Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PAS0008 Advanced Feed Science, 7.5 credits

Syllabus approved

2002-09-11

Subjects

Animal Husbandry

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

PhD students with a Master or Bachelor in Animal Science, undergraduate courses in Animal Nutrition

Objective, including learning outcomes

The course will provide:
- knowledge on feed composition and feed characteristics and how these properties

affect the use of feeds to different ruminants, pigs and poultry
- training in the use of a simple feed optimisation program
- training in how to present results in written and oral forms and how to give constructive criticism

Content

The course is problem oriented and the students will work in small groups. The problem will consist in formulating a complete feed for a certain target animal under specified conditions in terms of feed availability, composition and local prices. The project also consists of documenting the knowledge of the available feeds including normal compositional ranges. Information on animal "requirements" for nutrients and tolerances towards components in the feeds must be gathered from published scientific literature. From this information a list of diet specifications will be constructed. In addition each group has to present ideas on possible environmental consequences from their choice of feeds. A simple feed optimisation program will be used for the final economical optimisation. Supporting lectures will be given to help the students in solving their problems in the exercise. The lectures will cover both nutrient composition and the occurrence of anti-nutritional components in different feeds and also techniques of feed optimisation.

Requirements for examination

Written and oral project presentations and written critique of the presentations of the other groups

Additional information

TIME ALLOCATION: Lectures: ca. 15h. Project work: ca. 8 weeks at half speed.
MISCELLANEOUS COMMENTS:
- Animal species selected should have high dietary requirements. Potential target animals are weaned piglets, young broiler chickens and high yielding dairy cows.
- For all species complete diets are formulated. For dairy cows this is assumed to be made on farm as complete rations.
- The feeds selected for each project are not the most easy to use and may give rise to a number of nutritional problems in diet formulations.
- Each group must present a complete list of feed compositions but the teachers will decide which figures are to be used in the diet formulations.
- Each group will be assigned a suitable advisor, which they can consult with.
- The student in each group must have the possibility of meeting together at least

once a week.
- Lectures will be concentrated to the first week after the students have been informed of the nature of their respective projects.

Responsible department

Department of Animal Nutrition and Management