

General Info

Objectives of the Course

To give basic information about the harmful diseases, diseases and weeds causing economic loss in culture plants and products and to teach the methods of combating them.

Course Contents

General principles of plant protection principles and methods in organic (ecological) agriculture, legal legislation and certification, and ecological plant protection methods used in the fight against diseases and pests in organic products.

Recommended or Required Reading

Laptop, projector, insect samples (living and dead). Course book: Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection.

Planned Learning Activities and Teaching Methods

Lectures, question and answer.

Recommended Optional Programme Components

Since the course will be taught theoretically by the person in charge of the course, students are not expected to pay attention to anything.

Instructor's Assistants

There is no assistant.

Presentation Of Course

Theoretical topics are taught face-to-face by the course instructor using PowerPoint presentations and whiteboards.

Dersi Veren Öğretim Elemanları

Assoc. Prof. Dr. Ata Eskin

Program Outcomes

1. Defines basic concepts related to plant diseases and pests.
2. Explains the relationship between diseases and pests and environmental factors.
3. The student will be able to identify the symptoms of plant diseases and classify these symptoms.
4. Accesses, distinguishes and interprets information about plant protection.
5. Defines the methods used in biological control.

Weekly Contents

Order	PreparationInfo	Laboratory TeachingMethods	Theoretical	Practise
1	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.	Slide show, explanation of terms, topic explanation and question and answer	Importance and history of plant protection and entomology, insect groups.	
2	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.	Slide show, explanation of terms, topic explanation and question and answer	General morphological structures in insects.	
3	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.	Slide show, explanation of terms, topic explanation and question and answer	Anatomy and Physiology of Insects.	
4	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.	Slide show, explanation of terms, topic explanation and question and answer	Reproduction and Metamorphosis in Insects	

Order	PreparationInfo	Laboratory	TeachingMethods	Theoretical	Practise
5	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.		Slide show, explanation of terms, topic explanation and question and answer	Important insect orders and important families.	
6	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.		Slide show, explanation of terms, topic explanation and question and answer	Important insect orders and important families.	
7	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.		Slide show, explanation of terms, topic explanation and question and answer	Chemical control and integrated pest management in organic agriculture.	
8				Midterm exam.	
9	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.		Slide show, explanation of terms, topic explanation and question and answer	Concept and symptomatology of disease in plants.	
10	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.		Slide show, explanation of terms, topic explanation and question and answer	Non-parasitic plant diseases	
11	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.		Slide show, explanation of terms, topic explanation and question and answer	Phytopathogenic fungi.	
12	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.		Slide show, explanation of terms, topic explanation and question and answer	Phytopathogenic bacteria and viruses	
13	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.		Slide show, explanation of terms, topic explanation and question and answer	Weeds and parasitic flowering plants	
14	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.		Slide show, explanation of terms, topic explanation and question and answer	Plant pest mites.	

Order	PreparationInfo	Laboratory	TeachingMethods	Theoretical	Practise
15	Main Book: Prof. Dr. Bülent YAŞAR. Plant Protection in Agricultural Engineering. ISPARTA (2018). Supplementary Book: Özdemir Alaoğlu, Nuh Boyraz, Ahmet Güncan, Kubilay Kurtuluş Baştaş, 2020, Atlas Academy. Plant Protection. Weekly lecture notes prepared by the instructor.		Slide show, explanation of terms, topic explanation and question and answer	Methods of combating plant diseases in organic farming	

Workload

Activities	Number	PLEASE SELECT TWO DISTINCT LANGUAGES
Vize	1	1,00
Final	1	1,00
Derse Katılım	7	1,00
Ders Sonrası Bireysel Çalışma	7	1,00
Ara Sınav Hazırlık	7	1,00
Final Sınavı Hazırlık	7	1,00
Araştırma Sunumu	5	2,00
Teorik Ders Anlatım	14	2,00
Küçük Grup Çalışması	4	2,00

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	3						5						1		
L.O. 2	2						5								
L.O. 3				3			5								
L.O. 4							5						4		
L.O. 5							5								

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 uygulamak.
- P.O. 3 :** Bitki türlerinde genetik ve ıslah konularını öğrenebilme.
- P.O. 4 :** Bitki üretim materyallerini (tohum, çekirdek) 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 olabilmek.
- 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 olabilmek.
- 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, yapabilmek, üretim yapabilmek
- 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 olabilmek.
- P.O. 15 :** Organik tarıma başlama, sürdürme, organik ürün sertifikası ve logosu almaya ilişkin gerekli başvuru işlemlerini bilebilme ve uygulayabilme
- L.O. 1 :** Bitki hastalıkları ve zararlıları ile ilgili temel kavramları tanımlar.
- L.O. 2 :** Hastalık ve zararlıların çevre faktörleri ile ilişkisini açıklar.
- L.O. 3 :** Öğrenci, bitki hastalıklarının belirtilerini tanımlayabilir ve bu belirtileri sınıflandırabilir.
- L.O. 4 :** Bitki koruma ile ilgili bilgilere ulaşır, bu bilgileri ayırt eder ve yorumlar.
- L.O. 5 :** Biyolojik mücadelede kullanılan yöntemleri tanımlar.