

## **PROGNOSIS AND WARNING (Master-Plants Protection., IIth Year of study, Ith Sem.)**

**Credit value (ECTS): 8**

**Course category: mandatory**

**Course holder:**

Phd.. T LMACIU MIHAI

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

It aims to provide the master's students with up-to-date information on the prognosis and warning regarding plant protection.

**Contents (syllabus)**

<b>Course (chapters/subchapters)</b>
1. The ecological environment of the growth and development of pests and phytopagogenic agents <ul style="list-style-type: none"><li>• The hierarchy of biological systems</li><li>• Types of ecosystems and agrobiocenoses</li><li>• The action of environmental factors</li><li>• Population dynamics in the ecosystem</li><li>• The biological constants of the species</li><li>• Areas and sub-areas of biological activity</li><li>• Arthropod growth, development and propagation model</li></ul>
2. Weather stations and the technique of recording the weather conditions <ul style="list-style-type: none"><li>• General</li><li>• Climate elements recorded at weather stations</li></ul>
3. Evidence of the numerical density of pests and phytopathogenic agents <ul style="list-style-type: none"><li>• Evidence of numerical density</li><li>• Visual control in winter in orchards and vineyards</li><li>• Visual control in orchards and vineyards during the vegetation period</li><li>• Evidence of pests and diseases from field crops and vegetable gardens</li><li>• Evidence of the biology of pests and phytopathogenic agents</li></ul>
4. Estimating the attack, damage and numerical density of pests and diseases
5. Develop forecasts for plant protection <ul style="list-style-type: none"><li>• Forecasting the deadlines for the occurrence of harmful stages</li><li>• Prediction of the mass emergence of pests and diseases of crop plants</li></ul>
6. Warning of the application of the phytosanitary treatments <ul style="list-style-type: none"><li>• Warning criteria</li><li>• Equipment for increasing and warning of the occurrence of pests</li><li>• Means of launching warnings</li><li>• Devices for plant protection warning</li><li>• Warning under the conditions of chemical, biological and integrated control</li></ul>
7. Warning methods <ul style="list-style-type: none"><li>• Pests and diseases of vegetables</li><li>• Pests and diseases of fruit trees and shrubs</li><li>• Pests and diseases of vines</li></ul>
<b>Practical works</b>
1. Climatic factors, (temperature, light, precipitation) that have a role in the practice of forecasting and warning of treatments the recording mode and the calculation of some indicators: thermal constant (K) for each stage of development and for the whole generation, the number of generations, the sum of effective temperature, etc.

2. Preparation of forecast and warning graphs of treatments for the main pests in the apple orchards
3. Preparation of forecast and warning graphs of treatments for the main pests in vegetable crops
4. Preparation of forecast and warning graphs of treatments for the main pests in vineyards

### **Bibliography**

1. Filipescu C., Georgescu T., T Imaciu M., 1989 - Practical works of Entomology. The general part. Internal use, Iasi.
2. Georgescu T., T Imaciu M., 1994 - Protection of vine and apple plants. Entomology course. Special Part and Combat Technologies. Internal use, Iasi.
3. Perju T., 1995 - Agricultural entomology, component of integrated protection of agrosystems. Ceres Publishing House, Bucharest.
4. T Imaciu M., Georgescu T., Badeanu Marinela, 1998 - Entomology. The special part. Internal use, Iasi.
5. Talmaciu M., 2002 - Plant protection - Entomology, course, internal use. , U.S.A.M.V. Iasi.

### **Evaluation**

<b>Evaluation form</b>	<b>Evaluation Methods</b>	<b>Percentage of the final grade</b>
Course	Exam: Test with various items	70%
	presence	
Practical works	Oral, case study, investigation, evaluation during the semester	30%

### **Contact**

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