**SECOND TERM E NOTES**

**SUBJECT: AGRICULTURAL SCIENCE**

**CLASS: BASIC FOUR**

**WEEK TOPIC**

1. METHOD OF FARM PRODUCE PRESERVATIONS
2. METHOD OF FARM PRODUCE PRESERVATIONS CONT.
3. MATERIALS FOR GROWING CROPS
4. MATERIALS FOR GROWING CROPS CONT.
5. SAFETY MEASURE IN APPLYING CHEMICALS
6. HOW TO RAISE ORNAMENTAL CROPS
7. HOW TO RAISE ORNAMENTAL CROPS
8. COMPOST MAKING
9. IMPORTANCE OF EACH FACTOR OF PRODUCTION
10. REVISION

**WEEK ONE & TWO**

**METHOD OF FARM PRODUCE PRESERVATION**

The proper keeping pof food until they are needed is called **food preservation.** Some crop

Plants will need to stored until the next planting season. To make sur that they are good for planting ( viable), they msut be roperly preserved.

**IMORTANCE OF FARM PRODUCE PRESERVATION**

1. To reatain the freshness of the food
2. To reduce the loss of quality of the food
3. To prolong the food shelf life
4. To prevent possible contamination and infection.

METHODS OF FARM PRODUCE PRESERVATION

The different metods of farm produce preservation are:

1. Sun drying
2. Smoking
3. Saklting
4. Frying
5. Refrigeration
6. Canning
7. Bagging
8. Bottling
9. Sun drying

Peeled cassava, peeled yam, maize, beans can be preserved by spreading them under the sun. sun drying reduce the water content of the food stuff.

1. Smoking

Fish and meat can be smoked with coal fire. Smoking dries the meat and fish. These meat and fish canb be kept for a long time without getting spoilt.

1. Salting

Adding salt to some food stuffs like meat and fish can preverve them for a short period of time. The salt keeps outgerms away from the from the food stuff.

1. Frying

Meat, fish, chicken, plantain, yam and potato can be peservedby frying. Frying removes wster from ythe food items so that it can be kept for a long [eriod of ime.

1. Refrigeration

This is a modern way of preserving food. Food items like egs, fruits and vegetables can be preserved in the fridge. For longer preservation, meat, fish should be stored in the freezer.

1. Canning

In factories food are processed and canned so that they can be stored for a long time. Such foods include fruits, pepper, tomato, sardine, corned beef and soup.the can is sealed after adding some chemicals called preservatives.

1. Bagging

Foodstuffs can be preserved in a bag so thatthey can be stored for a long time e.g. rice.

1. Bottling

Fruit juice can be put in sealed bottles for preservation puroses.

EVALUATION

1. What is food preservation
2. State four importance of food preservation
3. Methods of preserving food include:
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**WEEK THREE & FOUR**

**MATRIALS NEEDED TO GROW CROPS**

The folling materials are needed to grow crops:

1. Good seeds
2. Good stem cuttings
3. Fertilizer or manure
4. Pest killing chemical;s ( including weed killers)
5. **Good seeds**

Seeds to be grown must be viable (living healthy seeds). They msut not be seeds that are affected by diseases. Examples are good seeds of beans, melon and maize grains.

1. **Good stem cutting**

Good stem cuttings are used in growing cassava and some tree crops. The cuttings msut not be affected by diseases and msut be clean and healthy looking.

1. **Fertilizer or manure**

Fertilizers or manure supply mineral nutrients that serve as food to crop plamts. They are usually added to the soil to make our crops grow well and healthy.

1. **Pest killing chemicals**

Chemicals called **insecticides** can be spayed on the plants to kill insects. Baits are jused for rodents( rats, rabbit) and sccare crow for birds. Chemicals called **rodenticides** can be used to kill rodents.

EVALUATION

1. List foiur materials needed for growing crops
2. Describe good seeds that can germinate easily
3. Describe good stem cuttings that can sprout easily
4. Explain the importance of fertilizer or manure.
5. Explain the importance of pests killing chemicals

**WEEK FIVE**

**SAFETY MEASURES IN APPLYING CHEMICALS**

1. Spray the chemicals with the aid of a knapsack sprayer with your mouth and face covered. This is to disallow chemicals to get into your mouth.
2. Do not allow chemicals to come in contact with your skin.
3. Always wash your hans with soap and water after use. It is even better to take a full bath after use.

**DANGERS INVOLVED IN EXCESSIVE USE OF CHEMICALS**

1. Chemicals can be toxic to the crop and kill our crops.
2. It can destroy the useful living things in the soil.
3. It can be washed into streams and rivers and kill fish and other water living organisms.
4. Chemicals can cause water and air olluiton
5. Some chemicals if they touch our skin, can burn the skin.

**EVALUATION**

1. List two safety measures in applying chemicals
2. State two dangers of excessive use of chemicals

**WEEK SIX AND SEVEN**

**HOW TO RAISE ORNAMENTAL PLANTS**

**Ornamental plants are plants that beautify our environment**. They are mostly flowers e.g. hibiscus, rose flower, flambouyant flower and sun flower.

**The Steps in growing ornamental crops are:**

1. Land clearing

Before planting, the land must be cleared of weeds and debris. Hoes and machetes can be used in clearing the land.

1. Seed bed or pot preparation

Seed bed should be well planned. Pot should also be fine and filled with good soil. Topsoil should be loosen for removal or roots, stones and woods.

1. Planting

Most ornamental plants are planted through their seedlings. So, seedlings are transplanted tpo the pots ot flower bed.

1. Weeding

This is the removal of unwanted plants. It is done regularly with the aid of hoes in the flower bed. In the pot, hand weeding should be done i.e. pulling out the weeds with hands.

1. Manuring

This means applying manure to the flower beds or the soil in the pots. Manure helps the plants to grow well.

1. Watering

The flower bed should be regularly watered particularly, in the dry season. The pots should be watred daily.

1. Mulching

This is the covering of the surface of the soil or the seed bed with cut dry leaves, stems and even plastic to reduce the loss of water from the soil.

1. Pruning

Trimming should be done constantly to makew the flowe look attractive.

**EVALUATION**

1. What are ornamental plants?
2. What are the importance of planting flowers in your school?
3. List the steps you would take to raise ornamental crops
4. List four ornamental plants grown in your school.
5. Name three tools for planting ornamnental plants.

**WEEK EIGHT & NINE**

**PREPARATION OF COMPOST MANURE**

**What is compost manure?**

Compost is mixture of decayed plants refuse, decayed animal dung and chicken waste. When added to the soil, it makes the soil fertile. Compolst improves plant food and makes the crop to grow well.

**Materials for making compost**

1. Plant refuse
2. Animal dung(farm yard manure)
3. Household refuse(kitchen)
4. Wood ash
5. Soil
6. Water

**Steps in making compost**

1. Dig four pits labeled A, B, C and D. the size should be 1 m × 1m x 0.5.
2. Pit A is called loading pit. Arrange the materials for making compost in layer separated by soil in pit A. make sure you moisten the heap with water to allow for easy decomposition.
3. After two weeks, move the contents of pit A to B ( first turn).
4. After about one week, mo e the content of B to C (second turn).
5. After another one week, move the content of C to D.
6. Cover up the compost to prevent evaporation, leaching and erosion before applying it to the farm. Content of D is transrefered to as compost after 4 – 6 weeks. Turning the heap allow the air into the heap and make for even decay.

**EVALUATION**

1. WHAT IS COMPOST
2. Lisr the material required for compost making
3. Explain the steps involved in compost making
4. Give reasons why we do the following during the compost preparation:
5. Watering –
6. Turning the heap –
7. Shading from light –