



Sveriges lantbruksuniversitet  
Swedish University of Agricultural Sciences

# SLUkurs

## Syllabus

**PVSo091 Sustainable Beef and Lamb Production Systems in an International Perspective - NOVA2, 4.0 credits**

## Syllabus approved

2012-10-18

## Subjects

Animal Science/Agricultural Science

## Education cycle

Third cycle

## Grading scale

Pass / Failed

The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

## Language

English

## Prior knowledge

Degree in biology, agriculture, agricultural economics or veterinary medicine. No specialist knowledge is required in either the respective disciplines or species biology.

## Objective, including learning outcomes

The aim of the course is to develop an understanding of the Nordic beef and lamb production systems in an international perspective, with particular emphasis on

evaluation of their sustainability. The course takes a holistic approach to sector –economic comparisons between conventional and organic systems. All parts of the production system, from land use, forage production and nutritional characteristics, animal growth, energy partitioning around parturition, performances, products and management will be included. Animal health, productivity, and welfare are important aspects of sustainable production and will be illuminated. The economical basis for sustainable production as well as the effect of ruminant production on the environment is relevant aspects that will be discussed. The impact of possible climate changes on the sustainability of Nordic beef and lamb production and its role in international ruminant production will be covered.

After completing the course the student should:

- be able to account for the major factors imposing constraints on the sustainability of different production systems for beef cattle and sheep. It includes theories related to nutrient partitioning in transition periods and growth capacity, predicting the impact on animal production and welfare as well as on the environment.
  
- have an appreciation of the major areas of concern in issues related to feed production, ruminant nutrition and husbandry, organic farming and economics, and their impact on the environment, animal health, longevity and production.
  
- be able to describe results of studies about animal productivity, health, environmental and economic sustainability in different production systems.
  
- be informed about differences in production systems in different regions of the Nordic countries and in other countries

## **Content**

The course integrates various disciplines, such as feed production, animal nutrition, animal welfare, animal husbandry, animal health, economics and environmental load and impact on sustainable beef and lamb production under Nordic conditions in an international perspective. The course will deliver a holistic understanding of beef and lamb production systems in the Nordic countries with an international perspective by using interdisciplinary research in teaching. Teachers are senior researchers or scientists within an agricultural organisation and they are experts in the topic they are teaching. Lectures are balanced with workshops in topics of individual student´s interest.

Pedagogical approach: Students prepare for lectures and workshops by discussing

given scientific papers using defined questions. Presentations, discussion and feedback from other participants and teachers will be undertaken in plenum during the workshops. Case studies may be used.

### **Requirements for examination**

Student preparation before lectures and workshops by reading articles given by the teachers.

Mandatory participation in lectures and workshops.

Presentations and active participation by students in workshops.

Approval of report completed within three weeks after the course week.

### **Additional information**

Course organizers: Assoc. Professor Elisabet Nadeau , Department of Animal Environment and Health, SLU, Skara, and Assoc. Professor Peder Nørgaard, Faculty of Health and Medical Sciences, University of Copenhagen,

The course occasion is planned for April 22-26, 2013 at SLU Skara.

Application deadline: March 28, 2013

### **Responsible department**

Department of Animal Environment and Health