

343 Economic Entomology

Course Description

Taxonomical study of the most important insect pests of field and horticultural crops in the kingdom, life cycle, host plants, symptoms, nature of damage and their control.

Syllabus lectures:-

The main items that the syllabus tackles are as following:-

- 1- insect orders
- 2- Common pests of orthoptera and their control.
- 3- Common pest of Isoptera and leaf-miners and their control.
- 4- Common pests of Homoptera (whiteflies, aphids, scale insects, mealbugs)>
- 5- Thrips, cutworms leaf worm and their control.
- 6- Date palm tree pests, pests of fronds and fruits).
- 7- Date palm tree pests 2 (borers).
- 8- Red palm weevil and control.
- 9- Citrus pests and their control.
- 10-Grape vine, fig and olive trees insect pests.
- 11-Cucurbit plant insect pests and their control.
- 12-Solanaceae plant insect pests and their control.
- 13-Leguminacea plant pests and their control
- 14-Wheat, barely and sorghum crop pests and their control.
- 15-Alfalfa plant insect pest and their control.
- 16-Ornamental plant insect pests and their control.
- 17-Stored product insect pests and their control.

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Reports and Home works

First: reports

- 1- Report about insect orders, not less than 20 orders, including type of wings metamorphosis and mouth-types.
- 2- Report on insect pests of one selected crop; design an IPM for these pests.

Second: Home works:

- 1- Comparison between different classes of Arthropods.
- 2- Types of mouthparts in immature mature stages of each order.
- 3- Give examples of the following:-
Orders of apterygota insects.
Order the hind wing modified to halteres.
Order front wing modified to halteres like.
An example of an insect hind wing modified to halteres-like (not from Diptera).
- 4- Why is it very important to identified insects to order level?
- 5- Metamorphosis is an important biological feature in insects. How we can get benefit of it in application in term of symptoms and control.
- 6- Mouthpart type is varying among insects, what is the importance of knowing the mouth parts from the application point of view.
- 7- Desert locust is very destructive pest, however. Their damages were reduced significantly comparing with 50 years ago, what are the main reasons behind that.

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<p>8- Desert locust and grasshopper are belonging to one order. What are the differences between them in term behavior, biology, economic importance and control?</p> <p>9- Whitefly is the most destructive insect pest that attacks vegetable plants. What is the justification for that?</p> <p>10- Why whiteflies are more efficient as vectors comparing with most aphids in.</p> <p>11- Termites are considered as tropical and sub-tropical pests. Who their colonies are increased in numbers, (forming new colonies).</p> <p>12- Why is it difficult to control leaf-miners?</p> <p>13- Why red palm weevil is very destructive pest.</p> <p>14- What is the nature of the relationship between red palm weevil and stalk borer (<i>Oryects</i> sp.)</p> <p>15- Make a list of tomato insect pests, starting with the most important pest and ending with the least important one.</p> <p>16- Alfalfa leaf-weevil, <i>Hyper postica</i>, is the most destructive insect pest that attacking alfalfa crop. Why it goes into summer aestivation and is the side effect of it on its biology and on the control program?</p>	<p>()</p> <p>()</p>
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