

Faculty of Biological, Agronomic and Environmental Engineering

BRAI2211 Agrostology

[22.5h+7.5h exercises] 2.5 credits

This course is taught in the 2nd semester

Teacher(s): Alain PEETERS
Language: French
Level: Second cycle

Aims

Ensuring a theoretical complement to the notions acquired in plant production on species and swards.
 Defining forage feeding value and understanding namely the mechanisms that influence its time dynamic.
 Describing the relation between forage feeding value and animal performances.
 Knowing the practical basis of grassland management and its implementation.
 Conciliating a efficient production at different intensification levels and the quality of the environment.
 Importance of legume use for organic farming namely.
 Impacts of techniques on the environment.

Main themes

Seed testing, production and certification.
 Methods of sward quality evaluation.
 Digestibility and feeding value of forage: theoretical basis, estimation methods and influencing factors
 Supplementary feeding in grazing and grass/concentrate substitution
 Prediction of animal performances (milk and meat)
 Management of grazed and cut grasslands, forage conservation methods
 Effect of grassland management on forage yield and quality as well as on animal performances
 Specificity of organic farming
 Environmental aspects: nitrogen pollution, biodiversity conservation and restoration, landscape and recreation

Content and teaching methods

The course starts from the plant and goes to the cover, to the chemical and enzymatic analysis of forage and to the animal. It gives the theoretical and practical basis to the management of cutting and grazed grassland. It tackles environmental topics and alternatives production techniques. The theoretical knowledge described in the course are illustrated by several field visits.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Precursory courses Chemistry, Physics, Biology, Applied ecology, Plant production
 Supplemental courses Temperate and tropical rangelands
 Evaluation Oral examination at the end of the period, reports
 Support Text, Powerpoint presentation, field visits, living collections
 Teaching team Teacher

Other credits in programs

BIR23/8A Troisième année du programme conduisant au grade de (2.5 credits)
 bio-ingénieur : sciences agronomiques (Intégrée, productions animales, végétales & économie)