

Contribution of Agriculture Scientists in Scientific Academies of Latvia

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The contribution of Latvian agriculture scientists in the foundation and activities of the Academy of Sciences of Latvia, the Academy of Agriculture and Forestry Science of Latvia is significant.

The Latvia Academy of Sciences (LAS) has been founded in 1945, but it came into action on February 14, 1946, when members of the Academy gathered for the first general meeting. The scientists of the University of Latvia and the Latvia University of Agriculture (LLU) became the core of the Academy of Sciences and its institutes. The first full members of the Academy of Sciences included four scientists from LLU's academic staff, for example, the doctor of agriculture sciences, Professor Arvīds Kalniņš, the doctor of biology sciences, Professor Augusts Kirhenšteins, the doctor of technical sciences, Professor Pēteris Nomals.

It is worth noting that the first president (1946 – 1951) of the AS SSRL Paulis Lejiņš (1883-1959) was closely connected with Jelgava and the LLU. He, an outstanding agriculture scientist and expert in cattle-breeding, having graduated from the Agriculture department of the Riga Polytechnical Institute in 1907, was one of the organizers of the LLU and its Faculty of Agriculture. Since 1932 he has been a professor of agriculture sciences at the universities of Latvia, the Dean of the LLU Veterinary Faculty, the Head of the Study and Training Farm "Rāmava" (1922-1945).

As a result, according to the decision of the Senate of the LAS (October 15, 1992) the award of the LAS and the Academy of Agriculture and Forestry Science of Latvia in agriculture sciences named after Paulis Lejiņš was founded. The award winners include such prominent scientists as Jānis Latvietis (1995), Jānis Neilands (1996), Arturs Boruks (1997), Censonis Šķiņķis (1998), Sigismunds Timšāns (1999), Māra Skrīvele (2001), Aleksandrs Jemeljanovs (2003) and others.

The first institute established in Latvia was the Institute of History. One of the first institutes in the post-war period was the Institute of Soil Knowledge and Agriculture that later was transformed into the LLU's agency "*The Research Institute of Agriculture*". While located in Riga, the scientific foundations were laid by such distinguished agriculture scientists as Professor Kārlis Bambergis, Head of the Department of Soil Science and Agriculture Chemistry, later the Head of the Department of Agriculture Chemistry, and Professor Jānis Sudrabs, who as a private assistant professor supervised practical classes in horticulture in Vecauce Study and Training farm. At that time Professor Jānis Peive, the merited scientist and the doctor of agriculture sciences, was appointed the director of the institute.

After the restoration of the Republic of Latvia, the general meeting on February 14, 1992 adopted the Charter and the Statutes transforming the LAS into a classical academy that unites elected members – outstanding scientists and other prominent personalities.

The main objective of the LAS is to promote the development of sciences and to support the process of studying and storing and transferring to the next generations the contribution of Latvia and the Latvian people to the world's science and culture heritage. The LAS has become a part of international scientific community, cooperating with other scientific academies and scientific organizations in Europe and overseas.

After the restoration of the independence of Latvia, the Academy of Agriculture and Forestry Science of Latvia (AAFSL) was founded on June 4, 1992. The delegates of the meeting represented more than 800 scientists involved in agriculture and forestry science. In the course of 17 years the academy has been functioning according to its statutes and it has proved to be a powerful institution with huge scientific potential. The idea of the necessity of such academy originated at the beginning of 1990 in the meetings and discussions of heads of mainstream institutions of agriculture sciences. The idea was especially supported by the following directors of scientific institutes: Aleksandrs Jemeljanovs, Mārtiņš Belickis, Edgars Lāčgalvis, Jānis Zutis and others. Besides, the idea was encouraged by the Minister of Agriculture of that time Dainis Gēģeris. The theoretical grounds and the basic principles of a new academy were outlined in the article "On the

Academy of Agriculture and Forestry Sciences of Latvia" written by Imants Gronskis, Aleksandrs Jemeljanovs, Mārtiņš Belickis, Edgars Lāčgalvis and Jānis Zutis which was published in *Latvijas Lauku Avīze* (September 7, 1990). Professor Voldemārs Strīķis, the Rector of the LLU, was elected the first president of the AAFSL. The structure of then newly founded Academy was prescribed in its Statutes. The executive power belonged to the GENERAL MEETING, which delegated responsibilities to the PRESIDIUM. The first presidium was formed by such recognized scientists in agriculture and forestry as Voldemārs Strīķis, Aleksandrs Jemeljanovs, Mārtiņš Belickis, Jānis Latvietis, Censonis Šķiņķis, Pēteris Zālītis and Jānis Tupiņš. It was the first presidium that initiated the tradition of having two general meetings annually: in May/June and December/January. The departments arrange seminars and visiting meetings all the year round. The AAFSL basically consisted of nine departments:

- Arable Farming; Head: Valdis Klāsens, Dr.habil.agr., Professor of the LLU
- Cattle-breeding and Veterinary Medicine; Head: Jāzeps Sprūžs, Dr.habil.agr., Professor of the LLU.
- Engineering and Power Industry; Head: Edvīns Bērziņš, a corresponding member of the LAS, Dr.habil.sc.ing., Professor of the LLU.
- Food Technology; Head: Uldis Viesturs, a full member of the LAS, Dr.habil.sc.ing., Professor of the LU.
- Economics and Agriculture Information; Head: Voldemārs Strīķis, Dr.h.c. of the LAS, Dr.oec., Professor of the LLU.
- Forestry; Head: Pēteris Zālītis, corresponding member of the LAS, Dr.habil.silv., Professor of the LLU.
- Forest Materials; Head: Hennis Tuherms, Dr.habil.sc.ing., Professor of the LLU.
- Water Management; Head: Jānis Valters, Dr.habil.sc.ing., Professor of the LLU.
- Academic Education and Scientific Personnel; Heads: Juris Gunārs Pommers Dr.habil.sc.ing. and Pēteris Bušmanis, Dr.sc.ing., Professors of the LLU.

In terms of the size, the Departments of Arable Farming, Economics and Agriculture Information were the largest ones, the Departments of Cattle-breeding and Veterinary Medicine, Engineering and Power Industry were the next. The Departments of Water Management, Forest Materials, Forestry, Food Technology, Academic Education and Scientific Personnel were numerically small, but their research activities were versatile. The Department of Arable Farming has contributed greatly to field trial estimation in Latvia. The Departments of Food Technology, Cattle-breeding and Veterinary Medicine, Forest Materials have been efficient in cooperation with the producers. The Departments of Economics and Agriculture Information, Water Management, Engineering and Power Industry aimed their activities at interdisciplinary research and cooperation with the LAS. The Department of Academic Education and Scientific Personnel highlighted the evaluation of young scientists – doctoral students.

The scientists of the Academy were actively involved in the work of the Councils of the Science and Higher Education of Latvia as well as the State Commission of Scientific Qualification.

In 1999 Professor Baiba Rivža was elected the president of the AAFSL. The coming years proved expedience and the contribution of the AAFSL. The amount of members has increased since that time, and at present the AAFSL comprises 112 full members, 27 honorary members and 15 foreign members. The research activities of the AAFSL have become more closely linked with the LAS and the LLU. The core of the members is mostly represented by the LLU academic staff; they are eager participants of general meetings and presidium meetings of both the LAS and the AAFSL. The members of both Academies meet in visiting seminars, for example, the study of the area of Selonia etc. At present the Presidium of the AAFSL consists of the president, three vice-presidents (Prof. Daina Kārklīņa, Academician Aleksandrs Jemeljanovs and Prof. Juris Skujāns, the Rector of the LLU), five heads of the departments and a scientific secretary (Ieva Brence). In the course of time the number of departments has reduced to five departments (see Fig. 1).

The AAFSL is an active participant and supporter of the research projects. The priority is given to the following research areas: the genetic potential of plants and animals used in agriculture, the increase of plant and animal product quality, the creation of innovative products in various production systems and stages, the quality estimation of environmental resources used in agriculture, the development and monitoring of their sustainability criteria and indicators, agriculture and the ecosystem in the light of

climate changes. As regards food processing industry, the focus is on the development of innovative, environmentally friendly food resources and production technologies of new products, the research on the development and use of new functional food products, the research of food crisis. Concerning engineering science, the focus is on the technologies of the renewable energy, the use of biofuel, the production and use of biogas, the use of solar energy, including the research on agro-biotechnologies.

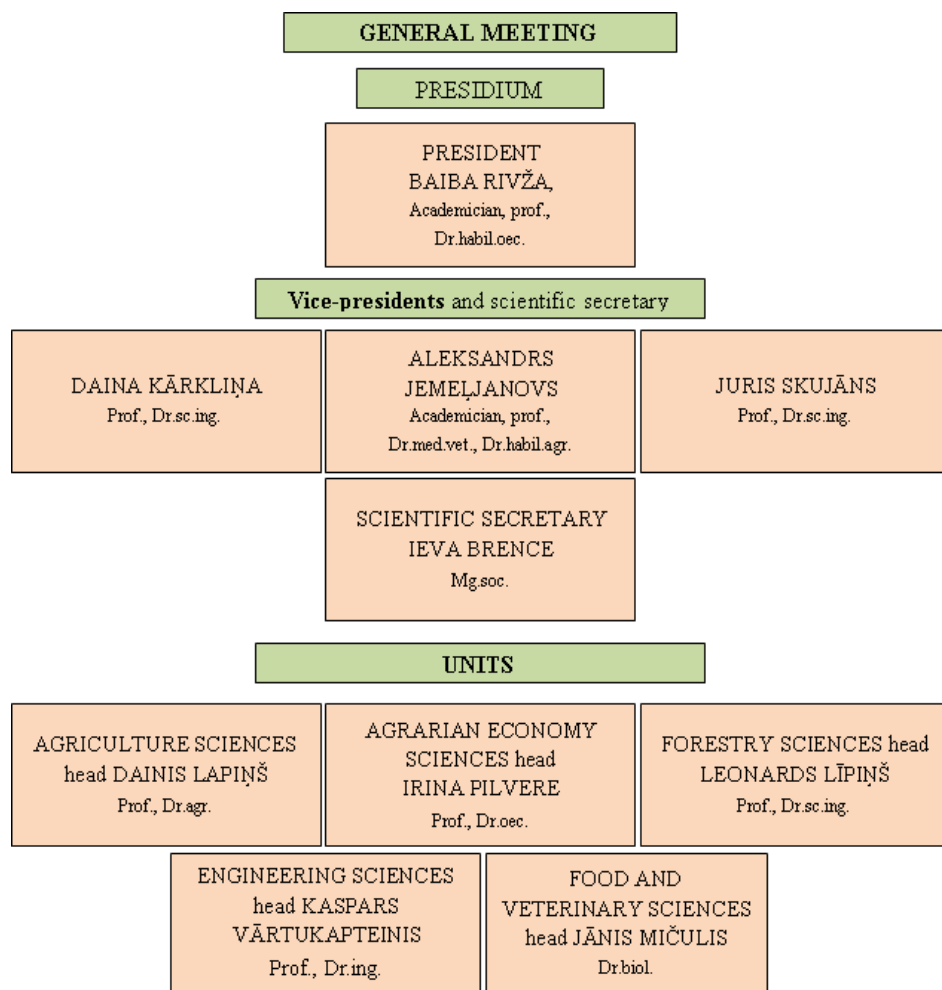


Fig. 1. The structure of the AAFSL.

In 2006 a new department was founded – the Department of Agriculture and Forestry Science (DAFS), affiliated to the LAS. The department consisted of outstanding personalities Mārtiņš Beķers, Īzaks Rašals, Uldis Viesturs, Aleksandrs Jemeljanovs, Edīte Birģele, Edīte Kaufmane, Daina Kārklīņa, Aldis Kārklīņš, Jānis Latvietis, Arnis Kalniņš, Baiba Rivža, Kazimirs Špoģis, Bruno Andersons, Nikolajs Vedernikovs, Imants Liepa, Arnis Treimanis, Pēteris Zālītis and Aivars Žūriņš. The first head of the newly founded department was Baiba Rivža, the deputy was Arnis Treimanis. The close cooperation with the AAFSL facilitated the embracement of the department into the LAS. The new department received the support from the Academician Jānis Stradiņš, the Chairperson

of the Senate of the LAS, Academician Juris Ekmanis, the president of the LAS and Academician Raimonds Valters, the deputy Chairman of the board of the LAS.

The AAFSL and the Department of Agriculture and Forestry Science of the LAS was an eager participant of setting the priorities of Latvia's science for the time period of 2006 – 2009. Agro-biotechnology, forestry science, power industry and environmental science was added to the traditional priority science directions: biomedicine and pharmaceuticals, Information Technologies, the Latvian studies, material science, medicine. Agro-biotechnology envisages spacious, innovative, environmentally- and resource-friendly development of growing and processing technologies. Priority directions were realized in the state research programmes. Two of them were supervised by the members of the AAFSL. "Innovative technologies for the production of high quality, secure and healthy food products from genetically, physiologically and biochemically diverse plant and animal source material." (supervisor Prof. Daina Kārklīņa) and "The growth and efficient usage of foliage trees, new products and technologies." (Prof. Pēteris Zālītis).

- The AAFSL has submitted its proposals for the priorities of academic and applied research funding for the time period of 2010 – 2013. After tough discussions in the committees and action groups, the meeting of State secretaries (September 2, 2009) included "Local resources research and sustainable utilization (entrails of the Earth and forest resources technologies, food processing technologies)" among other priority directions. The researchers of the AAFSL will participate in such priority research directions as
- Energy and environment (renewable energy resources and utilization technologies, technologies of decreasing the climate changes and coastal biological diversity);
- Innovative materials and technologies (computer science, information and signal processing technologies, nanostructural multifunctional materials and nanotechnologies);
- National identity (the language, the history of Latvia, culture and social security);
- Public health (equipment and methods of treatment, diagnostics, methods of biomedicine)

The AAFSL actively participates in the international scientific discussions taking part in the international conferences and seminars, implementing the findings of the research, exchanging the experience with the researchers of different countries. Successful cooperation has been established among the member states of the Association of Academies of European Agriculture, Food and Natural Sciences that at present contains 18 countries. Along with the General Assembly of the Association, Latvia hosted the seminar "Renewable Energy Resources, Products and Technologies" in 2008 and acquired the status of the presiding state till 2010. In addition, the international conference "The Development of the Research in the Financial Crisis" was held in 2009 in Jūrmala, during which Ukraine was approved as the next presiding state of the Association.

This year, the fourth year in a row, the AAFSL has signed the protocol of intentions with the Ministry of Agriculture of Latvia (MA) and the LAS on the cooperation in a range of spheres, for example, in the development of draft laws on higher education and science, the implementation of joint research projects in agriculture, rural development and forestry science, in the information exchange among research institutions and experts, as well as the promotion of international cooperation in research and other significant activities.

The AAFSL cooperates with the Young Farmers' club that arranges various competitions for young people with the aim of giving the opportunity to rural youngsters and young farmers get involved in the informal and professional education thus strengthening civil society in the rural areas and developing entrepreneurship which is very important currently.

In cooperation with the LLU, the LAS, the MA and the Mortgage and Land Bank of Latvia and other supporters the AAFSL has attempted to carry on and financially support such traditions as granting awards that are named after the prominent scientists. "Paulis Lejiņš Award" is awarded once in two years to academic researchers who have contributed substantially to Latvia's rural development, "Arvīds Kalniņš Award" is awarded once in two years for the research in forestry and wood-pulp, "Jānis Lielmanis Award" is awarded once in three years for the outstanding achievements in plant-breeding and seed farming. The AAFSL, the LLU and the Mortgage and Land Bank of Latvia cooperate in organizing a competition for young scientists where the award is granted for the

contribution in the research of rural development twice a year. Young scientists get awards (usually three) for the participation and delivering reports in visiting meetings of the AAFSL. The awards are insignificant, but they serve as stimulus for young people to get involved in the research activities and concentrate on their final research projects at universities.

The media (printed, radio) offers a variety of opinions on the research activities in agriculture, food and forestry; their analysis shows that the research has a big potential since food and forestry industries are the major exporters of Latvia.

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