

## Grasslands and fodder plants (IVth Year, VIIth Semester)

**Credit value (ECTS): 5**

**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 cultivation and conservation of forage plants.

**Specific objectives:**

- assimilation of knowledge necessary to develop differentiated technologies for cultivation of annual and perennial forage plants, with different destinations, in terms of efficiency and high quality, according to the Common Agricultural Policy and Romanian strategy;
- practical skills for green feed production organization enabling them a proper management of land for sustainably fodder resources;
- acquire a knowledge needed to forages silage preservation and appreciation of their quality.

**Contents (syllabus)**

| Course:  |
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| <b>ANNUAL GRAMINEOUS FODDER SPECIES</b><br>Fodder corn; Barley, oats, rye, triticosecale; Sudan grass; Fodder sorghum<br>Ryegrass; Millet, foxtail millet and italian millet |
| <b>PERENNIAL GRAMINEOUS FODDER SPECIES</b><br>Specific cultivation technologies<br>Seed production   |
| <b>ANNUAL LEGUMINOUS FODDER SPECIES</b><br>Fodder pea;<br>Vetches; Broad bean; Chickling pea and lupine; Persian clover and crimson clover                                   |
| <b>PERENNIAL LEGUMINOUS FODDER SPECIES</b><br>Alfalfa; red clover<br>Sainfoin; Bird's-foot trefoil; Yellow and white sweet clover  |
| <b>ROOTS AND TUBERS FODDER SPECIES</b><br>Fodder beet; Fodder turnip<br>Fodder carrot; Jerusalem artichokes  |
| <b>CUCURBITS AND OTHER FODDER PLANTS SPECIES</b><br>Cucurbits<br>Other fodder succulents plants species<br>Melliferous plant   |
| <b>GREEN FEED PRODUCTION SYSTEM</b><br>Definition, types, principles of organization<br>Green feed production - technical organization                                       |
| <b>FORAGES ENSILAGE</b><br>The importance of silage; Biochemical processes during ensiling<br>Silage technologies; Types of silos<br>Pickled fodder quality assessment       |

| <b>Practical works:</b>  |
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| Morphological and biological characteristics of roots, tubers, cucurbits and other fodder succulents plants species; |
| Storage, preservation and evaluation of forages;   |
| Evaluation of Autumn forage crops;   |
| Perennial grasses and legumes seeds mixtures preparing for temporary meadows establishment - project activities;     |
| Rational grazing organization - project activities;  |
| Green feed production organization - project activities;   |
| Forages quality assessment;  |
| Colloquy - recognition of major fodder plant species and their seeds or fruits and project presentation*.            |

### **Bibliography:**

1. Moga I. și colab., 1996 - *Plante furajere*. Editura Ceres, București.
  2. Moga I., 1993 - *Cultura leguminoaselor perene*. Editura Ceres, București
  3. Samuil Costel, **Vîntu Vasile**, Stavarache Mihai, 2019 - *Producerea și conservarea furajelor*. Editura „Ion Ionescu de la Brad” Iași.
  4. Varga P., 1993 - *Producerea furajelor* - ghid practic. Editura Ceres, București
  5. Vintilă M., 1989 - *Tehnologii actuale de însilozare a nutrețurilor*. Editura Ceres, București.
  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:**

| <b>Evaluation forms</b>                          | <b>Evaluation methods</b>  | <b>Percentage of the final grade</b> |
|--|--|--------------------------------------|
| Exam   | Oral Exam  | 60%                                  |
| Appreciation of the activity during the semester | Verification tests, laboratory colloquium, project presentation* | 40%                                  |

\*- project presentation and admission represent a prerequisite for the participation of the final evaluation

### **Contacts**

#### **Prof. PhD. Vasile VÎNTU**

Faculty of Agriculture - USAMV Iași  
 Aleea Mihail Sadoveanu nr. 3, Iași, 700490, Romania  
 Phone number: 0040 232 407459  
 E-mail: [vvintu@uaiasi.ro](mailto:vvintu@uaiasi.ro)

#### **Assistant Prof. PhD. Mihai STAVARACHE**

Faculty of Agriculture - USAMV Iași  
 Aleea Mihail Sadoveanu nr. 3, Iași, 700490, Romania  
 Phone number: 0040 232 407502; 0040 748 915113  
 E-mail: [mihastavarache@uaiasi.ro](mailto:mihastavarache@uaiasi.ro)