

## LESSON FOR WEEK ONE AND TWO (1\$2) ENDING 19<sup>TH</sup> SEPT, 2025.

**SUBJECT:** AGRICULTURAL SCIENCE.  
**TOPIC:** FARM STRUCTURE AND BUILDING  
**CLASS** JSS2  
**DATE:** 8TH SEPTEMBER, 2025

Farm structure can be defined as any construction on the farm site constructed to make certain farm operations easier. It can also be said to be constructions made on a farm site to increase the efficient operation of the farm. The type of farm structure on any farm depends on the type of farm operated, the scope of operations, the prevailing conditions on the site and the amount of money available for the operations. Farm structures include cribs, silos, rhumbuses, feed mills, barns, fences, animal dips, irrigation canals, drainage structures, compost pits, waste disposal pits, processing and potting sheds, paddocks, fish ponds etc.

### **TYPES OF FARM STRUCTURES AND THEIR USES.**

Farm structures are classified into three, based on their uses;

- a. Production structure.
- b. Processing structures.
- c. Storage structures.

**Production structure:** These are structures used for producing animals and tending crops under controlled conditions. They include;

- i). grazing paddock.
- ii). Poultry battery cages.
- iii). Poultry range shelters.
- iv). Fish ponds.
- v). rabbit hutches.
- vi). potting sheds for seedlings.
- vii). Irrigation system and dam.

**Processing structures/sheds:** These are sheds constructed to accommodate processing machines like grinding machines, oil palm press, rice mill.

**Storage structures:** These are used for storing agricultural produce until they are sold or used for next season's operation. They include silos, cribs, barns, fences, compost pits, farm yard manure overhead shelters, silage pits etc.

1. **Silos:** A silo is a tall circular or rectangular farm structure made of stainless steel. It is also called elevators. They are used for storing grains. The humidity in modern silos is controlled and grains stored in them last for long time.
2. **Cribs:** Cribs are simple grain storage structures made of wood and wire gauze on the side and floor with thatch or zinc roof. Cribs are used for drying maize which is still on cob and for storing them. The floors of the cribs are raised well above the ground on wooden legs, which have rodent guards, to prevent rats from eating the grains.
3. **Rhumbus:** These are round structures from mud with a grass or thatch roof. They are used for storing grains such as maize, sorghum, millet, cowpea and groundnuts, etc. They are very common in the drier northern parts of Nigeria especially Sokoto and Kano State.
4. **Feed mill:** This is a structure constructed for the purpose of making animal feed. It is economical for a large scale animal farmer to have a feed mill where the feed of the animals is produced.
5. **Barns:** These are temporary structures made on the farm for storing yam, cassava, grass or hay. A barn can cheaply be constructed with sticks, mud and thatch.
6. **Fences:** Fences are physical barriers specially constructed around an area with bamboo, wire and planks. Purpose of fencing includes;
  - a) Prevention of unwanted persons or animals into the farm.

- b) Prevents animals from leaving the farm site.
  - c) Controls grazing in the pasture.
  - d) To protect crops from being damaged by animals.
7. **Animal dips and sprays:** Dips and concrete bath or plastic vessel set on to the ground. It is filled with water, then disinfectants are added e.g. acaricide for killing ecto parasites as the animals are made to pass through it. While a spray is an overhead tank containing disinfectant and a sprinkler through which the disinfectant drips onto the animals and performs the same functions as the dip.
  8. **Water tank:** A tank is usually installed on elevated ground within the vicinity of the farm. The serves to irrigate the farm, and provide water for farm animals. Farmers who reside within the farm also use the water for their private needs.
  9. **Dams:** A dam is a barrier made with stones, wood and mud, or concrete across a river or stream to hold back water for irrigating crops and providing drinking water for animals.
  10. **Compost pits:** These are pits dug on the farm for making compost manure for crops. Waste plant and animals' materials are rotted down in the compost pit until they form manure

**building Farm:** These are all the buildings on the farm. They type, number, and size depend on the type and scope of operations on the farm.

#### **Uses/important of farm buildings.**

Farm buildings are useful in the following way;

1. They protect animals and farm workers from the weather.
2. They protect farm supplies, farm product, animals and farm workers from thieves and harmful animals.
3. They are convenient means for caring for farm animals.
4. They provide hygienic system for processing and storing farm products.
5. They are needed for efficient administration and farm progress purpose.

#### **TYPES OF FARM BUILDINGS**

There are mainly two types of farm buildings on the farm. They are;

1. Temporary farm building.
  2. Permanent farm building.
1. **Temporary farm building:** These are simple buildings constructed from cheap or locally available materials such as bamboo, sorghum, stalks, wood (timber) or palm fronds, mud, and corrugated iron sheet or asbestos. They are abandoned immediately the farmer has complete using them. They are also called "make shift" buildings and those commonly constructed on farms include storage shed for keeping farm machines, and equipment, nurseries for raising seedlings, animal pens, construction shed and garages for machines.
  2. **Permanent farm building:** These are solid buildings normally constructed to last for a very long time. The walls and floors are usually constructed with cement, sand, and gravel, wood, corrugated iron sheets, aluminum or asbestos are used for roof.  
Permanent buildings are expensive to construct but they do not require frequent maintenance like temporary buildings. Examples of permanent farm buildings are;
    1. Farm office.
    2. Stores for farm supplies and harvests
    3. Workshops, generator house and water storage tanks
    4. Living quarters for workers.
    5. Animal houses e.g. cattle, sheep, goat, poultry etc.
    6. Processing e.g. milking house.

### **MAINTENANCE OF FARM STRUCTURE AND BUILDING.**

1. Silos should be coated with aluminum paint to prevent rust and reflect light.
2. Dips should be drained regularly.
3. Water tank should be cleaned regularly.
4. Soak away and manure pits should be emptied when they are full.
5. Damaged roofing sheets must be promptly replaced.
6. Cracks walls should be patched.
7. Insect damaged preventing chemicals should be applied on wooden parts.
8. Nozzles of sprayers should be cleaned to ensure even distribution of chemicals during spraying.
9. Abattoirs should be cleaned and disinfected after each operation. Etc.

### **SITING OF A FARM AND LAYOUT STRUCTURES.**

A farm is a piece of land on which crops are grown and animals are raised. The school farm is a practical site for students of agricultural science.

#### **IMPORTANCE OF A SCHOOL FARM.**

1. To generate students interest in agriculture as a profession or hobby.
2. To enable students, acquire knowledge and skills in agriculture.
3. To demonstrate and enable the students practice on the farm, what they have learnt in classroom.

#### **FACTORS GUIDING THE SITING OF FARMS**

1. **Availability of land:** There can't be a farm without a land, this is the first factor that must be considered.
2. **Good soil:** a land with fertile soil should be selected, in order to reduce cost of applying manure. Water-logged soil should be avoided, stony and over used soil. Well drained soil such as loamy, sandy- loam or clay are preferable.
3. **Water supply:** The farm must be located close to good source of water. Water is needed for irrigation, processing, drinking and cleaning of farm tools.
4. **Nearness to school:** This is closeness of the farm, it must be close enough in order to make movement to and from the farm easy for both teachers and students to aid monitoring against thieves and plots.
5. **Accessibility:** This will ease movement, the farm should have good roads and paths. This aids movements of inputs and out puts.
6. **Security:** The farm must be secure enough, to prevent thieves from stealing farm produce and tools.
7. **Slope of the land:** A flat land should be used, in order to reduce erosion and cost of operation. The slope of the land will determine: (a) The direction of beds or ridges (b) Types of erosion control adapt.
8. **Aspect:** The farm must not be surrounded by shades or tall trees, because they will hinder photosynthesis. The farm should be fully exposed to solar radiation.

#### **LAYOUT OF A FARM STEAD.**

The land is cleared, and the boundary lines are noted. The farm s then laid out into rectangular areas for growing crops, rearing animals and for erecting temporary farm buildings or structures. Also included in the layout is the boundaries of bed, width f paths, water sources and nursery facilities. The nursery area must be close to water sources and adequately shaded. A boundary fence or hedge is needed to keep out livestock.

#### **FACTORS/PRINCIPLES GUIDING LAYOUT OF FARM STRUCTURES AND BUILDINGS**

1. Livestock pens should not be sited close to living houses to avoid offensive odours
2. Buildings should be sited on elevated ground to guard against flood and drainage problems
3. Farm buildings should be located down wind
4. Livestock houses should be located in such a way as to receive maximum light.

5. Farm structures and building should be close to store for farm input to minimize the journey from store to the particular structure.

**IMPORTANCE OF GOOD SITING OF FARM STRUCTURES AND BUILDINGS.**

1. It makes production more efficient.
2. It saves time, since they are closely located to one another.
3. It helps to guard against flood problems.
4. It protects the environment from offensive odour emanating from the pens and compost pits.

**EVALUATION.**

1. What is farm structure and buildings
2. Mention five types of farm structures
3. Mention the types of farm building
4. State three examples of temporary farm building.

**ASSIGNMENT.**

1. Wooden and metal structures should be \_\_\_\_\_ to prevent wearing away. A. painted. B. coloured. C. decorated. D. swept.
2. \_\_\_\_\_ should be cleaned and disinfect after each operation. A. silos. B. poles. C. abattoirs. D. fences.
3. A round farm structures constructed from mud with a grass or thatch roof is? a. barn. B. rhumbus.c. silos d. fence
4. How can farm building and structure be maintained.