



Annual Report 2001 - 2002

including plans for 2003

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The Royal Veterinary and Agricultural University, Denmark
February 2003

Head of School Stig Milan Thamsborg

List of abbreviations

DARCOF	Danish Research Center for Organic Farming
DIAS	The Danish Institute of Agricultural Sciences
DMU	Danmarks MiljøUndersøgelser (National Environmental Research Institute)
DTU	Technical University of Denmark
DVI	The Danish Veterinary Institute
FUR	Forsker Uddannelses Rådet (Danish Research Training Council)
FØI	Danish Research Institute of Food Economics
FØJO	Forskningscenter for Økologisk Jordbrug (Danish Research Center for Organic Farming)
IVM	Department of Veterinary Microbiology (KVL)
KVL	The Royal Veterinary and Agricultural University
NERI	National Environmental Research Institute
NOVA	The Nordic Forestry, Veterinary and Agricultural University
RUC	Roskilde University Center
SOAR	The Research School for Organic Agriculture and Food Systems

Introducing SOAR

The Research School for Organic Agriculture and Food Systems (SOAR) is located at The Royal Veterinary and Agricultural University (KVL) in Copenhagen and at present, 19 PhD students are enrolled. SOAR was founded in June 2001 with funding from KVL, The Danish Research Centre for Organic Farming (DARCOF/FØJO) and the Danish Research Training Council (FUR). The summer schools have received separate financial support from the NOVA University, an Inter-Nordic collaboration.

The major goals of SOAR are

- to improve the quality of the PhD education,
- to raise the scientific level of research within areas relevant to organic agriculture by training the PhD students to deal with complex problems, and
- to create an attractive research environment for the PhD students in SOAR

This research school covering organic agriculture and food systems has a very broad scope encompassing technical sciences, natural sciences as well as social sciences. The PhD projects range from e.g. "Technology for reduction of environmental impact and loss of nitrogen from solid manure" to "Investigating consumer demands on organic food products". Although the majority of the PhD students are attached to KVL, PhD students work and study at different research centers and universities in Denmark, in total 9 different research institutions and 4 different universities. What all PhD students have in common is that they are concerned with issues related to organic production and sales. In SOAR they get the opportunity – together with their supervisors – to discuss and develop research in this multi- and interdisciplinary field of research. Owing to the geographical spread and broad scope of the research topics studied it is seen as essential to support networking among the PhD students by conducting biannual seminars. Furthermore, the yearly summer school aims at broad but important themes like linking organic farming with ecology; research methodologies; values and ideology in science, and other philosophy of science-related topics. Specific research topics for a reduced number of students are planned to be covered by ad hoc courses. The first is planned for 2003.

SOAR provides a forum for all PhD students and their supervisors for a continued discussion of goals, means and methods in relation to research in organic agriculture and food systems. Organic agriculture is based on a range of principles and rules, which should be subject of an ongoing scientific debate to which we as researchers can contribute. This debate was successfully started among SOAR PhD students at the summer school 2002.

Through international relations SOAR can support the PhD students in their international co-operation and networking. This will in turn strengthen the international research environment at the research institutions and universities.

SOAR is established on a 5 years' trial basis ending in June 2006.

Activities during 2001 and 2002

PhD Stipends

An important activity in SOAR is the financing and allocation of PhD stipends for research projects within organic agriculture and food production. Currently 19 PhD students are enrolled in SOAR. When SOAR was established in 2001 12 PhD students enrolled, and in 2002 another 7 PhD students have joined the research school. 4 of these are financed through SOAR joint grants: SOAR called for project ideas in April 2002 and 13 proposals for PhD projects were received. Out of these 6 were rejected, and 7 would be announced. Further in the process some failed to guarantee their co-funding, and only 4 stipends have been announced. Of these 3 PhD students have started their studies in autumn 2002, and the fourth will start in the beginning of 2003. In October 2002 a second round of announcements was initiated by calling for project ideas. In November the secretariat received 12 proposals for PhD projects. The Scientific Advisory Board decided to reject two of these at a meeting in December. Of the 10 that have not been rejected at this stage, the ones that can guarantee their co-funding will be announced. Once applications have been received and evaluated, the Scientific Advisory Board will come to a final decision about the selection of projects for funding. It is anticipated that PhD students will commence their studies around June 2003.

Biannual seminars

SOAR conducts two yearly seminars for networking, lectures, mini-courses and group-discussions on subjects relevant to the PhD study. The seminars are planned by SOAR secretariat in collaboration with a couple of PhD students. At each seminar time is allocated for group discussion on progress and networking. Each seminar also focuses on a theme decided by the PhD students. On the two seminars conducted in 2002 a couple of PhD students have presented their projects each time. The venue is different every time, as the group thereby will be visiting the different research institutions and working places of their colleagues. Members of the Scientific Advisory Board have also joined the seminars, and specific parts of the seminars are open to supervisors.

Autumn 2001:

Inaugural meeting with lectures, followed by a brainstorm on expectations and plans for the research school.

Spring 2002:

In spring the seminar was held at Roskilde University Center on 7-8 May. The theme was supervision, and a lecturer from RUC took the PhD students through a session of identifying issues and problematic situations in relations to supervision and cooperation with supervisors. It is the plan to follow up on this with a seminar for supervisors in spring 2003. Furthermore three PhD students presented their projects all in the field of social science, networking and consumer issues.

Autumn 2002:

The autumn seminar was held on 28-29 November at Risø National Laboratory, Roskilde. The theme of this seminar was project management, and the PhD students were taken through exercises and lectures on the topic. The two PhD students working at Risø presented their projects, and in addition other researchers at Risø engaged in research in organic agriculture presented their research. The next biannual seminar is scheduled to 24-25 April 2003.

Summer school

It is the idea that summer schools in SOAR should aim at broad themes, since the PhD students enrolled in SOAR cover a wide range of projects and research approaches. The summer school in 2001 was about "Linking Ecology and Organic Farming". The programme can be found on the web-site www.soar.dk.

In 2002 the summer school was titled "Research Methodologies in Relation to Principles and Practice in Organic Farming". The aim was to:

- provide an overview of different kinds of knowledge and the research approaches linked to them
- provide an overview of research methodologies, including applicability, advantages and limitations
- summarize and discuss principles and practice of organic agriculture
- discuss whether/how item 2 affects the choice of method from item 1
- provide a basis for adoption of the methods most appropriate for the participants' own research

Programme, assignments and evaluation is available at the web-site www.soar.dk.

The summer school this year (2003) is titled "Values, Ideology, Science and Organic Farming".

Secretariat

An academic assistant was employed in February 2002 on a 20 hours per week basis. The academic assistant supports the head of school in the daily management, and assists the PhD students with information on PhD courses, conferences, workshops etc. This is to a wide extent done through the homepage www.soar.dk.

International cooperation

The vision is to strengthen international cooperation particularly within Europe both in terms of student exchange and courses in organic agriculture and food systems. One of the ways in which this will be done is by inviting guest researchers and speakers to Denmark in order to give the PhD-students a possibility to establish international contacts.

Today there is already close cooperation with the other Nordic countries regarding PhD education within the NOVA University. The two summer schools have been planned and accomplished in close collaboration with the Nordic countries through NOVA. All activities are coordinated closely with the Swedish Research School for Organic Agriculture and Food Systems (SwOFF). SOAR summer schools are receiving funding from NOVA (the summer school 2001 fully paid by NOVA).

Guest professors

In February 2002 Professor Ralph Martin from the Organic Agriculture Centre of Canada visited SOAR, and he presented his research as a professor at Nova Scotia University, and he visited researchers at KVL. This has developed into a closer linkage with plans for exchange programme and Ralph Martin is planning a stay at KVL in 2003.

Activities planned for 2003

PhD Stipends

Nine PhD stipends will be announced by end February. When the applications have been received and evaluated by end of March, the Scientific Advisory Board will come to a final decision about the selection of 6-8 projects for funding by mid April. It is anticipated that PhD students will commence their studies around June 2003.

Biannual seminars

Spring seminar is planned for 24-25 April at DIAS Årslev. The theme will be a follow up of the summer school: Discussions of research methodologies in current PhD projects. Autumn seminar will be planned together with a supervisor course in November.

Supervisor course

The SOAR secretariat has commenced the planning for the supervisor course to be held in November 2003.

Summer school

The title of the summer school is "Values, Ideology, Science and Organic Farming". First planning meeting is scheduled at 20th February. Responsible for the summer school will be associate professor Jesper Rasmussen, KVL.

International cooperation

The Agroecology working group in NOVA has received funding for a part time coordinator to strengthen collaboration between Swoff, SOAR and MSc education in organic agriculture. The NOVA coordinator and the academic assistant of SOAR will work closely together to coordinate PhD courses and other initiatives. A list of planned courses in the NOVA co-operation is available at the homepage www.soar.dk.

SOAR has called for project proposals for PhD stipends funded by FUR: Danish candidates going abroad or foreign candidates coming to Denmark for PhD studies. An application will be forwarded to FUR by March 1st.

PhD Courses

An ad hoc SOAR course in social science will be planned for October 2003, entitled "Modernization of Food Networks".

SOAR contributes to a graduate course in Advanced Veterinary Parasitology, Sustainable control of nematode parasites in ruminant livestock planned for Dalarna in Sweden between 30/3 to 6/4, 2003.

Organizational structure of SOAR

Organization

Head of School is Professor Stig Milan Thamsborg. Management and decision making is conducted in close collaboration with a Scientific Advisory Board and the leadership of FØJO. The Scientific Advisory Board is constituted of the head of school, representatives from the institutions associated with FØJO, KVL and a PhD student. Since November 2001 the Scientific Advisory Board has conducted 6 meetings. Next meeting is scheduled to April 10th 2003. A secretariat (head of school and a part time academic assistant) takes care of daily management.

Secretariat

Head of School, Professor
Stig Milan Thamsborg
Den Kgl. Veterinær- og
Landbohøjskole
Dyrlægevej 100
1870 Frederiksberg C
Phone: + 45 3528 3778
Telefax: + 45 3528 2774
E-mail: smt@kvl.dk

Academic Assistant :
Sofie Kobayashi
Den Kgl. Veterinær- og
Landbohøjskole
Rolighedsvej 23 st.th.
1958 Frb. C
Phone: +45 3528 2166
Telefax +45 3528 3709
E-mail: sok@kvl.dk

Scientific Advisory Board

Professor
Stig Milan Thamsborg
(Head of School)
Den Kgl. Veterinær- og
Landbohøjskole
Dyrlægevej 100
1870 Frederiksberg C
Phone: (+45) 3528 3778
E-mail: smt@kvl.dk

Research Professor
Bent T. Christensen
Danmarks JordbrugsForskning
Forskningscenter Foulum
8830 Tjele
Phone: (+45) 8999 1709
E-mail:
Bent.T.Christensen@agrsci.dk

Research Professor
Erik Steen Jensen
Den Kgl. Veterinær- og
Landbohøjskole
Agrovej 10
2630 Taastrup
Phone: (+45) 3528 3517
E-mail: esj@kvl.dk

Senior Scientist
Pernille Kaltoft
Danmarks Miljøundersøgelser
Frederiksborgvej 399
Postboks 358
4000 Roskilde
Phone: (+45) 4630 1823
E-mail: pka@dmu.dk

Chief Scientist
Erik Steen Kristensen
Forskningscenter for Økologisk
Jordbrug
Forskningscenter Foulum
8830 Tjele
Phone: (+45) 8999 1676
Email:
ErikSteen.Kristensen@agrsci.dk

Professor
Leif Skibsted
Den Kgl. Veterinær- og
Landbohøjskole
Mejeri- og
Levnedsmiddelinstituttet
Rolighedsvej 30
1958 Frederiksberg C
Phone: (+45) 3528 3221
E-mail: ls@kvl.dk

Ph.D. - student
Dorte Beck-Nielsen
Danmarks Jordbrugsforskning
Afd. for Prydplanter og
Vegetabilske Fødevarer
Kirstinebjergvej 10
5792 Årslev
Phone: (+45) 6390 4136
E-mail:
dorte.becknielsen@agrsci.dk

The PhD Projects

In 2001 12 PhD students were enrolled in SOAR. During 2002 another 7 PhD students have enrolled, and as of end 2002 SOAR encounters 19 PhD students. Of the PhD students enrolled during 2002, 3 are funded by FØJO, 1 by KVL, and 3 through joint funding from SOAR and external funding.

List of PhD students enrolled in SOAR

PhD-student	Annette Nygaard Jensen
Title of project	Bacterial infection risk associated with outdoor organic pig production with special reference to <i>Salmonella</i> and <i>Campylobacter</i> infection
Supervisors	Associate professor Anders Dalsgaard (KVL) Senior scientist Dorte Lau Baggesen, (DVI) Senior scientist Eva Møller Nielsen, (DVI)
University	The Royal Veterinary and Agricultural University
Working place	Danish Veterinary Institute,
E-mail / phone	anj@vetinst.dk / 3530 0328
Aim	The objective of this project is to improve the knowledge on the risk of outdoor pig production in relation to spread and persistence of <i>Campylobacter</i> and <i>Salmonella</i> infections. For <i>Salmonella</i> the specific objectives are to evaluate the survival of <i>Salmonella Typhimurium</i> in soil and grass of contaminated pastures used for outdoor pig production, measurement of the infectivity of naturally <i>S. Typhimurium</i> contaminated pastures in relation to time, and in the case of high infectivity, evaluation of the pathogen reducing effect of soil treatment. For thermophilic <i>Campylobacter</i> , the objectives are to describe the infection dynamics of natural <i>Campylobacter</i> infections over time in outdoor pigs, including time of colonisation, level of excretion in faeces, species distribution in the group and in the individuals, interaction with the environment, and to describe the possible changes in prevalence and species distribution in relation to time and environmental contamination.

PhD-student	Bea Nielsen
Title of project	Organic beef production based on dairy breed bull calves
Supervisors	Professor Stig Milan Thamsborg (KVL) Head of Research Unit John Hermansen (DIAS)
University	The Royal Veterinary and Agricultural University
Working place	The Royal Veterinary and Agricultural University, Department of Animal Science and Animal Health
E-mail / phone	bean@kvl.dk / 3528 3082
Aim	The aim of the project was to describe and develop production systems of organic beef based on bull calves from organic dairy farms. The project includes analysis of constraining factors and possibilities by means of questionnaires (1), feeding experiments on ryegrass /white clover pastures concerning performance in calves following turn-out (2) and herbage intake in steers (3+4) and modeling of production strategies in organic steer production based on recordings on organic farms (5+6).
PhD-student	Bjørn Molt Petersen
Title of project	Modeling of processes at the farm level, with special emphasis on nitrogen and carbon flow and turnover.
Supervisors	Senior scientist Ib Silkeborg Kristensen (DIAS) Senior scientist Jørgen E. Olesen (DIAS) Professor John R. Porter (KVL)
University	The Royal Veterinary and Agricultural University
Working place	Danish Institute of Agricultural Sciences, Foulum
E-mail / phone	BjornM.Petersen@agrsci.dk / 8999 1668
Aim	The aim of the Ph.D. -project is to improve the modelling of the turnover of organic matter in soil. The project will give special focus to: 1) Good representations of the effects of climate, management and texture 2) Contributions to the modeling of the turnover of nitrogen in grazed pastures 3) Contributions to establishing a modeling framework (FASSET), in order to make improved assessments of the leaching from conventional and organic farms.

PhD-student	Chris Kjeldsen
Title of project	Organic food networks and sustainable development
Supervisors	Associate professor Jan Holm Ingemann, Aalborg University Associate professor Erik Christensen, Aalborg University
University	Aalborg University
Working place	Institute for Economics, Politics and Public Planning, Aalborg University
E-mail	ckj@socsci.auc.dk / 9635 7148
Aim	Initial research questions The research task in this project takes its departure in the need for developing sustainable organic food networks. Of particular interest in that regard is the growth in alternative organic food networks and their potential for providing sustainable solutions to the problems of the conventional food networks. The initial research question in the project is therefore, whether the Danish alternative organic food networks develop towards a convergence to conventional structures or whether they form a sustainable alternative to conventional food networks?
PhD-student	Christine Fossing
Title of project	Application of alternative medicine in organic dairy herds with special emphasis on the effect of veterinary homeopathy on udder health
Supervisors	Senior scientist Mette Vaarst (DIAS) Professor Stig Milan Thamsborg (KVL)
University	The Royal Veterinary and Agricultural University
Working place	Danish Institute of Agricultural Sciences, Dept. of Animal Health and Welfare
E-mail / phone	Christine.Fossing@agrsci.dk / 89 99 13 33
Aim	The aim of the project is to assess how the use of alternative treatment types in organic dairy cattle herds affects the udder health on individual and herd level. The relationship between the individual cattle farmer's choice of therapy and the relationship between therapy and management strategy will be examined. The individual cattle farmer's need for decision support when using alternative treatment will be analyzed.

PhD-student	Dorte Bodin Beck-Nielsen
Title of project	Optimization of growing media for organic greenhouse production.
Supervisors	Senior scientist Kristian Thorup-Kristensen (DIAS) Associate professor Jakob Magid (KVL)
University	The Royal Veterinary and Agricultural University
Working place	Danish Institute of Agricultural Sciences, Department of Horticulture
E-mail / phone	dorte.becknielsen@agrsci.dk / 6390 4136
Aim	The objectives are: 1) To extend the knowledge of changes in plant material structure during com-posting. 2) To examine the nutrient transformation – mineralization, immobilization, leaching and gaseous emissions in different types of compost. 3) To produce stable compost which in combination with amendments of plant residues can be a suitable growing media and fertilizer for organic greenhouse production.

PhD-student	Dorthe IIsøe
Title of project	Consumer demands on organic food products
Supervisors	Associate professor Birgit Land (RUC) Associate professor Erling Jelsøe (RUC)
University	Roskilde University Center
Working place	Department of Environment, Technology and Social Studies, Roskilde University,
E-mail / phone	dilsoee@teksam.ruc.dk / 4674 2048
Aim	The starting point of the project is the development of the organic food sector and the actual stagnation in the market. The project aims at illustrating the consumer demands and discuss the future development of the sector. The project is carried out in cooperation with the Technical University of Denmark and the Danish Consumer Council, and will investigate the consumers' reflections, demands and wishes regarding organic production of food.

PhD-student	Gregor Levin
Title of project	Landscape changes under ecological farming
Supervisors	Professor Jesper Brandt (RUC) Senior scientist Pia Frederiksen (DMU)
University	Roskilde University Center
Working place	National Environmental Research Institute (DMU), Department of Policy Analysis,
E-mail	gl@dmu.dk / 46301822
Aim	The aim of the project is to investigate if organic farming strategies have a positive effect on landscapes' nature content, compared to conventional farming methods. Furthermore, underlying driving forces and processes for changes in nature content at landscape scale shall be examined. For a number of "typical" Danish landscapes, changes in nature content will be registered on basis of aerial photos. Secondary data as well as information derived from interviews with both organic and conventional framers will be used to detect key factors and driving forces.
PhD-student	Helena Mejer
Title of project	Management Practice and bioactive pplans as a means of reducing parasite infections in organic swine production systems.
Supervisors	Associate professor Allan Roepstorff (KVL) Professor Lis Eriksen (KVL)
University	The Royal Veterinary and Agricultural University
Working place	The Danish Centre for Experimental Parasitology, The Royal Veterinary and Agricultural University,
E-mail / phone	hem@kvl.dk / 3528 2789
Aim	The aim of the project is to obtain information that will supplement our present knowledge on parasite infections in outdoor pigs and enable us to initiate work on guidelines on parasite control. The first part of the project will describe the transmission pattern and epidemiology of the more common intestinal parasites in pigs born on infected pastures. Thereafter, the long term survival of free-living parasite eggs and larvae will be examined in combination with the effect of ploughing on availability eggs/larve. Lastly, alternative forages are tested for antiparasitic effects.

PhD-student	Jeanette Hyldal Vollmer
Title of project	Modeling development of disease complexes on barley cultivar mixtures under organic farming practice
Supervisors	Senior scientist Hanne Østergård (Risø National Laboratory) Senior scientist Hans Pinnschmidt (DIAS) Associate professor Lisa Munk (KVL)
University	The Royal Veterinary and Agricultural University
Working place	Plant Research Department, Risø National Laboratory
E-mail / phone	jeanette.vollmer@risoe.dk / 4677 4135
Aim	The aim of the project is to study the population dynamics of two fungal pathogens, <i>Rhynchosporium secalis</i> and <i>Pyrenophora teres</i> , in variety mixtures of spring barley. The two fungal diseases are common in barley and their diseases (scald and leaf spot respectively) can have important implications on yield. The focus is on the disease complex, i.e. the simultaneous occurrence of the two species, rather than the species separately, aiming to describe their epidemiologies, as decided by mixture resistance, and to establish whether the relation between the two species is antagonistic, neutral or synergistic.
PhD-student	Kamma Westergaard
Title of project	Landscape and agricultural practice of Danish farms - does organic farming make a difference?
Supervisors	Associate professor Henrik Vejre (KVL) Research professor Erik Steen Jensen (KVL) Associate professor Vibeke Langer (KVL)
University	The Royal Veterinary and Agricultural University
Working place	The Royal Veterinary and Agricultural University, Dept. Economics and Natural Resource Management
E-mail / phone	kaw@kvl.dk
Aim	The aims are: 1. To investigate the landscape of Danish farms and evaluate the differences according to geomorphic region and farm type (organic versus conventional and dairy versus crop producers). 2. To describe the field management practice of these farm types, and based on ecological theory discuss whether the organic farms live up to their principal guidelines.

PhD-student	Lene Hegelund
Title of project	Control systems in organic egg production, focusing on animal welfare and food security
Supervisors	Associate professor Hans Ranvig (KVL) Head of research unit Jan Tind Sørensen, (DIAS)
University	The Royal Veterinary and Agricultural University
Working place	Danish Institute of Agricultural Sciences, Animal Health and Welfare,
E-mail / phone	Lene.Hegelund@agrsci.dk / 8999 1523
Aim	The aim of the project is to develop a management tool for organic egg producers using the HACCP-concept, thereby securing animal health and welfare at the farms and accounting for food security.
PhD-student	Maj-Britt Quitzau
Title of project	Cultural barriers and potentials for recycling of human town-waste
Supervisors	Senior lecturer Inge Røpke (DTU) Senior scientist Pernille Kaltoft (NERI / DMU)
University	Technical University of Denmark
Working place	National Environmental Research Institute (NERI / DMU), Department of Policy Analysis, Environmental Sociology Group
E-mail / phone	mbq@dmu.dk / 4630 1365
Aim	The general purpose of this project is to understand the cultural barriers and potentials for getting a substantial increase in recycling of human town-waste from town to farming land in relation to both ecological farmers who shall utilize the town-waste and the citizens who shall have a changed way of handling black wastewater and take the agricultural products. The project will analyze which perceptions and attitudes to recycling of human town-waste the cultural marking have leaded to and which basic cultural understandings the recycling of human town-waste touches upon.
PhD-student	Martin Nørregaard Hansen
Title of project	Technology for reduction of environmental impact and loss of nitrogen from solid manure
Supervisors	Senior lecturer Kaj Henriksen, University of Aalborg Senior scientist Sven G. Sommer (DIAS)
University	Aalborg University
Working place	Danish Institute of Agricultural Sciences, Research Center Bygholm, Department of Agricultural Engineering
E-mail / phone	MartinN.Hansen@agrsci.dk / 7629 6036
Aim	Investigation and development of technology to reduce loss of nutrients and environmental impact of straw bedded housing systems.

PhD-student	Mette Klindt Andersen
Title of project	Competition and complementarity between intercropped barley, rape and fieldpea in ecological cropping systems – the role of plant available nitrogen and sulphur as well as cropping design.
Supervisors	Research professor Erik Steen Jensen (KVL) Professor Jacob Weiner (KVL)
University	The Royal Veterinary and Agricultural University
Working place	The Royal Veterinary and Agricultural University, Department of Agricultural Sciences, Organic Farming Unit,
E-mail	mka@kvl.dk / (+45) 3528 3492
Aim	<p>The project is aimed at increasing our understanding of the link between the degree of diversity of an intercrop, its resource use and productivity. The project will give special focus to:</p> <p>1) understanding how the degree of crop diversity in an intercrop affects resource utilization, especially the assimilation of sulfur and nitrogen, as well as productivity.</p> <p>2) gaining an understanding how the availability of sulphur and potential sulphur-nitrogen interactions affects the interrelations and nutrient uptake of intercropped crops. and thereby shedding light on how competitive and complementarity dynamics of intercrops are affected by sowing density, sowing pattern and the relative quantitative relations between component crops.</p>

PhD-student	Mette Thyme
Title of project	Production of N ₂ O in grass-clover pastures
Supervisors	Senior scientist Per Ambus (Risø) Associate professor Henning Høgh-Jensen (KVL)
University	The Royal Veterinary and Agricultural University
Working place	Plant Research Department, Risø National Laboratory
E-mail / phone	mette.thyme@risoe.dk / 4677 4151
Aim	<p>The aim of the Ph.D. -project is to increase the knowledge of the biological and physical-chemical mechanisms, which control the production of N₂O in grazed grass-clover pastures. Such knowledge is a necessity for a complete environmental evaluation of organic farming practices.</p> <p>The project will give special focus to:</p> <p>1) develop a method to measure N₂ fixation and N₂O production in pot experiment</p> <p>2) establish the fraction of recently fixed N, which is released to the soil and later taken up by grass as well as the fraction which is emitted as N₂O (the emission factor)</p> <p>3) identify the microbial processes responsible for the production of N₂O and investigate how these are influenced by urine deposition study the connection between N₂O production and C mineralization in the rhizosphere</p>

PhD-student	Nicoline Maag Eigaard
Title of project	Investigation on mortality and interactions of selected diseases in free-range chickens
Supervisors	Associate professor Anders Permin (KVL) Associate research professor Jens Peter Christensen (KVL)
University	The Royal Veterinary and Agricultural University
Working place	The Royal Veterinary and Agricultural University, Dept. Veterinary Microbiology
E-mail / phone	nme@kvl.dk / 3528 2704
Aim	The aims of the present project are: (i) to improve welfare of poultry under free-range conditions by investigating the occurrence of diseases, their interaction and significance in free-range table egg production systems and to elucidate the possible relationship between disease prevalence and production systems and on this basis develop strategies to improve the disease prophylaxis in free-range poultry production systems; (ii) to develop a PCR-based method for identification of <i>Capillaria spp.</i> ; (iii) to investigate the host response using interaction studies between parasitic and bacterial infections which are of crucial importance for improving the health of free-range poultry.

PhD-student	Paul Rye Kledal
Title of project	Future supply and marketing strategies in the Danish organic food sector
Supervisors	Professor Kostas Karantinis (KVL) Senior scientist Mogens Lund (Danish Research Institute of Food Economics)
University	The Royal Veterinary and Agricultural University
Working place	Danish Research Institute of Food Economics (FØI), Farm Management and Production Systems Division
E-mail / phone	paul@foi.dk / 3528 6875
Aim	The objective of this research project is to analyse the future development of the Danish organic food sector, with two commodities as case studies: <ul style="list-style-type: none"> - organic pork - organic vegetables Emphasis will be placed on identifying the economic forces and changes within the chains in combination with the macro-social foundations which sets the regulatory framework for the economic behaviour among individuals, firms and consumers along the network of the chosen chains. By linking the research results of the economic and production dynamics within the organic food chains together with the various social movements that are at stake in the consumption of organic food, the aim is to identify and explain the diversification of the organic chain and provide with useful supply strategies for further growth in a ten year perspective.

PhD-student	Rikke Klith Jensen
Title of project	The effects of crop competition and repeated shoot growth inhibition on Canada thistle (<i>Cirsium arvense</i> (L.) Scop.) re-growth, competitiveness and spatial dispersal.
Supervisors	Associate Professor Jesper Rasmussen (KVL). Senior Scientist and Research leader Bo Melander (DIAS)
University	The Royal Veterinary and Agricultural University
Working place	Danish Institute of Agricultural Sciences, Dept. for Crop Protection
E-mail / phone	RikkeK.Jensen@agrsci.dk / 5811 3398
Aim	This project is focusing on important aspects of the ecology of <i>C. arvense</i> : competitive ability against different crops; spread and dispersal of thistle patches; and impact of stem and root cutting on the regenerative capacity of <i>C. arvense</i> . Research on these aspects will add valuable information to the economic importance of <i>C. arvense</i> infestations in organic crops, the suppressive ability of crops and catch crops, the development of thistle patches in different crop rotations, and the perspectives for stem or root cutting tactics against <i>C. arvense</i> . In addition, this will improve the fundamental knowledge of making more precise and effective management strategies against thistles.

The Key Supervisors

The key supervisors in SOAR have been organized in two lists:

List A. - key supervisors with PhD students in SOAR

List B. - key supervisors with experience from research in organic farming and food production but without SOAR students.

Key Supervisors in list B automatically enters list A when they take on the supervision responsibility. During 2002 one new key supervisor has entered list A: Associate professor Anders Dalsgaard, Institute of Veterinary Microbiology, KVL. Furthermore a number of supervisors have been shifted from list B to list A.

List A. - key supervisors with PhD students in SOAR

Theme 1: Organic crop production, nature quality and resource management (Økologisk plantedyrkning, naturkvalitet og ressourcestyring)

Name	Address	PhD students in SOAR
Per Ambus Senior scientist	Plant Biology and Biogeochemistry Risø National Laboratory E-mail: per.ambus@risoe.dk ph: 4677 4152	Mette Thyme
Anders Dalsgaard Associate professor	Department of Veterinary Microbiology, KVL E-mail: ad@kvl.dk ph: 3528 2720	Annette Nygaard Jensen
Henning Høgh-Jensen Associate professor	Department of Agricultural Sciences, KVL E-mail: hhj@kvl.dk ph: 3528 3391	Mette Thyme
Erik Steen Jensen Research Professor	Department of Agricultural Sciences, KVL E-mail: esj@kvl.dk ph: 3528 3517	Kamma Westergaard Mette Klindt Andersen
Ib Sillebak Kristensen Senior scientist	Department of Agricultural Systems, DIAS E-mail: IbS.Kristensen@agrisci.dk ph: 8999 1205	Bjørn Molt Petersen
Bo Melander Senior scientist	Department of Crop Protection, DIAS E-mail: Bo.Melander@agrsci.dk ph: 58113393	Rikke Klith Jensen

Jørgen E. Olesen Senior scientist	Department of Crop Physiology and Soil Science, DIAS E-mail: JorgenE.Olesen@agrsci.dk ph: 8999 1659	Bjørn Molt Petersen
John R. Porter Professor	Department of Agricultural Sciences, KVL E-mail: jrp@kvl.dk ph: 4637 3395	Bjørn Molt Petersen
Jesper Rasmussen Associate professor	Department of Agricultural Sciences, KVL E-mail: jer@kvl.dk tlf.: 3528 3456	Rikke Klith Jensen
Svend Gjedde Sommer Senior scientist	Department of Agricultural Engineering, DIAS E-mail: SvenG.Sommer@agrsci.dk ph: 7629 6063	Martin Nørregaard Hansen
Kristian Thorup- Kristensen Head of research unit	Department of Horticulture, DIAS E-mail: Kristian.ThorupKristensen@agrsci.dk ph: 6390 4128	Dorte Bodin Beck- Nielsen
Henrik Vejre Associate professor	Department of Economics and Natural Resources, KVL E-mail: hv@kvl.dk ph. 3528 2211	Kamma Westergaard
Vibeke Langer Associate professor	Department of Agricultural Sciences, KVL E-mail: vl@kvl.dk ph: 3528 2383	Kamma Westergaard
Kaj Henriksen Associate professor	Department of Environmental Engineering, Aalborg University E-mail: i5kh@civil.auc.dk ph: 96 35 85 10	Martin Nørregaard Hansen
Jakob Magid Associate professor	Department of Agricultural Sciences, KVL E-mail: jma@kvl.dk ph. 3528 3491	Dorte Bodin Beck- Nielsen
Hanne Østergaard Senior Research Specialist	Plant Research Department, Risø E-mail: hanne.oestergaard@risoe.dk ph: 4677 4111	Jeanette Hyldal Vollmer

Theme 2: Organic livestock production and health (Økologisk husdyrbrug)

Name	Address	PhD students in SOAR
John E. Hermansen Head of research unit	Department of Agricultural Systems, DIAS John.Hermansen@agrsci.dk ph: 8999 1236	Bea Nielsen
Allan Roepstroff Associate professor	Center for Experimentel Parasitologi KVL aro@kvl.dk ph: 3528 2746	Helena Mejer
Jan Tind Sørensen Head of research unit	Department of Animal Health and Welfare, DIAS E-mail: JanTind.Sorensen@agrsci.dk ph: 8999 1343	Lene Hegelund
Stig Milan Thamsborg Professor	Department of Veterinary Microbiology, KVL E-mail: smt@kvl.dk ph: 3528 3778	Bea Nielsen Christine Fossing
Mette Vaarst Senior scientist	Department of Animal Health and Welfare, DIAS Mette.Vaarst@agrsci.dk ph: 8999 1344	Christine Fossing
Lis Eriksen Professor	Department of Clinical Studies, KVL E-mail: lis@kvl.dk ph: 3528 2839	Helena Mejer

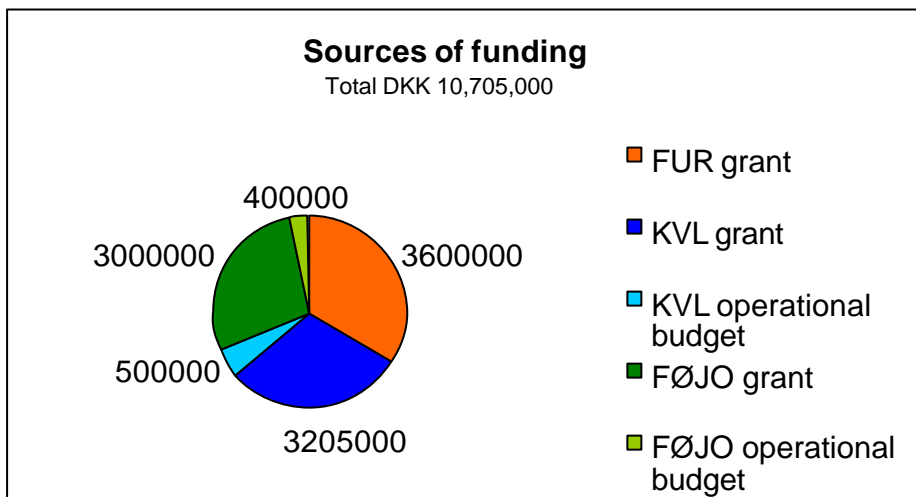
Theme 3: Organic agriculture, food production and society (Jordbrug og samfund)

Name	Address	PhD students in SOAR
Jesper Brandt Professor	RUC Dept. of Geography and International Development Studies E-mail: brandt@ruc.dk Tlf.: 4674 2463	Gregor Levin
Pia Frederiksen Senior scientist	DMU Postboks 358 Frederiksborgvej 399 4000 Roskilde E-mail: PFR@dmu.dk Tlf.: 46301207	Gregor Levin
Jan Holm Ingemann Associate professor	AUC Agricultural Economics Fibrigerstæde 1 9220 Aalborg Øst E-mail: ingemann@socsci.auc.dk Tlf.: 9635 8185	Chris Kjeldsen
Erling Jelsø Associate professor	Department of Environment, Technology and Social Studies, RUC E-mail: ej@ruc.dk ph: 4674 2049	Dorthe Ilsøe
Pernille Kaltoft Senior scientist	Department of Policy Analysis, DMU E-mail: pka@dmu.dk tlf.: 4630 1823	Maj-Britt Quitzau
Birgit Land Associate professor	Department of Environment, Technology and Social Studies, RUC E-mail: bl@ruc.dk ph: 4674 2702	Dorthe Ilsøe

Financial overview

Sources of funding

The total budget for SOAR stipends and operational costs is DKK 10,705,000 over a 5 years' period. The below figure shows the sources of funding for SOAR.



Accounting 2001 – 2002 (DKK)

The accounting below shows the amounts that are debited to the SOAR account at KVL. Grants for stipends from KVL and FØJO are paid directly to user, and do not appear from this accounting. At present two 1/3 PhD stipends paid by KVL have been distributed to be paid in the third year of the study period, one 1/3 PhD stipend paid by KVL has been distributed to be paid from February 2003, and ½ PhD stipend paid by FØJO has been distributed to be paid in the 2nd half of the 3 years' study period.

2001	Income	Budget	Expenditure
<i>2001 (from 1.7) KVL</i>	250.000		
Academic assistant		10.000	
Operational costs			
1 annual seminar		15.000	11.000
Overhead		5.000	
Total 2001		30.000	11.000
Balance to be transferred	239.000		

2002	Income	Budget	Expenditure
<i>Transfer from 2001</i>	239.000		
KVL	250.000		
FUR	600.000		
Head of SOAR		175.000	0
Academic assistant		100.000	203.330
Operational costs		50.000	27.606
2 biannual seminars		20.000	33.694
Summer school	6.000 ¹	140.000	113.213
Supervisor course		40.000	0
Overhead		176.000	100.000
Total 2002	1.095.000	541.000	477.843
Balance to be transferred	617.157		

¹ Contribution from NOVA

Budget for SOAR

Item	Amount (DKK)
2001 (from 1.7)	
Head of SOAR	0
Academic assistant	10.000
Operational costs	0
1 seminar	15.000
Stipends*	0
Overhead**	5.000
Total	30.000
2002	
Head of SOAR	175.000
Academic assistant	100.000
Operational costs	50.000
Biannual seminars	20.000
Summer school	140.000
Supervisor course	40.000
Stipends* (min. 4 initiated)	1.171.556
Overhead**	187.111
Total	1.883.667
2003	
Head of SOAR	175.000
Academic assistant	100.000
Operational costs	50.000
Biannual seminars	30.000
Summer school***	150.000
Supervisor course , guest lecturers	40.000
Stipendier* (min. 4 initiated, 4 continued)	2.373.111
Overhead**	323.222
Total	3.241.333
2004	
Head of SOAR	175.000
Academic assistant	100.000
Operational costs	50.000
Biannual seminars	35.000
Summer school	160.000
Supervisor course , guest lecturers	50.000
Stipends* (min. 8 continued)	2.405.111
Overhead**	378.222
Total	3.353.333

2005	
Head of SOAR	175.000
Academic assistant	100.000
Operational costs	50.000
Biannual seminars	35.000
Summer school	160.000
Supervisor course , guest lecturers	50.000
Stipends* (min. 4 continued)	1.218.556
Overhead**	246.111
Total	2.034.667
2006 (up to 30.6)	
Head of SOAR	40.000
Academic assistant	50.000
Operational costs	25.000
1 seminar	20.000
Stipends*	0
Overhead**	27.000
Total	162.000
Grand total	10.705.000

* The stated amount constitute SOAR's contribution to the stipends

** OH constitute less than 20% of the full amounts, since no overhead is calculated from KVL's grant

***Contribution from NOVA (max. 120.000) not included in budget