

4.0 credits

45.0 h

2q

Teacher(s) :	Janssens Frédéric ; Lambert Richard ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	<ul style="list-style-type: none"> -Importance of grassland (usable agricultural surface, economics, N and C cycles, soil protection, biodiversity) -Historical account and evolution -Study of the species -Methods of inventory -Ecology, conservation, restoration -Physiology of grass growth in relation to primary production and quality -Phytotechnics and grazing management -Association grasses-legumes - Agro-environmental measures
Aims :	<p>The aim of this module is to provide the students with key knowledge that will allow them to understand grassland ecosystems and to be able to apply an adequate mode of exploitation fitting the purpose (forage production for livestock, protection of biodiversity, protection of soil and water resources).</p> <p>After having completed the module, the student should be able to recognise the main species, to establish a diagnosis and to propose the adequate action and management necessary to the demanded aims.</p> <p><i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i></p>
Content :	<p>A first object of the module is to state the importance of grasslands and mountain meadows concerning soil surface, economy of agricultural activity, and concerning the environment (multifunctionality of grasslands).</p> <p>The historical account and the evolution of grasslands will be discussed in the context of a permanently changing agriculture.</p> <p>The main species, selected and natural, will be presented one by one (systematic, morphology, and ecology) to allow the student to understand the choice of the sowed species as well as the evolution of the species' associations according to the environmental and farming conditions.</p> <p>Methods of inventory will be presented and tried out.</p> <p>The distinctive features and the advantages of grass-legume associations will be discussed.</p> <p>The management of grassland (phytotechnics, grazing types, methods of harvest and conservation) as well as the factors concerning the nutritional value and consequently the animal performance will be discussed in particular.</p> <p>The aspects of conservation and restoration of biodiversity, quality of water resources, soil protection, and carbon fixation will also be developed.</p> <p>Various visits and outdoor lessons will illustrate the acquired knowledge and will give the student the possibility to apply inventory methods.</p> <p>An individual assignment containing analytic work as well as propositions for the improvement of a forage system will be realised so as to sum up the acquired knowledge.</p>
Other infos :	<p>Student wishing to participate in this module need to have knowledge in the following domains: botany, ecology, notions of physiology, of ecophysiology and of phytosociology. The module also establishes a link with the following other modules: general phytotechnics, fertilisation, zootechnics and animal nutrition.</p> <p>The evaluation of the student's work will take into account the individual assignment, i.e. the analysis of an herbal system, as well as an exam covering the presented subject matter and the recognition of several species.</p> <p>Teaching material: reference books available in the library, PowerPoint presentation, students' notes, brochures</p>
Cycle and year of study :	> Master [120] in Agricultural Bioengineering
Faculty or entity in charge:	AGRO