preparation, the development of special foods for groups of people with exceptional health claims, the search and development of related control and evaluation methods, analytics, including the performance of specific analyses, the manufacture of special measuring equipment and technology.

Forestry and Game Management Research Institute

<https://www.vulhm.cz/en/>

Research in silviculture focuses on forest nursery and the quality of forest tree species' planting stock. It also deals with natural and artificial regeneration, including afforestation of abandoned agricultural land, thinning, and measurements that support forest function. The main task of silvicultural research is biodiversity improvement, enhancement of integrity and forest stand resistance with respect to possible global and landscape changes. Long-term research in forest ecology is focused on assessment of the vitality of forest stands, their response to abiotic and anthropogenic factors, forest hydrology, bioclimatology, pedology, as well as on the assessment of the nutritional and water balance of forest stands and research of forest ecosystem processes connected with climate change.

Institute of Agricultural Economics and Information (IAEI)

<http://www.iaei.cz/>

The main activity of IAEI is the implementation of basic research, applied research and development and the dissemination of results through teaching, publishing and transfer of technologies in the fields of agricultural economics and politics, including the development of the multifunctional nature of agriculture and rural areas. Furthermore, activities include dissemination of research and development results for the needs of the agrarian sector and rural areas.

Research Institute of Agricultural Engineering (RIAE)

<https://vuzv.cz/en/>

The RIAE is a public research institution focused on applied research and development in the spheres of agricultural engineering, technology, energy industry and building, as well as on the bordering scientific disciplines of animated and lifeless nature related to these branches. These specifically



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entail agricultural, technical, economic and environmental sciences. Research and development are also aimed at the solution of problems in agriculture, rural areas and municipal spheres.

Research Institute of Animal Science (IAS)

<https://vuzv.cz/en/>

The IAS carries out basic and applied research concentrating on innovation and practical use of knowledge in animal husbandry. Eight research departments conduct research in the fields of animal genetics and breeding, bio-technology and reproduction, nutrition, quality of products, animal ethology and welfare, breeding technology, herd management and production economy.

Research Institute for Soil and Water Conservation

<https://www.vumop.cz/en>

The main activities of the Institute are focused on the research of pedology, hydrology, landscape engineering and the application of remote sensing and geographical and information systems.

Veterinary Research Institute (VRI)

<https://www.vri.cz/en/research>

The research objective of the VRI comprises basic as well as applied research in the field of agriculture. From the aspect of public health, of paramount importance is the research focused on diseases transmissible to humans such as food- and water-borne diseases of zoonotic origin. Traditional research areas are also aetiology, pathogenesis, diagnosis and epidemiology, and prevention of infectious diseases that cause consequential economic losses in cattle and pig herds, as well as in poultry and fish. One of the important activities is focused on monitoring the trends in resistance to antimicrobial agents among bacteria isolated from animals, food and humans, and on identifying the transmission routes of resistance from animals to humans directly or via the food chain.

Universities/Higher Education Institutes

Czech University of Life Sciences Prague

<https://www.czu.cz/en/>

The Czech University of Life Sciences in Prague is a public university. In 2016, the CULS celebrated its 110th anniversary. CULS is divided into 7 faculties, of which 4 faculties profile themselves on the topic Agriculture, Food, Fisheries and Forestry.

Faculty of Agrobiolgy, Food and Natural Resources

<https://www.af.czu.cz/en/r-9371-departments/r-9465-departments>

The Faculty of Agrobiolgy, Food and Natural Resources is a modern and respected educational and scientific institution, which accommodates more than 4000 students and 300 employees, with a strong position at home and abroad.

Graduates of the faculty are employed in agriculture, horticulture, animal breeding, crop protection, quality of agricultural products, agribusiness, natural resources management, waste management, landscape architecture, rural development, and other areas of importance for the national economy. Our graduates are finding jobs not only as managers, but can work in state administration, research and higher education institutions or as private entrepreneurs.

Departments

1. Department of Agroecology and Crop Production



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2. Department of Agroenvironmental Chemistry and Plant Nutrition
3. Department of Botany and Plant Physiology
4. Department of Genetics and Breeding
5. Department of Food Science
6. Department of Plant Protection
7. Department of Soil Science and Soil Protection
8. Department of Ethology and Companion Animal Science
9. Department of Veterinary Sciences
10. Department of Water Resources
11. Department of Zoology and Fisheries
12. Department of Landscape Architecture
13. Department of Horticulture
14. Department of Animal Science
15. Department of Chemistry
16. Department of Microbiology, Nutrition and Dietetics

Faculty of Forestry and Wood Sciences

<https://www.fld.czu.cz/en/r-9413-departments>

The Faculty of Forestry and Wood Sciences provide a comprehensive forestry education system to encourage and support rational forest management and sustainable utilization of its huge natural resources. Faculty has become a respected international research centre. Much of the research undertaken by the Faculty is published in academic journals, presented at conferences, congresses and in educational programmes in the public media as well. Students learn both in-depth theory and practice to be well prepared for future challenges in forestry, wood processing industry and research. Students are achieving almost 100% employment.

Departments

1. Department of Genetics and Physiology of Forest Trees
2. Department of Forestry and Wood Economics
3. Department of Forest Management
4. Department of Forest Protection and Entomology
5. Department of Forestry Technologies and Construction
6. Department of Silviculture
7. Department of Wood Processing and Biomaterials
8. Department of Game Management and Wildlife Biology
9. Department of Forest Ecology

Faculty of Environmental Sciences

<https://www.fzp.czu.cz/en/r-9407-departments>

The Faculty of Environmental Sciences' experienced team produces specialists to solve environmental problems. These experts will thus take the disciplines further and become the best leaders. They offer study programmes that are relevant to our prospective applicants in terms of nature protection and landscape care. These study programmes adopt ecological and technical approaches, which directly guide the students to their future employment in the public and commercial sectors.

Departments

1. Department of Applied Geoinformatics and Spatial Planning
2. Department of Land Use and Improvement
3. Department of Ecology
4. Department of Applied Ecology



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5. Department of Environmental Geosciences
6. Department of Water Resources and Environmental Modelling

Faculty of Tropical AgriSciences

<https://www.ftz.czu.cz/en/r-9419-departments>

The Faculty of Tropical AgriSciences (FTA), the Czech University of Life Sciences Prague (CZU) is a unique institution with over fifty years of tradition in tropical agriculture, rural development and the sustainable management of natural resources in the tropics. The mission of the faculty is the higher education of foreign and Czech students in the fields of tropical agriculture, rural development and the sustainable management of natural and energy resources in the tropics. An integral part of our mission is Research and Development in the field of tropical life sciences and the application of R&D results to the specific conditions of tropical and/or developing countries.

Departments

1. Department of Crop Sciences and Agroforestry
2. Department of Sustainable Technologies
3. Department of Animal Science and Food Processing
4. Department of Economics and Development

Mendel University in Brno

<http://mendelu.cz/en/>

Mendel University in Brno (abbreviated to MENDELU) is a public institution with a long tradition of excellence in teaching and research that has driven new ways of thinking since 1919 and proudly bears the name of J. G. Mendel, the founder of modern genetics. There are over 8,300 students at the university, including 5,500 undergraduates and 2,800 postgraduates. Nearly 1,600 international students make up almost 20 % of the total student body. The University comprises one University Institute and five faculties: AgriSciences, Business and Economics, Forestry and Wood Technology, Regional Development and International Studies and Horticulture.

Faculty of AgriSciences

<https://af.mendelu.cz/en/25652-faculty-faculty>

Faculty of AgriSciences (formerly Faculty of Agronomy) celebrates 100th anniversary of its foundation in 2019. Currently, the Faculty of AgriSciences offers study programs at all levels of study (16 Bachelors, 18 Masters and 13 Doctoral Programmes) taught in Czech. Besides the traditional agricultural fields, these programmes cover Biotechnology, Foods, Agribusiness, Ecology and Machinery. The university has built several new facilities to create even better teaching environment. According to their specialisation, students have hands-on experience in the food technology pavilion with its start-to-finish meat or dairy production and complete bakery, experimental breweries and other. Zoology department offers modern teaching premises including ossarium, autopsy room, or for instance large water tanks for warm and cold water fish. Other students use large glasshouses with phytotrons, well-equipped workshops for mobile technology or biogas station to name just a few. As it is important to see the reality beyond theoretical information, students take field trips to visit farms, among others our own farm in Žabčice.

Department

1. Department of Plant Biology
2. Department of Applied and Landscape Ecology
3. Department of Agrosystems and Bioclimatology
4. Department of Crop Science, Breeding and Plant
5. Department of Agrochemistry, Soil Science, Microbiology and Plant Nutrition



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6. Department of Animal Nutrition and Forage Production
7. Department of Animal Morphology, Physiology and Genetics
8. Department of Zoology, Fisheries, Hydrobiology and Beekeeping
9. Department of Molecular Biology and Radiobiology
10. Department of Agricultural, Food and Environmental Engineering
11. Department of Technology and Automobile Transport
12. Department of Food Technology
13. Department of Animal Breeding
14. Department of Chemistry and Biochemistry
15. CEITEC MENDELU

Faculty of Forestry and Wood Technology

<https://www.ldf.mendelu.cz/en/>

The Faculty of Forestry and Wood Technology at Mendel University in Brno (FFWT MENDELU) is one of the major university teaching institutions in the Czech Republic, concentrating on research and academic activities in the areas of arboristics, furniture design and furniture technology, forestry, landscaping, timber structures and wood building construction, wood technology and timber management and furniture design on bachelor, master and doctoral levels, and in research and expertise in the respective fields. The Faculty closely collaborates with the Training Forest Enterprise Masaryk Forest Křtiny (Školní lesní podnik Masarykův les Křtiny), which manages 10,265 ha of forestland, serving with its experimental forest stands, greenhouses, forest nurseries, game preserve, a saw mill, mechanised log depot, and other establishments for educational and research purposes of the Faculty of Forestry and Wood Technology.

Departments

1. Department of Mathematics
2. Department of Geology and Pedology
3. Department of Forest Botany, Dendrology and Geobiocoenology
4. Department of Forest and Wood Products Economics and Policy
5. Department of Landscape Management
6. Department of Engineering
7. Department of Forest Protection and Wildlife Management
8. Department of Silviculture
9. Department of Forest Management and Applied Geoinformatics
10. Department of Furniture, Design and Habitat
11. Department of Wood Science and Technology
12. Department of Forest Ecology

Faculty of Horticulture

<https://zf.mendelu.cz/en/>

The MENDELU Faculty of Horticulture headquartered in Lednice launched a separate education of university experts on September 1, 1985. She raised several generations of horticultural engineers and landscape architects across the entire field of horticulture.

The faculty provides structured bachelor, master and doctoral studies in daily and combined in the form of a credit system ECTS. Studying here applies modern pedagogical and didactic elements, evolving to satisfy current needs and demands of practice. Benefiting from a developed cooperation with vocational schools, institutes and leading experts both domestic and foreign.

For teaching are available functionally furnished objects (greenhouses subtropical and tropical plants, laboratories, cellar management, assortment of ornamental and crop plants, orchards, vineyards), not only in the faculty area, but it is also used the scientific research centre of the faculty Mendeleum or



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unique chateau park and landscape of Lednice-Valtice area, which is considered the largest complex of composed landscape in Europe and in 1996 was registered into the List of UNESCO World Heritage Sites.

Departments

1. Department of Fruit Science
2. Department of Vegetable Growing and Floriculture
3. Department of Post-Harvest Technology of Horticultural Products
4. Department of Landscape Architecture
5. Department of Landscape Planning
6. Department of Horticultural Machinery
7. Department of Breeding and Propagation of Horticultural
8. Mendeleum - The Mendeleum science and research Centre
9. Department of Viticulture and Enology
10. Department of Planting Design

Faculty of Regional Development and International Studies

<https://frrms.mendelu.cz/en/>

The Faculty of Regional Development and International Studies (FRRMS) was founded in 2008 and is the youngest faculty of Mendel University in Brno. The idea behind the foundation of the faculty was to offer students complex education - not only theoretical lessons, but also practical skills which are so much requested these days. We intended to offer a completely new type of study preparing specialists able to solve problems in agricultural and social development of regions.

Students can choose whether they want to study in Czech or English language. At the Faculty Czech and foreign students and teachers often meet with each other. A huge advantage is the possibility to participate in an internship abroad where students gain practical skills.

Nowadays FRRMS MENDELU offer Bachelor and Master programmes, altogether in eight study programmes. Four of them are taught in Czech and four in English language. The possibility to study in English increases the attractiveness of the faculty. FRRMS is the only MENDELU Faculty offering a complete study in English.

Departments

1. Department of Regional and Business Economics
2. Department of Social Studies
3. Department of Territorial Studies
4. Department of Environmental Sciences and Natural Resources
5. Department of Regional Development
6. Department of Language and Cultural Studies

Palacký University Olomouc

<https://www.upol.cz/en/>

Palacký University Olomouc is a university with long-standing tradition. Founded in the 16th century, it is the oldest university in Moravia and the second-oldest university in the Czech Republic. Today it is a modern higher education facility with a wide range of study programmes and copious scientific and research activities. In 2019, more than 22 000 students studied in accredited study programmes, exchange programmes and lifelong learning programmes at eight faculties.

The mission of the University is to promote the involvement of students in all areas of research, to cultivate their critical and creative thinking, and to provide high-quality university education in a broad



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range of natural, medical, and social sciences and humanities on the Bachelor's, Master's, and Doctoral levels. The active partnership with both the regional community and the global community contributes to the development of the intellectual wealth of the society and its sustainable scientific, technological, cultural, and social development

Faculty of Science

BIOLOGY AND ECOLOGY

Departments

1. [Department of Botany](#)
2. [Department of Cell Biology and Genetics](#)
3. [Department of Ecology and Environmental Sciences](#)
4. [Department of Zoology and Laboratory of Ornithology](#)
5. [Laboratory of Growth Regulators](#)

EARTH SCIENCES

Department

1. [Department of Development and Environmental Studies](#)

RESEARCH CENTRES

1. [Centre of the Region Haná for Biotechnological and Agricultural Research](#) (CRH) The attention is focused on protein biotechnology, bio-energetics, chemical biology, plant biotechnology, plant cell biology, genetics and genomics of plants, plant genetic resources and metabolomics. Among other things, the researchers read genetic information of plants and contribute to breeding of new varieties of crops important for nutrition of the humankind. They also focus on studying metabolism of plant hormone cytokinin and various biotechnological applications.
2. [Regional Centre of Advanced Technologies and Materials](#) (RCPTM). The main focus of research at the scientific centre lies in nanoparticles and nanotechnology. Experts are engaged mainly in the development of nanomaterials and chemicals that may find applications in medicine, biotechnology, food processing and other industries and environmental protection

University of South Bohemia in České Budějovice

<https://www.jcu.cz/about-the-university>

The University of South Bohemia was founded in 1991, following a long tradition of educating teachers and university experts in various fields of agricultural production, theological studies and the tradition of fish farming and fisheries. More than 9'000 students studied at 8 different faculties and in more than 220 programmes including bachelors & masters degrees as well as doctoral programmes. The university is divided into faculties: Faculty of Economics, Faculty of Fisheries and Protection of Waters, Faculty of Arts, Faculty of Education, Faculty of Science, Faculty of Theology, Faculty of Health and Social Sciences, Faculty of Agriculture.

Faculty of Fisheries and Protection of Waters

<http://www.frov.jcu.cz/en/about-faculty>

Faculty of Agriculture

http://www.zf.jcu.cz/root_frontpage-en/view?set_language=en

Departments

1. Department of Agroecosystems
2. Department of Biological Disciplines



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3. Department of Landscape Management
4. Department of Plant Production
5. Department of Agricultural Products Quality
6. Department of Agricultural Machinery and Services
7. Department of Animal Husbandry Sciences

University of Technology and Chemistry Prague

<https://www.vscht.cz/?jazyk=en>

The University of Chemistry and Technology, Prague is a natural centre of first-rate study and research in the area of chemistry in Czechia and is one of the country's largest educational and research institutions focused on technical chemistry, chemical and biochemical technologies, material and chemical engineering, food chemistry, and environmental studies.

Faculty of Environmental Technology

<https://ftop.vscht.cz/>

Departments

1. [Department of Water Technology and Environmental Engineering](#)
2. [Department of Power Engineering](#)
3. [Department of Environmental Chemistry](#)

Faculty of Food and Biochemical Technology

<https://fpbt.vscht.cz/?jazyk=en>

Departments

1. [Department of Biotechnology](#)
2. Department of Biochemistry and Microbiology
3. Department of Saccharides and Cereals
4. [Department of Dairy, Fat and Cosmetic Science](#)
5. [Department of Food Analysis and Nutrition](#)
6. [Department of Food Preservation](#)
7. [Department of Chemistry of Natural Compounds](#)

University of Veterinary and Pharmaceutical Sciences Brno

<https://www2.vfu.cz/information-about-university/index.html>

The University of Veterinary and Pharmaceutical Sciences Brno was founded in 1918. The university consists –of Faculty of Veterinary Medicine and Faculty of Veterinary Hygiene and Ecology. The VFU Brno is the only university in the Czech Republic specializing in veterinary medicine, veterinary hygiene and ecology, and just one of two teaching pharmaceutical science.

Faculty of Veterinary Hygiene and Ecology

<https://www2.vfu.cz/potential-students/faculty-of-veterinary-hygiene-and-ecology/index.html>

Areas of Competence/Research/Faculty/Department

1. Food Safety and Quality
2. Animal Protection and Welfare

Faculty of Veterinary Medicine

<https://www2.vfu.cz/potential-students/faculty-of-veterinary-medicine/index.html>



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Charles University

Faculty of Science

<https://www.natur.cuni.cz/eng>

Departments and examples of areas of research

1. Department of Botany
 - Phycology
 - Chrystophytes
 - Ecology of meadows
 - Evolution and diversity of land plants
 - Plant ecology
 - Lichenology
 - Mycology
2. Department of Cell Biology
 - Microbial genetics
 - Gene expression regulation
 - Structural biology
3. Department of Ecology
 - Algae and cyanobacteria from extreme environments
4. Department of Experimental Plant Biology
 - Cell growth and differentiation
 - Plant cell biology and biotechnology
 - Ecophysiological anatomy
 - Physiological anatomy
 - Plant morphogenesis regulatory factors
5. Department of Genetics and Microbiology
 - Biology of yeast colonies
 - Arachnid cytogenetics
 - Bacterial physiology and genetics
 - Plant genetics
 - Virology
 - RNA biochemistry
6. Department of Parasitology
 - Avian parasites
 - Vector biology
 - Molecular biology and biochemistry of parasitic protists
 - Protein transport and organelle biogenesis
7. Department of Zoology
 - Evolution of insects
 - Genetics of behaviour
 - Evolutionary and ecological immunology

Other Organisations/Institutes

Czech Academy of Science (CAS)

<https://www.avcr.cz/en/>



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The primary mission of the CAS and its institutes is to conduct research in a broad spectrum of the natural, technical and social sciences and the humanities. This research, whether highly specialised or interdisciplinary in nature, aims to advance developments in scientific knowledge at the international level, while also taking into account the specific needs of both the Czech society and the national culture. Researchers of the Academy institutes also participate in education, particularly through doctoral study programmes for young researchers and by teaching at universities as well. The Academy also fosters collaboration with applied research and industry. The integration of the Czech science into the international context is being promoted by means of numerous joint international research projects and through the exchange of scientists with counterpart institutions abroad.

[CzechGlobe – Global Change Research Institute of the Czech Academy of Sciences \(CGRI\)](#)

GCRI is a public research institution, European centre of excellence investigating the ongoing global change and its impact on the atmosphere, biosphere and human society through the use of the latest techniques and instrumentation.

[Institute of Experimental Botany of the CAS](#)

Principal research fields at the Institute of Experimental Botany of the Czech Academy of Sciences are plant genetics, physiology and biotechnology. In the field of genetics, the institute works on structural and functional genomics, induced mutagenesis and DNA repair or pollen molecular genetics. Physiological topics include cell biology, hormonal and ecological control of plant growth and development, mechanisms of action of growth regulators, physiology of plant viruses and plant pathophysiology.

[Institute of Molecular Genetics of the CAS](#)

The IMG is a public research institution, an important part of the Czech Academy of Sciences. It focuses on research in the fields of molecular and cell biology, immunology, genomics and bioinformatics.

[Institute of Animal Physiology and Genetics of the CAS](#)

[The Institute of Botany of the CAS](#)

The Institute carries out fundamental research on species, populations and communities of plants. The following diverse fields of study are represented: taxonomy, biosystematics and phytogeography of higher and lower plants (e.g., algology, ecotoxicology, mycology and lichenology), plant ecology (population biology, synecology, comparative and production ecology, ecophysiology), mycorrhizal symbioses, vegetation studies including vegetation mapping and paleoecology. Currently, it is especially concerned with biodiversity and evolutionary trends among plants, ecology of invasive species, responses of plants and vegetation to environmental changes and the mechanisms that enable species to coexist in ecosystems.

[The Institute of Vertebrate Biology](#)

The Institute performs basic research of vertebrates with the following research topics:

1. Biological diversity at molecular, organismal and community level. Evolutionary relationship among populations and species, natural hybrid zones and speciation.
2. Population dynamics, changes and trends of the community structure in natural and disturbed habitats, including modelling and prognoses.
3. Physiological, behavioural, ecological and evolutionary mechanisms of the life histories of vertebrates with respect to their ontogenetic development. Reproductive strategies, survival rates, feeding behaviour, and inter- and intraspecific interactions.



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4. Ectoparasites of higher vertebrates and their role as hosts, vectors and reservoirs of human and animal diseases in natural foci.

The aim of the investigations is to achieve original data about free-living vertebrates concerning their genetic, population and species diversity, phylogeny, population dynamics, interactions with environment, and association with human and animal microbial pathogens.

[Agricultural Research, Ltd.](#)

Agricultural Research, Ltd. is a research and development subsidiary of the Research Institute for Fodder Crops, Ltd. Troubsko. The company's main activities include applied research in agricultural and environmental areas, a breeding programme, advisory and sales activities.

[Agriresearch Rapotin, Ltd.](#)

Agriresearch Rapotin Ltd. is a research and development subsidiary of the Research Institute for Cattle Breeding. The Research Departments of the company are engaged in basic and experimental research and development. However, with the increasing importance of applied research, the emphasis is on innovative approaches in the following areas:

1. cattle breeding (using molecular genetic techniques in breeding, more efficient reproduction techniques);
2. improving the quality and use of livestock products (meat, milk);
3. analytical assessment of the quality of animal products (chemistry, microbiology, nutritional value, etc.);
4. use of feed from permanent grasslands for feed and energy purposes;
5. utilisation of biologically transformed organic matter in the soil profile for improvement of physico-chemical and biological soil properties, stability of soil structure, stabilisation of soil organic matter, increase of water retention in soil and increase of yield potential;
6. ensuring livestock grazing in protected areas as a measure to increase biodiversity, while minimising the impact of livestock production on the environment (soil erosion).

[Agritec Plant Research Ltd.](#)

Agritec Plant Research Ltd. is a private research organisation dealing with applied research in agriculture, especially with growing, breeding, usage and integrated protection of fibre crops, grain legumes and oil plants. Agritec Plant Research, Ltd. was established as a subsidiary of the parent company AGRITEC, Research, Breeding and Services, Ltd. The company is engaged mainly in applied and fundamental research in agriculture, the environment and the food industry. Major activities include research on gene sources of grain legumes and flax, research into genetic breeding and biotechnological methods of flax, grain legumes, winter rape, cannabis and caraway, research in the field of growing technologies and integrated protection of these crops. Another important activity is the breeding of new varieties of pea, oil flax, rape and caraway, and maintenance breeding of own and licensed varieties. The company is engaged in research into the use of linseed for nutrition, the use of short fibre from oil flax as an industrial raw material. Other activities include the production of grain legume and flax seed.

[Agrotest Fyto, Ltd.](#)

Agrotest Fyto, Ltd. is a "Research and Knowledge-Dissemination Organisation" according to EC regulation (No. 651/2014). It deals with applied research and development projects in the field of crop production, and operates an accredited testing laboratory (accredited according to ČSN EN ISO / IEC 17025: 2005) for the analysis of cereals, and other field crops, feed, soil and related products. Its research activities are complemented by the provision of specialised services, consulting and advisory services.

Main Scientific and research activities:



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1. Crop management practices, study of the structure of field crops, methods of cereal cultivation
2. Study of crop diseases, and creation of complex systems of plant protection, study of the resistance of pathogenic organisms to pesticides
3. Monitoring changes in soil properties and their impact on the production potential of the stand
4. Research on methods of genetics and breeding of cereals, study and creation of new genetic resources
5. Quality and health safety of agricultural products and inputs

[Dairy Research Institute, Ltd.](#)

The Dairy Research Institute is concerned with research and development in the field of milk and dairy products, namely from basic dairy production, the collection of milk and its technological processing, to the quality and safety of final dairy products. The main topics are e.g. improvement of raw cow, goat and ewe milk quality; methods for the determination of microbiological, physical, chemical and sensory parameters of milk and dairy products, including PCR, DGGE, HPLC, GC and others; changes during the ripening and storage of dairy products, including the identification of spoilage causes; milk processing technologies, both low-capacity farmers' production and dairy plant technologies, including membrane processes, UHT and sterilised product technologies; cheese and fermented dairy products' technologies; dairy starters, including protective starters and probiotics; bacteriophages; bacteriocins and natural antimicrobials; hygiene and sanitation, including biofilms and persistent microorganisms; the influence of dairy products on human health; functional foods, food supplements, foods for people with changed nutritional demands and foods for special medicinal purposes; whey utilisation for both food and non-food purposes, including biodegradable polymers; the application of lactic acid bacteria in non-dairy food technologies and biotechnologies; bioactive packaging. Emphasis is on the transfer of results to practice, i.e. as quality and safety control, cost reduction, product innovation and the increase of product added value.

[Hop Research Institute Co., Ltd.](#)

The research site has up-to-date instrumental and expert equipment at its disposal, enabling it to perform hop research activities in all natural science branches as well as in branches related to agricultural and technical research. In the field of hop cultivation technologies, the HRI deserves mention for conversion to wide-spacing planting of hop rootstock, for progressive methods in hop cultivation, mechanisation, harvesting and processing. A great deal of attention has been devoted to qualitative parameters of Saaz hops and their utilisation in the brewing industry. Research activities cover hop cultivation, production of propagation material with a spatial and technical insulator and the national collection of genetic resources fitting into the structure of support from the Ministry of Agriculture of the Czech Republic. Experimental and farming activities are carried out at a special-purpose farm – Stekník – with its 138 ha of hop gardens.

[OSEVA Development and Research, Ltd.](#)

The main activities of the Oseva company are agricultural, environmental and renewable energy resource research and consultancy.

Main Activities

Agricultural Research:

1. grass seed crops (establishment, nutrition, phytopathology, harvest)
2. increasing grassland biodiversity
3. study and utilisation of endophyte fungus *Neotyphodium* spp. in grasses
4. energy utilisation of grass and waste biomass
5. study and utilisation of genetic resources of grasses and oil crops
6. innovation of agronomy of winter rape and poppy
7. phytopathology study of oil crops



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Breeding:

1. winter rape
2. poppy (white and blue seed, spring and winter cultivars)
3. mustards
4. forage and amenity grasses
5. buckwheat, white lupine

The workplace is responsible for managing the collections of genetic resources of oilseed crops of the National Programme of Conservation and Use of Plant Genetic Resources and Agrobiodiversity. In addition to the most important collections of winter rape, poppy and white mustard, are also genetic sources of turnip-rape, black mustard, Chinese mustard, camelina, rocket, radish oil and crambe.

[Potato Research Institute Havlíčkův Brod, Ltd.](#)

The Potato Research Institute Havlíčkův Brod, Ltd. (PRIHB) is a research and advisory centre for potato growers, users and processors throughout the country. It is especially focused on applied research in growing technologies, nutrition and fertilisation, pest and disease control, harvest and post-harvest technologies, and also collaboration on basic research projects. These activities are devoted to genetic resource maintenance, initial breeding material development and breeding, with the successful release of five new varieties in recent years (Valfi, Valkýra, Valmont, Valy and Val Blue). Consultancy services directly provided to agricultural enterprises via the Advisory Association Potato Club form an integral part of the activities.

The main activities involve research in the field of potato breeding, growing and utilisation. Research activities are directed at two fields – genetic breeding and technological.

[Research and Breeding Institute of Pomology Holovousy, Ltd.](#)

The Research and Breeding Institute of Pomology Holovousy Ltd. is the only research institute in the Czech Republic focused on pomological research of the main fruit species of the moderate climatic zone. In its more than 65-year history, the Institute has been focused mostly on applied research and development. Its direct reflection of the requirements of fruit growers' practice and the transfer of results in the past 20 years has been successfully realised primarily through the Union of Czech Fruit Growers, which represents more than 520 entities.

Within the "National programme of conservation and use of plant germplasm in the Czech Republic", the RBIP Holovousy preserves and annually evaluates field collections of more than 2300 cultivars of important fruit species of the moderate climatic zone. Duplicate preservation is tested, using biotechnological methods in actively growing in vitro cultures and regeneration after cryopreservation in liquid nitrogen. The breeding programme has been ongoing for more than 50 years and is focused on sweet cherries, apples, plums and apricots. Hand in hand with breeding, the introduction and testing is carried out of new prospective cultivars from abroad, to provide the breeding programme with suitable genotypes with valuable properties.

[Research Institute of Brewing and Malting, Plc.](#)

The Research Institute of Brewing and Malting (RIBM) was founded in Prague in 1887. RIBM is the only research organisation in the Czech Republic whose main activity is comprehensive research in the field of malting and brewing. It covers the whole range of malting and brewing issues in their entirety from the research of barley and hops, malting and brewing technology to quality parameters, health benefits and health safety issues. The spectrum of research issues covers basic research as well as industrial research and development.

The core research activities are concentrated under the overarching programme called "Czech Beer". Comprehensive research of raw materials, technological and analytical aspects of Czech beer specifics were crowned by the European Commission's adoption of the Protected Geographical



Czechia

Indication “České pivo” in 2008. RIBM tests the malting quality of barley varieties in the registration process of the Central Institute for Supervising and Testing in Agriculture, and also the brewing characteristics of new varieties of hops. Thanks to the activities of RIBM, the Czech Republic is the only country that recommends certain varieties of barley and hops for national (Czech) beer production.

[SELTON Research Centre, Ltd.](#)

Applied research and the transfer of results to practical plant breeding. Study of genetic diversity and identification of basic breeding materials, research of methods in marker- -assisted selection. Production of genotypes with combined resistance to several simultaneous stress factors. Verification of breeding materials' quality in diverse growing systems of low and high input. Ensuring food safety by applied research of Fusarium and development of tolerant materials with low mycotoxin content. Development of new materials with specific production quality; development of quality evaluation methods. Study of possibilities of food allergen reduction. Apart from research activities, SELTON is also involved in education and the popularisation of research results.