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http://www.lammc.lt
AGRICULTURE RESEARCH INSTITUTIONS IN LITHUANIA

Lithuanian Research Centre For Agriculture and Forestry

Aleksandras Stulginskis University (formerly Lithuanian University of Agriculture)

Lithuanian University of Health Sciences (with the Veterinary Academy and Institute of Animal Science)

The Lithuanian Institute of Agrarian Economics
Lithuanian Research Centre for Agriculture and Forestry (LRCAF) was established in 2010 as a merger of three related research institutions:

- Lithuanian Institute of Agriculture with 2 Branches, Agrochemical Research Centre and 6 Experimental Stations
- Lithuanian Institute of Horticulture,
- Lithuanian Institute of Forestry
The objective of the reorganization of 3 institutes into the Centre was:

to create a forward-looking research institution that would consolidate Lithuanian agricultural and forestry science, would use a complex approach to the solution of basic and applied research problems and experimental development in the fields of agriculture and forestry.

the Centre was created with 3 stem and 8 regional branches
Stem branch - INSTITUTE OF FORESTRY LRCAF

1. Ecology department
2. Forest protection and game management department
3. Forest genetics and tree breeding department
4. Forest resources, economics and policy departments
5. Forest plant biotechnologies laboratory
6. Silviculture department
Stem branch INSTITUTE OF HORTICULTURE

1. Laboratory of plant physiology
2. Plant protection laboratory
3. Sector of vegetable growing technologies
4. Laboratory of biochemistry and technology
5. Sector of vegetable breeding
6. Department of horticulture technologies
7. Department of orchard plant genetics and biotechnology
Stem branch INSTITUTE OF AGRICULTURE

1. Department of plant nutrition and agroecology
2. Department of plant pathology and protection
3. Department of soil and crop management
4. Department of cereal breeding
5. Department of grass breeding
6. Laboratory of genetics and physiology
7. Chemical research laboratory
8. Sector of apiculture
8 REGIONAL BRANCHES

1. Agrochemical Research Laboratory LRCAF
2. Vokė Branch LRCAF
3. Vėžaičiai Branch LRCAF
4. Elmininkai Experimental Station LRCAF
5. Joniškėlis Experimental Station LRCAF
6. Perloja Experimental Station LRCAF
7. Rumokai Experimental Station LRCAF
8. Upytė Experimental Station LRCAF
The mission of LRCAF is the conduct of basic and applied research relevant for science, national economic development and ecological needs, rational and sustainable use of land, forest and environmental resources and high quality production in compliance with the envisaged major directions of the scientific activities;

development of experimental and other activities in the fields of agronomy, horticulture, forestry science, ecology and other related braches;

accumulation of new scientific knowledge, its systemization and dissemination to the public; promotion of balanced and sustainable land and forest economy and rural development.
RESEARCH FIELDS IN LRCAF

- Research into soil physical, chemical, biological characteristics and plant nutrition processes and ascertainment of their regularities.

- Research into agricultural and forest plants’ genetics, biotechnology, physiology and biochemistry, plant breeding, seed production, conservation and development of plant genetic resources.

- Research into agricultural and forestry plants’ biology regularities, modelling of agrobiological systems determining quality and productivity.

- Research into agricultural and forestry crops’ microbiological, pathological, pathogenetic control, toxicology tests of plant raw materials and products.

- Modelling and optimization of agricultural and forest plant products’ processing processes and storage methods, safety and control of plant food products, research on horticultural plants’ biologically active substances in natural and processed produce.

- Research into sustainability of agro and forest ecosystems under changing climate conditions.

- Research into agricultural, horticultural and silvicultural systems, investigation of social and economic problems intended for agricultural and forestry policy shaping.
LONG-TERM RESEARCH PROGRAMMES, (started from 2012)

1. Biopotential and quality of plants for multifunctional use (IA)
2. Sustainable forestry and global changes (IF)
3. Horticulture: agrobiological foundations and technologies (IH)
4. Productivity and sustainability of agricultural and forest soils
5. Genetics and purposeful change of genotypes of agricultural and forest plants
6. Harmful organisms in agro and forest ecosystems

The Centre carries out research and implements various programmes and projects obtained by tender funding method and funded by the Ministries of Agriculture, National Economy, and Environment; conducts various research and experimental development projects.
## Staff number 2013-01-02

<table>
<thead>
<tr>
<th>Staff groups</th>
<th>In. of Agriculture</th>
<th>In. of Horticulture</th>
<th>In. of Forestry</th>
<th>Regional branches</th>
<th>Total LRCAF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researchers with PhD degree</td>
<td>42</td>
<td>38</td>
<td>22</td>
<td>35</td>
<td>137</td>
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<tr>
<td>Researchers without PhD degree</td>
<td>13</td>
<td>6</td>
<td>10</td>
<td>5</td>
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<tr>
<td>PhD students</td>
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<td>8</td>
<td>16</td>
<td>11</td>
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<tr>
<td><strong>Total researchers and PhD students:</strong></td>
<td><strong>67</strong></td>
<td><strong>52</strong></td>
<td><strong>48</strong></td>
<td><strong>51</strong></td>
<td><strong>218</strong></td>
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<tr>
<td>Other</td>
<td>107</td>
<td>86</td>
<td>41</td>
<td>153</td>
<td>387</td>
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<td><strong>Total:</strong></td>
<td><strong>174</strong></td>
<td><strong>138</strong></td>
<td><strong>89</strong></td>
<td><strong>204</strong></td>
<td><strong>605</strong></td>
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## RESEARCH STRUCTURE 2010-2012

<table>
<thead>
<tr>
<th>Research topics and Projects</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<tr>
<td>Institutional budget-funded research</td>
<td>225</td>
<td>223</td>
<td>186</td>
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<td>Projects of national research programs (LSB)</td>
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<td>4</td>
<td>4</td>
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<tr>
<td>Projects of researchers’ groups and other (LSB)</td>
<td>7</td>
<td>9</td>
<td>12</td>
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<tr>
<td>Applied research (funded by ministries etc.)</td>
<td>6</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>Work supported by national and foreign business entities</td>
<td>49</td>
<td>58</td>
<td>77</td>
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<tr>
<td>International programs and projects</td>
<td>22</td>
<td>30</td>
<td>22</td>
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# PROJECTS BEING IMPLEMENTED IN 2013

- 2013-06-18 data

<table>
<thead>
<tr>
<th>Number of projects</th>
<th>COST Projects</th>
<th>International projects</th>
<th>Lithuanian Science Board</th>
<th>Ministries of Agriculture and Environment</th>
<th>Agency for Science, Innovation and Technology</th>
<th>With national economic entities</th>
<th>With foreign economic entities</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>In. of Forestry</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>9</td>
<td>3</td>
<td>10</td>
<td>-</td>
<td>38</td>
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<tr>
<td>In. of Horticulture</td>
<td>-</td>
<td>2</td>
<td>9</td>
<td>6</td>
<td>1</td>
<td>8</td>
<td>7</td>
<td>31</td>
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<tr>
<td>In. of Agriculture</td>
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<td>6</td>
<td>7</td>
<td>12</td>
<td>1</td>
<td>6</td>
<td>24</td>
<td>57</td>
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<tr>
<td>Regional divisions</td>
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<td>-</td>
<td>-</td>
<td>5</td>
<td>1</td>
<td>22</td>
<td>4</td>
<td>32</td>
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<tr>
<td>Total:</td>
<td>4</td>
<td>15</td>
<td>20</td>
<td>32</td>
<td>6</td>
<td>46</td>
<td>35</td>
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Scientific production in 2010-2013

<table>
<thead>
<tr>
<th>Production</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Publications in Journals with IF</td>
<td>49</td>
</tr>
<tr>
<td>Sections of monographs published by international publishers</td>
<td>6</td>
</tr>
<tr>
<td>New Crop varieties included in Common European varieties list</td>
<td>12</td>
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<tr>
<td>Publications in other refereed journals</td>
<td>46</td>
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<tr>
<td>Science popular articles</td>
<td>145</td>
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## Scientific articles with IF for 2013*

<table>
<thead>
<tr>
<th>Journal title</th>
<th>IF</th>
<th>Number of articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proceedings of National Academy of Sciences of the USA</td>
<td>9,681</td>
<td>1</td>
</tr>
<tr>
<td>Journal of Applied Ecology</td>
<td>5,045</td>
<td>1</td>
</tr>
<tr>
<td>Biomass and Bioenergy</td>
<td>3,646</td>
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</tr>
<tr>
<td>Plant Science</td>
<td>2,945</td>
<td>1</td>
</tr>
<tr>
<td>Industrial Crops and Products</td>
<td>2,469</td>
<td>1</td>
</tr>
<tr>
<td>European Journal Forest Research</td>
<td>1,982</td>
<td>1</td>
</tr>
<tr>
<td>J.of Environmental of Eng. and Landscape Management</td>
<td>1,958</td>
<td>1</td>
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<tr>
<td>Journal of Science of Food, Agriculture</td>
<td>1,436</td>
<td>2</td>
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<tr>
<td>Analytical Letters</td>
<td>1,016</td>
<td>1</td>
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<tr>
<td>Central European Journal of Biology</td>
<td>1,0</td>
<td>1</td>
</tr>
<tr>
<td>Other Journals</td>
<td>0,1-0,999</td>
<td>42</td>
</tr>
</tbody>
</table>

*LITHUANIAN CENTRE OF AGRICULTURE AND FORESTRY*
Income structure for 2012

- Budget subsidy: 22%
- Grants and tender: 4%
- Funds from Lithuanian and foreign economic entities: 20%
- EU structural funds: 27%
- International projects: 27%

LITHUANIAN CENTRE OF AGRICULTURE AND FORESTRY
COST STRUCTURE for 2012

- Salaries and social security: 44% of 4.781 mio. EUR
- Procurement of long-term assets: 29% of 1.241 mio. EUR
- Goods: 11% of 0.849 mio. EUR
- Services: 3% of 0.849 mio. EUR
- Utilities services: 8% of 0.849 mio. EUR
- Transport maintenance: 2% of 0.849 mio. EUR
- Communication services and other: 1% of 0.849 mio. EUR
- PhD students scholarships: 1% of 0.849 mio. EUR
- Business trips and visits: 1% of 0.849 mio. EUR

LITHUANIAN CENTRE OF AGRICULTURE AND FORESTRY
DOCTORAL (PhD) STUDIES

AGRICULTURAL SCIENCES (A 000)
✓ AGRONOMY and FORESTRY- in cooperation with Aleksandras Stulginskis University

BIOMEDICAL SCIENCES (B 000)
✓ ECOLOGY AND ENVIRONMENT. in cooperation with Vytautas Magnus University.

PHYSICAL SCIENCES (P 000)
✓ BIOCHEMISTRY. in cooperation with Vytautas Magnus University, Lithuanian University of Health Sciences, Nencki Institute of Experimental Biology (Poland)

<table>
<thead>
<tr>
<th>Science field</th>
<th>Accepted Number of PhD students</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
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<tr>
<td>Agronomy</td>
<td>6</td>
</tr>
<tr>
<td>Forestry</td>
<td>2</td>
</tr>
<tr>
<td>Ecology and Environmental Sciences</td>
<td>1</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
</tr>
</tbody>
</table>
Žemdirbystė=Agriculture is a quarterly scientific journal which covers a wide range of topics in the field of agricultural sciences, agronomy.

The journal Baltic Forestry welcomes the original articles on forestry and forest science in the Baltic States and throughout the Baltic Sea region.

Impact Factor – 0.567 for 2012

Impact Factor – 0.532 for 2011
Each year, the LRCAF organizes scientific conferences, seminars, field days and invites specialists from national research and education institutions, representatives from governmental and economic entities of agriculture, specialists from state and private forest enterprises, farmers, and foreign researchers.

10–15 scientific conferences are organized by LRCAF researchers annually in cooperation with national and foreign institutions and international scientific organizations.

Researchers of the LRCAF publish numerous articles and conference proceedings, and present the latest research findings and disseminate new know-how.
Since 2007, the Institute of Agriculture, LRCAF in cooperation with the Lithuanian Association of Plant Protection have been arranging an exhibition of agricultural technologies “Agrovizija”, whose objective is to disseminate the latest scientific know-how and expertise, necessary for the application of novel, environment-friendly and resource-sustaining agro-technologies.

The exhibition is a unique, open-air event, where visitors can familiarize themselves with the cultivation technologies in natural, field conditions.
OTHER SERVICES

- Markets basic and pre-basic seed of winter and spring cereals and forage grass varieties bred at the Centre.
- Conducts bee breeding work, markets bee queens of the best bee races, honey and bee products.
- Carries out analyses of agricultural and greenhouse soils, peat substrates, sewage, industrial wastes, plants and forages, foodstuffs, water, organic and mineral fertilizers, lime materials, pesticides etc.
- Takes soil, water, fertilizer, sludge and other samples, develops maps of soil agrochemical properties and fertilization plans.
- Submit top and small fruit plant material, garden projects, fruit, berry and vegetable processing technologies.
- Provides consultations, and helps state institutions to prepare legal documents.
The valley Nemunas opens new facilities for native, regional and international cooperation

During 2008 – 2013 the research, studies and business centre – valley “Nemunas” – was created with the purpose of concentrating research, studies and business potential in agriculture, forestry, water and food management as well as human resources and research and experimental development infrastructure for the implementation of promising projects in the fields of agro-biotechnologies, bioenergetics, forestry, food technologies, safety and healthiness, for training of highly qualified specialists and for passing knowledge to private business.
Members of the Association valley

- Aleksandras Stulginskis University (Lithuanian University of Agriculture)
  - Water Management Institute of Lithuanian University of Agriculture
  - Institute of Agricultural Engineering of Lithuanian University of Agriculture

- Centre of Lithuanian Agrarian Sciences and Forestry
  - Lithuanian Institute of Horticulture
  - Lithuanian Institute of Agriculture
  - Lithuanian Forest Research Institute

- Lithuanian Veterinary Academy
  - Institute of Animal Science
  - Veterinary institute

- Kaunas University of Technology
  - Food Institute of Kaunas University of Technology

- Lithuanian Institute of Agrarian Economics
- Lithuanian Agricultural Advisory Service
- Mykolas Romeris University
- Baltic Agribusiness Institute
- JSC Concern “Achema Group”
- JSC ARVI Management Enterprise of Enterprises Group
- JSC “Mestilla”
- Lithuanian Association of Biomass Energetics “Ltbioma”
- And other enterprises
R&D infrastructure in Agrosector

Workshop on Agricultural Science and Technology Exchange between China and Central-Eastern European Countries

2013.09.05-09
### Organisation of the Valley “Nemunas”

#### R&D infrastructure of the Valley “Nemunas”

<table>
<thead>
<tr>
<th>Centre of Agrarian and Forestry Sciences</th>
<th>Research, Study and Development Centre of the Forestry Sector</th>
<th>Plant Genetics and Biotechnology Centre</th>
<th>Science and Study Centre of Agroecology and Plant Biopotential</th>
<th>Animal Nutrition and Biotechnology Centre</th>
<th>Biosystem Engineering, Biomass Energy and Water Engineering Centre</th>
<th>Food Science and Technology Centre</th>
<th>Centre for Animal Health and Quality of Raw Materials of Animal Origin</th>
</tr>
</thead>
</table>

#### Policy for Development of Agro-biotechnologies, Bioenergy and Forestry

#### Policy for Development of Food Technologies, Safety and Health

- Cooperation with enterprises in the process of carrying out R&D projects, creating favourable conditions for the establishment of new, knowledge-intensive spin-offs and commercialisation of research results

- Valley’s joint Communication and Technology Transfer Centre, Agroinnovation Economy and Management Centre and Centre of Information Technologies in Agricultural Science, Training and Consulting
THANK YOU FOR YOUR ATTENTION!