STANDARD HIGH SCHOOL-ZZANA

ADVANCED AGRICULTURE

PRINICIPLES OF AGRICULTURE ECONOMICS AND FARM MANAGEMEN

Economics is how scarce resources are allocated to satisfy unlimited human needs/wants

Therefore **agriculture Economics** is the study of how man uses the scarce resources e.g. land, capital, management etc to produce maximum output from crops and animals at minimum costs.

IMPORTANCE OF AGRICULTURAL ECONOMICS

- It assists the farmer to maximize profit
- It enables farmers to make proper choice on resources since they are scarce
- It enables farmers to minimize costs of production
- It helps farmers to produce high yields/output
- It helps farmers to allocate resources effectively to avoid losses on a farm

PRINCIPLES OF ECONOMICS

1. Scarcity

This is a state of goods and services being in short supply in relation to their demand. It exists when human wants and needs exceed what they have.

CAUSES OF SCARCITY IN AGRICULTUREAL PRODUCTION:

- Natural factors like flood, drought which may cause scarcity of water, food and pasture food livestock
- High costs of production which limits profits
- Poor methods of production which slow down supply of goods e.g. use of inferior like hand hoes
- Inadequate stocks of factors of production e.g. land, labour, management etc
- Long gestation periods especially for perennial crops which take long to mature

to meet market demand during certain periods. This causes shortages in supply of goods

- Poor transport and communication system e.g. use of poor roads which brings delays in distribution of goods and services to market centers
- Poor price that discourage production of certain commodities
- Poor planning by farmers during production process
- Poor government policies like high taxes. This discourage farmers from producing
- causing scarcity
- Poor storage facilities to store goods in bumper period i.e. period when harvests is high making farmers to sell all produce hence shortages in future

2. Choice

This is the act of deciding which resources should be allocated to meet production needs as well as satisfying consumers needs.It's when a farmer makes choice out of the many alternatives

3. Opportunity Cost

This refers to the value of the next best alternative foregone when a choice is made. When an entrepreneur is making choice in production, he answers question on;

What to produce basing on demand, climatic conditions, and ecological condition (soil factors)

How to produce basing on the skills/method of production and resources available

How much to produce basing on levels of labours, demand, and mechanization

When to produce basing on period when demand would be high, climate, prices etc

For whom to produce basing on the targeted market i.e. Local or International market

Where to produce basing on farm location, market location, resources available and sources of raw materials

PRODUCTION

This is the transformation of inputs e.g. seeds, fertilizer etc into outputs/harvests. In other word production is the creation of **utility.**

Utility is ability of goods and services to satisfy human want

FACTORS OF PRODUCTION

These are the resources in the transformation of goods and services to satisfy human. They include the following;

Land: This is the most important factor of production. Economics requires land inform of soil, water, air, mineral resources etc

Characteristics of Land as a factor of production

- Land is geographically immobile
- Its supply is fixed and static i.e. can't be moved from one place to another
- Land degrades in quality if poorly managed
- Land has many uses like agriculture, recreation, road construction etc
- The quality of land can be maintained by avoiding deforestation, over grazing and over cultivation

The payment for land is **rent**

Labour: This refers to human efforts extended in the production of goods and services. It can be inform of force, knowledge (plan)

Characteristics of labor as a factor of production

- It is mobile i.e. can go from one place to another
- It can be inherited since involves skills of person
- Its inform of human being
- The quality of labour can be improved

- Labour is usually paid on monthly or daily basis

Efficiency of Labour

This is the ability of the labour to perform more tasks at a go under minimum supervision

Factors that determine Labour Efficiency

- Climatic condition, people can work for more hours on cool weather than when the weather is hot.
- Length of working hours. Long working hours discourages work. Working hours should be regularised for workers to do their best.
- Training, well trained person performs better work than untrained person
- Supervision of the work, if workers are supervised, it makes them to work harder
- Provision of leave days, incase provided for workers they perform more and better work to produce good results when they return
- Job security, incase workers feel secured in a job it motivates them to perform better work
- Instituting a sense of ownership of the organization/farm to the workers encourages them to work harder since they feels at home
- Specialization of Labour,incase employee is specialized, he/she is likely to finish the work in time and perform more
- Fair and early payment increase efficiency of labours
- Health of the worker, the healthier the labouforce,the more work he can perform than when he/she is sick
- Organization of the farm, well organized farm gives ground for better performance

Ways of increasing Labour Efficiency

- Provision of transport

- Provision of housing
- Provision of meal at work
- Specialization
- Provision of entertainment
- Provision of machines to increase speed at work
- Proper handling of employees i.e. avoid shouting at workers

Labour Availability/Supply

Factors determining Labour supply for work

- Immigration, this increases labour supply since people come from other countries
- Emigration decreases labour supply since people moves out to other places
- High wage rate attracts big population of workers
- Total population, high population encourages big supply of labours unlike low population which limits labour supply
- Rural Urban Migration. This leads to more supply of labour from rural areas to urban areas hence reducing agricultural labour in rural areas
- Training period, long training period for workers lowers labour supply
- Political Climate of the work place, in case a given area of a country is politically stable, more people would prefer to work in such places hence attracting bigger supply of labour in that area
- The nature of the job, Risky and unpleasant jobs limit5s more people from works hence lowering labour supply
- Levels of skills/knowledge required
- Availability of essential facilities like accommodation, this helps to bring about more people for work
- Labour mobility increases labour supply

Labour Mobility refers to the ease with which labour can move from one place to another (geographical mobility) or from one job to another (occupational mobility)

Factors Affecting Labour Mobility

- Limitation in skills i.e. its hard for compound cleaner to operate a tractor during ploughing
- Time required for training ,long time training periods reduces the rate at which such people would join the occupation
- Racial differences where some jobs are reserved for a particular races
- Transport ,poor transport resist people from moving one place to another

Labour is rewarded **Salary** during production

Note:Using a suitable graph,account for regressive supply of labour during production

Capital: This is a man made wealth needed to generate another wealth eg tractor

Characteristics of capital

- Its It is manmade e.g. tractor
- It depreciates e.g. farm tools and machines
- mobile and can move from one place to another
- It increases productivity of other factors of production
- It varies in size i.e. can be large or small

Capital is rewarded **interest/profit**

Types of Capital

Real/Fixed capital, circulating capital, semi fixed capital etc

An Entrepreneur: This is a person who assumes the responsibility of organization, bearing risks and management during production process

Roles of a Farm Manager

- Hire and Pay for other factors of production e.g. land and labour

- Purchasing farm inputs
- Mobilizing resources for the farm
- Combining Factors of production to earn profits
- Bearing risks and uncertainty of the farm
- Supervising production process
- Makes decision in production
- Finds market for farm produce and sale them
- Keeps up to date farm records for future reference
- Motivates labours at the farm for better performance
- To coordinate and plan farm activities as required.

PRODUCTION FUNCTION

This is the physical relationship between inputs and outputs. It shows how the quantity of particular products varies with the levels of inputs used in a specific period of time

Mathematically production function is represented as

Y=f(L1,L2,L3……Ln)

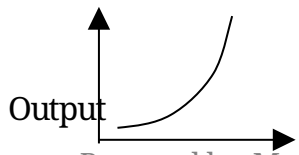
Where;

Y is output and **L2, L2, L3** and **Ln** are the various inputs used in production to produce Y

TYPES OF PRODUCTION FUNCTION IN FARMING BUSINESS

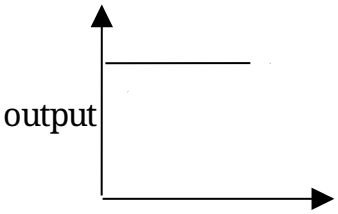
1. Increasing Return: This is the production function in which each additional unit of variable input results in larger increase in output than the preceding unit of input.

It is described as irrational because resources are underutilized

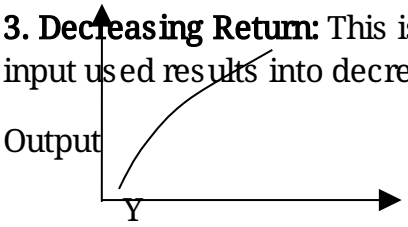


2. Constant Return: This is the production function in which the amount of output increases at same rate (amount) for each additional unit of variable input used i.e. the return are constant to the variable input used.

It is described as irrational because return to the variable input factors cannot increase at higher levels of production. The farmer cannot maximize profit at this level.



3. Decreasing Return: This is the production function in which each additional unit of input used results into decrease in output than the preceding one.



It is described as rational because resources are put to optimum use and highest profit can be obtained. I.e. where MC=MR

Terms used in production function

Fixed inputs: These are inputs which cannot be varied easily within the production cycle e.g. Land

Variable inputs: These are inputs whose quantities can be changed easily within the production cycle e.g. Labours, Seeds, and Fertilizers etc

Total physical product(TPP): This is the amount of products got from using certain amount of inputs in production process e.g. 20 men produces 222kg 0f maize

Average Products (AP): This is the total physical products divided by the units of inputs used in production process i.e. **AP= TP(X)/input used.**

Marginal Products (MP): This is the extra products obtained from an extra unit of inputs used.

I.e. MP= Change in total products (TP)/change in input

Examples:

20 labours produce 2000kg of maize, on adding one man they produces 2150kg of maize. Calculate marginal products contributed by adding an extra unit of one labour

MP= Change in TP/change in input

2150 – 2000/21-20 = 150 kg

Example:

The table below shows total output of maize from the use of variable factor of fertilizer on a one hectare of Land

Fixed factor(land)	Qnty of fertilizer used	Total maize output(TPP)	Marginal products(MP)	Average products(AP)
1	1	8	8	8
1	2	18	10	9
1	3	30	12	10
1	4	38	8	9.5
1	5	44	6	8.8

1	6	48	4	8
1	7	48	0	6.9
1	8	46	-2	5.7
1	9	42	-4	5.5

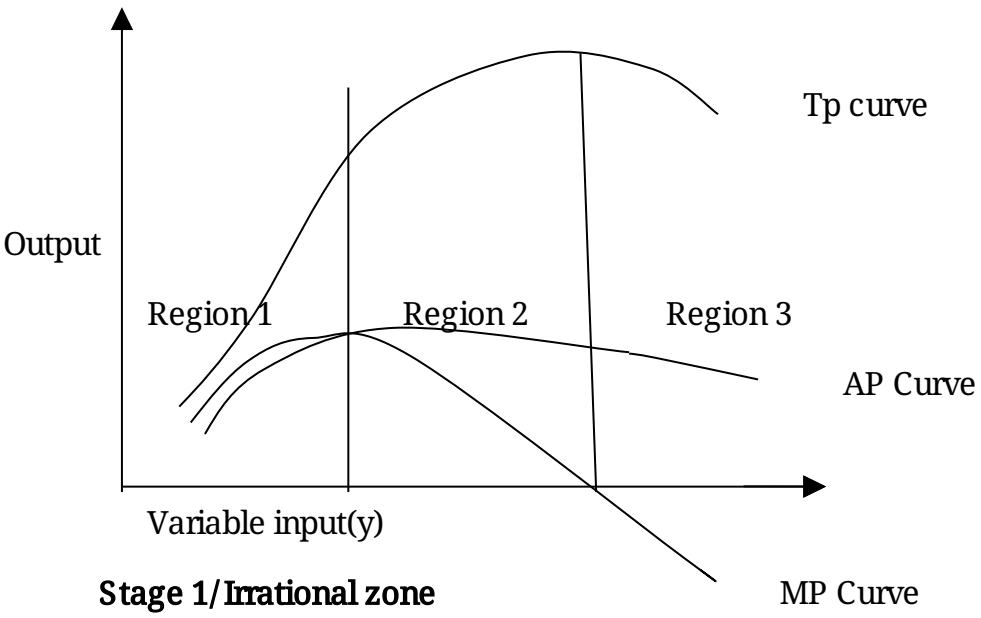
Questions

1(a) Plot the information from the above table on the same axis showing the relationship between TPP, MP and AP.

(b).Indicate all the three stages of production function and explain the event taking place in each stage

(c).Indicate the point of deflection from the graph where profits can be maximized

The graph showing the relationship between Total Product(TP),Marginal Product(MP) and Average Products(AP) using a variable unit of fertilizer on a fixed factor of Land



Stage 1/Irrational zone

This is called zone of increasing Returns/Irrational zone

Under this zone each additional unit of input results into larger increase in output than the preceding input

TP increase at an increasing rate

AP also increases but is less than **MP**

This is an irrational zone because the farmer under utilizes resources (input) in production

Example of agricultural situation at this zone is under utilization of fertilizer, small plant population, under stocking in livestock, under utilization of labour

Feeding livestock on protein food

Stage 2 (Rational zone)

This is called zone of diminishing return or rational zone

It begins when MP and AP are equal

TP increases at a decreasing rate until it reaches the maximum (maximum output).This point is called Technical optimum point

The region ends when **TP** is maximum and **MP** is zero

In this region both **AP** and **MP** are decreasing

Resources are being used effectively in this zone

Stage 3(Irrational zone)

This is also called zone of negative return.

The zone begins when **TP** is maximum, **MP** is zero, **AP** is decreasing but greater **MP.**

TP is decreasing**; AP** is also decreasing while MP is decreasing and negative already

It's the most unproductive zone in agriculture production as it results into reduced **TP, AP** and **MP.MP** is negative which reflect losses. In this zone the fixed factor is over utilized

Examples of agriculture production situation in zone three includes the following

- Keeping too many animals on a small piece of land (over stocking) leading to

competition for the feeds

- Excessive application of fertilizer leading to soil toxicity
- Over use of herbicide in crop production
- Excessive supplementary feeding rate for the animals
- Too many labours on the same farm which reduces the total output due to congestion

Therefore the most profitable zone the farmer is advised to operate in is region two because in region two **TP** is increasing though at a decreasing rate, AP is positive and MP is still positive though become zero at the very end of the region

The point of profit maximization (Economic Optimum [Point) is located in region two on the **TP** curve just before Maximum **TP** is reached. Profit is maximised at the point when Marginal Cost **(MC)** is equal to Marginal Revenue **(MR)** which only occurs in region 2 of production function.

Laws of Diminishing Return

It state that if a successive unit of a variable factor is added to a fixed factor while holding other factors constant, total production increases but beyond certain point, the resulting increase will become smaller and smaller

COSTS OF PRODUCTION

These are the expenses incurred during production process. Examples of production costs are,

1. Fixed cost/over head costs/unavoidable costs

These are costs that do not vary with the levels of production i.e. a farmer has to meet them whether in production or not.eg interest on loan, Rent, Depreciation, Salaries for permanent workers

2. Variable costs

These are costs that varies with the levels of production/output.eg costs of seeds, fertilizer, pesticide, power, fuel etc

3. Total costs.

This is the sum of fixed costs and variable costs

4. Implicit Costs.

These are expenses that are not easily recognized in production process or indirect expense/non cash.eg use of own labour, family labour.This cost is not always valued in the calculation of profits on a farm

5. Explicit Costs.

These are direct expenses incurred by the farmer after buying resources. They are easy to be recognized on the farm.eg Transport Costs, salary for workers, depreciation of machinery, costs of seeds, fertilizer, pesticide etc

6. Marginal costs.

This is the cost of producing each additional unit of output or the cost of producing marginal products on a farm

7. Real costs.

These are non monetary costs of production i.e. the real pain or sacrifice given by labours during production process.

8. Reduced Costs.

This refers to the money saved when carrying out farm activities.eg Transportation of milk and eggs to the market on the same truck saves transport cost of one product

9. Total Variable Costs (TVC).

This is the total costs of all variable resource used in production on a farm

10. Total Fixed Costs (TFC).

This is the total of all the costs of fixed resources used in production

11. Average Fixed Cost (AFC).

This is the cost of fixed resources per unit of output

AFC= TFC/Output(Y)

12. Average Variable Costs (AVC)

This is the cost of variable resources per unit of output

AVC= AFC/output(Y)

13. Average Total Costs (ATC).

This is the total costs of all resources per unit of output

AFC+AVC/output(Y)

QUESTION

1(a) Describe the problem of agricultural production in an economy (10 marks)

(b)Assess the measures the government of Uganda has taken to develop the agricultural sector (10 marks)

Solutions

Qn 1(a)

- Lack of organized market for some agricultural produce
- Conservativeness of some farmers to accept modern method of farming which limit expansion of agricultural sector
- Lack of proper storage facilities especially for grains products
- Rural inaccessibility due to poor road
- High cost of farm inputs especially for improved seeds which makes farmers to produce poor qualities products
- Inadequate capital for investment and to purchase improved seeds as well as mechanization
- High incidence of pest and disease on a farm leading to poor yield
- Aridity in some part of the country coupled with poor soil leading to low crop yield
- Limited extension services to assist in giving advice to farmers

- Price instability which affects farmers earning
- Unsupportive government policy of levying high taxes on agricultural products

Qn1 (b)

- Establishment of NAADS Programmes to train farmers on modern farming methods
- Provision of loan to farmers through local based SACCOs
- Liberalisation of market so that farmers products can be bought freely
- Provision of high quality inputs like improved seed verities breed of cattle, fertilizer and pesticide to boost production
- Improvement in infrastructures especially for roads to stimulate distribution of agricultural produce from the farm to potential markets
- Encouraging diversification in farming business
- Encouraging industrialization to process farmers produce and increase their keeping quality
- Promoting adoption of modern agricultural technology through use of Medias like Radios, TVs, Newspapers etc
- Improvement of health sectors to ensures health of the famers
- Encouraging farmers to form groups in order to facilitate large scale production and realise high income
- Introduction of buffer stock and price stabilization fund to overcome the problems of price fluctuation

CONCEPTS OF DEMAND AND SUPPLY

1. DEMAND: This refers to the quantity of a commodity that an individual is willing and

able to buy at a given price and time

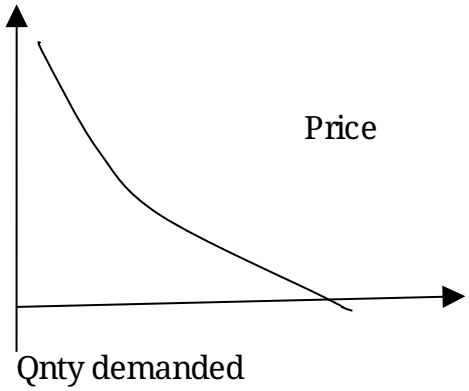
Demand is said to **effective** when the buyer is willing and able to buy the commodity at various prices and time but it's said to be **Latent** when the desire to buy a particular commodity is not backed by the ability to purchase it at various prices and time

Demand Schedule: This is a table expressing the quantity of goods buyers are willing to buy at various prices at particular period

The Demand schedule for maize in Nakasero Market between J an-March 2016

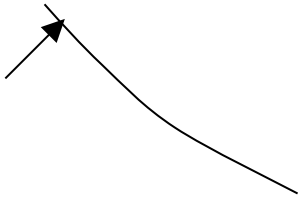
Price(shs)	Qnty demanded(kg)
1000	20
900	40
800	60
700	80
600	100
500	140

Demand Curve: This is a graph showing the quantity of a commodity that consumers buys at different prices at particular period of time.

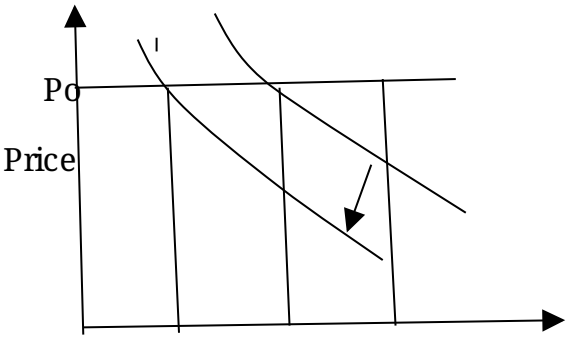


Change in demand and change in quantity demanded

Change in demand: This is a shift in the entire demand curve either to the left or right



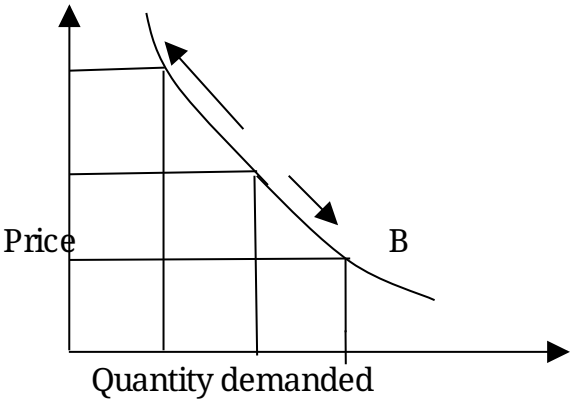
due change in the determinants of demand other than changes in the prices of commodity



A shift from do to d2 is an increase in demand

A shift from do d1 is a decrease in demand.

Change in quantity demanded: This is the movement along the demand curve due to change in price of the commodity



A-Decrease in quantity demanded

B-Increase in quantity demanded

The law of Demand:

It state that the higher the price the lower the quantity demanded and the lower the price the higher the quantity demanded

Factors Affecting Demand of a commodity

Price: Consumers always buys more when the price of the commodity is fall ie more consumers join the market to buy cheap commodities but when the price rises, the demand of the commodity in question will fall down

Price of other commodities e.g. substitute and compliments.

Substitute are two commodities that can be used to satisfy the same demand e.g. beans and Pease – increase in price for beans will definitely leads to decrease in its demand since people will opt for Pease which is cheap provided their price is constant

Complimentary goods: These are jointly demanded commodity e.g. petrol and car, shoe polish and shoes etc. Increase in demand for cars will increase demand for petrol and vice versa

Income of the consumers: Consumers with higher income buys more than consumers with little money hence command a high demand.

Population size: Increase in population increase demand for a commodity more especially necessity goods while decline in population leads to decease in demand.

Population structure in terms of age sex: A population full of aged people is less productive hence has a low purchasing power and demand.

Taste and Preference: People always tend to differs in taste and preference. Therefore if people lose taste for one commodity in preference for another the demand for such commodities will decrease and when people gain taste again the demand will increase and vice versa

Future price Expectation: When the price are expected to rise in future due to anticipated shortage, consumers will buys more and stock increased demand at that time but when price are expected to fall in future demand will be low

Levels of advertisement: Increase in advertisement will increase the awareness of such commodity and people will buy more of it hence increase in demand.

Increased taxes: Increased taxes on goods increases prices of the commodity hence decrease in demand.

Culture and Religion: Some communities and religion forbid consumption of certain items e.g. Pork by Moslems and Seventh Day Adventists. This lowers demand for such item in the community.

Elasticity of Demand(ED):

This is the degree of responsiveness of change in quantity demanded to change in factor which influence demand like price

Price Elasticity of Demand: This is the measure of the responsiveness of change in quantity demanded to change in the price of the commodity

ED= Percentage change in Quantity demanded/Percentage change in price

Examples:

1. When the price of maize was shs 100/kg. Quantity demanded was 1000kg and when the price was increased to 200shs/kg quantity demanded was 400kg.Calculate Elasticity of demand.

ED= percentage change in quantity demanded/percentage change in price

Percentage change in demand= 1000-400/1000*100

=60%

Percentage change in price=200-100/100*100

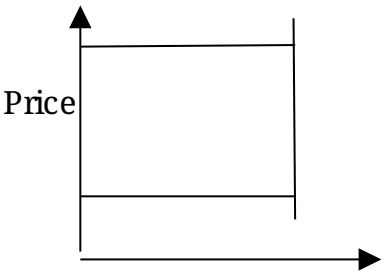
=100%

Therefore ED=60/100

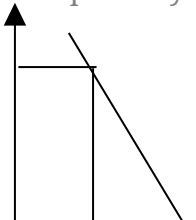
=0.6

Types of elasticity of demand

1. Completely inelastic or perfectly inelastic: This is the type of elasticity of demand where a change in price does not cause change in quantity demanded. Price ED is zero

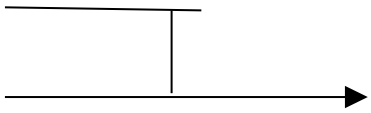


2. Inelastic demand: This is the type of elasticity of demand where a large



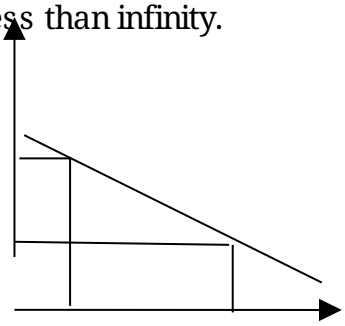
proportionate change in price leads to a small proportionate change in quantity demanded. ED is greater zero but less than one.

Price

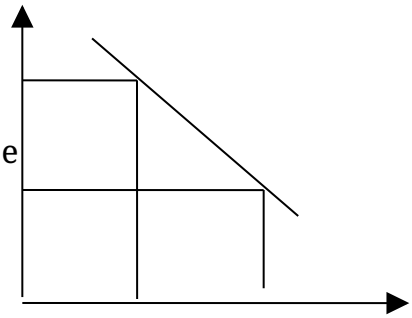


Quantity demanded

3. Elastic demand: This is the type of elasticity of demand where a slight change in price leads to a large proportionate change in quantity demanded. ED is greater than but less than infinity.



4. Unit elasticity of demand: This is when percentage change in price is equal to percentage change in quantity emandded.PED=1 i.e. quantity demanded changes exactly as price change.



Factors that affect elasticity of demand.

Availability of substitutes: Commodity with many substitute goods has elastic demand since consumers shift from it when the price increases

Degree of necessity: Price elasticity of demand for necessities tends to be inelastic sine they are indi8spensble e.g. when the price of salt increase the quantity demanded is the same.

Consumers' income: When consumers are of low income elasticity of demand tend to be elastic as price increase because it reduces their demand as price increase.

Number of uses served by a commodity: If a commodity has many uses, a reduction in price may lead to a very high raise in demand e.g. clothes, leather and milk

Strength of consumer habits: If the habit of the consumer with regard to a particular commodity is very strong, **ED** will be very inelastic e.g. cigarette smoker and cigarette

Durability of the commodity: Durable commodities like radios, cars have low price elasticity of demand. Even when price is lowered one cannot one if he/she has one

Price expectation: When the price is expected to increase in future, demand would be inelastic as people will buy and stock and vice versa.

Time of the year. Toward and during public holidays, demand tend to be inelastic since even when the price is increased people still buys more e.g. at Christmas

Consumer's ignorance: Consumers will buy more commodities at high price when they don't know where such commodities or their substitutes are sold.

Levels of price change relative to income: e.g. if the price change relative to income is small, elasticity is low

Supply Theory: This is the quantity of commodity that producers offer for sale at various prices and period of time.

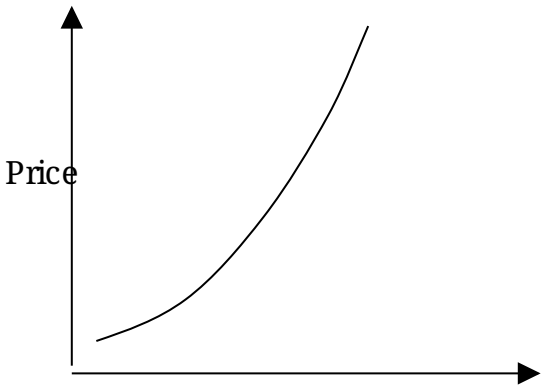
Quantity supplied: This refers to the amount of commodity that producers are willing to bring to the market at various prices per time period.

Supply schedule for beans(kg) at Mpigi Market June 2016.

Price(shs)	Quantity supplied(kg)
200	50
300	100

400	150
500	200
600	250
800	350

Supply Curve



Law of supply: It states that, the higher the price, the higher quantity supplied and the lower the price the lower the quantity supplied other factors affecting supply remaining constant.

Factors affecting supply of agricultural commodities.

Market price: When the price is high, the supply is increased because the commodity is more profitable and when the price is low, supply reduces since producer fears making loss

Cost of production: Changes in cost of production will increase or reduces farmers" output capacity. This leads to uncontrolled supply (excessive supply in some season when costs of production are low and low supply (scarcity) in some season when costs of production increases significantly.

Future price expectation: When sellers anticipate an increase in price of the commodity I the near future, they withhold the commodity and release them when the price increase hence lowering supply.

Demand: High demand for any commodity calls for increased production and supply as well and low demand calls for low supply

Political stability: Individual and firm can engage in meaningful production when they are sure if political atmosphere (security) of the areas. Insecurity leads to low supply due to farm devastation by looting and embezzlement of funds for production.

Gestation period: The length of time taken to produce a commodity also influences supply. Short gestation period enable the supply of that commodity to be increased than when the gestation period is long e.g. beans and coffee respectively.

Managerial ability and efficiency: Good farm management increases farm output hence the supply of the commodity to the market.

Import and Export: An increased in the import of commodity increases its supply on the domestic market; in contrast when a commodity is exported its supply is reduced in the local market.

Season of the year: Agricultural production is highly seasonal and hence products are more availed on the market in certain season than others.

Technology of production: Farmers using tractor and other machines produces more than those using traditional tools like hand hoe, panga hence higher supply.

Numbers of sellers: If many sellers bring more goods to the market, supply will increase

Transport: Improved and efficient transport facilitate delivery of farm produce to the market increasing supply

Price of other product (substitute): Increased in the price of one will increase demand for the other whose price has not been increased hence lowering the supply of the product in question.

Government policy: Government influence supply by levying high tax on a particular good more especially agricultural inputs, this leads to increase in price of such good hence lowering demand which affect supply negatively.

Weather condition: Good weather with adequate rainfall well distributed and sunny

harvesting period is necessary for high yields hence high supply.

Question:

1(a) Define elasticity of demand and describe the type of demand elasticity (10 marks)

(b)Describe the factors that affect elasticity of demand (10 marks)

2(a) Using suitable examples describe how supply of agricultural products of subsistence farmers varies with market price (6 marks)

(b)Explain the factors that affect supply of agricultural commodities (14 marks)

3(a) Explain how agriculture production contributes to economic development (6 marks)

(b) Describe the characteristics of agriculture production in Uganda (8 marks)

(c) Describe the ways of increasing supply of farmers' produce (6 marks)

The concept of Equilibrium and the relationship between demand, supply and price.

The amount paid for a given commodity depends on mostly demand and price

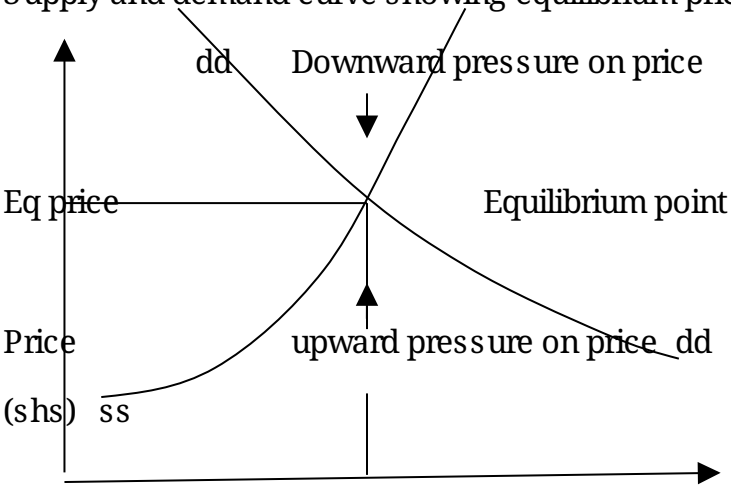
The economic principles governing the price of farm products in a free market are illustrated by the information in the table.

Supply and demand schedule for milk

Price(shs)	Amount supplied(litres)	Amount demanded(litres)	Excess demand(litres)
100	250	95	+155
80	220	140	+80
60	185	185	0
40	120	200	-80
20	85	240	-155

10	20	255	-235

Supply and demand curve showing equilibrium price and quantities



Litres of milk demanded and supplied

1. Downwrad pressure on price: Supplies of milk are plentifull.250 litre but at a high price of 100shs per litre ,the consumers only buys 95 litres. Supply exceed demand by 255 litres.The farmer is therefore forced to reduce price so as to avoid wastage.

2. Demand deficit: At the price of 10 shs per litre, farmer is discouraged from supplying milk yet the demand for customers is very high, 255 litres.

At this price there's is shortage of milk in the market. This situation forces the price upward

3. Equilibrium quantities: When the price of milk is 60 shs per litter, the consumers are willing to buy just the amount of milk supplied by the producers. There is no excess of milk or demand deficit. This price is known as equilibrium price

Therefore Equilibrium quantity is the quantity at which demand equals supply

4. Equilibrium price: This is the price at which quantity supplied equals quantity supplied

5. Equilibrium point: This is the point at which quantity demanded is equal to quantity supplied.

CHARACTERITICS OF AGRICULTURE PRODUCTS

They are perishable

They are bulky

They are seasonal in production

They are of mixed quality

They have long gestation period

They have inelastic demand

They have synthetic substitutes

They have divergent production

PRODUCT COMBINATION

1.Competitve products: These are products which compete for the same resources during production eg keeping animal and growing crop on the same piece of land.Increase in one product reduces the production of the other in question.

2. J oint products: These are products which sre produced along the same line of production process eg meat and hide

3. Complementary products: These are products which support each other during production eg growing pasture legumes in a mixture with grass, mixed farming system in which livestock and crops are fully integrated and complementing each other eg manure from animal enriches plants with nutrients and plant residues fed to livestock.

4. Supplementary products: These are products which have no effects on the output of the other during production eg keeping pig and poultry in the same farm.

Farm Efficiency:

Farm efficiency is production of maximum output (quality and quantity output) on a farm from a minimum of low costs inputs.

Factors affecting production Efficiency / Factors affecting efficiency standards in farming

Climate: Well distributed and reliable rainfall on a farm leads to high outputs hence

high efficiency.

Price of output: The higher the price, the higher the profits.

Mechanisation level and level of farming intensification: Machines increases labour efficiency and produce quality and quantity

Pests and diseases lowers efficiency of farming since they reduces the quality and quantity of farm produce.

Incidence of pests and diseases on a farm e.g. insect pests, rodents, diseases etc lowers quality and quantity output produced

Natural hazards like floods and earth quakes results into destruction of crops which lowers output

Ecological factors like fertility, aeration, moisture content, structure of the soil greatly affects yield. Favourable soil conditions leads to higher return hence high efficiency.

Government policy e.g. provision of loan, input subsidies, reduction of taxes improves farm efficiency

Security: This is a prerequisite in agriculture production since good political atmosphere of the area encourages framers to work hard and more

Intensification on research development in order to establish improved crop verities that produce high yields.

Use of improved farming methods increases farm efficiency.

Availability of infrastructure such as processing plant, storage facility, electricity etc

Availability and adequacy of capital. Adequate capital enables high productivity of all the other factors of production, hence high efficiency.

Record keeping: This helps the farmer to take the right decision in production so as to become efficient **Size of the farm:** Incase farming is on large scale, the farmer is able to enjoy economic of scale and production integration hence become efficient.

Ways of assessing efficiency of farm/ Types of farm efficiency

1. Technical efficiency: This is the measure of physical output per unit of input. One farmer produces 2500kg of maize and another farmer produces 3500kg of maize from one hectare of land which is subjected to the same type of soil and growing condition,

same amount of seeds, fertilizers, and labours.

2. Economic efficiency: This is the type of efficiency where the costs of production are weighed against the return obtained. Profitability is therefore used as comparison e.g. two farmers selling 1.5 liters of milk per day from their goats at the same price but with varying production cost, profit difference between the two farmers will be the measure of their economic efficiency.

3. Efficiency Standard: This is a physical data obtained through research finding about the productivity potential of factors of production. They act as performance standard/yard stick for a farm. There is two types of efficiency standard

(a) Partial efficiency standard: This is the measure of the performance of small fraction(part) of the production unit/farm.eg Maize yield from one acre on farm A compared to farm B is measured by using the method below

Yield index = Actual yield (output)/Expected yield (output) * 100%

Systemic index = Output from an enterprise on farm A/Output from an enterprise on farm B * 100%

(b) Overall efficiency standard: This is the assessment of the performance of the entire farm as a single unit. The profit from all enterprise on the farm is summed up and the average profit per acre obtained.

Overall Efficiency = Average profit/Total capital employed * 100%

Agricultural Marketing and Pricing

A Market is an established arrangement by which buyers and sellers come together to exchange goods or services

Marketing refers to all processes involved/associated with the flow of goods and services from production to consumption

Marketing Function refers to all activities carried out to facilitate marketing of agricultural products.

Marketing functions includes the following;

1. Buying and assembling of products: This involve buying products in small fraction

from farmers or producers and gathering it at collecting centers. It's done by cooperative, marketing board etc

2. Selling: This involves presentation of products in an attractive way for consumers to buy. It involves bargaining and advertising.

3. Transportation: Here commodities are physically moved from one location to another or from production centers to ultimate consumption point.

4. Processing: This involve changing the form of the produce from its raw form to better a form which is more acceptable and consumable by the buyer. It involves value addition to meet consumers need, and may increase worth of a commodity.

Advantages of processing

- It adds value to the products by improving quality inform of colour, taste and flavor.
- To make it more attractive to buyers and therefore increase demand
- It helps to destroy toxins in the products e.g. heating of soya beans destroys trypsin inhibitor.
- Reduces wastage of the products due to spoilage.
- It eases utilization of final products e.g. in maize
- It eases transportation of products since it is less bulky.
- It extend the lifespan of the products making it available in the market for long

5. Grading: This involve sorting/categorization of products into uniform lots of different quality. Grading can be done according to size, colour, shape, degree of ripeness etc

Advantage of Grading

- It increases farmers' profit since it encourages production and marketing of quality products.
- Makes it easy for the farmer to fix price form the commodities.
- It ensures consumers satisfaction since consumers get exactly what he/she

want in the market

- It facilitates marketing by not necessitating personal inspection of the commodities.
- It minimizes spoilage of the commodity since products of different qualities are separated from one another.
- It makes distribution of products easier since because customers in different locality are given the grade they want.

6. Standardization: This is making quality specification used in grading uniform among buyers from place to place and from time to time. Standardization ensures that similar commodities carries same prices in different location and provides the basis for quality and quantity standard control.

7. Packaging: This involves placement of agricultural products in convenient packages/containers to facilitate handling, transportation and selling.

Advantages of packaging.

- It eases transportation and handling of the products.
- It reduces bulkiness of products.
- It facilitates transportation of products.
- It controls leakages and spoilage of the products.
- It eases advertisement of the products.
- It encourages easy identification of quality and quantity of products.
- It protects commodities from bad weather.
- It facilitates labeling and putting instructions on how to use the commodities by the consumers.
- It prevents substitution and adulteration.
- It reduces shrinkage and spoilage of the products due to environment.
- It increases shelf life.

- It reduces other marketing costs by facilitating self service retailing.

8. **Storage:** This is the temporary hoarding of the products so that they are availed to consumers when they need them and when prices are satisfactory. Storage improves quality of some produce, protects produce from bad weather and pest attacks and it helps in preventing effects of price fluctuation.

9. Risk bearing: Many Risks and uncertainty may be experience between the time of setting up the enterprise and actual marketing e.g. fire outbreak, thefts, change in demand etc. The farmer may need to insure to avoid the risks.

10. Financing: It takes both time and resources to procure raw products from the supplier/producers and transforming it into a commodity ready for consumption. Capital is therefore necessary to fund all the activities involved, which may be acquired from different sources.

11. Collection and analysis of market information: Efficient marketing requires adequate information to all parties involved in the process e.g. knowledge of supply and demand helps consumers and producers to determine price of the commodity.

12. Research: This helps to come up with the products on demand, best method of production, as well as the problems involved in performing marketing duties and how they can be sold.

Problems/challenges of marketing agricultural produce.

- Agricultural products are bulky as a result; transportation of such products is difficult and expensive.
- Production occurs in rural areas where transportation to the market may be difficult due bad roads.
- Products such as milk, meat, vegetables are perishable and therefore marketing has to be done quickly
- Agricultural products are seasonal; prices will therefore fluctuate with season of plenty and scarcity.
- Demand for agricultural products is inelastic such that even with fall in price.

Consumption may not increase.

- Poor storage lowers quality of produce hence lower price.
- There are many small scale producers who individually may not be able to influence price and create competition for small market.
- Uncertainty is high as products tend to have long production cycle for example perennial crops.
- Agricultural production tends to be affected by external factors like bad weather, pest and diseases all of which lowers crop yields making farmers fail to meet market demand.
- Lack of market information makes farmers to be exploited by middlemen.
- Lack of efficient advertising service.
- Political instability makes some part of the country inaccessible, therefore cuts the potential market in these areas.
- Low income elasticity of demand, as one's income increases beyond certain point, the proportion of that income spent on agricultural [products decreases.

Possible solutions to problems of marketing agriculture produce.

- Diversification so as to spread risks in agricultural enterprises.
- Encouraging industrialization to add values to products through processing.
- Encouraging marketing board to organize marketing of agricultural products so as to stabilise prices.
- Formation of corporative to increase production and improve bargaining power of the farm.
- Improvement of market information service to help farmers to plan for their marketing programme.
- Improving on transport service to facilitate better delivery of agricultural products to the market.
- International commodity agreement to reduce the problem of price fluctuation

in local markets.

- Introduction of buffer stock to save farmers from price fluctuation.
- Introduction of stabilization funds to control problems of price fluctuation.
- Irrigation, spraying and use of fertilizer to improve quality of agricultural products.
- Timely provision of credits to farmers to enable them access farm inputs in time and perform farming operation at the right time possible. Use of quota system since it restriction of production or sales so as to stabilize price.
- Proper extension service to farmers
- Construction of proper marketing facilities
- Instituting market research and proper market information

The Marketing conditions that exist in the market

1. Perfect Competitive Markets: This is a market where prices are determined by force of demand and supply.Perfect competition exist when no single buyer or seller is capable of changing the market price It exists in a free market economy.

Characteristics of perfect competitive market.

- Many sellers of the same size
- Free entry and exit by firms in the market.
- Perfect knowledge by both buyers and sellers ,buyers has full knowledge of the prevailing market prices which they adhere to.
- Buyers purchase the goods to maximise satisfaction and sellers Im their products with a sole aim of maximising profit.
- No government regulation and intervention inform of price fixing, subsidies, rationing etc

Note: Excess capacity refers to a situation where firms produce less output than their installed capacity.

Reasons for Excess capacity.

- Inadequate capital to work to full capacity.
- Inadequate raw materials to use in the factory.
- Small market which is not enough to justify production at full capacity.
- High production costs due to high taxes, inflation and high cost of rent.
- Poor technology of production that cannot enhance the firm to produce at full capacity.
- Desire by the firm to diversify their enterprise in order to widen income base.

2. Imperfect market: This is a market where by prices are influenced by other factors other than demand and supply. Imperfect competition exist when one seller or group of sellers control the supply of commodities, which differ from one another in the same market. They include the following

- Monopoly
- Oligopoly

(a)Monopoly: This is a market situation where there is one seller of a product, which has no close substitute,he can raise the price up to a certain level as much as the consumers can still buy. Entry to the industry is restricted and there is no persuasive advertisement. E.g. Lugazi sugar industry.

(b). Oligopoly: This is a state of limited competition in which a market is shared by number of small producers dealing with a particular products which maybe similar to one another.Each seller is free to fix the price of his product although he has to consider the prices charged by other competors.

Marketing agencies/institution.

Itinerant traders who moves from place to lace buying agricultural produce from farmers

Processors are organization/companies which process agriculture products into a usable form to satisfy human needs

Wholesalers buys produce in bulk from the manufacture and sell to retailers.

Retailers buy from the wholesalers and sells in small quantities direct to consumers.

Brokers who bridge the gap between the seller and the buyer without the broker handling the actual good. They locate markets and organize producers to supply so that they get commission.

Commission agents who always receive goods and sell them on behalf of their principle for a commission.

Corporative, farmers who always organize themselves in-groups registered to market their produce.

Marketing board which is a public body setup by the government to assist farmers I the production, processing and marketing of agriculture products.

Pricing in agricultural production: Price is the amount of money paid in exchange of goods and services.

Determination of prices of agricultural commodities in the market.

Haggling: Refers to a bargaining process taking place between one buyer and one seller. The process of bargaining continues until the buyer and seller agree on the same point.

Fixing by treaties: Here buyers and sellers come together to fix the price of a commodity. The price can be revised by amending the treaties.

Sales Auction: This takes place between one seller and many buyers where the buyer competes for a commodity by fixing high prices. The commodity is taken by one who pays the highest price.

Force of demand and supply: These two ac t to form an equilibrium or market price.

Retail price maintenance: Here the manufacture provides retail recommended price inscribed on the commodities e.g. airtime voucher

Fixing price by the government. Here maximum price is set by the government to avoid exploitation of buyers and sellers.

Contract agreement: Here the supplier agrees with the buyer on the price before commencement of the business.

Cartel: Producers agree on the price of their products.

International commodity agreement: Here prices are set by international produces.

Through price leadership: This is where a big player in the market decides to raise or lowers the price of commodity in the market hence forcing other players to follow

Through using **marketing cost** and desired profit margin.

Through using **production costs** and desired profit margin.

Through **contract pricing**

Importance of price in Agriculture

- It enables smooth resource exchange in production
- It controls consumption levels of farm products through force of demand and supply.
- It stimulates production because farmers always aim at maximizing profits.
- It rewards and promotes efficiency of workers through correct allocation of duties
- They indicate to the farmer what to produce.
- It determines the levels of outputs.
- They enhance better and efficient method of production more especially when price of certain commodity increase.

Factors which influence price of a commodity

Forces of demand and supply: High demands leads to high prices, high supply reduces prices and vice versa

Cost of production: A high cost of production implies high price and a low costs of production implies a low price.

Transport cost: High transport cost increases price, low transport cost reduces price.

Storage cost

Government policy regarding subsidies and taxation: High taxes increases cost of production hence high prices and vice versa.

Quality of products. High quality products have higher prices than that of low quality.

Price Mechanism and allocation of resources.

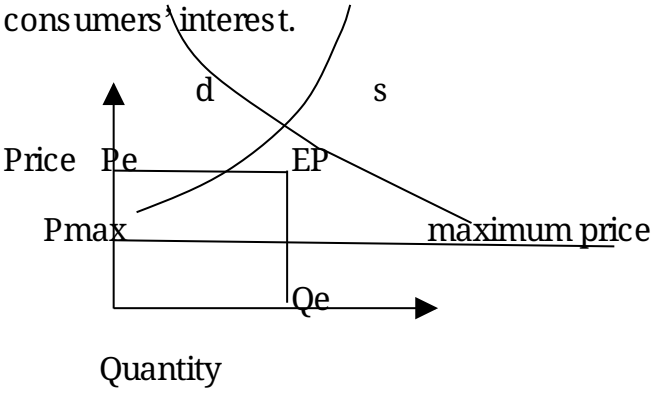
Price mechanism is a system in a free market economy where prices in the market are determined by the forces of demand and supply.

Note: Describe how the prices of agricultural commodities are determined in a free market economy

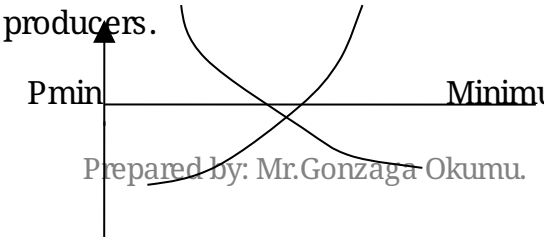
How the government can interfere with price mechanism

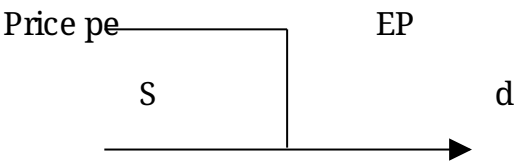
1.Price Legislation: This is the interference in the price mechanism by the government in order to avoid exploitation of consumers and producers. The government interferes with the price mechanism in the following ways.

a)Maximum price legislation (price ceiling): This is the price set below the equilibrium above which it becomes illegal to buy or sell goods and services. It's set in the consumers' interest.



b) Minimum price (price flooring): This the price set above the equilibrium below which it is illegal to sell and buy goods and services. It is set in the interest of the producers.





2. Buffer stock: Buffer stocks are products kept in store and are only released when there is an acute shortage in the market likely to cause a big increase in price. In this way the prices are brought down to normal and similarly, during bumper yeas (years when there is plenty of harvest likely to cause decrease in prices), the products is withdrawn from the market and stored.

3. Price stabilization fund: This is a money set aside so that if there is over production of a certain commodity e.g. cotton, the government can still buy farmers' cotton at a fair price instead of allowing the price to be set by forces of demand and supply.

Problems faced by the government in trying to establish/implement stabilization fund and buffer stock policies.

- Competition from synthetic products leads to shift of demand when agriculture produce prices are high.
- Conflicting government policies of trade liberalization which discourage price control.
- High rate of illiteracy among farmers that object most development advances because of unfounded suspicion and uncooperativeness.
- Inadequate funding of agriculture sector by the government perpetuated subsistence farming and discourages production that makes collective marketing difficult.
- Lack of adequate agriculture produces mechanism control.
- Poor communication net work mainly in areas of production particularly roads limits movement of commodities.
- Production of mixed quality products by farmers.
- Unsustainable supply of agriculture raw materials to agro based industries to encourage value addition and hence price stabilisation. Weak farmers'

organization that would assist in the organization of marketing.

4. International commodity agreement where the prices are set by international producers directly.

5. Subsidisation particularly on agriculture inputs like seeds, agrochemicals, fertilizer etc to reduce costs of production that may results into increased in prices.

Price fluctuation in agriculture:

Price fluctuation or price instability refers to sudden changes that occur in the prices of agriculture products. Prices of agriculture products often fall and rise erratically. This instability can be explained by the following facts:

Seasonal nature of production of agriculture products: This results into surplus at harvest which leads to a drop in price and scarcity near harvest, which lead to price rise.

Most agriculture commodities are highly perishable and so must be sold immediately regardless of price prevailing {inelastic supply e.g. tomatoes).

Most agriculture products have long production cycles and there ios no guarantee of the price one will receive.

Most agriculture products have an inelastic demand and when this is combined with seasonal supply, it means that market prices vary considerably.ie the demand for food crops does not response quickly to price changes.

Agriculture production is largely affected by natural factors e.g. bad weather ,pests and diseases etc .if unfavorable production will be low and prices goes up while if favorable production will be high and prices fall.

Farmers lack proper/reasonable storage facilities and so they are forced to sell the harvest at any price to avoid further post harvest loss.

There are many small sale producers particularly in the villages that individually cannot influence market prices, since they have no bargaining power. Stiff completion from synthetic like polythene, plastics, petroleum products for rubber and sisal.

Agricultural products form small part of manufactured products hence the excess supply cannot be absorbed in the manufacturing industry.

Low levels of industralisation particularly in most developing countries. This limits

processing of agricultural product which would have otherwise added value to the [products to attract high prices.

Changing technology which undermines agriculture products e.g. clothes made of polyester and less cotton. This reduces demand for cotton hence price fall.

Climatic factors like rainfall and temperature greatly affects agriculture production.

Risks and uncertainty which act together affecting the quality and quantity production.

Bulkiness of agricultural commodities which make transportation difficult from place of plenty to place of scarcity.

Farm products are often of mixed quality due to bad weather, pest and disease and at times poor handling of commodity, and therefore fetch very variable prices.

Once a given crop has been planted it's difficult to increase or decrease the resulting output, so readjustment is low.

Remedies/Ways of reducing price fluctuation on a farm.

- **Diversification** of agricultural sector to safeguard against total loss on the farm.
- **Improving storage facilities** more especially for perishable products so that supply can be regulated to meet demand
- **Increased research** so that quality crops that are resistant to drought, pest and disease with short gestation period are grown to reduce risks.
- **Fixing prices** by the government i.e. minimum and maximum prices to avoid exploitation of both the consumers and producers.
- **Processing of agricultural products** like cotton and coffee before being sold to increase their shelf life and value for higher prices.
- **Improving technology** in agriculture production through the use of irrigation, fertilizer application etc this increase production and reduce scarcity.
- **International commodity agreement**. These fix quotas and prices for both buyers and sellers of commodity to reduce exploitation.

- **Improving transport** so that products can be transported to places where there is shortage to control price fluctuation.
- **Price support** where the farmers sell their products at market price and present their receipts to the government for a top up to realistic price.
- **Introduction of Buffer stock and stabilisatioin fund** by the government to avoid price fluctuation.
- **Improvement in communication.** This enable the farmers to reach to far off market
- **Provision of extension service** to educate farmers on best production methods and marketing.
- **Formation of marketing organisation** like cooperative to improve the farmers' bargaining power and therefore enable them to market their produce at a fair price**.**
- **Improvement of market information** to enable farmers to fairly predict future market condition for their products.
- **Introduction of agro-based** industry to enable processing of the raw products making them storable and of higher value.

Effects of price fluctuation in agriculture.

- Leads to fluctuation of farmers' income and hence low standard of living. It leads to reduction of revenue for the government when prices are low affecting country's development.
- Employment in agriculture fluctuate with fluctuation in price
- Foreign exchange earnings will fluctuate with fluctuation in prices affecting Balance of payment.
- Makes planning by the government difficult because of uncertain future income.
- Agriculture mechanization becomes a problem when there is low income.
- It makes farm budgeting and planning difficult because of low income.
- Political instability since people blames it all on government.

Risks and Uncertainty in agriculture:

Risks: These are hazards in farming business whose probability of occurrence can be predicted based on past experience. And can be insured agains

Examples of Risks are

- Changes of weather which cause destruction to farm buildings and properties.
- Pest and disease which can cause losses in both crops and animal.
- Fire outbreak which can destroy farm properties and life.
- Theft of farm produce and properties
- Variation in yield from season to season since production is control by natural factors like rainfall, temperature
- Damages of agricultural properties in transit etc

Uncertainties. These are an unforeseeable and unavoidable circumstance that affects the outcome of agriculture

Or uncertainties are hazards whose occurrence cannot be predicted by probability estimates and therefore difficult to insure against. Here the farmer lacks perfect knowledge of the situation and the future outcomes cannot be completely predicted by probability estimates.

Examples of uncertainties in Agriculture:

Yield uncertainty: The farmer cannot tell accurately the yield he will obtain since he does not know to what extend the crops or animal will be affected by pests, weather changes etc.

Price Uncertainty: Prices of agriculture commodities keeps changing over time and it's very difficult for a farmer to know when the price will fluctuate and at what price he will sell his products at the time when he is planting. Therefore farm profit can only be predicted with uncertainty.

Government policies: Government policies can affect agriculture directly or indirectly

and such abrupt changes are not known in advance. Examples of such policies can be made on;

Tax assessment, subsidies on farm inputs, prices, what crops to grow etc.

Change in technology: Because of rapid change in farming technology which always comes as a results of new crops verities being introduced to farmers, farmers tend to face challenges especially when they are more confident in using the old methods of production e.g. use of a maize planter for planting maize when farmers are more experienced in using hand tools on a farm.

Change in demand: Demand for agricultural products keeps changing yet the losses as result of this is difficult to measure. Farmers will never be certain of the demand of their products.

Unreliability of transport and communication in times of high need, this cause delays in transportation and at times spoilage of products causing big losses.

Management uncertainty: The policies and decision for people responsible for farm production varies from each individual, therefore change in farm management may cause big loses on a farm if not properly measured.

Ways of guarding against Risk and Unce6tainty:

- **Diversification of farming.** This is the production of different commodities on the same farm at the same time. It safeguard against total loss since loss in one enterprise due to risks will be offset by gain in the other enterprise.
- **Insurance.** This is where farmers pays relatively small amount of money (premium) to the insurance company against risks so that it is transferred to the insurance company in case it happened. Insurance company will compensate for any destruction made on the farm once insured against making farmers safe.
- **Flexibility** so that production can be changed from one products to another i.e. from risky enterprise to less risky enterprise e.g. construction of farm building in a way theft can allow change form poultry, pig, weaners' calves etc.
- **Adopting modern method of production** e.g. use of irrigation, chemical spray against pests and diseases in crop production.
- **Contract production** where agreement is made for a farm to produce specified amount of produce to be bought by another farm at a guaranteed price.

Therefore the uncertainty of price reduction is removed from the farmer and transferred to the buyer but the farmer losses the chance to gain from higher prices.

- **Proper storage facility** to maintain produce quality and exploit market prices when they shoot up.
- **Proper rationing of inputs in production and marketing**. This is where a farmer uses fewer inputs than the recommended quantity to be use in order to reserves some in the next planting season in case the other ones fail.
- **Intensive training of extension staff** so that farmers are not left behind with technology changes.
- **Liquidity:** Liquidity is the ease with which farm assets can be converted into cash. This helps in fighting against risk and uncertainty since the assts can easily be converted into cash if circumstances dictate. , hence the farmer can sell off all the stocks of his laying hens of the price of eggs fall.
- **Choosing the most certain/profitable enterprise** (choosing what to produce with care) to come up with more secured enterprise.
- **Through building adequate owner's equity** i.e., the farmer makes adequate personal saving so that the he can establish other enterprises in case of failure in some e of his enterprise on a farm.
- **Employing experienced personnel** to avoid / reduce faulty managerial decision.
- **Encouraging cooperative** in order to pull resources together to help the farmers.
- **Government support** through pricing, subsidies on inputs and issuing credits to farmers to encourage farmers makes reasonable investment.
- **Ensuring employment of people by the government** to ensure continuous effective demand of agricultural commodities since there would be high money in circulation among people.

Specialization and Diversification in Agriculture:

Specialisation: This is where a farmer decides to engage himself in one activity/enterprise.

Advantages of specialization.

- It enables the farmer to master his production methods.
- Maximum returns are obtained due to better use of resources.
- It saves time that would be used in moving from one enterprise to another.
- It improves on the labour skills in a particular field i.e. labours become specialised and more competent.
- It promotes the use of machine in industries.
- It promotes higher production capacity since specialized production is always on large scale.
- It improves the quality of produce.
- Easy marketing of one product.

Disadvantages of specialisation.

- Greater loses are always experienced from natural calamities and price fluctuation
- It does not allow the farmer to get constant income throughout the year.
- Monotony of work creates boredom to the farmers.
- If one worker is absent, then the production process may come to a standstill.
- There is greater risk of unemployment if the business closes down

Diversification: This is a situation when the farmer decides to engage in more than one activity/enterprise at the same time especially on a large farm.

Advantages of diversification:

- There is insurance against loss from natural disaster e.g. when cattle is infected with contagious and infectious disease the farmer can sell his crops and is not likely to incur greater losses.
- The farmer gets constant income throughout the year from different enterprise.

- It enables efficient utilization of farm resources especially labour, machinery and farm equipments.
- It enables the farmer 6o be self sustained than the case with specialisation.
- It offset the challenges of price fluctuation since the farmer can afford to store produce whose prices have gone down and sell those whose satisfied market price. There is integration of farm bi products and indirectly reduces on cost of production e.g. crop r4esidues can be used as livestock feeds while poultry liters, cow dung and urine may be used in soil fertility improvement as manure.
- It checks the problem of seasonal unemployment since production activities are spread throughout the year.
- It widens the export base of a country which is a prerequisite for economic growth.

Disadvantages of diversification.

- It is difficult to manage than single enterprise.
- It requires many skills for workers to acquire.
- It is difficult to organize for marketing of many/several products than marketing a single product.
- There is difficulty in selection, combination and management of crops and livestock.
- Pest and disease can easily spread from one enterprise to another on the farm.
- It requires large acreage of land to operate many enterprises.
- Huge capital outlay is needed to finance several enterprises at the same time.
- There is also risk of animal destroying crops in case of mixed farming.
- Diversification may lead to land fragmentation with its effects on a farm.

Agriculture credits:

This refer to financial assistance given to farmers inform of loans to finance their farm production and repays with interests. It is a borrowed capital either in cash or ki9nd used by farmers to finance their activities.

Importance of Agriculture credits.

- It's used to purchase long term assets such as land and machines.
- It's used to provide working capital to buy farm inputs
- It is used to overcome Risks and Uncertainties e.g. total crop failure by giving the farmer capital to continue with production.
- It provides capital for construction of farm structures.
- It is used to increase the level of production and for construction of stores.
- It encourages better farming techniques in agriculture through the use of improved breeds and verities.
- It can leads to improvement in farmers' standard of living.
- It also encourages farmers to develop sense of saving.

Sources of Agricultural credits.

- Commercial bank like satanic, DFCU
- Co-operative organization
- Farmers' organization e.g. Uganda National Farmers' Federation.(UNAFF)
- Insurance company.
- Marketing board e.g. Uganda Tea Board.
- Government scheme such as Entandikwa.
- International bodies like International Funds for Agriculture Development, Food and Agriculture Organisation.
- Individual money Lenders like informal; credits borrowed from friends.
- Microfinance institution such as Pride women's Finance Trust.

Types of Agricultural credits:

Short term credit: This is a credit repayable within one year and it is used to purchase inputs such as seeds and fertilizer.

Medium term credit: This is the type of credit repayable within 2-5 years and it is use to finance projects or minor maintenance of land such as minor fencing of land.

Long term credit: This type of credit is repayable within many years say 15 years and it is usually given for purchase of long term assets like land, putting up buildings and soil conservation structures.

Note**: A hard loan** is the money borrowed after giving a substantial security and the interest rate is high while **soft loan** is the money borrowed without a substantial security and the interest rate is low.

Problems of credit administration.

- Shortage of trained staff for credit administration
- High rate of poor repayment of loan.
- Poor management skills by the farmers.
- Many of the farmers are still not yet aware of the credit.
- Limited facilities for land development.
- Rigidity in repayment schedule.
- Shortage of capital.
- High interest rate.

Measures that can ensures effectiveness of agriculture credit.

- Co-ordination of credit supervision e.g. making use of normal extension staff and intensification of personal training.
- Improvement of loan supervision to ensures prompt payment.

- Improving loan recovery program by encouraging part repayment over a period of time.
- Provision of extension service to farmers on how to use credit.
- Sensitizing the farmers to develop a commercial attitude not just produce for the sake.
- The lenders should look for appropriate collateral security or giving soft loan where possible.
- The lending agents should demand for feasibility studies before issuing out a loan to the farmer.
- Repayment schedule should be flexible to fit with maturity of the enterprise..
- Increase farmer's knowledge on credit availability through frequent visit to the media.
- Coordination of all credit instructions to avoid double lending.
- The loan should be given to the farmers in time with less time spent on paper work.
- There should be routine follow up and monitoring of farmers' activities by the lending agencie4s.
- There should be reasonable grace period given to the farmers and an appropriate loan repayment schedule should be given to the farmers.
- Provide farmers with inputs at fair prices so that they can earn profit for easy repayment of credit.
- Provision of most credits in kind like giving improved seeds, fertilizers ,agrochemicals etc. and less In cash to avoid misuse.
- Organise marketing of farmers produce at fair prices to so that farmers can get profit early to pay back credit.
- Help farmers to identify viable projects with fewer risks to avoid loss.
- Credits should be taken to the farmers rather than farmers looking for it.

Reasons why most famers fail to pay credit.

- High interest rate charged by the lending agencies. This makes the farmers fail to repay credit within the repayment schedule.
- Failure of the enterprise due to natural factors and poor management.
- Ill health of the farmers leading to poor supervision of his enterprise.
- Death of the farmer leaving no body to pay back the loan.
- Marketing problems like price fluctuation which may makes farmers fail to earn the required profit to pay back credit.
- Unrealistic nature of some farmers as some can borrow more than what they can afford to pay back within the specified period.
- Inflation which can erode the money value i.e. can increase cost of production making it difficult to fully cover the intended task.
- Political instabilities that may leads to destruction of farmer's assets.
- Low level of education making farmers fails to analyse financial progress of their farming enterprise.
- Lack of extension service to adequately advice farmer resulting into poor decision making as regard to enterprise selection, production technique and marketing.
- Poor loan repayment culture or dishonesty of most farmers.
- Inadequate credit to effectively cover the entire production and marketing process.
- Late giving of loan to the farmers by the financial institution leading to untimely farm activities, poor planning hence poor loan performance as well.
- Short repayment period given to the farmers by the financial institution which does not makes farmers to realise the value of the money borrowed.
- Risks and uncertainties in farming may affect total production negatively.
- Poor loan supervision among the loan providers who do not monitor and

evaluate the projects to which the loans were intended for.

- Misuse of loan by most farmers who divert the loan for farming for their personal consumption. It's very common for those loans offered in cash.

Factors that limits availability of credits to the agricultural sectors in Uganda.

- Most farmers lack collateral security.
- Most farmers lack adequate knowledge about the availability of credits.
- Most credit institutions are located in urban areas, far away for easy access by the potential borrowers.
- Long term loan requires supervision and it would inconvenience whoever is charged with supervision because farmers are scattered and roads I rural areas are poor.
- Some credits are inadequate to enable farmers start a serious business.
- Repayment period of most credit is short and with high interest rate.
- Agriculture is faced with many risks and uncertainties therefore money lenders do not like to lend agriculture projects.
- Corruption and embezzlement of funds in credit administration.
- Interest rate is high and does not attract the farmers to acquire loan.
- Existence of inflation reduces the real values of credit therefore institution may lose.

Interest: This is the percentage charged for the loan or the percentage charged for use of loan. The amount of interest paid to lending agencies by the borrower is determined always by;

The demand for the credit, supply of the loanable money, size of the credit, type of credit, and collateral security of the borrower.

Note: Loan can be paid back either through direct cash payment or through cooperatives.

Consideration to be made by money lenders before giving a loan to the borrower.

- Amount of money to be borrowed in relation to the purpose of the loan.
- Type of credit i.e. short term, medium term or long term credit.
- Interest rate to be charged.
- Availability of collateral security.
- Type of project to invest in.
- Financial position of the farm (project) basing on the farm records.
- Experience of the borrower in the proposed projects
- Previous loan history.
- The intended contribution of the borrower to the project.

When does agricultural credit said to be effective.

- When it promote agriculture development by increasing the amount of capital available.
- When it has effective utilisation of agricultural resources.
- When it encourages better farming technologies.
- When it provide the farmer with an attitude to completely adopt a commercial attitude towards farming.
- When it leave the farmer better off than before.

Farming Organisations

Cooperatives: This is a registered organization of people(farmers) who decides to work together for mutual benefits.

Types of co-operative.

Transport co-operatives: This deals with transportation of produce either fort the members or for profit from other organization e.g. Uganda cooperative transport union.

Credit saving co-operatives: This deals with saving of member's money and provision of small loans e.g. Uganda women credit and Trust fund.

Consumer co-operative: This stocks and sells commodity to members at subsidized prices and can also give financial assistance to members.

Producer co-operatives: These are concern with marketing of members/farmers produce e.g. Masaka cooperative union.

Trade and craft co-operatives**:** These are concern with building and construction work e.g. construction of ware housing for storage of farmers' produce.

Principles of co-operatives:

These are the basic guideline on which the formation and day to day running of co-operatives is based on.

Open and voluntary membership:

All people are free to join or leave the group without any restriction of any kind

Democracy:

Co-operatives are run on democratic principle even when election for the leaders is held. I.e. one man one vote.

Interest and profit:

The percentage of return on borrowed money should be low since the organisation is a profit making one.

Co-operation:

Co-operatives must work together with other co-operative organization in order to learn from each other.

Neutrality: Co-operatives must be neutral in politics, religion or any other bias that can affect their operation..

Promotion of members: All promotion to places of high responsibilities must be based on merits.

Education: Co-operatives must promote education for their members in order to reduce the rate of illiteracy and also increase the skills needed in running of co-operatives.

Continuous expansion: co-operatives must have continuous expansion in terms of members and physical facilities. e.g. buildings, machineries etc.

Share of dividends: There is share of dividends after calculating how much members have contributed to the co-operatives.

Importance of co-operatives.

- It provides loan to members for development
- It brings together many small scale farmers to achieve large scale farming.
- It promotes education and training for members to achieve high level of management.
- It provides market for farmers produce by buying commodities from farmers.
- Stores farmers produce before selling reducing risks to farmers.
- Can provide employment to members as accountant and management.
- Can provides transport for produce from farms to market place.
- Some co-operatives can process produce before selling to add values.
- Can provide inputs to farmers at subsidized prices to increase profits.
- Co-operatives can mobilize prices for agriculture products by buying produce during period of plenty and selling it at the time of scarcity.
- They eliminate wasteful competition and exploitation of farmers by middle men hence increasing the farmer's profit margins.
- They increase the bargaining power of members in the marketing and protect weak ones.

Problems hindering progress of farming organization.

- Inadequate skills of management among farmers which makes them incompetent in execution of the day to day activities of the organization.
- Inadequate funds to finance the activities for co-operatives which limit

investments and expansions of co-operatives. This is mainly due to failure of members to pay subscription fee regularly and failure to keep their money with the co-operatives.

- Embezzlement and corruption by managers has reduced the growth of most co-operatives in Uganda.
- Inadequate transport: some co-operatives do have truck to transport produce from production centers to market places.
- Shortage of storage facilities. Most co-operatives I rural areas do not have enough stores with facilities like freezers that help in storing of products.
- Unstable price of agriculture products both at local and international market has limit co-operatives from expanding financially.
- High risks and uncertainty in agriculture: This reduces the profit margin for co-operative which greatly discourage farmers.
- Political instabilities: In places where there is insurgency it's been very difficult for co-operative to operate.
- Dishonesty of the members who refuse to pay back the loan borrowed.
- A high completion from private sectors which has affected the amount of profits that can be earned.
- Lack of government support: is as results of introduction of liberalization policy where the government stopped supporting farmer's co-operatives.
- Tribalism and nepotism which endanger the unity of co-operatives.
- Wide spread illiteracy especially of the rural population about the affairs of the co-operative. They are not aware of the benefits of joining such organization.

Solutions to problems facing co-operatives.

- More centers for training managers should be set up to equip managers with skills.
- Co-operative should access loan from Banks and other lending institutions in case of financial constraints.

- Constant auditing should be done so that the mangers are made to be more accountable to the losses made hence reducing embezzlement.
- Government should support co-operative through stabilization fund in case of low price.
- Members borrowing money from the organization should present security to prevent defaulting.

Marketing Board:

These are public bodies set up by the government to assist farmers in the production, processing and marketing of agriculture products.

The aims of the marketing boards.

- To provide essential storage facilities for storing agricultural produce from farmers.
- To ensure steady supply of agricultural produce to the final consumes.
- To set and guaranteed prices for the goods produce by the farmers.
- To help farmers in order to produce high quality agriculture products.
- To promote expansion of cash crops e.g. cotton, coffee so as to reduce economy's dependence on one crop.
- To increase state participation in economic affairs and public investment by the government.

Examples of marketing boards in Uganda.

- Coffee marketing boards.
- Lint marketing boards.
- Uganda Tea Authority.
- Produce Marketing boards.

Function of Marketing Boards.

- They collect produce from growing areas to a central store where they can be

exported to external market.

- They provide planting materials e.g. Lint marketing Boards provide cotton seeds.
- They buy produce from farmers at fair price and resell it abroad.
- They offer technical service which an individual famer cannot afford to pay for.
- Marketing boards eliminate exploitation of farmers by private traders who tend to pay less to the farmers.
- They advice government when fixing price for agriculture products.
- They collect agriculture produce from farmers and transport it to the market, i.e. they offer transport service to farmers.
- They ensure that produce from framers are of high quality so as to meet market standard.
- Marketing boards can store produce on behalf of the farmers especially during period of surplus when the prices are low.
- They offer credits to farmers inform of loan and inputs.
- Marketing boards can finance research in the development of better method of farming and best quality agriculture products.
- They can also disseminate research information to farmers in the villages.
- They offer export license and therefore fight malpractices like smuggling.
- They encourage the production of crops that were previously imported by guaranteeing price to farmers.

Problems of marketing boards.

- Smuggling which introduces cheap products in the market hence reducing profits of marketing boards.
- Inadequate storage facilities for products.

- Excessive production hence low price for marketing board in the international market.
- Delayed payment of farmers which discourages farmers from selling their produce to the marketing boards.
- Poor road networks in rural areas makes transportation of produce bought difficult and more expensive for the marketing boards.
- Loan defaulting where some farmers fail to pay back the loan given to them by the marketing boards, this affects their performance.
- Marketing board tend to fix prices of certain commodity before harvesting and as a results, surplus production may come with problems of purchase due to financial problem.

Farm management

Farm Records: These are written accounts of all the information kept on the farm for future reference.

Characteristics of a good record

- They should be simple to make.
- They should be concise.
- They should be accurate.
- They should be complete.

Importance of a good farm Record.

- They enables a farmer to know whether the farm is making profit or not and the unproductive enterprises are dropped and the profitable ones are concentrated on.
- They assist farmers in planning and budgeting for the farm.
- The enable a farmer to make a sound decision.
- They help farmers to share profit and losses at the end of a financial season, in case of a co-operative.

- They help the farmer to obtain loan from the money lenders because good records reveals the financial stand of the business.
- They are use to assess the farmer's income tax because and this saves the farmer from being overtaxed.
- They helps the farmer to launch the claim to the insurance company in case of lose.
- They help the farmer to carry management activities on the farm e.g. pedigree selection used in breeding and culling.
- They are useful in comparing efficiency of the farm with other similar farms in the same area or elsewhere.
- They provide labour information which can be used to calculate terminal benefits of the farm.
- It also helps in determining wage rate for labours on the farm.
- Records are very importance in solving disputes among family members more especially when the owner of the farm died.
- They act as an incentive to the farmer by revealing those areas which needs improvement.
- They help to determine the value of the farm in case of sale.
- Health record helps in effective pest and disease control.
- It helps to show the history of the farm and its development.

Types of records kept by a farmer. They are of two categories

(a)Production records.

Breeding records indicates the date the animal is on heat, date of service, dates of calving, sex of the calf, expected date of drying off and steaming up.

Feeding records shows the amount of feeds given to the animal daily and the types of feed given.

Health records shows the identity of animal, name of disease diagnosed, date of treatment, kid of treatment given, any examination made.

Labour records shows the number of workers on a farm, levels of qualification, type of work done by each worker, daily attendance of each worker, and amount of work supposed to be done by each worker.

Crop records shows the types of crops grown, yields and agronomic principles employed in producing the crops.

Inventories records shows all the total physical properties of the farm, i.e. number of tools, machineries, , buildings etc.

Financial records show profit and losses of the farm, daily income and total sales.

Record s on farm history i.e. dates of setting up the farm and ownership of the farm.

(b)Farm account: These include financial documents, financial books and financial statement.

- **Financial documents**: These are invoices, receipts, delivery note, purchase order and financial statement.

Invoice is a document issued to the farmer when he orders for the farm inputs and it shows the quantity, price, and cost of delivered goods.

Receipt is financial document issued by the seller to the buyer as a proof for payment for the items bought.

Delivery note is a financial document prepared by the seller to the buyer showing the items included in the order and supplied to the buyer.

Purchase order is a document prepared by the buyer to the seller on the goods he wants to obtain.

Statement is a bill showing details of various orders over a period of time after receiving several supplies.

- **Financial books:** These are inventories and cash books.

Inventories is where the farmer records everything he owns on the farm while **cash book** shows the receipts and expenses on the farm over a specified time period.

- **Financial statement:** These are the records which show the financial status of the farm/enterprise. They include the following;

Budget

Trading account/Profit and loss acount

Balance sheet

Budget: This is a financial statement outlining the anticipated farm revenue and expenditure for an enterprise or a part of the whole farm for the forth coming financial period.

Importance of farm budgeting.

- It enables the farmer to achieve the set farm objectives.
- It motivates the farmer to work hard to achieve the set goals for the budget.
- It helps the farmer in forecasting profits and losses estimating profitability of the farm.
- It can be used during allocation of funds to various areas of production.
- Used in decision making when comparing enterprise.
- It helps the farmer in making effective change in the organisation.
- It helps the farmer to estimate the required resources in production interns of labour, capital etc.
- It guides the farmer when borrowing loan from the lending agencies.
- It can be used as reference during future planning.

Type of budget

Partial budget: This is a financial statement outlining the anticipated revenue and expenditure for a part of the whole enterprise in the forth coming financial period.

Complete budget: This is financial statement outlining the anticipated revenue and expenditure for an enterprise/whole farm in the forth coming financial period.

Procedures of making a complete budget on a farm.

- State the objectives of farming business so that the budget can answer such objectives.
- List all the enterprise found on a farm.
- List all the available resources which can be used in production.
- Estimates the number of units of production for the given resources e.g. number of plants, number of acres, number of animals etc.
- Estimate the physical inputs and their costs.
- Estimate the physical output and the expected return.
- Calculate the fixed costs in the next trading year or period.
- Work out the estimated profits for the different enterprises.
- Work out the costs that would occur in the year's business directly as a result of change.
- Calculate the opportunity cost of any input so as to make the right decision.
- Consider the different between total credits and total debts as the change in the net income.
- Add up the estimate for all the enterprise on the farm.

Points to consider in budgeting.

- Least combination of factors of production used on the farm.
- Farmer's expectation through time.
- Opportunity costs for factors of production.

Constraints in budgeting

- Failure to see or identify complementary and supplementary enterprises.
- Inadequate knowledge about budgeting.

- Inadequate technical information about budgeting.
- Bias in choosing enterprise instead of aiming at maximsing profit.
- Inadequate market information on prices of inputs and outputs.
- Price fluctuation in agriculture that makes anticipation to be unachievable.

Importance information in budgeting.

- Results from research station-this can show the expected production of an enterprise.
- Data on input-output relationship i.e. production function.
- Costs of input and output information so as to forecast losses and profit.
- Farm record on operation of the farm.

Profit and Loss Account.

A profit and loss account can be defined in different ways;

It is a projection of sales and receipts against purchases and expenses to determine the profit or loss of the business.

Or is a financial statement which shows all the transaction carried during the trading period usually a year and it reveals whether the business had made profit or loss.

Features/components of profit and loss account.

Title/Heading. This has the name of the statement, the duration in which the business is carried out and a prefix for the year ending followed by financial year.

Example, **A profit and loss account for Mr. Gonzaga farm for the year ending**

9th/Dec/2012.

It has two sides i.e. purchase and expense which comprise of list of commodities and services spent on and it usually appears on the left hand side, then sales and receipts side which comprise of list of commodities offered for sales by the farm that generate earning. It appears usually on the right hand side.

It has an opening valuation put on purchase and expense side. Opening valuation is the value of all the asset a farm has at the beginning of a financial year. It is put on the purchase side because it is assumed that if the farmer was to buy that farm that is the money he would spend.

It has a closing valuation put on sales and receipt side. Closing valuation is the money and assets that the farm has at the end of a financial year.eg fed in store.

It has either net profit or net loss and the net profit is put on the purchase side where as net loss is put on the sales and receipt side.

Note: **A net profit or net loss** is the difference between sales and receipt, and purchase and expenditure.

> The different between **gross profit** and **net profit** is that, gross profit is the total revenue less the variable costs and net profit can also while net profit is the total revenue less total costs (variable cost and fixed cost summed up).

Examples: Given the information prepare profit and loss account for Mr. Ssenyonga's farm for the year ending 31st July 2012.

Drug purchase	45000
Heifer sales	1,500000
Milk sales	7500000
Depreciation of mower	270000

Closing valuation 1800000

Interest on loan 200000

Crop sales 350000

Seed purchase 190000

Feed purchase 253000

Fertilizer purchase 290000

Payment from rented tractor 700000

Opening valuation 1050000

Egg sales 350000

Labour 250000

A PROFIT AND LOSS ACCOUNT FOR MR SSENYONA'S FARM FOR THE YEAR ENDING 31st J uly 2012

Purchases and expenses	Ugx	Sales and receipt	Ugx
Opening valuation	1050000	Closing valuation	1800000
Interest on loan	200000	Heifer sales	1500000
Labour	250000	Milk sales	750000
Drug purchase	45000	Crop sales	350000
Seed purchase	190000	Tractor payment	700000
Feeds purchase	235000	Egg sales	350000
Fertilizer purchase	290000		
Sub total	2530000		5450000
Profit	2920000		

Total	**5450000**		**5450000**

Example 2

A profit and loss Account for Mrs.Clara's farm as at 31st December 2012

Purchase and expenses shs	Sales and receipt shs
Opening valuation 2300000 Veterinary costs 160000 Depreciation of machine 150000 Pesticide 80000 Fertilizer 260000 Interest payable 100000 Wages 2500000	Closing valuation 4400000 Vegetable sales 1000000 Rent receivable 595000 Increase I machine value 205000 Milk sales 850000 Crop produce sales 1800000
Subtotal 4550000	8850000
Net profit 4300450	
Total **8850450**	**8850450**

(a)Using the information on the table above, determine the profit or loss

A Net profit = Total sales and receipt – Total purchase and expenditure

885045-4550000 = 4300450

(b) With reason, suggest weather Mrs. Clara is likely to get a bank loan.

Mrs. Clara made a profit of 4300450 and there it is convincing that he can even use the loan they give him profitably.

Exercise.

Use the information provided below for Mr. Eladu farm as at December 2010

Casual labour 150000

Transport charge 100000

Purchase of animal feeds 103000

Sales of milk 160000

Fertilizer purchase 120000

Purchase of vegetable seeds 20000

Sales of maize 100000

Egg sales 350000

Other receipts 18000

Fixed costs 253000

Sales of one bullock 100000

Training workers 200000

Vegetable sales 20000

(a)Draw up a profit and loss account for Mr.Eladu's farm for the year ending 31st December 2012

(b)Calculate gross profit and net profit showing your work clearly.

Balance Sheet

This is a financial statement drawn to show the financial position of the business of a business as at a particular time.

It is a financial statement showing asset and liability at a particular time. A farmer draws up a liability in order to find out the Net capital/Worth or net capital deficit.

Liabilities: This refers to the values of all the claims that the farm has to pay outside to other people. Liabilities include;

Loan, money that the farm ha to pay out but he has not yet done (debts payable), overdraft at the bank.

Types of liabilities:

1.Current Liabilities; These are claims that must be paid in a short time not exceeding year e.g. rent, wages, bank overdraft, creditors etc.

2. Long term liabilities; these are claims that must be paid within a long period of time exceeding a year e.g. capital shares, development loan, Treasury bill etc

Assets: This refers to the values of all the items possessed by the farm. Assets include the following;

The value of livestock, equipment house, crops, machinery etc

Money that the farm hope to receive from a sales of goods but not yet paid for (dept receivable)

Cash that the farmer has either in the house or in the bank.

Types of asset

There are basically two type of asset i.e. fixed asset and current assets

Fixed assets have more than one year of usefulness e.g. Machinery, building, breeding animals, perennial crops, land, fittings etc

Current assets have one or less than one year of usefulness such as cash at hand, cash in bank, annual crops, debt receivable, pre-paid expenses, promissory notes, etc. or assets that can be easily converted into cash e.g. Meat, milk, crop produce etc

Note: If the value of assets exceeds that of liability, the business is said to be solvent i.e. the business can meet all its liability and have some balance left (net capital/worth).If the value of liabilities exceeds that of assets, the business is said to be insolvent i.e. cannot meet all its liabilities and a balance is called net capital deficit.

Working capital is the difference between current assets and current liabilities.

Insolvency is a state of bankruptcy of the farm when liabilities are greater than the assets and the farm cannot run itself.

Net worth or equity is the figure used to balance the balance sheet statement.

Current liabilities are obligation or debts payable within a year e.g. short term loan.

Long term liabilities are debts payable over several years e.g. long term loan.

Bank overdraft refers to borrowing money from the bank where the borrower overdraws his account up to an agreed amount.

Mortgage is a transfer of right over property usually as security for a loan.

Depreciation refers to decrease in value of the fixed costs.

You are provided worth a balance sheet of Mr.Kajura's farm as at 31st December 2012.Detwermine the net worth value and state its importance.

Liabilities	shs	Assets	shs
Long term liabilities		**Fixed Assets**	
Capital investment	1000000	Land	3000000
Mortgage of farm with bank	1200000	Building	1200000
Loan from his brother	100000	Less depreciation	1100000
Subtotal	2300000	Fence	300000
		Subtotal	5600000
Current liabilities			
Bank overdraft	200000	**Current Assets**	
Hire purchase debt for van	250000	Stock	150000
Agri marketing board	360000	Growing crops	190000
Subtotal	810000	Debtors	77000

		Cash at hand	270000
Total liabilities	3110000	Subtotal	687500
		Total assets	6287500
Net worth	3177500		
Balance	**6287500**		**6287500**

Net worth value=Total assets – Total liabilities

=6287500 – 311000

=3177500.

The net worth statement provides information on the solvency of the business. It shows the ability to meet short run financial demand.

Exercise.

Use the following information to construct a balance sheet for Mr. Apollo's farm green valley zone Lacekocot.

Bank overdraft 1500000

Buildings 20000000

Cash in bank 90000000

Coffee 15000000

Dairy cattle 10000000

Debt payable 800000

Debt receivable 5000000

Long term loan 5000000

Machinery and equipment 60000000

Value of land 40000000

Exercise 2.

The information below shows the assets and liabilities of Abacus mixed farm as at 31st.12.2014

Debts receivable 860 000/=

Promissory notes 105 000/=

Dept payable 600 000/=

Cash at bank 72 000/=

Pre paid expenses 890 000/=

Bank overdraft 966 000/=

Unpaid insurance 28 000/=

Value of sheep 365 000/=

Value of maize 512 000/=

Building 20 000 000/=

Depreciation 694 000/=

Long term loan 8,500 000/=

Interest on loan 947 000/=

(a)From the information given above, draw a balance sheet for Abacus mixed farm's business.

(b)With reason, comment on the financial position of Abacus mixed farm.

© How can such financial record benefit Abacus mixed farm.

Advantages of preparing a balance sheet.

- Help in planning and decision making
- Help during tax assessment on the farm

- Help the farmer to acquire loan from the bank in case he has a net worth.
- Help the farmer to assess the values of his farm in case he wants to sell it.
- It reminds the farmer of his debts in order to pay it in time.
- It shows the farmer's possession and assets.

Gross margin. This is the different between the value of total production or revenue and variable costs on a farm.

Gross margin =Total revenue-total variable cost.

Importance of gross margin

- Use in measuring profitability of each enterprise on the farm
- To find out enterprise that is not earning profit to the farm
- To find out how the cost of productions are being used on each enterprise on the farm.
- To compare profitability of enterprises of one farm with another one in the same area.
- Useful in making best choice/opportunity cost.

Example.

A farmer planted 5 ha of maize and obtained 10000 kg maize. He sold the maize eat 300/= per kilogram. His production costs were as follows;

Bought seed at 5 000/=

Bought fertilizer at 10 000/=

Paid for casual labour 200 000/=

Salary for 2 permanent workers 480 000/=

Other fixed costs 650 000/=

Calculate the gross margin per hectare.

Gross margin = Total revenue – Variable costs

Total revenue = 10 000 * 300

=3000 000/=

Variable cost include

Cost of seed 50 000/=

Costs of fertilizer 100 000/=

Casual labour 200000/=

Total 350 000/=

Gross margin = 3000 000 – 350 000/=

=2650 000/=

Gross margin/ha = 2650 000/5

=530 000/=

(b)What is the Net profit of the farm?

Net profit = Gross margin – Fixed costs

GM=2650 000/=

Fixed costs are salary of 2 permanent workers=480000

Other fixed cost =650 000

Total =1130 000/=

Net profit = 2650 000 – 1130 000

= 1520 000/=

Exercise.

A farmer has 200 broilers and 200 local birds. He would incur the following costs in the production of local birds; Housing 20 000shs, chicks 400 000shs, feeding 200

000shs, labour 100 000shs.In raising broilers he incurred the following costs housing 20 000shs, chicks 450 000shs, feeding 150 000shs, labour 100 000shs.The price per broiler on selling is 20 000shs and 15 000shs for local birds.

Calculate the gross margin for each enterprise. With reason state the type of bird the farmer should profitably keep.

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Note: Research on farm planning and management

Questions.

1(a) Explain how farm records can be used to improve farm efficiency.

(b) State how farm efficiency can be achieved

2(a) what is meant by diversification in farming?

(b) Describe four farming practices that clearly show diversification in farming.

(c) Explain the merits of diversifications in farming.

3(a) Explain the contribution of farming organiasation to the development of farmers

(b)State the problems hindering the progress of farming organisation.

4(Describe the factors that influence the choice of an enterprise

(a)Explain the steps taken in making a farm plan

5(a) describes the functions of marketing board

(b)How can National Agriculture development are achieved

6(a) what are the common measures of fighting risks and uncertainties in farming business.

(b)What are the causes of low supply of agricultural products?

7 Explain why the prices of agricultural products are unstable and suggest ways of overcoming the problems

8 Describe the pros and cons of specialisation and diversification.

9(a) Explain why a farmer makes budget before starting an enterprise.

(b)What limitations do farmers face when making farm budget

10(a) Define elasticity of demand and describes the type of elasticity of demand

(b)Describe the factors that affect elasticity of demand.

11(a) using suitable illustration, describe hoe supply of agricultural products for subsistence farmers varies with market price.

(b)Explain the factors that affect supply of agricultural commodities.

12(a) using suitable illustration, explain how market price is determined in a free market economy/competitive market.

(b)Outline the various ways of determining price of agricultural commodities in the market.

©Examine the factors responsible for regressive/backward slopping of supply curve of labour in agricultural production.

13(a) How does land contribute to agricultural and national development.

(b)What roles does entrepreneurship play in agricultural production?

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