



**Department of Horticulture**

**College of Agricultural Engineering Sciences**

**Salahaddin University**

**Subject: Nut and Miscellaneous fruit  
production**

**Course Book – ( Year 4)**

**Lecturer's name : Dr. Jehad Shareef Kader**

**Academic Year: 2021/2022**

## Course Book

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| <b>1. Course name</b>  | <b>Nut and Miscellaneous fruit production</b>   |
| <b>2. Lecturer in charge</b>   | <b>Dr. Jihad Shareef Kader</b>  |
| <b>3. Department/ College</b>  | <b>Horticulture/Agriculture Engineering sciences</b>  |
| <b>4. Contact</b>  | <b>e-mail: jehad.kader@su.edu.krd<br/>Tel: (optional) 07504051070</b>   |
| <b>5. Time (in hours) per week</b>   | <b>Theory: 2</b>  |
| <b>6. Office hours</b>   | <b>8</b>  |
| <b>7. Course code</b>  |   |
| <b>8. Teacher's academic profile</b>   | <b>I got BSc. Degree from Horticulture and Landscape Design Department /College of Agriculture and Forestry/University of Mosul at 1993-1994.<br/>I got MSc. Degree from Horticulture Department / College of Agriculture / University of Sulaimani at 2008.<br/>I got Ph.D. Degree from Horticulture and Landscape Design Department /College of Agriculture and Forestry/University of Mosul at 2016.<br/>I'm lecturer in horticulture department /college of agriculture / university of Salahaddin.</b> |
| <b>9. Keywords</b>   | <b>Fruit – bud – flower – tree – pruning – fertilizer – thinning</b>  |
| <b>10. Course overview:</b>  |   |
| <p>Name of sustainable fruit production. The decision of the first chapter</p> <p>The objectives of Article. Study fruits of sustainable green in terms of commercial value and nature of growth and environmental conditions and service operations used and methods of cultivation and production of some plants fruit for example olive, citrus, banana and, guava, papaya and pineapple</p> <p>To alleviation the impact of the unit temperature rise citrus trees turn to some of the ways things such as windbreaks, planting citrus trees under the shade higher than such as planting citrus under the palm trees and irrigation at frequent intervals. Temperature and humidity are the main environmental factors controlling quality. The following changes are easily seen</p> |   |
| <b>11. Course objective:</b>   |   |
| <p>A) - Being indigenous to the tropical climatic conditions of Southeast Asia, citrus fruit trees grow well in warmer regions that remain frost-free</p>  |   |

throughout the year. But, if you are residing in areas, where winter remains cold, then also you can consider growing citrus fruits with proper planning. Need cultivation and production of citrus fruits in general to areas with a climate free from frost is the degree zero C° and below harmful levels where trees formation shoots and branches of modern small if the temperature dropped below zero centigrade.

B) - Different species and types of citrus fruits in the degree of resistance to low temperatures are considered genus citrus less races of these terms is tangerine Satsuma more types of genus citrus resistant to low temperatures, followed by the lemon dahlia, bitter orange and then the rest of the varieties tangerines, oranges and grapefruit.

### **12. Student's obligation**

In this section the lecturer shall write the role of students and their obligations throughout the academic year, for example the attendance and completion of all tests, exams, assignments, reports , essays...etc

### **13. Forms of teaching**

Data show + Power point + White board.

### **14. Assessment scheme**

1 – 1<sup>st</sup> month exam.

2 – 2<sup>nd</sup> month exam

3 – Absence + 3 degree.

### **15. Student learning outcome:**

-Loquat equatorial region of the fruit, which has spread largely cultivated in China and Japan relative to (proportion to) the original. Where spreads are many varieties of wild planted their condition since more than 2000 years, and then transferred to Japan, and some scientists believe that the original is in China and Japan together.

-Then spread cultivated widely in India and the Himalayas, and then introduced **نقل** in the south of Europe and some countries of the sea coast.

- And introduced to Florida, transport from Europe, and from California to Japan, also spread grown in Australia and New Zealand, among others.

### **16. Course Reading List and References:**

1 - Jauad Thanon Agha and David Abdullah Daoud. Sustainable fruit production

nut fruit (1991) Part I

2 - Javad the Thanon Agha and David Abdullah Daoud. Sustainable fruit production deciduous fruit trees (1991) Part II.

Ibrahim, Atef Mohamed 1996, the basics of fruit production - planting - sponsorship and production. **Infantry** knowledge, the first edition, Egypt.

Exterior References:

1- Ali Alduri and Adil Alrawi. Fruit production (2000).

2 - Ghazi al-Banna and Abdel Aal Majazi. Sustainable fruit production Evergreen (1987) translated book.

3- Dr.J.S.BAL.FRUIT GROWING (2005). 4- Different web sits.

| 17. The Topics:   | Lecturer's name  |
|---|--|
| <p>1- Introduction to sustainable fruit evergreen trees and divided Olive crop - the original home of distribution - the economic importance -Suitable Environment - fruiting. Olive crop - flowers – pollination – set fruit - flowering and fruiting - Thinning - resistance to pests, insects and diseases.</p> <p>2- citrus crop - the original home of distribution - the economic importance – Plant taxonomy Economic importance – Bud formation - Pest Management - Fruit Thinning – harvest and storage.</p> <p>3- Determine the suitable degree of picking citrus crop – Drop of flowers and fruiting - Thinning - resistance to pests, insects and diseases.</p> <p>4- Bananas - banana crop - the original home and distribution - the economic importance -. suitable environmental requirements - climate factors – temperature - air humidity - low temperature - wind - soil factor– Irrigation.</p> <p>5- Examination 1</p> <p>6- Banana cultivation in greenhouses - Introduction - the establishment of a banana farm - stages of establishing a service and a banana farm.</p> <p>7- Palm - the original home of proliferation - the economic importance – an appropriate environment</p> <p>8- Palm - flowers and pollination and the set fruits- the evolution and maturity of the fruits of dates</p> <p>9- Examination 2</p> <p>10- harvest of dates - Irrigation - determine the suitable degree of picking – resistance to pests, insects and</p> | <p>Dr. Jihad Sh. Kader</p> <p>2 hrs for each lecture in the week</p> |

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| <p>diseases</p> <p>11- loquat - the original home - the economic importance and nutritional value – agricultural properties the suitable soil- suitable environment - irrigation – maturity and harvesting</p> <p>12- Pineapple - the original home - the economic importance and nutritional value - the suitable soil – suitable environmental - Increase flowers maturity and harvesting-</p> <p>13- Pineapple cultivation in greenhouse Plant division .</p> <p>14- Mango - Description Plant - Environment and mango Agriculture - Irrigation - mango production problems – the collection, packaging and storage of fruits</p> |  |
| <p><b>18. Practical Topics (If there is any)</b></p>   |  |
| <p>In this section The lecturer shall write titles of all practical topics he/she is going to give during the term. This also includes a brief description of the objectives of each topic, date and time of the lecture</p>   | <p>M. Vian Adnan Zedan<br/>3 hrs for each group at the week.</p> |
| <p><b>19. Examinations:</b></p> <p><b>Q1: A:</b> Climate determining the limits of distribution of species, and world climate is regulated by such things, what are they?</p> <p>Q2)- What are the harmful effect of low temperatures on the citrus trees?</p> <p>Q3) Explain the Plant taxonomy of citrus?</p> <p>Q4) What are the general climatic requirements for temperate – zone trees and shrubs?</p> <p>Q5) Correct the words which under line in the following sentences?</p> <p>Q6) Mention the stage of development fruit in generally?</p>   |  |
| <p><b>20. Extra notes:</b></p> <p>Here the lecturer shall write any note or comment that is not covered in this template and he/she wishes to enrich the course book with his/her valuable remarks.</p>  |  |
| <p><b>21. Peer review</b></p> <p>This course book has to be reviewed and signed by a peer. The peer approves the contents of your course book by writing few sentences in this section.<br/><i>(A peer is person who has enough knowledge about the subject you are teaching, he/she has to be a professor, assistant professor, a lecturer or an expert in the field of your subject). .</i></p>  |  |