



Sveriges lantbruksuniversitet  
Swedish University of Agricultural Sciences

# SLUkurs

## Syllabus

**PVS0040 Sustainable Ruminant Production Systems, 3.0 credits**

## Syllabus approved

2008-05-14

## Subjects

Animal Husbandry/Veterinary Medicine

## 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 objective of the course is to develop an understanding of ruminant meat and milk production systems in Sweden, in a Nordic perspective, with particular emphasis on evaluation of their sustainability. The course takes a holistic approach to

sector – economic comparisons between conventional and organic systems. The course aims at being holistic by integrating various disciplines such as feed production, animal welfare, animal husbandry, animal health, economics and environmental load and impact, all relevant for the sound and effective provision of sustainable production of milk and meat under Swedish conditions.

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 bovines. It includes methods for calculating economic sustainability of production systems in different scenarios, and 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, animal 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

## **Content**

The course integrates various disciplines, such as feed production, animal welfare, animal husbandry, animal health, economics and environmental load and impact, on the sustainable production of milk and meat under Swedish conditions. The course will deliver a holistic understanding of ruminant production systems in Sweden 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: A group of students prepare for a lecture and a workshop by discussing specific 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 and students will use role playing to illustrate the decisions.

## **Requirements for examination**

Student preparation before lectures and workshops by reading articles.  
Mandatory participation in lectures and workshops.

Presentations and active participation by students in workshops.  
Approval of report completed within a month after the course week.

### **Additional information**

Course organizers: Assoc. Professor Elisabet Nadeau, PhD Birgitta Johansson and Assoc. Professor Karl-Ivar Kumm, Dept. of Animal Environment and Health, SLU Skara. Contacts are taken with Professor Heriberto Rodriguez-Martinez, DVM, Dept. of Clinical Sciences, SLU.

### **Responsible department**

Department of Animal Environment and Health