

**Sangam SKM College – Nadi**  
**Year 10**  
**Agricultural Science**  
**Week 1 – Activity Solution**

**Activity:**

**A. COMPLETE THE FOLLOWING SENTENCES**

- (i) **Seed** is the main part of the plant that is used in sexual propagation.
- (ii) Sexual propagation will result in producing a totally new offspring which is usually referred to as **hybrid**.

**B. Differentiate between monocotyledon seeds and dicotyledon seeds.**

- *Monocotyledon seeds that have only one cotyledon and the food is stored outside the embryo in the endosperm e.g. maize seeds, cereals and grasses whereas dicotyledon seeds have two cotyledons attached to the embryo, which contain the reserve food.*

**Reference:**

Agricultural Science Year 10 Text Book, page 56-57

**Sangam S.K.M College-Nadi**

**Year 10**

**Agricultural Science**

**Worksheet 1**

**Solution**

**WEEK 2**

Short Answer Questions

1. Explain one advantage of constructing a poultry shed over a fish pond.
  - *The animal waste falls directly into water so shed remains clean.*
  - *Form of fertilizer for the weeds and algae that is grown in the pond which are a source of feed for the fish.*

2. Differentiate between bio-compost and vermicompost.  
*Bio-compost prepared from the waste of the sugar industry whereas vermi compost is prepared from the waste of macro and micro-organisms.*

3. Explain one importance of proper tillage prior to planting.
  - *Proper tillage is important because it kills weeds.*
  - *Weeds compete for nutrients, space, light and water.*
  - *Kills pest*
  - *Kills pathogens*
  - *Dries soil*
  - *Helps in the development of the roots/good root system*
  - *Seed germination (air and water porosity)*

4. Explain one way in which proper storage facilities can maintain the quality of farm products.

*Proper storage facilities are important to safeguard products from infestation of rodents and insects from damaging products.*

5. Explain one reason why farmers are encouraged to practice organic farming.

- *Pesticide free*

*Pesticides will not be used and there will be no residual effect and pest building up resistance in the body.*

- *Soil conservation*

*Better cropping practices practiced, reduces soil erosion, conserves water; maintain the fertility of the soil.*

- *Safer food*

*Free of chemicals, better health.*

- *Reduces pollution*

*Recycling, re-use of materials is done. No chemicals use so environment free from residual effect of chemicals*

6. Explain one difference between a bio fertilizer and an organic fertilizer.

*Bio -fertilizer are microbial inoculants consisting of living micro-organisms whereas organic obtained from animal sources such as animal manure or plant sources like green manuring.*

7. State at least three major agricultural export in Fiji.

*Sugar Raw, Waters, Pastry, Taro, Molasses, Flour of Wheat, Crude Materials, Macaroni, Preparations of Beef Meat, Ginger, Breakfast Crackers, Coconut oil, Papayas, Fresh vegetables, Canned vegetables.*

8. State at least the major non-agricultural export in Fiji.

*Beverage Non-Alcoholic, garments, Mineral Water, Gold.*

9. Differentiate between acquired and inherited characteristics.

*Acquired characteristic is a non-inheritable change in the function due to modification and other environment effects e.g. damaged parts whereas inherited characteristic are traits or character genetically inherited from parents or passed on from generation-to-generation e.g., shape, size and colour.*

10. Explain how crop rotation controls pest and diseases.

*Crops from different botanical families are grown therefore pests and weeds would be different for the different crops.*

11. Briefly explain the inherited characteristics that you would look for when choosing tomatoes.

*Shape – the tomato fruit should be oval or pumpkin shaped, depending on the variety.*

*Size- from 2 to 8 cm in diameter*

*Colour – fresh bright orange or red colour with no black blotches or rotten spots*

*Odour – fresh clean smell without the smell of rotting*

*Taste – sweet and tangy*

12. Explain one disadvantage of crop rotation.

*Time Consuming -Rotating crops often requires more time in preparing fields for crops ahead of rotations.*

13. Explain one disadvantage of bio compost.

*If the environment is not suitable for the micro-organisms to play their role, the effectiveness of organic fertilizer is limited seasonally.*

## Paragraph Writing

Answer any two questions.

<p>Question 1</p> <ul style="list-style-type: none"><li>• <i>Pesticide Free.</i></li></ul> <p><i>It is free of chemicals</i></p> <ul style="list-style-type: none"><li>• <i>Soil Conservation</i></li></ul> <p><i>Better cropping practices used to avoid soil erosion and leaching.</i></p> <ul style="list-style-type: none"><li>• <i>Safer Food</i></li></ul> <p><i>Since chemical pesticides, weedicides and fertilizers not used it is safe to consume.</i></p> <ul style="list-style-type: none"><li>• <i>Reduces Pollution.</i></li></ul> <p><i>No residual effect of chemicals.</i></p> <ul style="list-style-type: none"><li>• <i>Low Water Wastage</i></li></ul> <p><i>Recycling and reuse is practiced.</i></p> <ul style="list-style-type: none"><li>• <i>Sustainable</i></li></ul> <p><i>Safer in terms of the environment, the economy and well- being</i></p>	<p>Question 2</p> <ul style="list-style-type: none"><li>• <i>Improves the fertility of the soil.</i></li></ul> <p><i>Nutrients are retained in the soil after harvesting. Legumes add nitrogen into the soil.</i></p> <ul style="list-style-type: none"><li>• <i>Helps in weed and pest control</i></li></ul> <p><i>Crops from different botanical families are grown therefore pests and weeds would be different for the different crops.</i></p> <ul style="list-style-type: none"><li>• <i>Adds diversity to an operation</i></li></ul> <p><i>Not specialized in only one crop.</i></p> <ul style="list-style-type: none"><li>• <i>Obtains two source of income from the same piece of land</i></li></ul> <p><i>More crops grown on the same piece of land which results in more than one income obtained from the same piece of land.</i></p> <ul style="list-style-type: none"><li>• <i>Does not the leave the soil bare</i></li></ul> <p><i>Controls soil erosion as there is always ground cover.</i></p>
<p>Question 3</p> <ul style="list-style-type: none"><li>• <i>It improves space utilization and increase productivity per unit area</i></li><li>• <i>It provides diversified products</i></li><li>• <i>Improves soil fertility and soil physical structure from appropriate crop rotation and using cover cropping and organic compost</i></li><li>• <i>Reduce weeds, insect pests and diseases from appropriate crop rotation</i></li><li>• <i>Utilization of crop residues and livestock wastes</i></li><li>• <i>Less reliance to outside inputs- fertilizers, agrochemicals, feed, energy, etc.</i></li></ul>	<p>Question 4</p> <ul style="list-style-type: none"><li>• <i>Exports and imports help in the growth of national economies and expand the global market</i></li><li>• <i>Some countries have advantage over other countries in resources and skills thus exports or imports are encouraged</i></li><li>• <i>Imports encourage goods to be brought from overseas which are not available locally or at a cheaper price</i></li><li>• <i>At times imported products provide better prices and more choice to consumers, helps in better standard of living</i></li><li>• <i>Export encourages more economic activity in a country by increasing production, providing employment and increasing the revenue in a country.</i></li><li>• <i>Exports increase the gross domestic product in a country. Net export increases the wealth in a country</i></li></ul>