

Strand 2: Food production processes

2.1: Organic gardening

Section A

1. B.
2. D.
3. C.
4. B.
5. B.

Section B

1.
 - (a) Uprooting; digging out and slashing.
 - (b) Ensures complete weed eradication before they flower, seed and establish.
2. Use of organic manure such as compost manure instead of inorganic fertilisers; use of organic pesticides to control pests; use of organic foliar feeds to supply plant nutrients; use of mechanical methods to control weeds instead of herbicides.
3. Production of chemical-free food; organic methods promote soil conservation and fertility; reduced cost of production; encourages biodiversity on the farm; utilises weeds and organic waste effectively; prevents water and environmental pollution.
4.
 - (a) Mild soap.
 - (b) Cabbages, tomatoes, cucumbers and melons.
 - (c) Test the solution on a small section of infested crops before applying on the whole garden to minimise cases of crops wilting or drying; apply early in the morning or late in the evening; spray both upper and lower leaf surfaces.
5.
 - Clear any vegetation from the selected site.
 - Raise the sukuma wiki seedlings in nurseries.
 - Prepare the seedbed to a fine tilth.
 - Make holes at the correct spacing and depth.
 - Add adequate amount of well-decomposed compost manure.
 - Plant one healthy seedling per hole.
 - Firm the soil around the base.
 - Mulch and water adequately.
6.
 - (a) Mexican sunflower.
 - (b) Organic foliar feed.
 - (c)
 - Chop Mexican sunflower leaves and twigs into small pieces.

- Put the chopped material in a clean bucket until it is about half or three-quarters full.
- Add clean water until all plant materials are fully submerged in the water.
- Cover the bucket loosely and place it under a shade for about 7 days.
- Stir the mixture daily using a clean stick.
- Fermentation will cause bubbling and a strong smell. After about 7 days, the mixture becomes dark green and bubbling stops.
- Strain the liquid into another bucket using a clean piece of cloth.
- Store the organic foliar feed in a closed container in a cool, dark place.
- Wash your hands with soap and clean water after preparation.
- Mix the foliar feed with the recommended amount of water in a sprayer.
- Spray the upper and lower surface of the leaves thoroughly.
- Apply early in the morning or late in the evening.
- Repeat application weekly while observing crop growth.

2.2: Storage of crop produce

Section A

1. B.
2. C.
3. C.
4. B.
5. C.

Section B

1.
 - (a) He ignored cleaning the granary before storing maize.
 - (b) Insect infestation; maize spoilage/rotting.
2. Prevents mixing old and new produce; removes hidden pests and diseases; ensures cleanliness and reduces contamination.
3. Maize became damp and mouldy; maize likely developed aflatoxin contamination.
4. Remove the mouldy beans immediately; dry the remaining beans properly; clean and repair the storage bag; store beans in a dry, pest-free environment.
5. Seal holes and entry points; use traps or safe rodenticides; keep store clean and free from food scraps.
6. Regularly inspect grains for moisture and mould; ensure proper drying before storage; maintain cleanliness of the store; report and remove any contaminated produce promptly.

2.3 Cooking - Using flour mixtures

Section A

1. B.

2. D.
3. C.
4. B.

Section B

1.
 - (a) Whisking.
 - (b) Kneading.
 - (c) To remove impurities, to break lumps, to trap air.
 - (d) To incorporate air.
2.
 - (a) Cake, muffins, drop scones, pancakes.
 - (b) Doughnuts, mandazi, scones, buns, chapati.
3.
 - The dough was not given enough time to rest and rise before cooking.
 - A raising agent was not used and if used it was not enough to make the mandazi light and fluffy.
 - To improve the product, she should allow the dough to rest for at least 15 minutes; use enough baking powder that is not expired and sieve the flour to trap or incorporate air.
4.
 - (a) This is flour in which a raising agent like baking powder has already been added during manufacturing.
 - (b) Raising agents help to make the products light, soft and fluffy.
5. Keep finger nails short and clean; wash hands thoroughly before making doughs and butters; never fill the deep-frying pan with more than two-thirds of oil; lower the pieces of dough gently into the hot oil; do not put wet food into hot deep-frying oil.