

# FORECAST AND WARNING IN PLANT PROTECTION

(Specialization Plant protection, 2<sup>nd</sup> Year of study, 1<sup>st</sup> Semester)

**Credit value (ECTS): 8**

**Course category: Further study**

**Course holder: PhD. Mihai TALMACIU**

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

It aims to provide students with a master's degree with up-to-date information on plant protection forecast and warning.

## **Contents (syllabus)**

<b>Course (chapters/subchapters)</b>
<b>The ecological environment for the growth and development of pests and phytopagogens</b> Hierarchy of the biological systems; Types of ecosystems and agrobiocenoses; The action of environmental factors; Population dynamics in the ecosystem; Biological constants of the species; Areas and subzones of biological activity; The model of arthropod growth, development and multiplication
<b>Meteorological stations and the technique of recording meteorological conditions</b> Generalities; Climate elements recorded at the weather stations
<b>Evidence of numerical density of pests and phytopathogenic agents</b> Evidence of numerical density; Visual inspection in winter in orchards and vineyards lands; Visual inspection in orchards and vineyards lands during the growing season; Evidence of pests and diseases in field crops and vegetable gardens, evidence of biology of pests and the phytopathogens
<b>Estimating the attack, damage and numerical density of the pests and diseases</b>
<b>Development of plant protection forecasts</b> Forecast of deadlines for the occurrence of harmful stages; Forecast of mass occurrence of crop pests and diseases
<b>Warning of the application of the phytosanitary treatments</b> Warning criteria; Pest growth and warning devices; Means of launching warnings; Warning devices in plant protection; Warning in the conditions of the chemical, biological and the integrated control
<b>Warning methods</b> The pests and diseases of vegetables; The pests and diseases of the fruit trees and shrubs; The pests and the diseases of the vineyards

<b>Practical works</b>
The climatic factors (temperature, light, precipitation) that play a role in the practice of forecasting and warning of treatments, the way of recording and calculating some indicators: thermal constant (K) for the each stage of development and for the whole generation, the number of generations, the sum of the actual temperature, etc.
The preparation of the treatment and warning schedules for the main pests of fruit plantations

The preparation of the treatment schedules and treatment warnings for the main pests in vegetable crops

The preparation of the treatment and warning schedules for treatments for the main pests in vineyards lands.

### **Bibliography**

1. Filipescu C., Georgescu T., Tălmăciu M., 1989 - Practical works of Entomology. The general part. Internal use, Iasi.
2. Georgescu T., Tălmăciu M., 1994 - Protection of vine and fruit plants. Entomology course. Special part and combat technologies. Internal use, Iasi.
3. Perju T., 1995 - Agricultural entomology, component of the integrated protection of agrosystems. Ceres Publishing House, Bucharest.
4. Tălmăciu M., Georgescu T., Badeanu Marinela, 1998 - Entomology. The special part. Internal use, Iasi.
5. Tălmăciu 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	Knowledge and understanding of the notions included in the course	70%
Seminar / Ip	Practice using information sources, preparing and presenting papers	30%

### **Contact**

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