



**LANDMARK UNIVERSITY, Omu-ARAN**

## **CRP 222 COURSE COMPACT**

**COLLEGE:** AGRICULTURAL SCIENCES  
**DEPARTMENT:** CROP AND SOIL SCIENCE  
**PROGRAMME:** B. AGRICULTURE  
**COURSE COMPACT FOR:** CRP 222

### **COURSE**

**COURSE CODE:** CRP 222  
**COURSE TITLE:** INTRODUCTION TO HORTICULTURE  
**CREDIT UNIT:** 2 UNITS  
**COURSE STATUS:** COMPULSORY

### **LECTURER'S DATA**

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**QUALIFICATIONS OBTAINED:** B.AGRIC. (ILORIN); M.Sc. AGRONOMY (ZARIA);  
MBA.

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**CONSULTATION HOURS:** MONDAYS 2-4  
TUESDAYS 1-3  
THURSDAYS 1-3

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**CONSULTATION HOURS:** TUESDAYS 1-3  
THURSDAYS 1-3

### **INTRODUCTION TO THE COURSE**

#### **COURSE DESCRIPTION**

HORTICULTURE IS A PRACTICAL ORIENTED COURSE THAT IS EMBEDDED WITH PRINCIPLES AND PRACTICES THAT ARE CARRIED OUT IN THE PRODUCTION OF FRUITS AND LEAF VEGETABLES. THERE ARE DIFFERENT CLIMATIC AND EDAPHIC (SOIL) FACTORS THAT AFFECT THE DISTRIBUTION OF ALL CROPS. IN SITTING ANY HORTICULTURAL PROJECT ESPECIALLY WHEN IT IS ON COMMERCIAL SCALE; THESE FACTORS ARE BORNE IN MIND AND THE STUDENTS HAVE TO BE ACQUAINTED WITH THEM. A NUMBER OF HORTICULTURAL CROPS ARE HARDLY PLANTED DIRECTLY ON THE PERMANENT FIELD DUE TO SOME PECULIARITIES AS A RESULT OF WHICH NURSERY PRACTICES AND VEGETATIVE PROPAGATION TECHNIQUES ARE ADOPTED AND SUCH KNOWLEDGE MUST BE ACQUIRED BY STUDENTS FOR THEIR FUTURE USE. NATURE IS BEAUTIFUL BUT FOR THE INTERFERENCE OF MAN IN HIS

DEFORESTATION ACTIVITIES AND CLEARING IN THE BID TO ERECT HIS PLACE OF SHELTER. YET FOR GREATER AESTHETIC VALUE RE-PLANTING OF HERBS, SHRUBS AND TREES BECOMES IMPORTANT AROUND THE BUILDINGS; ALONG THE WALKWAYS AND ON OPEN SPACES BETWEEN HOUSES. THE KNOWLEDGE OF THIS IS ACQUIRED BY STUDENTS IN ORNAMENTAL GARDENING. THE LAYOUT, THE NETWORK OF FLOWERS AND ESTABLISHMENT AND MAINTENANCE OF LAWNS ARE DISCUSSED IN THE PROGRAMME. IN ESTABLISHING FRUITS OR VEGETABLE FARMS SUCH CULTURAL PRACTICES AS SITE SELECTION, LAND PREPARATION, PLANTING TIME, PLANTING DENSITY, WEED/INSECT/DISEASE CONTROL, FERTILIZER APPLICATION, HARVESTING AND STORAGE ARE STRATEGIC AND STUDENTS MUST BE CONVERSANT WITH THEM.

### **COURSE JUSTIFICATION**

HORTICULTURE APPEARS TO BE THE FOUNDATION OF AGRICULTURE; THE OLDEST INDUSTRY IN THE ANNALS OF MAN. ESTABLISHMENT OF A FRUIT ORCHARD WAS PART OF THE FIRST VISIBLE COMPONENTS OF OUR MATERIAL WORLD. GOD RAISED A GARDEN OF FRUIT TREES AND PLACED MAN THE CREATED IN IT TO DRESS IT AND TO KEEP IT. THE MAN AND HIS WIFE KNEW NO DISEASES UNTIL THE UNEXPECTED HAPPENED AND THEY WERE CHASED OUT OF THE GARDEN. HORTICULTURAL PRODUCTS PROVIDE ORGANIC, MOSTLY UNCOOKED FOODS THAT ARE AT HOME WITH THE COMPLEX BODY OF MAN. TODAY, NUTRITIONISTS AND MEDICAL EXPERTS PROFOUNDLY ADVOCATE A HIGHER CONSUMPTION OF FRUITS AND VEGETABLES TO SAVE MAN FROM THE NEW GENERATION DISEASES LIKE DIABETES, CANCER, ULCER ETC. THE PRODUCTION OF HORTICULTURAL CROPS HAS BEEN LARGELY DOWNPLAYED WHEN COMPARED WITH HIGHER FOOD AND PERMANENT CROPS THAT UNDERGO A VARIETY OF PROCESSES BEFORE REACHING THE TABLE. THERE IS THEREFORE THE URGENT NEED FOR A RE – AWAKENING OF THE PROMINENCE THAT HAS TO BE ACCORDED HORTICULTURE THAT EQUALLY PROVIDES A LUCRATIVE BUSINESS CHANNEL AND NETWORK. IT CAN BE A LIFE–LONG PROFESSIONAL OPTION THAT CAN TAKE ONE TO THE PEAK OF SOCIAL AND ECONOMIC STATUS.

### **COURSE OBJECTIVES**

AT THE END OF THIS COURSE, THE FOLLOWING DOMAINS OF LEARNING WOULD HAVE TAKEN PLACE.

(I) COGNITIVE DOMAIN. THIS IS IN RESPECT OF UNDERSTANDING ALL CONCEPTS, PRINCIPLES AND PRACTICES THAT ARE TAUGHT IN THE COURSE.

(II) AFFECTIVE DOMAIN. THIS IS IN MAKING THE STUDENTS TO HAVE AFFECTION, LOVE FOR WHAT HAS BEEN TAUGHT WITH A STRONG WILL AND DESIRE TO BE A PRACTITIONER. NOBODY CAN ADVANCE IN THE PROFESSION HE/SHE DOES NOT LOVE. IT IS EXPECTED THAT, AT THE END OF THE COURSE, STUDENTS WILL BE EAGER TO SET UP THEIR OWN HORTICULTURAL FARMS ESPECIALLY AFTER GRADUATION.

(III) PSYCHOMOTIVE DOMAIN. THIS IS THE DOMAIN OR THE REALM OF SKILL ACQUISITION I.E. DOING IT WITHOUT FURTHER SUPERVISION. POSSESSING OF SKILLS NECESSARY FOR ALL FACETS OF HORTICULTURAL PRODUCTION. DOING IT TO EARN A LIVING AND EVEN BECOMING AN EMPLOYER OF LABOUR. TURNING OUT TO BE JOB MAKERS RATHER THAN JOB SEEKERS.

### **COURSE CONTENT**

DEFINITION OF HORTICULTURE AS A DISCIPLINE AND BRANCH OF AGRICULTURE. IMPORTANCE, SCOPE AND DISTRIBUTION OF FRUITS AND VEGETABLES GROWN IN

NIGERIA WITH REFERENCE TO THE EFFECTS OF CLIMATE AND SOIL. BASIC PRINCIPLES AND PRACTICES OF HORTICULTURE; ORNAMENTAL GARDENING. IMPORTANCE OF NURSERY IN HORTICULTURE. NURSERY SYSTEMS. PREPARATION, ORGANIZATION AND MANAGEMENT OF GROUND AND BAG NURSERIES. PROPAGATION METHODS (SEXUAL AND ASEXUAL). TYPES OF VEGETATIVE PROPAGATION. TRANSPLANTING METHODS (MERITS AND DEMERITS). REQUIREMENTS FOR SITING FRUIT ORCHARDS AND VEGETATIVE FARMS. CULTURAL PRACTICES INVOLVED IN THE CULTIVATION OF IMPORTANT FRUITS AND LEAF VEGETABLES WITH SELECTION MADE FROM THE FOLLOWING GROUPS. A (CARROT, ONION, PINEAPPLE); B (TOMATOES, PEPPER, EGG – PLANT, OKRO, ROSELLE); C (AMARANTHUS, JEWS MALLOW, CELOSIA, FLUTED PUMPKIN); D (CUCUMBER, WATER MELON); E (PLANTAIN, BANANA, PAWPAW); F (MANGO, CITRUS, AVOCADO PEAR, GUAVA). PRACTICAL ENGAGEMENT INCLUDES MAINTENANCE OF A HORTICULTURE PLOT BY EACH STUDENT.

### **COURSE REQUIREMENT**

IT IS REQUIRED THAT, STUDENTS COMING INTO CRP 222 CLASS MUST HAVE GONE THROUGH AND PASSED CRP 221 (I.E. PRINCIPLES OF CROP PRODUCTION) THAT CAN BE REGARDED AS A PRE – REQUISITE. IT WILL ESSENTIALLY SERVE AS A WAY OF BUILDING UPON A LAID FOUNDATION. THERE ARE AREAS OF COMMON INTEREST IN THE TWO COURSES AND AS SUCH; THE FOUNDATIONAL KNOWLEDGE IN THE FIRST WILL ENHANCE QUICK UNDERSTANDING IN THE SECOND.

EACH STUDENT WILL RAISE AND MAINTAIN A HORTICULTURAL PLOT OF FIVE (5) RIDGES AT TEN (10) METERS IN LENGTH. FAILURE TO GET INVOLVED IN THE PRACTICAL IMPLIES FAILING THE COURSE.

### **COURSE EXPECTATIONS:**

#### **METHOD OF GRADING**

<b>S/N</b>	<b>GRADING</b>	<b>SCORE(%)</b>
<b>1.</b>	<b>CONTINUOUS ASSESSMENTS</b>	
	• C.A I	<b>7%</b>
	• C.A II (MID-SEMESTER TEST)	<b>15%</b>
	• C.A III	<b>8%</b>
<b>2.</b>	<b>ASSIGNMENT</b>	<b>10%</b>
<b>3.</b>	<b>PRACTICAL (LABORATORY WORK)/ CASE STUDIES</b>	
<b>4.</b>	<b>FINAL EXAMINATION</b>	<b>60%</b>
<b>5.</b>	<b>TOTAL</b>	<b>100</b>

### **COURSE DELIVERY STRATEGIES**

LECTURING METHOD COUPLED WITH FIELD WORK WITH MAXIMUM TEACHER/LEARNER ONE-ON ONE INTERACTION. PRACTICAL TEACHING WITH ILLUSTRATIONS THAT WILL AID THE LEARNING PROCESS. VISITS TO RELEVANT COURSE – RELATED PLACES LIKE THE FRUIT NURSERY, VEGETABLE NURSERY OF THE UNIVERSITY AND THE NURSERY ESTABLISHED BY THE PPD OF THE UNIVERSITY, IDENTIFICATION, USES AND MAINTENANCE OF TOOLS USED FOR HORTICULTURAL CROP PRODUCTION. IDENTIFICATION OF THE SEEDS OF SAMPLES OF HORTICULTURAL CROPS.

### **COURSE DURATION:**

# LECTURE CONTENT

## MODULE 1 (WEEKS 1-7)

### WEEK 1: TOPIC FOR THE WEEK

#### GENERAL INTRODUCTION TO HORTICULTURE

#### OBJECTIVES

**OBJECTIVES:** THE STUDENTS AT THE END OF THE LECTURE FOR THE WEEK WILL BE ABLE TO DESCRIBE HORTICULTURE, EXPLAIN ITS IMPORTANCE IN NIGERIA AND DISCUSS THE SCOPE OF PRODUCTION OF FRUITS AND VEGETABLES IN NIGERIA.

#### DESCRIPTION

**FIRST HOUR:** DEFINITION OF HORTICULTURE. HORTICULTURE IN THE GARDEN OF EDEN. IMPORTANCE OF HORTICULTURE IN NIGERIA. TYPES OF HORTICULTURAL CROP PRODUCTS.

**SECOND HOUR:** CHARACTERISTICS OF HORTICULTURAL CROPS. DIVISIONS OF HORTICULTURE. SCOPE OF PRODUCTION OF FRUITS AND VEGETABLES IN NIGERIA.

#### ➤ STUDY QUESTION:

1. DISTINGUISH BETWEEN AGRICULTURE AND HORTICULTURE.
2. STATE ANY THREE (3) OF THE SUBDIVISIONS OF HORTICULTURE.
3. DESCRIBE THE IMPORTANCE OF HORTICULTURE TO THE ECONOMY OF NIGERIA.
4. LIST ANY EIGHT EXAMPLES OF HORTICULTURAL CROP PRODUCTS.
5. OUTLINE THE BASIC CHARACTERISTICS OF HORTICULTURAL PRODUCTS.

#### READING LIST –

ADAMS, C.R., BAMFORD, K.M. AND EARLY, M.P. (1999). PRINCIPLES OF HORTICULTURE 3<sup>RD</sup> ED. BUTTER WORTH-HEINEMANN, OXFORD.

REILEY, H.E. AND SHRY, C.L.JR. (2002). INTRODUCTORY HORTICULTURE 6TH ED. DELMAR, THOMSON LEARNING, ALBANU, NEW YORK.

### WEEK 2

**TOPIC:** ENVIRONMENTAL FACTORS AND THEIR EFFECTS ON THE DISTRIBUTION OF FRUITS AND VEGETABLES IN NIGERIA.

**OBJECTIVES:** TO MAKE STUDENTS TO KNOW THAT, THERE ARE DIFFERENT CLIMATIC AND EDAPHIC FACTORS THAT INFLUENCE THE GROWTH AND DEVELOPMENT OF CROPS. SUCH FACTORS WILL DETERMINE THE TYPES OF HORTICULTURAL CROPS THAT CAN BE PROFITABLY PRODUCED IN ANY PARTICULAR ECOLOGICAL SETTING.

#### ➤ DESCRIPTION

**FIRST HOUR:** IDENTIFICATION AND DESCRIPTION OF CLIMATIC FACTORS OF RAINFALL, SUNSHINE/RADIATION, TEMPERATURE, CLOUD COVER, DAY LENGTH, WIND ETC. AND THEIR EFFECTS ON THE GROWTH, DEVELOPMENT AND DISTRIBUTION OF HORTICULTURAL CROPS IN NIGERIA

**SECOND HOUR:** VEGETATION AND SOIL CHARACTERISTICS AS IT AFFECTS DISTRIBUTION OF FRUITS AND VEGETABLES IN NIGERIA.

➤ **STUDY QUESTION:**

1. GIVE A SIMPLE DEFINITION OF CLIMATE.
2. MENTION FOUR CLIMATIC ELEMENTS AND EXPLAIN THE IMPORTANCE OF EACH TO THE GROWTH AND DEVELOPMENT OF LEAF VEGETABLES.
3. ATTEMPT A SIMPLE DISTRIBUTION PATTERN OF HORTICULTURAL CROPS IN NIGERIA.
4. IDENTIFY ANY FIVE (5) SOIL CHARACTERISTICS THAT AFFECT THE GROWTH OF FRUIT VEGETABLES.

**READING LIST –**

ADAMS, C.R., BAMFORD, K.M. AND EARLY, M.P. (1999). PRINCIPLES OF HORTICULTURE 3<sup>RD</sup> ED. BUTTER WORTH-HEINEMANN, OXFORD.

REILEY, H.E. AND SHRY, C.L.JR. (2002). INTRODUCTORY HORTICULTURE 6TH ED. DELMAR, THOMSON LEARNING, ALBANU, NEW YORK.

**WEEK 3**

**TOPIC:** BASIC PRINCIPLES AND PRACTICES OF HORTICULTURE

**OBJECTIVES:** THE STUDENTS AT THE END OF THE WEEK WILL BE ABLE TO IDENTIFY AND DESCRIBE THE BASIC PRINCIPLES AND PRACTICES OF HORTICULTURE.

➤ **DESCRIPTION**

**FIRST HOUR:**

- (I) NURSERY OPERATIONS AS NECESSARY FOR SOME SEEDS.
- (II) DIRECT SEEDING/SOWING/PLANTING FOR OTHERS.
- (III) PROVISION OF OVERHEAD SHADE.

**SECOND HOUR:**

- (IV) IRRIGATION/WETTING.
- (V) WEEDING (VI) PROTECTION AGAINST PESTS/DISEASES.
- (VII) HARVESTING (VIII) SORTING/GRADING/STORAGE. (IX) MARKETING.

➤ **STUDY QUESTION:**

1. WHAT ARE THE ADVANTAGES OF NURSERY OPERATIONS IN HORTICULTURAL PROGRAMME?
2. STATE THE MERITS AND DEMERITS OF DIRECT SEEDING OF CROPS.
3. EXPLAIN THE BASIS FOR PROVISION OF OVERHEAD SHADE IN DRY SEASON GARDENING.
4. DESCRIBE THE PRACTICES OF SORTING AND GRADING IN HORTICULTURAL BUSINESS.

**READING LIST –**

REILEY, H.E. AND SHRY, C.L.JR. (2002). INTRODUCTORY HORTICULTURE 6TH ED. DELMAR, THOMSON LEARNING, ALBANU, NEW YORK.

ADAMS, C.R., BAMFORD, K.M. AND EARLY, M.P. (1999). PRINCIPLES OF HORTICULTURE 3<sup>RD</sup> ED. BUTTER WORTH-HEINEMANN, OXFORD.

## **WEEK 4**

### **TOPIC: ORNAMENTAL GARDENING 1**

**OBJECTIVES:** AT THE END OF THE TWO WEEKS; THE STUDENTS WILL BE ABLE TO EXPLAIN AND ESTABLISH ORNAMENTAL GARDENING AS A LUCRATIVE BRANCH OF HORTICULTURE WITH A FIRM GRASP ON THE PRINCIPLES OF DECORATION.

#### ➤ **DESCRIPTION**

**FIRST HOUR:** THE REQUIREMENTS OF A STANDARD COLLEGE ENVIRONMENT

**SECOND HOUR:** CRITERIA OF A GOOD GARDEN DESIGN

#### ➤ **STUDY QUESTION:**

1. STATE THE REQUIREMENTS OF A STANDARD COLLEGE ENVIRONMENT.
2. WHAT ARE THE CRITERIA FOR A GOOD GARDEN DESIGN?

#### **READING LIST –**

ADAMS, C.R., BAMFORD, K.M. AND EARLY, M.P. (1999). PRINCIPLES OF HORTICULTURE 3<sup>RD</sup> ED. BUTTER WORTH-HEINEMANN, OXFORD.

## **WEEK 5**

### **TOPIC: ORNAMENTAL GARDENING 2**

**OBJECTIVES:** AT THE END OF THE TWO WEEKS; THE STUDENTS WILL BE ABLE TO EXPLAIN AND ESTABLISH ORNAMENTAL GARDENING AS A LUCRATIVE BRANCH OF HORTICULTURE WITH A FIRM GRASP ON THE PRINCIPLES OF DECORATION.

#### **DESCRIPTION**

**FIRST HOUR:** COMPONENTS OF A COLLEGE ENVIRONMENT

**SECOND HOUR:** MANAGEMENT OF ORNAMENTALS AND THE PRINCIPLES OF DECORATION

#### ➤ **STUDY QUESTION:**

1. DESCRIBE THE GENERAL PRINCIPLES OF DECORATION.
2. OUTLINE THE MANAGEMENT PRACTICES OF ORNAMENTALS.

## **WEEK 6**

### **TOPIC: NURSERY OPERATIONS IN HORTICULTURE 1**

**OBJECTIVES:** AT THE END OF THE LECTURES SPANNING TWO WEEKS; THE STUDENTS WILL HAVE A WIDER UNDERSTANDING OF NURSERY PRACTICES IN HORTICULTURE WITH A GRASP OF THE IMPORTANCE.

#### ➤ **DESCRIPTION**

**FIRST HOUR:** GENERAL DISCUSSION OF NURSERY ACTIVITIES IN HORTICULTURE WITH EMPHASIS ON THE IMPORTANCE OF NURSERY

## **SECOND HOUR: NURSERY SYSTEMS; NURSERY TYPES**

### ➤ **STUDY QUESTION:**

1. ENUMERATE THE IMPORTANCE OF NURSERY IN HORTICULTURE.
2. DISTINGUISH BETWEEN NURSERY SYSTEMS AND NURSERY TYPES.
3. WHAT ARE THE FACTORS TO BE CONSIDERED IN ESTABLISHING A NURSERY FARM?

### **READING LIST -**

ERNST, V.H. AND KEES V.P. (2004). PROTECTED CULTIVATION, CONSTRUCTION, REQUIREMENTS AND USE OF GREEN HOUSES IN VARIOUS CLIMATES. AGRODOK-SERIES NO23. AGROMISA FOUNDATION, WAGENINGEN. ISBN:90-77073-90-6.

IRVINE, F.R. (1974). WEST AFRICAN CROPS. OXFORD UNIVERSITY PRESS.  
MATTHEW, I.P. AND KARIKARI, S.K. (1990). HORTICULTURE: PRINCIPLES AND PRACTICES. MACMILLAN, LONDON.

## **WEEK 7**

### **TOPIC: NURSERY OPERATIONS IN HORTICULTURE 2**

**OBJECTIVES:** AT THE END OF THE LECTURES SPANNING TWO WEEKS; THE STUDENTS WILL HAVE A WIDER UNDERSTANDING OF NURSERY PRACTICES IN HORTICULTURE WITH A GRASP OF THE IMPORTANCE.

### ➤ **DESCRIPTION**

**FIRST HOUR:** FACTORS TO CONSIDER IN ESTABLISHING A NURSERY; PREPARATION, ORGANIZATION AND MANAGEMENT OF GROUND AND BAG NURSERIES

**SECOND HOUR:** PROTECTED CULTIVATION (TYPES OF GREEN HOUSES)

### ➤ **STUDY QUESTION:**

1. DISCUSS FIVE TYPES OF NURSERY OPERATIONS
2. STATE THE PRINCIPLES INVOLVED IN THE MANAGEMENT OF A GROUND NURSERY.
3. LIST FIVE FACTORS TO BE CONSIDERED IN ESTABLISHING A NURSERY.

### **READING LIST -**

ERNST, V.H. AND KEES V.P. (2004). PROTECTED CULTIVATION, CONSTRUCTION, REQUIREMENTS AND USE OF GREEN HOUSES IN VARIOUS CLIMATES. AGRODOK-SERIES NO23. AGROMISA FOUNDATION, WAGENINGEN. ISBN:90-77073-90-6.

IRVINE, F.R. (1974). WEST AFRICAN CROPS. OXFORD UNIVERSITY PRESS.  
MATTHEW, I.P. AND KARIKARI, S.K. (1990). HORTICULTURE: PRINCIPLES AND PRACTICES. MACMILLAN, LONDON.

## **MODULE 2 (WEEKS 8-14)**

### **WEEK 8**

**TOPIC: PROPAGATION METHODS IN HORTICULTURE/REQUIREMENTS FOR SITTING AN ORCHARD/VEGETABLE FARM.**

**OBJECTIVES:** AT THE END OF THE LECTURE, STUDENTS WILL BE ABLE TO EXPLAIN THE DIFFERENT METHODS OF PROPAGATION AS WELL AS IDENTIFY THE REQUIREMENTS FOR SITTING A FRUIT ORCHARD OR A VEGETABLE FARM.

➤ **DESCRIPTION**

**FIRST HOUR:** THE TWO BROAD METHODS (OF SEXUAL AND ASEXUAL/VEGETATIVE) SHALL BE EXPLAINED TO THE STUDENTS.

**SECOND HOUR:** TYPES OF VEGETATIVE PROPAGATION SUCH AS BUDDING, CUTTING, MARCOTTING AND LAYERING ARE TO BE EXPLAINED. DESCRIPTION OF THE REQUIREMENTS FOR SITING OR SELECTING A SITE FOR FRUIT ORCHARD AND VEGETABLE FARMS.

➤ **STUDY QUESTION:**

- 1. DESCRIBE SEXUAL METHOD OF PROPAGATION STATING ITS ADVANTAGES AND DISADVANTAGES.
- 2. LIST ANY FOUR (4) TYPES OF VEGETATIVE PROPAGATION AND DISCUSS ANY ONE OF THEM IN DETAILS.
- 3. DISCUSS THE VARIOUS REQUIREMENTS TO CONSIDER IN SELECTING A SITE FOR A VEGETABLE FARM.

**READING LIST –**

IRVINE, F.R. (1974). WEST AFRICAN CROPS. OXFORD UNIVERSITY PRESS.  
MATTHEW, I.P. AND KARIKARI, S.K. (1990). HORTICULTURE: PRINCIPLES AND PRACTICES. MACMILLAN, LONDON.

**WEEK 9**

**TOPIC:** CULTURAL PRACTICES FOR THE CULTIVATION OF THE FOLLOWING CROPS:- CARROT, PINEAPPLE, ONION.

**OBJECTIVES:** AT THE END OF EACH OF THE LECTURE, STUDENTS WILL BE ABLE TO DESCRIBE THE VARIOUS CULTURAL OR PRODUCTION PRACTICES INVOLVED IN THE CULTIVATION OF TWO OF THE FRUITS AND/OR VEGETABLES.

➤ **DESCRIPTION**

**FIRST HOUR:** CULTURAL PRACTICES FOR THE CULTIVATION OF CARROT TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**SECOND HOUR:** CULTURAL PRACTICES FOR THE CULTIVATION OF PINEAPPLE OR ONION TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**STUDY QUESTION:**

1. DESCRIBE THE SOIL AND CLIMATIC REQUIREMENT FOR THE

- CULTIVATION OF CARROT
2. LIST FOUR VARIETIES OF PINEAPPLE
  3. WHAT ARE THE NURSERY REQUIREMENTS FOR THE CULTIVATION OF CARROT?

**READING LIST -**

REHM, S. AND ESPIG, G. (1991). THE CULTIVATED PLANTS OF THE TROPICS AND SUBTROPICS: CULTIVATION, ECONOMIC VALUE, UTILIZATION. CTA, WAGENINGEN, NETHERLANDS.

SIMONE V. ED (1999). FRUIT GROWING IN THE TROPICS. AGRODOK-SERIES NO. 5 TECHNICAL CENTER FOR AGRICULTURE AND RURAL COOPERATION ACP ED.

**WEEK 10**

**TOPIC:** CULTURAL PRACTICES IN THE CULTIVATION OF ANY TWO AMONG TOMATOES, PEPPER, EGG-PLANT, OKRA.

**OBJECTIVES:** AT THE END OF EACH OF THE WEEKS 9 – 14; STUDENTS WILL BE ABLE TO ROBUSTLY DESCRIBE THE VARIOUS CULTURAL OR PRODUCTION PRACTICES INVOLVED IN THE CULTIVATION OF EACH OF THE FRUIT OR VEGETABLE CROPS DISCUSSED IN THE LECTURES.

➤ **DESCRIPTION**

**FIRST HOUR:** CULTURAL PRACTICES IN THE CULTIVATION OF TOMATOES OR PEPPER TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**SECOND HOUR:** CULTURAL PRACTICES IN THE CULTIVATION OF EGG-PLANT OR OKRA TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**STUDY QUESTION:**

1. DESCRIBE THE METHOD(S) OF PROPAGATION IN THE CULTIVATION OF TOMATO OR PEPPER AND EGG PLANT OR OKRA
2. WHAT FOOD USES OF ANY OF THE ABOVE MENTIONED VEGETABLES

**READING LIST -**

REHM, S. AND ESPIG, G. (1991). THE CULTIVATED PLANTS OF THE TROPICS AND SUBTROPICS: CULTIVATION, ECONOMIC VALUE, UTILIZATION. CTA, WAGENINGEN, NETHERLANDS.

SIMONE V. ED (1999). FRUIT GROWING IN THE TROPICS. AGRODOK-SERIES NO. 5 TECHNICAL CENTER FOR AGRICULTURE AND RURAL COOPERATION ACP ED.

**WEEK 11**

**TOPIC:** CULTURAL PRACTICES IN THE CULTIVATION OF ANY TWO (2) OF THE FOLLOWINGS SHALL BE DISCUSSED; AMARANTHUS, JEWS MALLOW (EWEDU), CELOSIA, FLUTED PUMPKIN.

**OBJECTIVES:** AT THE END OF EACH OF THE LECTURE, STUDENTS WILL BE ABLE TO ROBUSTLY DESCRIBE THE VARIOUS CULTURAL OR PRODUCTION PRACTICES INVOLVED IN THE CULTIVATION OF AT LEAST TWO OF THE VEGETABLE CROPS DISCUSSED DURING THE LECTURES.

➤ **DESCRIPTION**

**FIRST HOUR:** CULTURAL PRACTICES IN THE CULTIVATION OF AMARANTHUS AND CELOSIA TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**SECOND HOUR:** CULTURAL PRACTICES IN THE CULTIVATION OF JEWS MALLOW (EWEDU) AND FLUTED PUMPKIN TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

➤ **STUDY QUESTION:**

1. WHAT ARE THE MAJOR PESTS AND DISEASES THAT ARE ASSOCIATED WITH LEAFY VEGETABLES
2. DESCRIBE THE PLANTING METHODS OF TWO NAMED LEAFY VEGETABLES

**READING LIST -**

REHM, S. AND ESPIG, G. (1991). THE CULTIVATED PLANTS OF THE TROPICS AND SUBTROPICS: CULTIVATION, ECONOMIC VALUE, UTILIZATION. CTA, WAGENINGEN, NETHERLANDS.

SIMONE V. ED (1999). FRUIT GROWING IN THE TROPICS. AGRODOK-SERIES NO. 5 TECHNICAL CENTER FOR AGRICULTURE AND RURAL COOPERATION ACP ED.

**WEEK 12**

**TOPIC:** CULTURAL PRACTICES IN THE PRODUCTION OF THE FOLLOWING:- CUCUMBER AND WATER MELON.

**OBJECTIVES:** AT THE END OF EACH OF THE LECTURE STUDENTS WILL BE ABLE TO ROBUSTLY DESCRIBE THE VARIOUS CULTURAL OR PRODUCTION PRACTICES INVOLVED IN THE CULTIVATION OF EACH OF THE FRUIT CROPS DISCUSSED IN THE LECTURES.

➤ **DESCRIPTION**

**FIRST HOUR:** CULTURAL PRACTICES IN THE PRODUCTION OF CUCUMBER TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**SECOND HOUR:** CULTURAL PRACTICES IN THE PRODUCTION OF WATER MELON TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**STUDY QUESTION:**

1. DESCRIBE THE METHODS OF LAND PREPARATION FOR WATER MELON AND CUCUMBER
2. WHAT TIME OF THE YEAR IS IT APPROPRIATE TO PLANT THESE TWO VEGETABLES AND WHY?

**READING LIST -**

REHM, S. AND ESPIG, G. (1991). THE CULTIVATED PLANTS OF THE TROPICS AND SUBTROPICS: CULTIVATION, ECONOMIC VALUE, UTILIZATION. CTA, WAGENINGEN, NETHERLANDS.

SIMONE V. ED (1999). FRUIT GROWING IN THE TROPICS. AGRODOK-SERIES NO. 5 TECHNICAL CENTER FOR AGRICULTURE AND RURAL COOPERATION ACP ED.

**WEEK 13**

**TOPIC:** CULTURAL PRACTICES IN THE PRODUCTION OF PLANTAIN, BANANA OR PAWPAW.

**OBJECTIVES:** AT THE END OF EACH OF THE LECTURE, STUDENTS WILL BE ABLE TO DESCRIBE THE VARIOUS CULTURAL OR PRODUCTION PRACTICES INVOLVED IN THE CULTIVATION OF EACH OF THE FRUIT CROPS DISCUSSED IN THE LECTURES.

➤ **DESCRIPTION**

**FIRST HOUR:** CULTURAL PRACTICES IN THE PRODUCTION OF PLANTAIN/BANANA TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**SECOND HOUR:** CULTURAL PRACTICES IN THE PRODUCTION OF PAWPAW TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**STUDY QUESTION:**

1. WHAT IS/ARE THE PLANTING METHOD(S) IN THE CULTIVATION OF PLANTAIN/BANANA?
2. EXPLAIN DIFFERENT STORAGE METHODS OF PLANTAIN/BANANA AND PAWPAW.

**READING LIST -**

OPEKE, L.K. (2012). TROPICAL COMMODITY TREE CROPS. SPECTRUM BOOKS LTD, RING ROAD, IBADAN.

ROWLAND, J.R.J. ED. (1993). DRYLAND FARMING IN AFRICA. MACMILLAN EDUCATION LTD. LONDON.

**WEEK 14**

**TOPIC:** CULTURAL PRACTICES IN THE PRODUCTION OF THE FOLLOWING:- MANGO,

CITRUS, AVOCADO PEAR.

**OBJECTIVES:** AT THE END OF EACH OF THE LECTURE STUDENTS WILL BE ABLE TO ROBUSTLY DESCRIBE THE VARIOUS CULTURAL OR PRODUCTION PRACTICES INVOLVED IN THE CULTIVATION OF EACH OF THE FRUIT CROPS DISCUSSED IN THE LECTURES.

➤ **DESCRIPTION**

**FIRST HOUR:** CULTURAL PRACTICES IN THE PRODUCTION OF MANGO TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**SECOND HOUR:** CULTURAL PRACTICES IN THE PRODUCTION OF CITRUS OR AVOCADO PEAR TO INCLUDE BUT NOT LIMITED TO SITE SELECTION, LAND PREPARATION, SOURCES OF PLANTING MATERIAL, PRE – TREATMENT OF PLANTING MATERIAL, PLANTING DATE, PLANTING METHOD, FERTILIZER APPLICATION, WEED/PEST/DISEASE CONTROL, HARVESTING, PRIMARY PROCESSING (SORTING, WASHING, GRADING AND STORAGE).

**STUDY QUESTION:**

1. DESCRIBE ANY FOUR (4) PRIMARY PROCESSING TECHNIQUES INVOLVED IN THE PRODUCTION OF SWEET ORANGES.
2. DISCUSS THE VARIOUS CULTURAL PRACTICES THAT ARE CRITICAL IN THE PRODUCTION OF CITRUS
3. WHAT ARE THE PRODUCTS THAT CAN BE DERIVED FROM MANGO FRUIT?

**READING LIST -**

OPEKE, L.K. (2012). TROPICAL COMMODITY TREE CROPS. SPECTRUM BOOKS LTD, RING ROAD, IBADAN.

ROWLAND, J.R.J. ED. (1993). DRYLAND FARMING IN AFRICA. MACMILLAN EDUCATION LTD. LONDON.

**WEEK 15:**

**TOPIC: END OF SEMESTER EXAMINATION**

**OBJECTIVES:** STUDENTS ARE TO BE EXAMINED TO PROVIDE A SORT OF FEEDBACK FROM THE RECEIVER TO SENDER OF INFORMATION ON HORTICULTURAL PRODUCTION. EXAMINATION IS CONDUCTED TO ESTABLISH THE LEVEL OF KNOWLEDGE AND SKILLS ACQUIRED BY THE STUDENTS.