SRI VENKATESWARA UNIVERSITY

B.Sc. DEGREE COURSE IN SERI CULTURE TECHNOLOGY

III - SEMESTER

(Syllabus under CBCS w.e.f. 2021-22)

PAPER- III. DISEASES AND PESTS OF MULBERRY

Course Outcomes: By the completion of the course the graduate should able to –

CO1 : Explain the different type plant diseases with reference to mulberry plant

CO2 : Describe the different fungal diseases of mulberry plants

CO3 : Describe the viral and bacterial diseases of mulberry plants

CO4: Explain the major pests of mulberry plants

CO5: Describe the mineral nutrient deficiency symptoms in mulberry plants.

Learning objectives

1. To understand the different type plant diseases with reference to mulberry plant .

2. To understand the different fungal diseases of mulberry plants

3. To understand the viral and bacterial diseases of mulberry plants .

4. To understand the major pests of mulberry plants

5. To understand the mineral nutrient deficiency symptoms in mulberry plants.

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PAPER- III. DISEASES AND PESTS OF MULBERRY

Unit-1

1.1 Introduction to plant diseases and importance of plant protection.
1.2 Classification of mulberry diseases.
1.3 Influence of biotic and biotic factors on the incidence of plant diseases.

Unit-2

2.1 Fungal diseases of mulberry: Occurrence, symptoms, etiology and preventive and control measures of the following diseases:
(a) Powdery mildew.
(b) Leaf spot.
(c) Leaf rust.
(d) Leaf blight.
(e) Root rot. 5Hrs.

Unit - 3

3.1Root-knot disease of mulberry- occurrence, symptoms and preventive and control measures.
3.2 Viral, bacterial and dwarf diseases of mulberry- their occurrence-symptoms and preventive and control measures.
3.3 Pest: Definition; pest outbreak; pest fore casting .

Unit-4

4.1 Major pests: leaf roller, Bihar hairy caterpillar, mealy bug and trips – their preventive and control measures
4.2 Minor pests: girdlers, termites and mites-their preventive and control measures.

4.3 Biological control of mulberry pests.

Unit – 5

5.1 Mineral deficiency symptoms in mulberry.

5.2 Pesticides: Forms, formulations, calculation and application.

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PAPER- III. DISEASES AND PESTS OF MULBERRY

MODEL QUESTION PAPER

Time : 3 Hrs **Max Marks : 75**

SECTION –I

Answer any FIVE of the following **5x5 = 25 Marks**

(Draw labeled diagrams wherever necessary)

1. Plant protection
2. Biotic factors
3. Leaf spot
4. Pest
5. Control measures
6. Girdlers
7. Symptoms
8. Pesticides

SECTION –II

Answer ALL the questions each question carries 10 marks **5x10=50 Marks**

(Draw diagrams wherever necessary)

9. (a) Classify the mulberry diseases in brief (or)
   (b) Describe the influence of biotic factors on the incidents of plant diseases
10. (a) Write about fungal diseases of mulberry (or)
    (b) Explain about leaf rust and leaf blight
11. (a) Write about root-knot disease of mulberry (or)
    (b) Explain about symptoms and preventive and control measures of viral diseases
12. (a) Describe the leaf roller and Bihar hairy caterpillar (or)
    (b) Explain about biological control of mulberry pests
13. (a) Write about mineral deficiency in mulberry(or)
    (b) Write an account on pesticides

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PRACTICAL – 3

Diseases and pests of Mulberry;

1. Study of powdery mildew, leaf spot and leaf rust through sectioning, staining and temporary mounting.
2. Study of root-knot nematode in mulberry
3. Collection, mounting/preservation of insect pests of mulberry (fieldwork).
4. Identification of mulberry pests. Study of nature of damage of the following pests: Leaf roller, Bihar hairy caterpillar, scale insect, mealy bug, trips, beetles, asides and grasshoppers.
5. Identification of fungicides, pesticides- their formulation. Study of various types of Insecticide applicators (sprayers and dusters).

References:

1. Hartmann and Kessler (1993) Plant Propagation, principles and practices. Prentice Hall,HemelNemstead.
2. Krishnamurthy,N.(1981)PlantgrowthsubstancesincludingapplicationinAgriculture.Tata McGraw Hill Pub. Co. Ltd. New Delhi.
3. Shankar, M.A (1998) Handbook on mulberry Nutrition, Multiplex, Bangalore.
8. Scuba Rao, N.S (1998) Biofertilisers in Agriculture. Oxford & IBH Pub. Co, Pvt. Ltd, New Delhi.
4. A text Book on Mulberry Crop Protection. Govindaiah, V.P Gupta, D.D Sharma, S. Rajadurai and V. NishithaNaik, Published by Central Silk Board, Bangalore-68, India.2005.
5. RajannaL,DasP.K,RavindraS,BhogeshaK,MishraR.K,SinghviN.R,KatigarR.And Jayaram H. Mulberry Cultivation and Physiology Central Silk Board, Bangalore,Dec.2005