For Quality Wageningen UR Of Life





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Contents

Wageningen UR, For Quality of Life
Our work: education, research, knowledge valorisation
Our contribution to healthy food and living environment
Facts about Wageningen UR

Wageningen UR, For Quality of Life

'To explore the potential of nature to improve the quality of life'

That is the mission of Wageningen UR (University and Research Centre). Within the domain of 'healthy food and living environment', we work around the globe doing research for government agencies and the private sector. The strength of Wageningen UR lies in its ability to join the forces of specialised research institutes, Wageningen University and the Van Hall Larenstein University of Applied Sciences. It also lies in the combined efforts of the various fields of natural and social sciences. This union of expertise leads to scientific breakthroughs that can quickly be put into practice and incorporated into education. These are the defining features of the Wageningen Approach.

The domain of 'healthy food and living environment' comprises three related core areas (see the figure on page 10):

 Food and food production
 The production and supply side in the food chain: sustainable agriculture/horticulture and fisheries/aquaculture,



international food chains and networks, health aspects of food and the use of biomass within the scope of a biobased economy.

- Living environment
 Nature, landscape, land usage, adaptation to climate change, water
 and ocean management, and the various competing claims on space.
 This also includes biodiversity and the sustainability of management
 and production.
- Health, lifestyle and livelihood
 The influence of people's behavioural choices regarding health, nutrition and living environment. The behaviour of consumers, citizens or recreational participants, the attitude towards risk and uncertainty, the perception of quality and safety, and the relationship between food safety and poverty, particularly in developing countries.

The distinctive Wageningen Approach

Issues within the Wageningen domain are almost never exclusively natural, technical or social in nature. There are always multiple approaches and possible solutions – often synergetic ones. Wageningen UR therefore fosters the unique interaction between the natural and social sciences.

Both sets of disciplines are part of our coherent package of research, education and services. This integrated approach offers additional



possibilities for the effective application of expertise in policy or in practice. This is a specific characteristic of the Wageningen Approach. This approach is also characterised by viewing issues at the smallest scale – such as molecular processes – in relation to processes at larger scales – such as cells, organisms and ecosystems. This multilevel approach is also important in the social sciences, where large-scale cultural occurrences can affect the behaviour of individuals, and the reverse. Wageningen UR maintains open connections with other domains and disciplines. Moreover, beginning with the formulation of our research agenda, we cooperate closely with public authorities, the private sector, special interest groups, citizens and other universities and research institutes in the Netherlands and abroad. As a result, our science and education can have an actual impact on society.

Facing up to the future

At Wageningen UR, we not only work on current issues, but we also invest intensively in the future by developing fundamental insights. We work in areas such as climate change and its effects on the densely populated coastal zones, the shortage of fresh water, the development of biobased raw materials and the consequences of an unhealthy lifestyle.



Worldwide quality

Wageningen UR is an international university and research centre characterised by:

- An excellent international reputation that brings students from more than 100 countries to take courses at Wageningen University and Van Hall Larenstein University of Applied Sciences.
- The prestigious label of the European Credit Transfer and Accumulation System (ECTS). Wageningen University was the first educational institution in the Netherlands to receive this label from the European Union.
- A network of more than 86,500 alumni that extends around the globe.
- An inflow of nearly 500 international Masters degrees and 125 international doctorates that are awarded to Wageningen University graduates and 55 Masters degrees to graduates from developing countries at Van Hall Larenstein University of Applied Sciences every year.
- Participation in more than 200 EU projects, including leadership of major projects in areas such as animal welfare, food safety and genomics.
- Nearly 1,000 government agencies and businesses from the Netherlands and abroad as research clients.
- Major projects in the key area of Flowers & Food as defined by the Netherlands Innovation Platform, such as TTI Green Genetics, the potato phytophthora project, Genomics, Food & Nutrition Delta and the development of an avian influenza vaccine.
- Project leadership of many large national and international projects in climate change.





- Partnerships with universities and research institutes all over the world, such as the Chinese Academy of Agricultural Sciences (CAAS), the Brazilian national research institute Embrapa, the European universities that are part of the Euroleague for Life Sciences (ELLS) and the French national research Institute INRA.
- Wageningen International as an access point for questions and commissioned tasks in international research, education, knowledge valorisation and capacity building.
- The Wageningen Ambassadors as a powerful network of prominent alumni.

Wageningen UR stands for scientific quality, social impact and social relevance:

- In international publication indexes, Wageningen University ranks in the top 6 in the agricultural sciences, plant and animal sciences and environmental sciences (ranking: Essential Science Indicators™ of the ISI™).
- For many years, students have ranked Wageningen University as one
 of the best Dutch universities, and since 2005 it has ranked number 1.
 Moreover, both the Times Higher Education Supplement and the
 American magazine Newsweek recognise Wageningen University as
 one of the top 200 international universities.
- The Wageningen Graduate Schools receive very good ratings from external review committees, scoring 4 or 5 on 5-point scale.



- Every day, more than eight reports about the research and expertise at Wageningen UR appear on average in the popular news media (newspapers and trade journals, radio and TV).
- Representatives of Wageningen UR hold positions on many advisory boards and councils in the Netherlands and abroad.
- Wageningen UR is widely praised for its interdisciplinary and solutionoriented approach.

The strength of Wageningen UR

Wageningen University and Research Centre distinguishes itself from other universities and research institutes through:

Our domain

'Healthy food and living environment'

- Food and food production
- Living environment
- Health, lifestyle and livelihood

Our broad range of products and services

The combination of education, research and knowledge valorisation

- The entire spectrum of higher education: academic education, higher professional education and training courses.
- Fundamental, applied and practical research at every stage in the science chain.
- Application of research results in practice, for instance by encouraging spinouts and providing advisory services, training and capacity building.



Our domain: healthy food and living environment

health, lifestyle and livelihood



- behaviour and perception
- food safety
- consumer
- institutions
- citizen

food and food production



- sustainable agriculture and fisheries
- infectious animal diseases
- nutrition and health
- biomass
- chains





- marine resource management
- landscape and land use
- nature and biodiversity
- water management
- competing claims



Our added value

- · Content-driven and solution-oriented
- Top quality
- · Relevant to society
- International orientation

Focal points

The Wageningen UR Strategic Plan 2007-2010 focuses on three social themes at the heart of the Wageningen domain and on three expertise areas that make it possible to tackle these themes more quickly and effectively.

The three social focus themes

- Nutrition, health and behaviour: promoting optimal health and preventing diet-related ailments.
- The biobased economy: the development and use of biobased materials to replace petroleum products.
- Climate-resistant coastal zones: the development and application of a new perspective on the sustainable development of coastal zones.

The three expertise focus areas

- Bionanotechnology: using biomolecules to control nanometer-scale processes.
- Systems biology: developing methods and technologies at the interface between the architecture of the cell and the functioning of the cell in its environment.
- Linking scale levels and governance: research into model-based opportunities to link knowledge and policy on one scale level – such as local, regional or national – with another.

Our work:

education, research, knowledge valorisation

The work of Wageningen UR comprises education, research and obtaining value from our knowledge.

Education

The House of Education of Wageningen UR comprises the academic Bachelors and Masters programmes at Wageningen University, the professional Bachelors and Masters programmes at Van Hall Larenstein University of Applied Sciences and a PhD programme with a strong international orientation. In addition, we offer post-academic courses and training programmes that meet the growing demand for continuing education (lifelong learning).

Wageningen University: scientific education

Wageningen University offers students the possibility to learn and integrate the natural and social sciences, including fields as diverse as nutrition and health, biology, landscape architecture, spatial planning, economics and



Wageningen University:

- Number of BSc students: 2,900
- Number of MSc students: 2,100
- Number of PhD students: 1,400
- Number of rationalities 1,400
- Number of full professors: 92
- Number of PhDs awarded: 210 per year
- Number of graduates in 2007-2008:
 900 MSc and 400 BSc

'As of December 2008'



policy. Wageningen University was the first university in the Netherlands to adopt the BSc-MSc-PhD model to ensure that our courses match comparable programmes abroad. Education at Wageningen University is strongly international, which is proven by the fact that approximately 30% of the MSc students and 50% of the PhD students come from abroad. The MSc and PhD courses are taught in English. All of the study programmes are student-centred, which means that the wishes of the individual student play an important role in the design of the educational programme. The study programmes are based on the competences that students acquire during their studies. At Wageningen University, applicability and multidisciplinarity in a scientific environment are of paramount importance.

Van Hall Larenstein University of Applied Sciences: higher professional education

Van Hall Larenstein University of Applied Sciences offers study programmes in the fields of nature and environment, human and animal health and responsible entrepreneurship. Approximately 5% of Van Hall Larenstein graduates continue on to study at Wageningen University. Special transfer profiles ensure efficient linkage between the study programmes at Van Hall Larenstein and those at Wageningen University.



Van Hall Larenstein University of Applied Sciences:

- Number of students: 3,800
- Number of graduates per year: 800
- Number of lectors: 7
- Number of nationalities: 5! (As of October 2008)



Lifelong learning

Wageningen International is the access point where international clients and partners can present their tasks and questions in the areas of international research, education and capacity building. The Capacity Development & Institutional Change (CD&IC) Programme of Wageningen International provides advisory services, seminars and training programmes for strengthening the capacities of individuals and organisations, as well as facilitating change processes. The CD&IC Programme works for governmental and societal organisations and for the business community. Participants in the training programmes primarily include experienced professionals and policymakers working in developing countries and countries in transition. Training programmes are offered both in the Netherlands and abroad, and are often organised in cooperation with international partners. Every year, approximately 500 participants take an open training course.

Wageningen Business School offers post-academic and 'post-experience' courses, seminars, training programmes and workshops. These focus on the specialisation and expansion of the expertise and skills of professionals and managers who work in the life sciences. Wageningen Business School actively participates in many projects involving the dissemination and circulation of expertise. In addition, in-company programmes are developed in close cooperation with businesses.



Every year, Wageningen Business School helps more than 1,000 course participants in about 50 programmes to develop their careers.

Van Hall Larenstein Training & Consultancy (part of Van Hall Larenstein University of Applied Sciences) provides training and consultancy services in human resource and organisational development by generating and transfer of innovative knowledge and management skills for rural and environmental development, the agri-chain-business and professional education. It offers a broad spectrum of specialised expertise and services to government, the business community and private parties, at both the national and international level.

Research

Within the domain of 'healthy food and living environment', Wageningen UR conducts fundamental, application-oriented and applied research. Research is conducted by the 92 chairs of Wageningen University, nine research institutes and a range of expertise centres that work together with other universities and research institutes and the business community. The scientific quality of Wageningen University is assured by seven graduate schools. A General Ethics Committee linked to Wageningen University establishes ethical guidelines for research.



Fundamental research

Fundamental research is chiefly the work of university researchers and focuses on answering questions arising from scientific practice itself. It is generally acknowledged that progress in fundamental research is crucially important to achieving technological breakthroughs. This type of research is funded primarily by the government or research organisations such as the Netherlands Organisation for Scientific Research (NWO) and the Royal Netherlands Academy of Arts and Sciences (KNAW).

Application-oriented research

Application-oriented research is conducted primarily at the research institutes. This type of research focuses partly on developing expertise that can be applied within two to three years. This may concern topics such as the relationship between nutrition and health or the resiliency of ecosystems in the development of bio-based resources. Other research involves policy support on topics such as improving animal welfare, the role of farmers' organisations in rural development and the quality and liveability of the rural area in various regions in Europe. There are also many short-term research assignments conducted at the request of government, business, or public-private funds.

Applied research

Applied research takes place throughout Wageningen UR, but especially at the regional centres for applied research. These centres are involved



with the application of expertise to answer concrete, application-orientedpractical questions, such as those in the areas of crop production, animal welfare, housing and the environment. Funding for this type of research is provided primarily by the business community and sector organisations.

Legal Research Assignments (WOT)

Wageningen UR supports the Dutch and European government in the implementation of rules and regulations that are necessary to assure safe food, healthy animals and a sustainable living environment. Wageningen UR and the Netherlands Ministry of Agriculture, Nature and Food Quality have laid down these tasks in an agreement, the WOT statute.

Research on behalf of the European Union

Wageningen UR participates in many EU projects. Two examples are the following:

• The European Nutrigenomics Organisation (NUGO) unites various research groups that conduct research into the relationship between food and the prevention of disease. New developments in food research can have a great impact on our daily lives. Nutrigenomics – a new field of research – promises to improve health conditions and to prevent diseases such as diabetes, obesity, cardiovascular diseases and cancer. On the basis of results from nutrigenomics research, new types of functional foods with proven health claims could be developed, and perhaps personalised diets created, which are based on an individual's genetic pattern. (www.nugo.org)



Research institutes:

- Agrotechnology & Food Sciences
 Group
- Alterra
- Livestock Research
- Central Veterinary Institute
- I FI
- Plant Research International
- Applied Plant Research
- RIKILT
- IMARES

• EPIZONE – Network of Excellence for Epizootic Disease Diagnosis and Control. More than 200 researchers from 18 research institutes located in Europe, China and Turkey are working together to improve the worldwide prevention, control and diagnosis of animal diseases such as foot and mouth disease, avian influenza, swine fever and blue tongue. As a result, future outbreaks will have a smaller economic and social impact. The network is financed by the European Union. (www.epizone-eu.net)

Food Valley

Together with the business community, government agencies, public bodies and other expertise suppliers, Wageningen UR is an important partner in the Food Valley foundation. The aim of Food Valley is to stimulate the innovative power of the Dutch agri-food cluster by bringing business and knowledge together. The underlying concept is that the competitive position of Dutch industry can be strengthened through use of the country's knowledge infrastructure, which is both high-quality and accessible. (www.foodvalley.nl).



EU projects

Wageningen UR leads 55 EU projects, including 13 very large projects.

- 7 projects in the 'Food quality and safety' theme.
- 4 projects in the 'Sustainable development, global change and ecosystem' theme.
- 1 project in the 'Life sciences, genomics and biotechnology for health' theme.
- 1 project in the 'Nanotechnology and nanosciences, knowledge-based multifunctional materials and new production processes and devices' theme

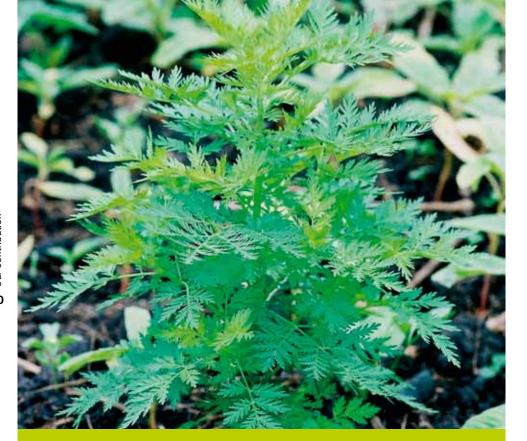
As a result, Wageningen UR is one of the most important participants in EU-financed research.

Our contribution

Our contribution to healthy food and living environment

A few examples of the impact of our research





Plants as pharmaceutical factories

Many plants are known for their medicinal effects. However, some of these plants are difficult to grow and sometimes the concentration of the active component is very low. For example, it is impossible to obtain sufficient quantities of the anti-malaria drug artemisinine from the plant *Artemesia annua*. This plant originates in Asia, where extracts have been used for centuries by healers to control fevers and malaria. The active ingredient is still effective against malaria, which is good news because the malaria parasite is increasingly becoming resistant worldwide to the currently available medication. Researchers at Wageningen UR are studying how *Artemesia* makes this medicine, so that they can have the plant itself – or perhaps microorganisms – make more of it. This is important because the small amounts currently produced by the plant make treatment with artemisinine relatively expensive. As a result, many of the 1 million people who die every year from malaria cannot afford such a treatment.

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African graduates active in the battle against AIDS

African students at Van Hall Larenstein University of Applied Sciences, part of Wageningen UR, made a documentary about AIDS prevention during their study. This documentary made such a good impression that when they returned to their home countries they joined forces and formed a network of graduates. Under the coordination of Van Hall Larenstein, they are working together to combat the AIDS problem in the rural areas, where many families are being decimated by AIDS and fields are being left fallow. Entire communities are being disrupted and the children who migrate to the city often wind up in degrading situations. The network is attempting to provide development workers with more insight into the enormous consequences that AIDS has for the African rural area. They are also teaching Tanzanian orphans how to grow maize and are giving lessons to orphans in Kenya about growing vegetables, so they can be self-sufficient.

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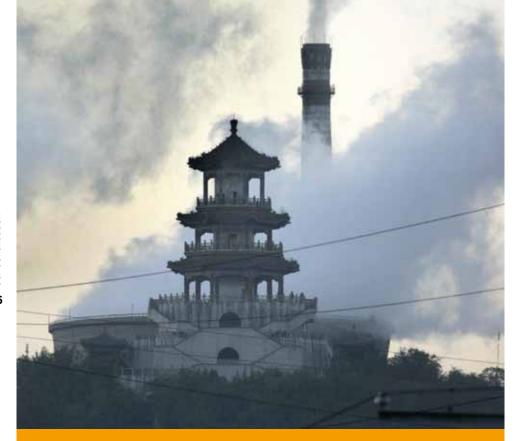


Low-fat mayonnaise through bionanotechnology

With bionanotechnology, we can build structures at the molecular and supramolecular level. This technology offers many possibilities. For example, we can develop more sensitive and more selective sensors with which we can improve our ability to monitor food. Or we can place nutrients inside microscopic balls, which improves their uptake. By understanding what is taking place at the nanometre level, we can conduct chemical reactions at the microscopic scale. But bionanotechnology also makes it possible to formulate foods in an entirely different way, with attention to minuscule details, which has advantages such as improved flavour, better shelf life and fewer calories.

In this way, mayonnaise can be made from small fat droplets filled with minuscule water droplets. This may sound strange, but mayonnaise is actually nothing other than an emulsion of fat droplets in water. By pressing the oil through holes on one side of an advanced microtechnological sieve, you obtain uniform droplets. The next step is to put water inside the droplets before they are passed through the filter. This results in low-fat mayonnaise. This 'bionano-mayo' retains its full-fat flavour, tastes like real mayonnaise, but has much less fat. Moreover, additives are no longer necessary.

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Wageningen UR offers China expertise in agriculture, nature and the environment

The People's Republic of China realises that its turbulent economic growth cannot continue without attention to nature and the environment. Wageningen UR is therefore offering to share its experience and expertise about the sustainable development of ecosystems with the Chinese government. To this end, it has opened its own office in Beijing. The staff is composed of Chinese citizens who graduated from Wageningen University or did their PhD research here.

Wageningen UR is also advising the Chinese government about the development of pesticide control policy, the problems of flooding and falling water tables in the Yellow River and Yangtze River regions, as well as about the sustainable use of wetlands. Moreover, near Shanghai on the island of Chongming, Wageningen UR is helping to develop the Shanghai Agropark, a 'greenport'. In this planned area, Wageningen expertise about integrated modern agricultural production and processing is being applied in combination with a demonstration facility and a recreational park. The aim is to make a positive contribution to sustainable agriculture in the region by reusing residues and waste products, reducing transport and generating energy by efficiently utilising heat.

Moreover, Wageningen UR is the 'preferred partner' of Fujian province in the area of innovation in food, agriculture and the environment, while the Chairman of the Executive Board of Wageningen UR, Aalt Dijkhuizen, is the personal adviser to the Governor of Fujian.

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Green landscaping can absorb particulate matter

In the Netherlands, particulate matter causes more victims every year than traffic accidents. As a result, particulate matter is one of the most serious threats to public health. The solution to this problem usually involves reducing traffic and construction. However, researchers at Wageningen UR have shown that green landscaping in the city is an excellent means for capturing particulate matter. For example, a tree in the city can capture as much particulate matter as is generated during 10,000 vehicle kilometres. Wageningen UR is focusing on research to use green landscaping as a filter for air pollution. Preliminary calculations have shown that green landscaping is very promising for improving air quality near motorways. This research will continue in the form of an expanded model and by taking measurements of the air quality along a motorway, which will be landscaped especially for that purpose. The use of green landscaping around farms to reduce odour nuisance and dust will also be investigated in more detail.

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Expertise helps increase the nutritional value of fruit and vegetables

One head of broccoli is healthier than another. Researchers from Wageningen UR discovered that the amount of healthy substances in the same types of fruit and vegetables can vary by more than a factor of 100. In recent years, it has become clear that more and more plant-based substances play a role in preventing many diseases, including cancer and cardiovascular disease. By growing varieties that contain more of these substances and by transporting, storing and processing them after harvest so that these health-promoting substances are not lost, fruit and vegetables can become even healthier. This applies not only to preparing fresh fruit and vegetables at home, but also to the industrial processing of canned vegetables, fruit juices and convenience meals. With this expertise, the quality of our food can be improved.

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Sustainable hydrogen as a future energy carrier

HYVOLUTION is an EU project which has the aim of producing hydrogen from biomass. Current production methods for hydrogen often use fossil fuels. As a result, hydrogen is not yet a sustainable alternative as an energy carrier. As part of HYVOLUTION, companies, institutes and universities from 13 countries are working together under the leadership of Wageningen UR. They are developing a method to use biomass, such as residues from the agro-industry, as a raw material. To convert biomass into hydrogen, the project uses two steps. First, bacteria growing at 70 °C convert the pretreated biomass into hydrogen gas and organic acids. After this, other bacteria produce additional hydrogen from the organic acids with the aid of light. These two steps make the production process economically feasible.

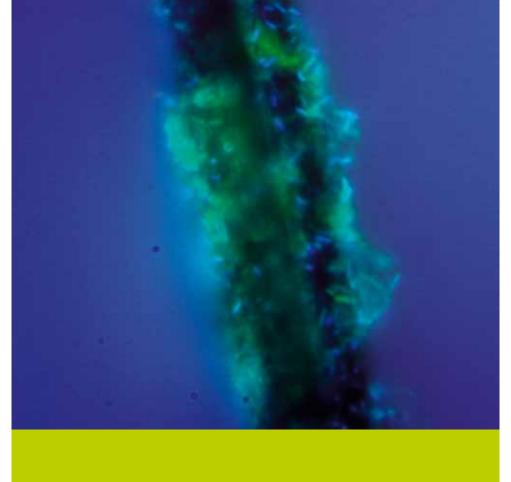
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Odours mislead malaria mosquito

It was previously known that African malaria mosquitoes are attracted by the smell of sweaty feet, but now it appears that not all sweaty feet are equally attractive. Researchers from Wageningen UR have discovered the reason: the chemical composition of the perspiration odour differs between individuals. Their research has shown that malaria mosquitoes are especially attracted by specific aromatic compounds. A combination of these aromatic compounds can be used to draw the mosquitoes into a type of odour trap or to keep them away from people. The primary aim is to control the malaria problem in certain regions. With such environmentally benign methods, Wageningen University hopes to contribute to the battle against this serious tropical disease.

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Bacteria generate electricity

In a 'biofuel cell', bacteria produce electricity from energy crops and organic residue streams. In contrast to a chemical fuel cell, the electricity is not produced from an energy carrier such as hydrogen, but is obtained directly from the organic substance with the aid of bacteria. The biofuel cell, which has been patented by Wageningen UR, has a much higher power density than comparable systems. Because it uses iron instead of very costly platinum, the biofuel cell is more efficient, more sustainable and less expensive. The biofuel cell can be used for both small-scale and large-scale generation of 'green electricity'. Since it does not require an intermediate energy carrier such as hydrogen, the biofuel cell can compete with the chemical fuel cell.

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The Dairy Academy challenges dairy farmers to innovate

In the dairy sector, farmers are faced with rapidly changing conditions; in order to survive they must obtain and apply the latest expertise. This is why Wageningen UR and LTO Nederland (the sector organisation for agriculture in the Netherlands) have established the Dairy Academy (*Melkvee Academie*). This organisation focuses on promoting the exchange of expertise and experience between dairy farmers. About 1,200 dairy farmers are participating in this modern expertise network. At the Dairy Academy, experts do not tell the farmers what they should do, but the farmers primarily learn from each other. The farmers are challenged to convert their expertise into strategy and action. Personal contacts and interchanges between education, research and professional practice are promoted in many innovative ways. For example, the farmers can sit around the table at informal meetings ('dairy farmer cafés') to talk about their profession or they can log onto to an interactive expertise bank, to which they can also contribute their own knowledge.

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Health and Society

Promoting health is an important aspect of government policy. The underlying aims are preventing premature death, improving the quality of life and offering equal opportunities for well-being to all citizens. Aspects of behaviour such as exercise and nutrition have an important influence on the health of individuals. In addition, good health care and healthy surroundings, including the family situation and a safe environment, are essential. With its Health and Society study programme, Wageningen University is training experts who can make a difference working in this broad sphere of activity. For instance, a Wageningen student has studied how social-cultural factors can play a role with Turkish and Moroccan women regarding their participation in exercise sessions and activities involving healthy nutrition. The aim of the research is to make such activities more attractive for this target group. This is one example of a multidisciplinary approach with which this study programme provides a unique contribution to the continuing professionalisation of this field.

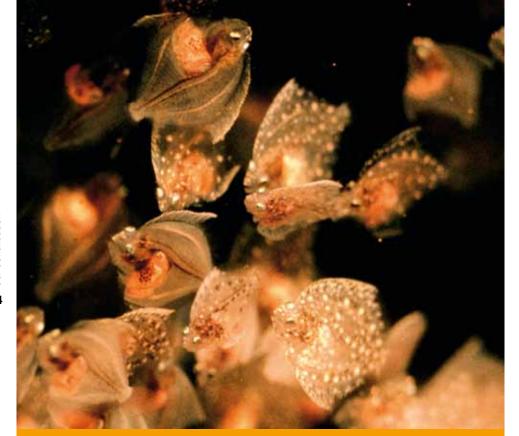
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Flowers from Ethiopia

Ethiopia is rapidly becoming an important producer of flowers. The government sees floriculture as a good possibility to improve the prosperity of its population, and in this way to help change the stubborn image of Ethiopia as a 'starvation country'. Flowers are now Ethiopia's fourth-largest export product, and the country is becoming a global leader in the labour-intensive production of roses. Dutch businesses are involved with many of the 70 large-scale floriculture operations that already offer employment to 25,000 people. Wageningen UR supports the development of the floriculture sector with training and research. For example, there are cultivation training programmes for middle management staff of floriculture operations. Wageningen UR is also helping to establish a phytosanitary unit, which will inspect flowers for hazardous organisms and pesticide residues before they are exported. In addition, environmentally benign crop protection methods and efficient water use are being encouraged on location.

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Clean aquaculture for ocean fish

Declining fish stocks and limitations placed on fisheries are leading to the development of an alternative: the production of ocean fish using aquaculture. For example, the production of turbot is growing rapidly in Europe. At present, successful turbot aquaculture generally requires continuous discharge of the water flowing through the system. From an environmental perspective, however, closed systems are preferred. In these systems, the water is continuously filtered, purified and reused. For the production of freshwater fish, efficient water-saving and energy-saving closed systems have already been developed. Unfortunately, the use of closed systems for the production of turbot has resulted in significantly slower growth, which can lead to a 20% loss in production. Together with other expertise partners and turbot growers, Wageningen UR has been asked to lead a European project to investigate the cause of this slower growth. After identifying the growth-retarding substances, which apparently accumulate in closed aquaculture systems, the next step will be to develop methods to remove them.

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Buying organic products in the supermarket

Lower prices for organic products will not be enough to significantly influence the purchasing behaviour of consumers. Briefly summarised, this was the result of the organic products price experiment conducted by Wageningen UR researchers in Dutch supermarkets, with support from the Ministry of Agriculture, Nature and Food Quality. In this experiment, the prices were reduced by amounts ranging from 5% to 40%. For example, a 10% price reduction led to 10-20% more sales, but the effect was different for every product. Consumers purchase organic products primarily because they believe they are flavourful, healthy or high quality. They also appreciate organic products due to the positive environmental aspects, but this plays a subsidiary role in purchasing behaviour. From the results of this experiment, the government and the business community concluded that price reduction can be effective, but that the costs and benefits of this strategy must be weighed against those of other instruments, such as improved marketing.

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Making the Netherlands climate-proof

According to expectations, climate change will result in more extreme weather conditions. This could have serious consequences for the Netherlands. The research programme 'Knowledge for Climate', which is being conducted by an expertise consortium under the leadership of Wageningen UR, together with TNO, Utrecht University, VU University Amsterdam, KNMI and Deltares, is therefore searching for concrete solutions for problems that can occur in climate-sensitive regions. For example, work is taking place in the Haaglanden region in the Netherlands on combined measures for water storage and greenhouse horticulture. The researchers are also looking at how Schiphol airport and Rotterdam harbour can continue to exist in the future when the sea level rises and wind direction, water currents and river flows change. During five years, the Dutch government will invest € 50 million in this programme.

Wageningen UR, together with VU University Amsterdam, is also co-leader of the programme 'Climate changes Spatial Planning', which will continue until 2011. This programme is focusing primarily on climate-related scenarios and measures concerning land-use planning, agriculture and nature and water management.

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Facts about Wageningen UR

Education

Wageningen University 18 Bachelors degree programmes (BSc) in the academic year 2008/2009

Society & Economics

- Business and Consumer Studies
- Economic and Policy
- Health and Society
- International Development Studies
- Applied Communication Science

Technology & Nutrition

- Agro-technology
- Biotechnology
- Food Technology
- Molecular Sciences
- Nutrition and Health

Environment & Landscape

- · Soil, Water and Air
- Forest and Nature Conservation
- International Land and Water Conservation
- Landscape Architecture and Spatial Planning
- Environmental Studies

Biology, Plants & Animals

- Biology
- Animal Sciences
- Plant Sciences

29 Masters degree programmes (MSc) in the academic year 2008/2009 (conducted in English)

Technology & Nutrition

- Agricultural and Bioresource Engineering
- Bioinformatics
- Biotechnology
- Food Safety
- Food Technology
- Molecular Sciences
- Nutrition and Health

Biology, Plants & Animals

- Animal Sciences
- Aquaculture and Fisheries
- Biology
- Organic Agriculture
- Plant Biotechnology
- Plant Sciences

Society & Economics

- Applied Communication Science
- Food Quality Management

- International Development Studies
- Management, Economics and Consumer Studies
- Management of Agro-ecological Knowledge and Social Change

Environment & Landscape

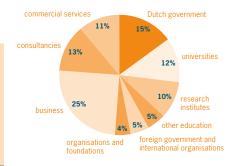
- Earth System Science
- Environmental Sciences
- Forest and Nature Conservation
- Geo-information Science
- Hydrology and Water Quality
- International Land and Water Management
- Landscape Architecture and Planning
- · Leisure, Tourism and Environment
- Meteorology and Air Quality
- Soil Science
- Urban Environmental Management

Graduates of Wageningen University

At present, there are 31,300 living graduates, of whom 27,400 are Dutch and 3,900 have other nationalities; 37% of the Dutch graduates are women and 44% of the graduates of other nationalities are women, 8% of the Dutch graduates and 73% of the other nationalities live abroad.

The chart gives an impression of the careers of our graduates.

Market sectors in which Wageningen graduates work (June 2009)



Number of professors		
	January 2009	
chair plan	92	
special professorships	75	
personal chairs	20	
international education	12	
university professor	1	
honorary professor	1	
total	201	

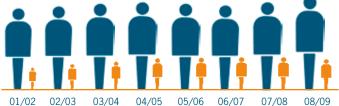
Nationalities of Wageningen University students

Students come to Wageningen University from approximately 100 countries. They are distributed among the continents as follows:

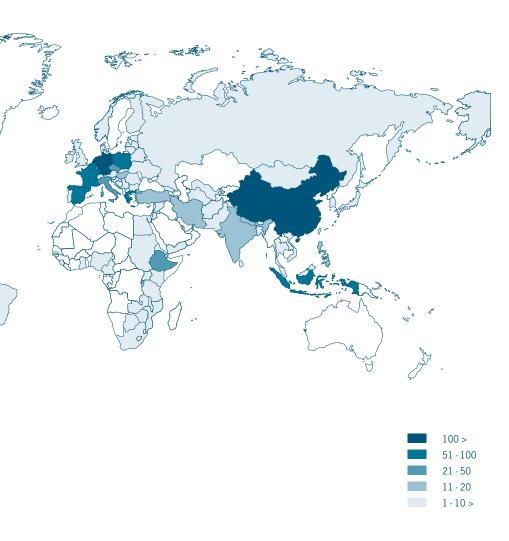
The Netherlands: 4,088
Europe (except NL): 593
Asia: 438
Africa: 172
South America: 63
Central America: 25
North America: 19



Student numbers (excluding PhD students)



Academic year 4,520 4,571 4,772 4,821 4,713 5,398 total 4,761 4,941 752 859 1,014 1,141 1,108 international 1,180 1,185 1,186



Van Hall Larenstein University of Applied Sciences 2009/2010

(The following Bachelor programmes are conducted in English: apart from these, there also are Bachelor programmes conducted in Dutch)

Bachelors degree (4 years)

- Applied Animal Science
- Equine Business and Economics
- Equine Leisure and Sports
- Fair Trade Management
- Food Innovation Management
- International Agribusiness and Trade
- International Business & Management Studies (IBMS)
- International Horticulture and Marketing
- International Livestock Management
- Regional Development and Innovation

Final phase of the Bachelors programme (2 years)

- Applied Animal Science
- Coastal Zone Management
- Energy Management and Climate
- Water Technology and Quality
- Equine Business and Economics
- Equine Leisure and Sports
- Fair Trade Management
- Food and Agribusiness Management
- Food Innovation Management
- International Agribusiness and Trade

- International Horticulture and Marketing
- International Livestock Management
- International Timber Trade
- International Water Management
- Regional Development and Innovation
- Tropical Forestry
- Wildlife Management

Masters degree (1 year)

Rural- and environmental Management with specialisation in:

- Rural Development and HIV/AIDS
- Rural Development and Food Security
- Rural Development and Communication
- Rural Development and Gender
- European MBA in Food and Agribusiness (18 months)

Agricultural Production Chain Management with specialisation in:

- Livestock Chains
- Horticulture Chains

Graduates of

Van Hall Larenstein University of Applied Sciences

The total number of graduates is 24,000.

Wageningen Business School

Wageningen Business School trains managers and professionals who work in the following fields:

- Management & Entrepreneurship
- Environmental Sciences
- Food Innovation & Food Sciences
- Plant Sciences
- Research & Communication Competencies

Wageningen International

The Capacity Development & Institutional Change (CD&IC)
Programme of Wageningen International provides training, advice and consulting services within the following themes:

- Livelihood Security and Development Policy
- Sustainable Agriculture as a Driver for Development
- Value Chains for Sustainable Development
- Integrated Land, Water and Biodiversity Management
- Learning and Innovation for Societal Change

Research

Research is conducted in:

92 chair groups in the 5 departments of Wageningen University:

- Agrotechnology and Food Sciences
- Animal Sciences
- Environmental Sciences
- Plant Sciences
- Social Sciences

8 Research institutes:

- Agrotechnology & Food Sciences
 Group: develops and transfers
 knowledge regarding sustainable
 applications for safe food and nonfood products.
- Alterra: is involved with the green world around us and the sustainable use of our living environment.
- Livestock Research: develops, innovates and distributes know-how, products and services in the field of animal production.
- Central Veterinary Institute: contributes to the protection of animal and human health in the Netherlands by means of diagnosis and research involving animal diseases and by providing related advisory services.

ıt Wageningen UK

- **LEI:** develops economic expertise for government bodies and industry in the fields of food, agriculture and the natural environment.
- Plant Research International: develops knowledge about genetics and reproduction, genomics, proteomics, metabolomics, bioinformatics, crop protection, crop ecology and agrosystems.
- Applied Plant Research (PPO): conducts applied research in arable farming, multifunctional agriculture and field production of vegetables, bees, flower bulbs, mushrooms, nursery stock and fruit.
- IMARES: (Institute for Marine Resources and Ecosystem Studies): provides the scientific support that is essential for developing policies and innovation in respect of the marine environment, fishery activities, aquaculture and the maritime sector.

Research Institute for Legal Research Assignments:

 RIKILT – Institute of food safety, is engaged in statutory monitoring and research in the areas of food and feed safety, nutrition and health and food quality.

Themes for fundamental research:

Most research at the Wageningen University takes place within the programmes of the graduate schools under the following themes:

Experimental Plant Sciences (EPS):

- Developmental biology of plants
- Interactions of plants and biotic agents
- Metabolism and adaptation
- Genome biology

Nutrition, Food Technology, Agrobiotechnology and Health (VLAG):

- Sustainable production
- Product and ingredient structuring and functionality
- Food safety
- Nutrition, metabolism and health

Production Ecology and Resource Conservation (PE&RC):

- Scaling and integration in ecology
- Bio-interactions and biodiversity
- Quality of production and products
- Sustainable use of land and its resources

Wageningen Institute of Animal Sciences (WIAS):

- Animal health and welfare
- Healthy and safe products
- Sustainable systems

Mansholt Graduate School of Social sciences (MG3S):

- Decision making and risk in supply chains
- Policy issues and policy co-ordination in the European Union under transformation
- Governance
- Genomics and society
- Gender issues in food and agriculture

Research School for Resource Studies for Development (CERES):

- Government, risk and society
- Expertise, technology & social transformation
- Distribution processes and management of natural resources

Environmental and climate research (WIMEK / SENSE):

- Micropollutants, including environmental technology
- Environmental change and ecosystem dynamics

- Global change: climate, land use and biogeochemical cycles
- Industrial transformation towards sustainable use of energy and materials

Themes of application-driven research:

Wageningen UR develops scientific insights into a number of basic themes with the aim of answering future questions arising from the work of the Ministry of Agriculture, Nature and Food Quality:

- Design and utilisation of natural areas, both terrestrial and aquatic (green and blue)
- Climate change
- Chains and agri-logistics
- Sustainable agriculture
- Flora and fauna for healthy people
- Food safety
- Transition processes, institutions, governance and policy
- Animal health and animal welfare
- Scientific infrastructures
- Biobased economy

Examples of collaborative partnerships:

Allergy consortium:

Various Wageningen research institutes are working towards controlling allergens and reducing the allergenicity in our food and environment. www.allergie.wur.nl

Centre for BioSystem Genomics (CBSG):

Education and research in the fields of genomics, genetics and molecular research on plants and crops. www.cbsg.nl

Climate Change and Spatial Planning:

On behalf of the Dutch government, business community and science community, Wageningen UR is working together with VU, KNMI, Arcadis, ECN, Natuurmonumenten, the Netherlands Environmental Assessment Agency and the Ministry of Housing, Spatial Planning and the Environment on a high quality and usable expertise infrastructure concerning climate in relation to spatial use.

www.klimaatvoorruimte.nl

• Food Valley:

Promoting innovation of the agri-food cluster by facilitating interaction between food companies and research centres that are developing new and innovative food concepts. www.foodvalley.nl

• TTI:

Joint initiative of universities and research institutes, under the leadership of Wageningen UR, with companies in the seed, bulb and plant propagation sector to improve the leading international position of the Netherlands in this sector. www.groenegenetica.nl

Green Knowledge Cooperative:

Dutch science institutions in the 'green' sector have joined forces within the Green Knowledge Cooperative, under the leadership of Wageningen UR. This cooperative focuses on improving the flow of knowledge and introducing new ideas into education.

• Nutrigenomics:

Wageningen UR - together with TNO, Maastricht University, RIVM, NIZO and VLAG - is performing biomolecular research into healthy and safe food. www.nutrigenomics.nl

• Top Institute Food and Nutrition:

Wageningen UR - together with TNO, NIZO Food Research, Maastricht University and the business community - is performing pioneering research in the area of nutrition and health.

• Wetsus:

Wetsus, the centre for sustainable water technology, is a research institute which unites the forces of the business community and leading universities and research institutes. As a top technological institute, Wetsus develops innovative, sustainable water technologies. Together with three universities, more than 40 companies – multinationals and small and medium-sized businesses – participate in Wetsus. www.wetsus.nl

Science Shop:

The Science Shop of Wageningen UR mediates research questions from civic and community organisations, action groups and associations in the areas of sustainable agriculture, rural development, nature & the environment and consumers & food.

www.wetenschapswinkel.wur.nl

Wageningen UR has partners all over the world. Many of these partners are listed below.

Africa

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)

Forum for Agricultural Research in Africa (FARA)

South-Africa:

- University of Pretoria
- Agricultural Research Council (ARC) of South Africa
- Council of Scientific & Industrial Research (CSIR)
 Kenya:
- University of Nairobi
- Kenya Agricultural Research Institute

Ethiopia:

- Jimma University (JU)
- Ethiopian Institute of Agricultural Research (EIAR)

 Uganda:
- Makerere University
- National Agricultural Research Organisation (NARO)
 Ghana:
- Council for Scientific and Industrial Research
- · University of Ghana
- Kwame Nkrumah University of Science and Technology (KNUST)

Benin:

Université Nationale du Bénin

Contact: africa.wi@wur.nl

Europe

AGRINATURA (The European Alliance on Agricultural Knowledge for Development)

France:

- Institut National de la Recherche Agronomique (INRA)
- Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD)

Germany: • Universität Bonn

• Universitat builli

Euroleague for Life Sciences:

- Denmark: University of Copenhagen, Faculty of Life Sciences (LIFE)
- Germany: University of Hohenheim (UHOH)
- Sweden: Swedish University of Agricultural Sciences (SLU)
- Austria: University of Natural Resources and Applied Life Sciences (BOKU)

Contact: europe.wi@wur.nl

Asia

China:

- Chinese Academy of Agricultural Sciences (CAAS)
- Chinese Academy of Sciences (CAS)
- Nanjing Agricultural University
- China Agricultural University
- Indonesia:
- Bogor Agricultural University (IPB)
 India:
- The Energy and Resources Institute (TERI) South Korea:
- Rural Development Administration

Vietnam:

- · Can Tho University
- . Hanoi University of Agriculture

Contact: asia.wi@wur.nl

Wageningen International

Wageningen International is the access point where clients and partners can present their tasks and questions in the areas of international research, education and capacity building. The regional contact managers bring international clients and partners into contact with relevant Wageningen UR research and education to benefit the development of projects and effective partnerships.

North America

USA:

- Purdue University (MBA)
- Harvard Business School Boston (Agribusiness Seminar)
- UC Davis University of California
- Michigan State University
- Cornell University
- The Fletcher School

Canada:

University of Guelph

Contact: info.wi@wur.nl

South America

Brazil:

- University of São Paulo
- Federal University of Layras
- Embrapa (the largest research institute in Brazil and Latin America)

Argentina:

- National Institute of Agricultural
- Technology (INTA)
- University of Buenos Aires

Mexico:

- Colegio de Postgraduados
- University of Chapingo
- Monterrey Institute of Technology and Higher Education

Chile:

- · University of Chile
- Pontifical Catholic University of Chile (PUC)
- National Institute for Agrarian Research (INIA)

Contact: latinamerica wi@wur nl

Historical timeline

becomes a separate organisation.

Wageningen University

1876 1968 1904 1986 The state takes over the local From now on the In accordance with Wageningen education council's Agricultural College Agricultural College is has been developed to amendments to in Wageningen: the start subject to the same a higher level and the the Academic Education of National Agricultural law that governs other institution is now called Act, the Agricultural Education in The Netherlands universities: the Academic the National Higher College College is now called the Education Act of Agriculture, Horticulture Agricultural University. and Forestry. 1956 1997 Post-war developments 1918 The formation of in education and research Wageningen University necessitate new legislation: Wageningen's status as an and Research Centre institute of higher educathe Agricultural College (Wageningen UR) begins; tion is legally ratified, and Statute the Agricultural University it becomes the National merges with the DLO Agricultural College on Research Institutes and 9 March 1918 the Institutes for Applied DLO Research 1936 1877 1888 1938 1976 Establishment of the Foundation of the The National Institute Establishment of Establishment of RIKILT first agricultural Institute for Research the DLO Research for Fisheries Studies research station and Processing of is set up in Umuiden Institutes in Wageningen Fruit and Vegetables in (now part of (predecessor Wageningen (now part 1971 Wageningen IMARES). to the current of Agrotechnology & 1940 Establishment of research institutes). Food Sciences Group). PHLO (now part 1899 Establishment of of Wageningen 1919 the Agricultural Business School) Botanical gardens Economics Institute A forestry research are established at (LEI). station is established Westland and Boskoop 1951 (now part of Alterra). (now part of PPO). Establishment of The government agriculthe International tural research station Agricultural Centre for seed inspection (IAC) (part of the current PRI)

2008

Organisation of Wageningen UR

Within Wageningen UR, the departments of Wageningen University and the institutes of the former DLO Foundation have joined forces to create five organisational units, the Sciences Groups.

Wageningen UR is the framework of cooperation between Wageningen University, the DLO Foundation and Van Hall Larenstein University of Applied Sciences. The result is an organisation in which education has been combined with fundamental research, application-driven research and practical research in a single, synergetic science chain. This cooperation has been given shape in six units, including five Sciences Groups. One department of Wageningen University has been functionally integrated in each Sciences Group with one or more former DLO institutes. The sixth unit. Van Hall Larenstein University of Applied Sciences operates as an independent organisational component inside Wageningen UR, within the corporate framework established by the Executive Board. The cooperation focuses primarily on the educational aspects. Wageningen UR also includes Wageningen International, IMARES, Wageningen Business School and RIKILT

Agrotechnology	Animal
& Food Sciences	Sciences
Group	Group
Agrotechnology	Wage
& Food	Animal
Sciences	Sciences
Restaurant of the Future Food Technology Centre Fresh, Food & Chains Biobased Products	Speciali Livestock Research Central Veterinary Institute



Environmental Sciences Group	Plant Sciences Group	Social Sciences Group	Van Hall Larenstein University of Applied Sciences	
ningen Universi	'Sity Plant Sciences	Social Sciences	Leeuwarden Velp Wageningen	Wageningen International
Sciences				IMARES
Interna App	Institutes Plant Research International	LEI		Wageningen Business School
	Applied Plant Research			RIKILT

Figures

Financial figures and staff numbers

(31/12/2008)

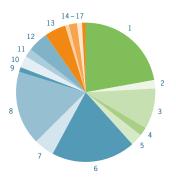
Executive Board:

Dr.ir. A.A. (Aalt) Dijkhuizen (chairman)
Prof.dr. M.J. (Martin) Kropff (education and research, also rector magnificus Wageningen University)
Dr. IJ.J.H. (Tijs) Breukink (operational management)

Turnover: € 662 mln

Wageningen UR, number of staff

Total: 5,550 (in fte)



Funding

Wageningen University (€ 264 mln)

- First funding source from LNV (incl. education) € 155 mln
- Second funding source from NWO / KNAW € 15 mln
- 3. Third funding source from contract research € 64 mln
- 4. Tuition fees € 13 mln
- 5. Other assets € 17 mln

Specialised Research Institutes (€ 348 mln)

- 6. Contract research € 132 mln
- 7. Knowledge base € 36 mln
- 8. Programmes LNV: € 120 mln
- 9. Patents and licenses € 3 mln
- 10. Sales of products € 17 mln
- Analysis and advisory services € 7 mln
- 12. Other assets € 33 mln

Van Hall Larenstein University of Applied Sciences (€ 50 mln)

- 13. First funding source, Ministry of LNV € 30 mln
- 14. Second funding source € 3 mln
- 15. Third funding source € 7 mln
- 16. Tuition fees € 6 mln
- 17 Other assets € 4 mln

Source: annual report 2008

Agrotechnology & Food Sciences Group

Director: Dr. J.M. (Peter) van den Elzen

Turnover: € 79 mln

Staff: 890

Animal Sciences Group

Director: Dr. M.C.T. (Martin) Scholten

Turnover: € 114 mln

Staff: 880

Environmental Sciences Group

Director: Ir. C.T. (Kees) Slingerland

Turnover: € 92 mln

Staff: 920

Plant Sciences Group

Director: vacancy Turnover: € 136 mln

Staff: 1220

Social Sciences Group

Director: Prof.dr.ir. R.B.M. (Ruud) Huirne

Turnover: € 64 mln

Staff: 690

Van Hall Larenstein University of Applied Sciences

Chair of Executive Board: E. (Ellen) Marks

Turnover € 50 mln

Staff: 550

Wageningen International

Director: Dr.ir. A. (Bram) Huijsman

Turnover: € 12 mln

Staff: 80

Wageningen Business School

Director: Dr. W. (Wietze) van der Aa

Turnover: € 2 mln

Staff: 20

RIKILT - Institute of Food Safety

Director: Dr. A.T.J. (André) Bianchi

Turnover: € 20 mln

Staff: 180

IMARES

Director: Dr. M.C.T. (Martin) Scholten

Turnover: € 18 mln

Staff: 170

Staff and Support

Dr. P. (Peter) Booman Director, Facility Services

Drs. J.N. (Jacqueline) Girbes-van Stapele Secretary to the Executive Board

Dr. A.F. (Ab) Groen

Director, Corporate Education and Research

Drs. B.B. (Bas) Wessels RC

Director, Corporate Finance & Control

V.M.S. (Viola) Peulen

Director, Corporate Communications

Mr. T. (Tineke) Tromp

Director, Corporate Human Resource

Management

Locations



Animal Sciences Group

Goutum, 1

Heino, 2

Hengelo (Gld.), 3

Lelystad, 4

Raalte, 5

Sterksel, 6

Zegveld, 7

Plant Sciences Group

Bleiswijk, 8 Lelystad, 4

Lisse, 9

Marwijksoord, 10

Nagele, 11

Noordbroek, 12

Randwijk, 13 Valthermond, 14

Vredepeel, 15

Westmaas, 16

Social Sciences Group

Alkmaar, 17 Assen, 18 Dalfsen, 19 Den Haag, 20 Goes, 21

Haaksbergen, 22 Huissen, 23

Leeuwarden, 24 Lelystad, 4

Meijel, 25 Oisterwijk, 26

IMARES

IJmuiden, 27 Yerseke, 28 Den Helder, 29 Texel, 30 Van Hall Larenstein University of Applied Sciences

Leeuwarden, 24 Velp, 31

Wageningen University

Wageningen



Wageningen Campus

The focal point of Wageningen Campus is education and research in the area of 'healthy food and living environment'. On the campus, there is plenty of opportunity for interaction between staff and students from the various Wageningen disciplines. The Forum is located at the heart of the campus. This is the education building where around 4,500 students from Wageningen University and Van Hall Larenstein University of Applied Sciences take classes every day. This castle-like building houses lecture halls, laboratories, a library, a canteen, a grand café and many workplaces located around a central courtyard. These workplaces are ideal for working, studying, going on the Internet and meeting other staff and students.

The Sciences Groups are located in the park-like surroundings of the Forum. This is where the research takes place and where MSc students specialise in their chosen

fields. Like the Forum, the Atlas building – with its striking architecture – has been built with an eye to sustainability, which provides Wageningen UR with significant reductions in ${\rm CO_2}$ emissions every year.

Library

The Wageningen UR Library offers its users an extensive scientific collection in the field of 'healthy food and living environment'. Via the Digital Library (library.wur.nl), it is possible to consult the entire collection. including 10,000 full-text electronic periodicals. The main facility of the library is located in the Forum building, with an additional location at the Leeuwenborch and several regional satellite locations. The Library facilities at the Forum building provide users with an information-rich environment with approximately 500 work and study places. an indispensable collection of books and documents, extensive opening hours and personalised support and advice.



Contact

Wageningen UR

T 0317 48 01 00 / www.wur.nl

Corporate Headoffice

Costerweg 50 6701 BH Wageningen (building no. 400) T 0317 48 22 11 www.wur.nl

Wageningen Business School

Costerweg 50 6701 BH Wageningen (building no. 400) T 0317 48 40 93 www.wbs.wur.nl

Wageningen International

Costerweg 50 6701 BH Wageningen (building no. 400) T 0317 48 68 00 www.wi.wur.nl

Wageningen University

T 0317 48 01 00 / www.wu.nl

Agrotechnology & Food Sciences

Bomenweg 2 6703 HD Wageningen (building no. 307) T 0317 48 32 37

Animal Sciences

Marijkeweg 40 6709 PG Wageningen (building no. 531) T 0317 48 39 52

Environmental Sciences

Wageningen Campus Droevendaalsesteeg 3 and 4 6708 PB Wageningen (building no. 100, 101 and 104) T 0317 48 16 00

Plant Sciences

Wageningen Campus Droevendaalsesteeg 1 6708 PB Wageningen (building no. 107) T 0317 48 60 01

Social Sciences

Hollandseweg 1 6706 KN Wageningen (building no. 201) T 0317 48 36 39

Van Hall Larenstein

www.vanhall-larenstein.com

Van Hall Larenstein University of Applied Sciences

Leeuwarden location: Agora 1 8934 C.J. Leeuwarden

T 058 28 46 100

Velp location:

Larensteinselaan 26a 6882 CT Velp

T 026 369 56 95

Wageningen location: Wageningen Campus

Droevendaalsesteeg 2

6708 PB Wageningen (building no. 102)

T 0317 48 62 30

Research institutes

Agrotechnology & Food Sciences Group

Wageningen Campus Bornse Weilanden 9 6708 WG Wageningen (building no. 118) T 0317 48 00 84 www.afsg.wur.nl

Alterra

Wageningen Campus
Droevendaalsesteeg 3 and 4
6708 PB Wageningen
(building no. 100, 101 and 104)
T 0317 48 07 00
www.alterra.wur.nl

Livestock Research

Edelhertweg 15 8219 PH Lelystad T 0320 23 82 38 www.asg.wur.nl

Central Veterinary Institute

Main location: Houtribweg 39

8221 RA Lelystad

Other location: Edelhertweg 15

8219 PH Lelystad T 0320 23 88 00 www.cvi.wur.nl

LEL

Alexanderveld 5 2585 DB Den Haag T 070 33 58 330 www.lei.wur.nl

Applied Plant Research (PPO)

Main location: Wageningen Campus Droevendaalsesteeg 1 6708 PB Wageningen (building no. 107) T 0317 48 60 01 www.ppo.wur.nl

Other locations:

Lelystad (Arable Farming, Multifunctional Agriculture and Field Production of Vegetables) Edelhertweg 1 8219 PH Lelystad T 0320 29 11 11

Lisse (Flower Bulbs and Nursery Stock)
Prof. van Slogterenweg 2
2161 DW Lisse
T 0252 46 21 21

Randwijk (Fruit) Lingewal 1 6668 LA Randwijk T 0488 47 37 00

Plant Research International

Wageningen Campus
Droevendaalsesteeg 1
6708 PB Wageningen (building no. 107)
T 0317 48 60 01
www.pri.wur.nl

Wageningen UR Greenhouse Horticulture

Main location: Violierenweg 1 2665 MV Bleiswijk T 0317 48 56 06 www.glastuinbouw.wur.nl

Other location:
Wageningen Campus
Droevendaalsesteeg 1
6708 PB Wageningen (building no. 107)
T 0317 48 60 01

IMARES

Haringkade 1 1976 CP IJmuiden T 0317 48 09 00 www.imares.wur.nl

RIKILT - Institute of Food Safety

Wageningen Campus Akkermaalsbos 2 6708 WB Wageningen (building no. 123) T 0317 48 02 56 www.rikilt.wur.nl

colophon

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