SUVA SANGAM COLLEGE
AGRICULTURE SCIENCE: YEAR 13

Week:1

STRAND AS 13.3.2
SUB- STRAND AS 13.3.2.1 (refer to your Textbook (pp 93,94)

Lesson 1: Introduction
Lesson Outcome

i) Discuss the history of plant breeding
ii) Discuss the importance of plant breeding

SUMMARY NOTE

Plant breeding is the art and science of changing the traits of plants I order to produce desired characteristics. Plant breeding can be accomplished through many different techniques ranging from simply selecting plants with desirable characteristics for propagation, to methods hat make use of the knowledge of genetics and chromosomes, to more complex molecule techniques.

LESSON ACTIVITY

1. Define **plant breeding**:_____
_____

2. Discuss **four** importance of plant breeding.
i)_____
_____

ii)_____
_____

iii)_____
_____

iv)_____
_____

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Week:2

STRAND AS 13.3.2
SUB- STRAND AS 13.3.2.1 (refer to your Textbook (pp 94,95,96,97,98)

Lesson 2: Types of plant breeding
Lesson Outcome

i) Identify the different types of plant breeding
ii) Explain the advantages and disadvantages of each type of plant breeding

SUMMARY NOTE

The four types of plant breeding are: inbreeding, outbreeding, line breeding and cross breeding.

LESSON ACTIVITY

1 Define **the following terms:**

a) Inbreeding:_____
_____.

b) Line breeding:_____
_____

c) Out breeding:_____
_____

d) Cross breeding:_____
_____

e) Ephemeral:_____

2 State the **advantages** of plant breeding under

a) Inbreeding:
_____
_____
_____

b) Line breeding:
_____
_____

c) Outbreeding;

d) Crossbreeding:

3. State the **disadvantages** of plant breeding under

a) Inbreeding:

b) Line breeding:

c) Outbreeding;

d) Crossbreeding:

4. Explain the term **heterosis**.

5. Discuss the process of **emasculation** in plant breeding.

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Week: 3

STRAND AS 13.3.2
SUB- STRAND AS 13.3.2.2 (refer to your Textbook (pg 99)

Lesson 1: Introduction
Lesson Outcome

i) Describe appropriate sustainable farming methods
iii) Explain how it benefits the community socially, economically and environmentally.

SUMMARY NOTE

There is a lot of social, economic and environment challenges happening in our country naturally and also globally. Sustainable farming or sustainable agriculture is the solution to these challenges.

LESSON ACTIVITY

1. Define **"sustainable farming".**

_____

_____

_____

2. Identify two example of sustainable farming practiced in Fiji.
   i)_____

   ii)_____
3. Explain **one** benefit of sustainable farming in relation to protecting the environment.

_____

_____

4. Explain **one** benefit of sustainable farming in relation to increasing the economy.

_____

_____

5. Explain **one** benefit of sustainable farming in relation to promoting social benefits.

_____

_____

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Week:4

STRAND AS 13.3.2
SUB- STRAND AS 13.3.2.2 (refer to your Textbook (pp 100, 101,102)

Lesson 2: Urban Agriculture
Lesson Outcome

i) Define urban agriculture
ii) Identify different types of urban agriculture.
iii) State the advantages and disadvantages of urban agriculture.

SUMMARY NOTE

Urban agriculture is as productive and income generating farming system which should be seen as an integral part of urban system, providing food and jobs, contributing to the urban ecology and competing for natural resources with the other urban functions. It can also contribute to urban sanitation by recycling of solid and liquid wastes. Effective participation and capacity building of urban agriculture is essential to poverty alleviation and food security in cities, as well as sustainable urban development.

LESSON ACTIVITY

1) Define the following terms:

a) Urban agriculture:_____
_____
_____

b) Anthropocentric:_____
_____

c) Greenhouse gas emissions:_____
_____
_____

2) Identify **examples** of urban agriculture.
_____
_____
_____
_____

3) Discuss **five advantages** of urban agriculture.

i)_____

ii)_____

iii)_____

iv)_____

v)_____

4) Discuss **five disadvantages** of urban agriculture.

i)_____

ii)_____

iii)_____

iv)_____

v)_____

5) Differentiate between urban agriculture and rural agriculture in terms of locality. (location)

_____

_____

_____

_____

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AGRICULTURE SCIENCE: YEAR 13

Week:5
STRAND AS 13.3.2
SUB- STRAND AS 13.3.2.2 (refer to your Textbook (pp 102, 103,104)
Lesson 3: Permaculture
Lesson Outcome

i) Define permaculture
ii) Describe permaculture.
iii) State the advantages and disadvantages of permaculture.

SUMMARY NOTE

The system and concept followed in permaculture sounds very promising in maintaining the ecological system well and also in bringing self-reliance to the farmers or those with forest gardens, by the means of implementing sustainable and productive farms and gardens. It is basically about going back to the traditional method of farming, incorporating the features of organic farming, agro-forestry, sustainable development and applied ecology. And, there really seems no other way of saving the earth from the calamities created by.

LESSON ACTIVITY

1. Define permaculture:_____
   _____

2. Describe how permaculture is practiced.
   _____
   _____
   _____

3. Identify places in which permaculture could be practiced.
   _____
   _____
   _____

4. Discuss three advantages of permaculture.

i)_____

ii)_____

iii)_____