

# Grasslands and fodder plants (IIIth Year, VIth Semester)

**Credit value (ECTS): 4**

**Course category:**

Speciality Discipline (obligatory)

**Course holder:**

PhD Professor Vasile Vîntu

**Discipline objectives (course and practical works):**

**General objective:** acquiring knowledge, skills training and expertise on permanent and temporary grassland management.

**Specific objectives:** - gaining knowledge about grasslands ecosystems science enabling them correct understanding of the relationships from grasslands, essential condition to establish the most appropriate improvement measures and rational use;

- acquire a knowledge base about the main types of grasslands and improvement measures to enable efficient and sustainable management of pastoral fund;

- assimilation of knowledge necessary to develop differentiated technologies for the establishment of temporary meadows, organization of a rational grazing, hay preparation and storage;

- practical skills for organizing a rational grazing, establishing floristic composition and evaluating the quality grasslands to enable them a sustainable management of pastoral fund, in terms of efficiency and high quality, according to the Common Agricultural Policy and Romanian strategy.

**Contents (syllabus)**

Course:
<b>FORAGES PRODUCTION WORLDWIDE AND IN OUR COUNTRY</b> Forages: definition, classification, sources of forages Meadow: definition, classification, spreading, importance and production Characterization of the main groups of plant species
<b>PRINCIPAL TYPES OF MEADOWS IN OUR COUNTRY</b> Zonal meadows Intra-zone meadows Grasslands inventory and mapping Pastoral value
<b>MEADOWS IMPROVEMENT TECHNOLOGY</b> Surface improvement measures Radical improvement measures
<b>TEMPORARY GRASSLAND ESTABLISHMENT</b> Temporary meadows instead of permanent degraded grasslands Temporary meadows in arable land
<b>MEADOWS USES</b> The use of meadows by grazing The use of meadows by mowing
<b>CONSERVATION, STORAGE AND QUALITY OF FIBROUS FORAGES OR PRESERVED BY SILAGE</b>

Practical works:
Morphological and biological characteristics of meadow gramineae species; The study of (false spike) gramineae species from genera: <i>Nardus</i> , <i>Lolium</i> , <i>Agropyron</i> ;
The study of (spikelike main branches and spikes) gramineae species from genera: <i>Cynodon</i> , <i>Beckmannia</i> , <i>Brachypodium</i> , <i>Bothriochloa</i> , <i>Phleum</i> , <i>Anthoxanthum</i> , <i>Alopecurus</i> , <i>Cynosurus</i> ;
The study of (panicle) gramineae species from genera: <i>Agrostis</i> , <i>Thyphoides</i> , <i>Clamagrostis</i> , <i>Stipa</i> , <i>Arrhenatherum</i> ,

<i>Holcus, Deschampsia, Trisetum, Koeleria</i> ;
The study of (panicle) gramineae species from genera: <i>Dactylis, Festuca, Briza, Poa, Bromus, Puccinellia</i> . Study of fruit and seeds of main gramineae species from meadows;
Morphological and biological characteristics of meadow leguminous species; The study of leguminous species from genera: <i>Medicago, Melilotus, Trigonella, Trifolium, Lotus, Onobrychis, Galega, Coronilla, Anthyllis, Vicia, Lathyrus</i> . Study of fruit and seeds of main cultivated leguminous species (6 hours);
The study of species from <i>Cyperaceae, Juncaceae</i> and other botanical families;
Meadowland vegetation research methods;
Perennial grasses and legumes seeds mixtures preparing for temporary meadows establishment;
Rational grazing organization;
Test - recognition of major fodder plant species and their seeds or fruits.

### Bibliography:

1. Bărbulescu C., Motcă Gh., 1983 - *Pășunile multilor înalți*. Editura Ceres, București
  2. Bărbulescu C., Motcă Gh., 1987 - *Pajiștile de deal din România*. Editura Ceres, București
  3. Motcă Gh. și colab., 1994 - *Pajiștile României - tipologie și tehnologie*. Editura Tehnica Agricolă, București
  4. Samuil Costel, **Vîntu Vasile**, Stavarache Mihai, 2019 - *Producerea și conservarea furajelor*. Editura „Ion Ionescu de la Brad” Iași.
  5. **Vîntu Vasile**, 2002 - *Posibilități de îmbunătățire a pajiștilor permanente degradate din Depresiunea Jijia-Bahlui*. Ed. “Ion Ionescu de la Brad”, Iași
  6. **Vîntu Vasile (coord.)**, Moisuc Al., Motcă Gh., Rotar I., 2004 - *Cultura pajiștilor și a plantelor furajere*. Ed. “Ion Ionescu de la Brad” Iași
  7. **Vîntu V.**, Samuil C., Stavarache M., 2017 - *Cultura pajiștilor și a plantelor furajere - îndrumător de lucrări practice*, Editura „Ion Ionescu de la Brad”
- \*\*\* - Colecția de reviste “*Fourrages*”  
 \*\*\* - Colecția de reviste “*Grassland science in Europe*”

### Final evaluation:

Evaluation forms	Evaluation methods	Percentage of the final grade
Exam	Oral Exam	60%
Appreciation of the activity during the semester	Verification tests, laboratory colloquium	40%

### Contacts

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