

Course Code : HRT 203

Course Title : Fruit and Plantation Crop Production

Credit Hours : 3 (2+1) Full Marks: 75 Theory: 50

Practical: 25

OBJECTIVES

Upon the completion of this course, the students will be able to manage the potential fruits and plantation crops growing in Nepal for commercial production.

I. SYLLABUS

Scope and importance of fruits and plantation crop production in Nepal. Classification of fruits based on climate requirement, pomology and growth habit etc. Identification of potential pocket area for commercial production of fruits and plantation crops. To have clear understanding about the origin, history, botany, uses, distribution, area, production, climate, soil, varieties, planting, propagation, training and pruning, growth behavior, flowering, fruit set, fruit drops, nutrition, manure and fertilizers, irrigation, intercropping, use of bio-regulators, disease and pest, physiological problems, harvesting, storage and marketing of banana, mango, papaya, pineapple, jackfruit, litchi, guava, citrus, pomegranate, apple, pear, peach, plum, walnut, apricot, kiwi, strawberry, grape, tea, coffee, cardamom and other indigenous, under exploited fruit crops and other nut crops.

II. COURSE OUTLINE

A. Lecture

S.N.	Topic	No. of Lectures
1.	Scope and importance of fruits and plantation crops in Nepal	1
2.	History and Government policy of fruit development in Nepal	1
3.	Potential pocket areas for commercial production of fruits and plantation crops.	1
4.	Cultivation practices of	27
4.1	Tropical and subtropical fruits:	
4.1.1	Banana	
4.1.2	Mango	
4.1.2.1	Physiological disorder, biennial bearing and disease and pest of mango	
4.1.3	Papaya	
4.1.4	Pineapple	
4.1.5	Jack fruit	
4.1.6	Litchi	
4.1.7	Guava	
4.1.8.1	Citrus, Species and varieties,	
4.1.8.2	Climate, soil, rootstock, propagation, planting, training and pruning, flowering, harvesting, post harvest management	
4.1.8.2	Major problem in citriculture	
4.1.9	Pomegranate	
4.2	Temperate fruits	
4.2.1	Apple	
4.2.2	Major problem in apple cultivation in Nepal	
4.2.3	Pear and plums	
4.2.4	Peach and nectarines	

4.2.5	Walnut
4.2.6	Kiwi
4.2.7	Grapes
4.3	Indigenous and under exploited fruit crops
4.3.1	Aonla, Custard apple, Wood apple, and other nut crops
4.3.2	Persimmon, Avocado, Sapota
4.3.3	Passion fruit, Apricot, Strawberry, Olive
4.4	Plantation crops
4.4.1	Tea
4.4.2	Processing and diseases and pest of tea
4.4.2	Coffee
4.4.3	Processing and diseases and pest of coffee
4.4.4	Cardamom

Total	30
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B. Practical

S.N.	Topics	No. of Practical
1.	Identification of tools, equipments and chemicals used in the production of fruit and plantation crops	1
2.	Field visit, identification of different fruit species and varieties	1
3.	Layout and planning of orchard	1
4.	Digging and filling of pits	1
5.	Practices of cutting and layering	1
6.	Practices of grafting and budding	1
7.	Processing of coffee and/or tea	1
8.	Detachment of layered plant and transplanting in the nursery	1
9.	Preparation of seedling/sapling plant for selling and transplanting	1
10.	Training and pruning practices	1
11.	Fertilizer application and irrigation practices	1
12.	Calculation, preparation of stock solution of plant growth regulators and their applications.	1
13.	Sampling technique for soil and plant parts for nutrient analysis	1
14.	Visit to subtropical and temperate horticultural farm	1
15.	Assignment: Preparation of project for establishing enterprises on fruit or plantation crop orchard (include establishing cost and return for a specific period)	1

Total	15
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REFERENCES

- Boss, T.K. and S.K. Mitra 1990: Fruits Tropical and Subtropical- nayaPrakash, Calcutta.
- Chadha, K.L. (Eds.) 2003. HandBook of Horticulture, ICAR, New Delhi, India.
- Chaltopadhyay, T.K. 2001. A TextBook on Pomology vol I, II and III KalyaniPublishers, India.
- Kumar, N.K. Abdul, P. Rangaswami and I. Irulappan, 2000. Introduction to Spices, Plantation Crops, Medicinal and Aromatic Plants. Oxford & IBH Pub. Co. Pvt. Ltd.