

Objectives of the Course

To understand the importance of plant protection in organic farming. To understand the importance of economic damage. To raise awareness about the harmful effects of plant damage and disease.

Course Contents

Morphological structures, morphological structures, reproduction and development, life stages, damages caused by plant diseases, harmful economic effects of plant diseases (including insects, mites, nematodes, soft muscles, rodents, birds, bacteria, viruses and bacteria) importance. Organic fighting methods and techniques against plant diseases and pests.

Recommended or Required Reading

Projector, laptop. Course book: 1. Karsavuran, Y., 1994. Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova.

Planned Learning Activities and Teaching Methods

Lectures, question and answer.

Recommended Optional Programme Components

There is no significant topic suggested for the course.

Instructor's Assistants

There is no assistant.

Presentation Of Course

Theoretical topics are taught face-to-face in class using PowerPoint presentations and whiteboards. Students are encouraged to ask questions. Laboratory exercises will be conducted using the course handouts.

Dersi Veren Öğretim Elemanları

Assoc. Prof. Dr. Ata Eskin

Program Outcomes

1. Understands the importance of plant protection in organic farming.
2. Identify the damage types of plant pests.
3. Lists plant disease agents, damage types and control methods.
4. Develops integrated solutions for protection against plant pests by comparing biotechnical and cultural control methods.
5. Demonstrates the ability to use organic pesticides correctly by selecting their types, application times and methods.

Weekly Contents

| Order | PreparationInfo | Laboratory | TeachingMethods | Theoretical | Practise |
|-------|--|--|--|---|----------|
| 1 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | Basic Concepts: Concept and definition of harmful and beneficial in plants. | |
| 2 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | Main Categories Used in Classifying Living Things. | |
| 3 | | Teaching the traps and their installations used in biotechnical control. | | | |
| 4 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | General plant pests. | |
| 5 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | Plant disease agents. | |
| 6 | | Examination of beneficial fungi used in biological control of fungal pathogens | | | |

| Order | PreparationInfo | Laboratory | TeachingMethods | Theoretical | Practise |
|-------|--|--|--|---|----------|
| 7 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | Organic pesticides, application time, application methods | |
| 8 | | | | Midterm exam. | |
| 9 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | Organic insecticides licensed in the market. | |
| 10 | | Observation of insecticidal efficacy of neem azal oil. | | Organic insecticides licensed in the market. | |
| 11 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | Apple Pests, Cherry Pests | |
| 12 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | Olive diseases and pests. | |
| 13 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | Citrus diseases and pests. | |
| 14 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | Citrus diseases and pests. | |
| 15 | Entomology, Ege University, Faculty of Agriculture, Department of Plant Protection, Lecture notes, Bornova. Weekly lecture notes prepared by the instructor. | | Slide show, explanation of terms, topic explanation and question and answer. | Citrus diseases and pests. | |

Workload

| Activities | Number | PLEASE SELECT TWO DISTINCT LANGUAGES |
|-----------------------|--------|--------------------------------------|
| Vize | 1 | 1,00 |
| Final | 1 | 1,00 |
| Uygulama / Pratik | 14 | 1,00 |
| Laboratuvar | 2 | 4,00 |
| Ara Sınav Hazırlık | 14 | 1,00 |
| Final Sınavı Hazırlık | 14 | 1,00 |
| Bütünleme | 1 | 1,00 |
| Teorik Ders Anlatım | 14 | 3,00 |
| Ev Ödevi | 5 | 1,00 |
| Seminer | 5 | 1,00 |

Assesments

| Activities | Weight (%) |
|------------|------------|
| Ara Sınav | 40,00 |
| Final | 60,00 |

| | P.O. 1 | P.O. 2 | P.O. 3 | P.O. 4 | P.O. 5 | P.O. 6 | P.O. 7 | P.O. 8 | P.O. 9 | P.O. 10 | P.O. 11 | P.O. 12 | P.O. 13 | P.O. 14 | P.O. 15 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| L.O. 1 | | | | | | | | | | | | | | | |
| L.O. 2 | | | | | | | 5 | | | | | | 3 | | |
| L.O. 3 | | | | | | | 5 | | | | | | 3 | | |
| L.O. 4 | | | | 4 | | | 5 | | | | | | 3 | | |
| L.O. 5 | | | | | | | 5 | | | | | | 3 | | |

Table :

- P.O. 1 :** Organik tarım amaçlı üretimi yapılan bitkileri temel düzeydeki bilgi ve becerileri kullanarak tanıyabilme ve değerlendirme.
- P.O. 2 :** Organik tarımda üretim aşamasındaki ekolojik koşulları da dikkate alarak en uygun yetiştirme tekniğini uygular.
- P.O. 3 :** Bitki türlerinde genetik ve ıslah konularını öğrenebilme.
- P.O. 4 :** Bitki üretim materyallerini (tohum, çelik) üretim tekniklerini öğrenebilme ve uygulayabilme.
- P.O. 5 :** Alanı ile ilgili modern tarım tekniklerini takip eder ve pratiğe aktarır.
- P.O. 6 :** Bitki besleme, organik gübreleme ve sulama yöntemlerini öğrenebilme ve uygulayabilme
- P.O. 7 :** Bitkilerde, hastalık ve zararlılarla mücadele yöntemlerini öğrenebilme ve uygulayabilme.
- P.O. 8 :** Tarımdan elde edilen ürünlerin kalite kontrolü, muhafazası ve pazara hazırlanması konusunda bilgi sahibi olabileme.
- P.O. 9 :** Bitkilerin kültürü için gerekli temel konuları öğrenebilme
- P.O. 10 :** Yeni tarımsal teknolojilerin üreticiye benimsetilmesinde kullanılacak araç ve yöntemler konusunda bilgi sahibi olabileme.
- P.O. 11 :** Mesleki etik ve sorumluluk bilincine sahip olma
- P.O. 12 :** Organik Tarım Kanunu ve Organik Tarımın Esasları ve Uygulamasına İlişkin Yönetmelik hükümleri doğrultusunda organik tarım işlemlerini sürdürebilme, yapabilme, üretim yapabilme
- P.O. 13 :** Alanında karşılaştığı sorunları ve konuları bağımsız olarak analitik ve eleştirel bir yaklaşımla değerlendirir ve çözüm önerisi sunar.
- P.O. 14 :** Bilgisayar ve internet teknolojilerini kullanarak, her türlü bilimsel bilgiye ulaşabilme becerisine sahip olabileme.
- P.O. 15 :** Organik tarıma başlama, sürdürme, organik ürün sertifikası ve logosu almaya ilişkin gerekli başvuru işlemlerini bilebilme ve uygulayabilme
- L.O. 1 :** Organik tarımda bitki korumanın önemini kavrar.
- L.O. 2 :** Bitki zararlılarının zarar şekillerini tanımlar.
- L.O. 3 :** Bitki hastalık etmenlerini, zarar şekillerini ve mücadele yöntemlerini listeler.
- L.O. 4 :** Biyoteknik ve kültürel mücadele yöntemlerini karşılaştırarak bitki zararlılarından korunmaya yönelik entegre çözümler geliştirir.
- L.O. 5 :** Organik pestisitlerin çeşitlerini, uygulama zamanlarını ve yöntemlerini seçerek doğru kullanım becerisi gösterir.