

Plant Protection (YEAR III, SEMESTER I)

Credit value (ECTS) 4

Course category

Domain (Imposed)

Course holder:

Phd. Mihai Tălmăciu

Discipline objectives (course and practical works)

- Students' knowledge of insect morphology and anatomy, insect biology and ecology.
- Notions of forecasting and warning of chemical treatments;
- Knowledge of the main methods of prevention and control of pests;
- Knowledge of the main pests in fruit plantations, vineyards, vegetable crops, technical plants, cereals.
- Knowledge of the types of pesticide agro-availability, acquisition of the main groups of pesticides used in pest control during the vegetation period as well as the main pest control schemes.

Contents (syllabus)

Course (chapters/subchapters)
1. INTRODUCTION: The object and economic importance of entomology. Brief history of development worldwide and in our country; The connection with other sciences.
2. GENERAL CHARACTERISTICS OF INSECTS: morphology and anatomy of insects.
3. INSECT BIOLOGY: Reproduction in insects; Insect development; Generations and evolutionary cycle; Diapause.
4. INSECT ECOLOGY: Factors influencing the development of insects;
5. PEST DETECTION AND FORECAST: pest detection methods; forecasting methods.
6. METHODS USED IN PEST CONTROL: preventive methods; curative measures.
7. INSECTS PESTING CEREAL CROPS AND TECHNICAL PLANTS: spread, description, biology, ecology, attacked plants and mode of damage, prevention and control measures.
8. HARMFUL INSECTS IN NUTRITION PLANTS and ANNUAL LEGUMES: spread, description, biology, ecology, attacked plants, pest, prevention and control measures
9. PESTS IN VEGETABLE PLANTS: spread, description, biology, ecology, attacked plants, pest control, prevention and control measures
10. HARMFUL INSECTS FROM VINEYARD PLANTS AND FRUIT TREES: spread, description, biology, ecology, attacked plants, pest method, prevention and control measures
11. HARMFUL INSECTS IN STORAGE SPACES: spread, description, biology, ecology, attacked plants, pest control, prevention and control measures

Practical works
1. The morphology of the insect's body: the structure of the head, thorax, abdomen and their appendages.
2. Development of insects. Types of larvae and pupae
3. The dichotomous key to determining the main orders of insects.
4. Types of damage. Chemical pest control.
5. Recognition of the main pests of cereals, meadows, pastures and natural grasslands.

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| 6. Recognition of the main pests of leguminous plants, technical plants and vegetable plants. |
| 7. Recognition of the main pests from tree plantations, fruit bushes and vine plantations. |

Bibliography

1. Filipescu C., Georgescu T., Tălmăciu M., 1989 - Practical works of Entomology. The general part. Internal use, Iasi.
2. Bărbulescu Al., 1997 - Agricultural entomology. Didactic and Pedagogical Publishing House R.A., Bucharest.
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., 2003 - Plant protection - Entomology. "Ion Ionescu de la Brad" Publishing House Iasi.
6. Tălmăciu M., 2005 - Agricultural entomology. "Ion Ionescu from Brad" Iasi.
7. Roșca I., Oltean I., Mitrea I., Talmăciu M., Petanec D., Bunescu H., Istrate Rada, Talmăciu Nela, Stan C., Micu Lavinia, 2011 - Treatise on general and special entomology Alpha MDN Publishing House , Buzau.

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Written examination	Knowledge and understanding of the concepts contained in progress	70%
Seminar / laboratory	Practicing the use of sources of information, preparation and presentation of reports	30%

Contact person

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PLANT PROTECTION (IInd Year of study, VIth SEMESTER)

Credit value (ECTS) 4

Course category

Domain (Imposed)

Course holder:

Prof univ. dr. ULEA Eugen

Discipline objectives (course and practical works)

The analytical program aims to instill the knowledge by students concerning etiology, symptomatology, the epidemiology and measures for prevention and control of plant disease. Practical application aims to familiarize students with the technical work in the laboratories of plant protection, and with the recognition of disease.

Contents (syllabus)

Course (chapters/subchapters)
General notions about plant diseases
Introduction to plant diseases. Characteristics of pathogens.
Factors that influence parasitic properties (internal and external). Mode of nutrition and spread of the pathogens.
Clasification and specific characters of pathogen agents. Viruses. Mycoplasmas. Bacteria.
Fungi (morphology, asexual and sexual propagation, class characterization of fungi).
General technologies for prevention and integrated control.
Cereal diseases - I
Cereal diseases - II
Beans and peas disease.
Non-food crops diseases.
Vegetables diseases.
Fruit trees and shrubs diseases – I.
Fruit trees and shrubs diseases - II.
Grapevine diseases- I
Grapevine diseases – II.
Practicum
Parasitic aspects produces by pathogen agents
Cereal diseases
Non-food crops diseases
Beans and peas disease.
Vegetables diseases
Fruit trees diseases
Grapevine diseases

References

1. Baicu T.: Îndrumător pentru folosirea pesticidelor, Ed. CERES, București, 1979.
2. Hatman M. și colab.: Protecția plantelor. Ed. CERES, București, 1986.
3. Henegar Monica, Andru Monica, Codexul produselor de protecție a plantelor omologate pentru utilizare în România, Ed. Andagra, Arad, 2013
4. Iacob Viorica: Bolile plantelor cultivate-prevenire și combatere, Ed. ”Ion Ionescu de la Brad”, Iași, 2008
5. Rădulescu E., Rafailă C.: Tratat de fitopatologie agricolă, vol. II, Ed. Academiei Prepublicii Socialiste România, București 1970
6. Șandru I.D.: Protejarea culturilor agricole cu ajutorul pesticidelor, Ed. Helicon, Timișoara, 1996
7. Săvescu A., Rafailă C.: Prognoza în protecția plantelor, Ed. Ceres, București, 1978
8. Ulea E.: Protecția plantelor - Fitopatologie. Ed. Ion Ionescu de la Brad, Iași, 2003.

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Oral examination	60%
Appreciation of the activity during the semester	Test+ practical application+ herbarium	40%

Contact

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