



Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PVSoo67 Bioactive Components in Feed and Food, 5.0 credits

Syllabus approved

2011-09-16

Subjects

Animal Science/Food 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 animal science, veterinary medicine, food science or similar background, with basic courses in chemistry including biochemistry.

Objective, including learning outcomes

After completing the course participants should

- know that bioactive nonnutritional compounds are common in plant foodstuffs

and that these compounds have a wide array of toxic and wholesome effects on the health of both animals and humans.

- understand how the nonnutritional compounds in general are taken up, bioactivated, exerting their effects, metabolized and excreted.

Content

The course will give an overview of bioactive components in food and feed including their occurrence, chemistry, biological activity and metabolism. Different types of bioactive components will be covered, such as antinutritional substances, mycotoxins, phycotoxins, anticarcinogenic agents, antioxidants, fibers, lignans, prebiotics and probiotics. The basic principles for their uptake, metabolism, bioactivation, and excretion will also be considered in the lectures. Carry-over of nonnutritional substances to animal products, meat, milk and eggs will also be covered. The students will during the course prepare and give seminars on selected topics concerning bioactive components which should be based on studies of recent literature.

Requirements for examination

Participation in 80% of the lectures and seminars. Active presentation and discussion during seminars and final examination seminar.

Additional information

Students may attend only the lectures in the first part of the course and the final examination seminar, and will then acquire 3.0 HEC credits.

The course will only be given if five or more students participate.

The course is organized and given together with the Research School Food in Focus. It is also in cooperation with the Research School Food and Feed Quality and Safety.

Responsible department

Department of Animal Nutrition and Management