S TANDARD HIGH S CHOOL-ZZANA ADVANCED AGRICULTURE

PRINICIPLES OF AGRICULTURE ECONOMICS AND FARM MANAGEMEN

Economics is how s carce res ources are allocated to s atis fy unlimited human needs / wants

Therefore agriculture Economics is the s tudy of how man us es the s carce res ources e.g. land, capital, management etc to produce maximum output from crops and animals at minimum cos ts .

IMPORTANCE OF AGRICULTURAL ECONOMICS

 It as s is ts the farmer to maximize profit

 It enables farmers to make proper choice on res ources s ince they are s carce

 It enables farmers to minimize cos ts of production

 It helps farmers to produce high yields / output

 It helps farmers to allocate res ources effectively to avoid los s es on a farm

PRINCIPLES OF ECONOMICS

1. S carcity

This is a s tate of goods and s ervices being in s hort s upply in relation to their demand. It exis ts when human wants and needs exceed what they have.

CAUS ES OF S CARCITY IN AGRICULTUREAL PRODUCTION:

 Natural factors like flood, drought which may caus e s carcity of water, food and pas ture food lives tock

 High cos ts of production which limits profits

 Poor methods of production which s low down s upply of goods e.g. us e of inferior like hand hoes

 Inadequate s tocks of factors of production e.g. land, labour, management etc

 Long ges tation periods es pecially for perennial crops which take long to mature

to meet market demand during certain periods . This caus es s hortages in s upply of goods

 Poor trans port and communication s ys tem e.g. us e of poor roads which brings delays in dis tribution of goods and s ervices to market centers

 Poor price that dis courage production of certain commodities

 Poor planning by farmers during production proces s

 Poor government policies like high taxes . This dis courage farmers from producing

 caus ing s carcity

 Poor s torage facilities to s tore goods in bumper period i.e. period when harves ts is high making farmers to s ell all produce hence s hortages in future

2. Choice

This is the act of deciding which res ources s hould be allocated to meet production needs as well as s atis fying cons umers needs .It’s when a farmer makes choice out of the many alternatives

3. Opportunity Cos t

This refers to the value of the next bes t alternative foregone when a choice is made. When an entrepreneur is making choice in production, he ans wers ques tion on;

What to produce bas ing on demand, climatic conditions , and ecological condition (s oil factors )

How to produce bas ing on the s kills / method of production and res ources available How much to produce bas ing on levels of labours , demand, and mechanization When to produce bas ing on period when demand would be high, climate, prices etc

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

Where to produce bas ing on farm location, market location, res ources available and s ources of raw materials

PRODUCTION

This is the trans formation of inputs e.g. s eeds , fertilizer etc into outputs / harves ts . In other word production is the creation of utility.

Utility is ability of goods and s ervices to s atis fy human want

FACTORS OF PRODUCTION

Thes e are the res ources in the trans formation of goods and s ervices to s atis fy human. They include the following;

Land: This is the mos t important factor of production. Economics requires land inform of s oil, water, air, mineral res ources etc

Characteris tics of Land as a factor of production

 Land is geographically immobile

 Its s upply is fixed and s tatic i.e. can’t be moved from one place to another

 Land degrades in quality if poorly managed

 Land has many us es like agriculture, recreation, road cons truction etc

 The quality of land can be maintained by avoiding defores tation, over grazing and over cultivation

The payment for land is rent

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

Characteris tics of labor as a factor of production

 It is mobile i.e. can go from one place to another

 It can be inherited s ince involves s kills of pers on

 Its inform of human being

 The quality of labour can be improved

 Labour is us ually paid on monthly or daily bas is

Efficiency of Labour

This is the ability of the labour to perform more tas ks at a go under minimum s upervis ion

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 dis courages work. Working hours s hould be regularis ed for workers to do their bes t.

 Training, well trained pers on performs better work than untrained pers on

 S upervis ion of the work, if workers are s upervis ed, it makes them to work harder

 Provis ion of leave days , incas e provided for workers they perform more and better work to produce good res ults when they return

 J ob s ecurity, incas e workers feel s ecured in a job it motivates them to perform better work

 Ins tituting a s ens e of owners hip of the organization/ farm to the workers encourages them to work harder s ince they feels at home

 S pecialization of Labour,incas e employee is s pecialized, he/ s he is likely to finis h the work in time and perform more

 Fair and early payment increas e efficiency of labours

 Health of the worker, the healthier the labouforce,the more work he can perform than when he/ s he is s ick

 Organization of the farm, well organized farm gives ground for better performance

Ways of increas ing Labour Efficiency

 Provis ion of trans port

 Provis ion of hous ing

 Provis ion of meal at work

 S pecialization

 Provis ion of entertainment

 Provis ion of machines to increas e s peed at work

 Proper handling of employees i.e. avoid s houting at workers

Labour Availability/ S upply

Factors determining Labour s upply for work

 Immigration, this increas es labour s upply s ince people come from other countries

 Emigration decreas es labour s upply s ince people moves out to other places

 High wage rate attracts big population of workers

 Total population, high population encourages big s upply of labours unlike low population which limits labour s upply

 Rural Urban Migration. This leads to more s upply of labour from rural areas to urban areas hence reducing agricultural labour in rural areas

 Training period, long training period for workers lowers labour s upply

 Political Climate of the work place, in cas e a given area of a country is politically s table, more people would prefer to work in s uch places hence attracting bigger s upply of labour in that area

 The nature of the job, Ris ky and unpleas ant jobs limit5s more people from works hence lowering labour s upply

 Levels of s kills / knowledge required

 Availability of es s ential facilities like accommodation, this helps to bring about more people for work

 Labour mobility increas es labour s upply

Labour Mobility refers to the eas e 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 s kills 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 s uch people would join the occupation

 Racial differences where s ome jobs are res erved for a particular races

 Trans port ,poor trans port res is t people from moving one place to another

Labour is rewarded S alary during production

Note:Us ing a s uitable graph,account for regres s ive s upply of labour during production Capital: This is a man made wealth needed to generate another wealth eg tractor Characteris tics 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 increas es productivity of other factors of production

 It varies in s ize i.e. can be large or s mall

Capital is rewarded interes t/ profit

Types of Capital

Real/ Fixed capital, circulating capital, s emi fixed capital etc

An Entrepreneur: This is a pers on who as s umes the res pons ibility of organization, bearing ris ks and management during production proces s

Roles of a Farm Manager

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

 Purchas ing farm inputs

 Mobilizing res ources for the farm

 Combining Factors of production to earn profits

 Bearing ris ks and uncertainty of the farm

 S upervis ing production proces s

 Makes decis ion in production

 Finds market for farm produce and s ale 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 phys ical relations hip between inputs and outputs . It s hows how the

quantity of particular products varies with the levels of inputs us ed in a s pecific period of time

Mathematically production function is repres ented as

Y=f(L1,L2,L3………………….Ln) Where;

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

Y

TYPES OF PRODUCTION FUNCTION IN FARMING BUS INES S

1. Increas ing Return: This is the production function in which each additional unit of variable input res ults in larger increas e in output than the preceding unit of input.

It is des cribed as irrational becaus e res ources are underutilized

Output

2. Cons tant Return: This is the production function in which the amount of output increas es at s ame rate (amount) for each additional unit of variable input us ed i.e. the return are cons tant to the variable input us ed.

It is des cribed as irrational becaus e return to the variable input factors cannot increas e at higher levels of production. The farmer cannot maximize profit at this level.

output

3. Decreas ing Return: This is the production function in which each additional unit of input us ed res ults into decreas e in output than the preceding one.

Output

Y

It is des cribed as rational becaus e res ources are put to optimum us e and highes t profit can be obtained. I.e. where MC=MR

Terms us ed in production function

Fixed inputs : Thes e are inputs which cannot be varied eas ily within the production cycle e.g. Land

Variable inputs : Thes e are inputs whos e quantities can be changed eas ily within the production cycle e.g. Labours , S eeds , and Fertilizers etc

Total phys ical product(TPP):This is the amount of products got from us ing certain amount of inputs in production proces s e.g. 20 men produces 222kg 0f maize

Average Products (AP): This is the total phys ical products divided by the units of inputs us ed in production proces s i.e. AP= TP(X)/ input us ed.

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

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 s hows total output of maize from the us e of variable factor of fertilizer on a one hectare of Land

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

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

Ques tions

1(a) Plot the information from the above table on the s ame axis s howing the relations hip between TPP, MP and AP.

(b).Indicate all the three s tages of production function and explain the event taking place in each s tage

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

The graph s howing the relations hip between Total Product( TP),Marginal Product(MP)

and Average Products (AP) us ing a variable unit of fertilizer on a fixed factor of Land

Tp curve

Output

Region 1 Region 2 Region 3

AP Curve

Variable input(y)

S tage 1/ Irrational zone MP Curve

This is called zone of increas ing Returns / Irrational zone

Under this zone each additional unit of input res ults into larger increas e in output than the preceding input

TP increas e at an increas ing rate

AP als o increas es but is les s than MP

This is an irrational zone becaus e the farmer under utilizes res ources (input) in production

Example of agricultural s ituation at this zone is under utilization of fertilizer, s mall plant population, under s tocking in lives tock, under utilization of labour

Feeding lives tock on protein food

S tage 2 (Rational zone)

This is called zone of diminis hing return or rational zone

It begins when MP and AP are equal

TP increas es at a decreas ing 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 decreas ing Res ources are being us ed effectively in this zone S tage 3(Irrational zone)

This is als o called zone of negative return.

The zone begins when TP is maximum, MP is zero, AP is decreas ing but greater MP. TP is decreas ing; AP is als o decreas ing while MP is decreas ing and negative already It’s the mos t unproductive zone in agriculture production as it res ults into reduced TP,

AP and MP.MP is negative which reflect los s es . In this zone the fixed factor is over utilized

Examples of agriculture production s ituation in zone three includes the following

 Keeping too many animals on a s mall piece of land (over s tocking) leading to

competition for the feeds

 Exces s ive application of fertilizer leading to s oil toxicity

 Over us e of herbicide in crop production

 Exces s ive s upplementary feeding rate for the animals

 Too many labours on the s ame farm which reduces the total output due to conges tion

Therefore the mos t profitable zone the farmer is advis ed to operate in is region two becaus e in region two TP is increas ing though at a decreas ing rate, AP is pos itive and MP is s till pos itive 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 jus t before Maximum TP is reached. Profit is maximis ed at the point when Marginal Cos t (MC) is equal to Marginal Revenue (MR) which only occurs in region 2 of production function.

Laws of Diminis hing Return

It s tate that if a s ucces s ive unit of a variable factor is added to a fixed factor while holding other factors cons tant, total production increas es but beyond certain point, the res ulting increas e will become s maller and s maller

COS TS OF PRODUCTION

Thes e are the expens es incurred during production proces s . Examples of production cos ts are,

1. Fixed cos t/ over head cos ts / unavoidable cos ts

Thes e are cos ts that do not vary with the levels of production i.e. a farmer has to meet them whether in production or not.eg interes t on loan, Rent, Depreciation, S alaries for permanent workers

2. Variable cos ts

Thes e are cos ts that varies with the levels of production/ output.eg cos ts of s eeds , fertilizer, pes ticide, power, fuel etc

3. Total cos ts .

This is the s um of fixed cos ts and variable cos ts

4. Implicit Cos ts .

Thes e are expens es that are not eas ily recognized in production proces s or indirect expens e/ non cas h.eg us e of own labour, family labour.This cos t is not always valued in the calculation of profits on a farm

5. Explicit Cos ts .

Thes e are direct expens es incurred by the farmer after buying res ources . They are

eas y to be recognized on the farm.eg Trans port Cos ts , s alary for workers , depreciation of machinery, cos ts of s eeds , fertilizer, pes ticide etc

6. Marginal cos ts .

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

7. Real cos ts .

Thes e are non monetary cos ts of production i.e. the real pain or s acrifice given by labours during production proces s .

8. Reduced Cos ts .

This refers to the money s aved when carrying out farm activities .eg Trans portation of milk and eggs to the market on the s ame truck s aves trans port cos t of one product

9. Total Variable Cos ts (TVC).

This is the total cos ts of all variable res ource us ed in production on a farm

10. Total Fixed Cos ts (TFC).

This is the total of all the cos ts of fixed res ources us ed in production

11. Average Fixed Cos t (AFC).

This is the cos t of fixed res ources per unit of output

AFC= TFC/ Output(Y)

12. Average Variable Cos ts (AVC)

This is the cos t of variable res ources per unit of output

AVC= AFC/ output(Y)

13. Average Total Cos ts (ATC).

This is the total cos ts of all res ources per unit of output

AFC+AVC/ output(Y)

QUES TION

1(a) Des cribe the problem of agricultural production in an economy (10 marks ) (b)As s es s the meas ures the government of Uganda has taken to develop the

agricultural s ector (10 marks ) S olutions

Qn 1(a)

 Lack of organized market for s ome agricultural produce

 Cons ervativenes s of s ome farmers to accept modern method of farming which limit expans ion of agricultural s ector

 Lack of proper s torage facilities es pecially for grains products

 Rural inacces s ibility due to poor road

 High cos t of farm inputs es pecially for improved s eeds which makes farmers to produce poor qualities products

 Inadequate capital for inves tment and to purchas e improved s eeds as well as mechanization

 High incidence of pes t and dis eas e on a farm leading to poor yield

 Aridity in s ome part of the country coupled with poor s oil leading to low crop yield

 Limited extens ion s ervices to as s is t in giving advice to farmers

 Price ins tability which affects farmers earning

 Uns upportive government policy of levying high taxes on agricultural products

Qn1 (b)

 Es tablis hment of NAADS Programmes to train farmers on modern farming methods

 Provis ion of loan to farmers through local bas ed S ACCOs

 Liberalis ation of market s o that farmers products can be bought freely

 Provis ion of high quality inputs like improved s eed verities breed of cattle, fertilizer and pes ticide to boos t production

 Improvement in infras tructures es pecially for roads to s timulate dis tribution of agricultural produce from the farm to potential markets

 Encouraging divers ification in farming bus ines s

 Encouraging indus trialization to proces s farmers produce and increas e their keeping quality

 Promoting adoption of modern agricultural technology through us e of Medias like Radios , TVs , News papers etc

 Improvement of health s ectors to ens ures health of the famers

 Encouraging farmers to form groups in order to facilitate large s cale production and realis e high income

 Introduction of buffer s tock and price s tabilization fund to overcome the problems of price fluctuation

CONCEPTS OF DEMAND AND S UPPLY

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 s aid to effective when the buyer is willing and able to buy the commodity at various prices and time but it’s s aid to be Latent when the des ire to buy a particular commodity is not backed by the ability to purchas e it at various prices and time

Demand S chedule: This is a table expres s ing the quantity of goods buyers are willing to buy at various prices at particular period

The Demand s chedule for maize in Nakas ero Market between J an-March 2016

|  |  |
| --- | --- |
| Price(s hs ) | Qnty demanded(kg) |
| 1000 | 20 |
| 900 | 40 |
| 800 | 60 |
| 700 | 80 |
| 600 | 100 |
| 500 | 140 |

Demand Curve: This is a graph s howing the quantity of a commodity that cons umers buys at different prices at particular period of time.

Price

Qnty demanded

Change in demand and change in quantity demanded

Change in demand: This is a s hift 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

Po

Price

Quantity demanded

A s hift from do to d2 is an increas e in demand

A s hift from do d1 is a decreas e in demand.

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

Price B Quantity demanded

A-Decreas e in quantity demanded B-Increas e in quantity demanded The law of Demand:

It s tate 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: Cons umers always buys more when the price of the commodity is fall ie more cons umers join the market to buy cheap commodities but when the price ris es , the demand of the commodity in ques tion will fall down

Price of other commodities e.g. s ubs titute and compliments .

S ubs titute are two commodities that can be us ed to s atis fy the s ame demand e.g. beans and Peas e – increas e in price for beans will definitely leads to decreas e in its demand s ince people will opt for Peas e which is cheap provided their price is cons tant

Complimentary goods : Thes e are jointly demanded commodity e.g. petrol and car,

s hoe polis h and s hoes etc. Increas e in demand for cars will increas e demand for petrol and vice vers a

Income of the cons umers : Cons umers with higher income buys more than cons umers with little money hence command a high demand.

Population s ize: Increas e in population increas e demand for a commodity more es pecially neces s ity goods while decline in population leads to deceas e in demand.

Population s tructure in terms of age s ex: A population full of aged people is les s productive hence has a low purchas ing power and demand.

Tas te and Preference: People always tend to differs in tas te and preference. Therefore if people los e tas te for one commodity in preference for another the demand for s uch commodities will decreas e and when people gain tas te again the demand will increas e and vice vers a

Future price Expectation: When the price are expected to ris e in future due to anticipated s hortage, cons umers will buys more and s tock increas ed demand at that time but when price are expected to fall in future demand will be low

Levels of advertis ement: Increas e in advertis ement will increas e the awarenes s of s uch commodity and people will buy more of it hence increas e in demand.

Increas ed taxes : Increas ed taxes on goods increas es prices of the commodity hence decreas e in demand.

Culture and Religion: S ome communities and religion forbid cons umption of certain items e.g. Pork by Mos lems and S eventh Day Adventis ts . This lowers demand for s uch item in the community.

Elas ticity of Demand(ED):

This is the degree of res pons ivenes s of change in quantity demanded to change in factor which influence demand like price

Price Elas ticity of Demand: This is the meas ure of the res pons ivenes s 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 s hs 100/ kg. Quantity demanded was 1000kg and when the price was increas ed to 200s hs / kg quantity demanded was 400kg.Calculate Elas ticity 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 elas ticity of demand

1. Completely inelas tic or perfectly inelas tic: This is the type of elas ticity of demand where a change in price does not caus e change in quantity demanded. Price ED is zero

Price

2. Inelas tic demand: This is the type of elas ticity of demand where a large

proportionate change in price leads to a s mall proportionate change in quantity demanded. ED is greater zero but les s than one.

Price

Quantity demanded

3. Elas tic demand: This is the type of elas ticity of demand where a s light change in price leads to a large proportionate change in quantity demanded. ED is greater than but les s than infinity.

Price

4. Unit elas ticity 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.

Price

Factors that affect elas ticity of demand.

Availability of s ubs titutes : Commodity with many s ubs titute goods has elas tic demand s ince cons umers s hift from it when the price increas es

Degree of neces s ity: Price elas ticity of demand for neces s ities tends to be inelas tic s ine they are indi8s pens ble e.g. when the price of s alt increas e the quantity demanded is the s ame.

Cons umers ’ income: When cons umers are of low income elas ticity of demand tend to be elas tic as price increas e becaus e it reduces their demand as price increas e.

Number of us es s erved by a commodity: If a commodity has many us es , a reduction in price may lead to a very high rais e in demand e.g. clothes , leather and milk

S trength of cons umer habits : If the habit of the cons umer with regard to a particular commodity is very s trong, ED will be very inelas tic e.g. cigarette s moker and cigarette

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

Price expectation: When the price is expected to increas e in future, demand would be inelas tic as people will buy and s tock and vice vers a.

Time of the year. Toward and during public holidays , demand tend to be inelas tic s ince even when the price is increas ed people s till buys more e.g. at Chris tmas

Cons umer’s ignorance: Cons umers will buy more commodities at high price when they don’t know where s uch commodities or their s ubs titutes are s old.

Levels of price change relative to income: e.g. if the price change relative to income is s mall, elas ticity is low

S upply Theory: This is the quantity of commodity that producers offer for s ale at various prices and period of time.

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

S upply s chedule for beans (kg) at Mpigi Market J une 2016.

|  |  |
| --- | --- |
| Price(s hs ) | Quantity s upplied(kg) |
| 200 | 50 |
| 300 | 100 |

|  |  |
| --- | --- |
| 400 | 150 |
| 500 | 200 |
| 600 | 250 |
| 800 | 350 |

S upply Curve

Price

Quantity S upplied

Law of s upply: It s tates that, the higher the price, the higher quantity s upplied and the lower the price the lower the quantity s upplied other factors affecting s upply remaining cons tant.

Factors affecting s upply of agricultural commodities .

Market price: When the price is high, the s upply is increas ed becaus e the commodity is more profitable and when the price is low, s upply reduces s ince producer fears making los s

Cos t of production: Changes in cos t of production will increas e or reduces farmers ’’ output capacity. This leads to uncontrolled s upply (exces s ive s upply in s ome s eas on when cos ts of production are low and low s upply (s carcity) in s ome s eas on when cos ts of production increas es s ignificantly.

Future price expectation: When s ellers anticipate an increas e in price of the commodity I the near future, they withhold the commodity and releas e them when the price increas e hence lowering s upply.

Demand: High demand for any commodity calls for increas ed production and s upply as well and low demand calls for low s upply

Political s tability: Individual and firm can engage in meaningful production when they are s ure if political atmos phere (s ecurity) of the areas . Ins ecurity leads to low s upply due to farm devas tation by looting and embezzlement of funds for production.

Ges tation period: The length of time taken to produce a commodity als o influences s upply. S hort ges tation period enable the s upply of that commodity to be increas ed than when the ges tation period is long e.g. beans and coffee res pectively.

Managerial ability and efficiency: Good farm management increas es farm output hence the s upply of the commodity to the market.

Import and Export: An increas ed in the import of commodity increas es its s upply on the domes tic market; in contras t when a commodity is exported its s upply is reduced in the local market.

S eas on of the year: Agricultural production is highly s eas onal and hence products are more availed on the market in certain s eas on than others .

Technology of production: Farmers us ing tractor and other machines produces more than thos e us ing traditional tools like hand hoe, panga hence higher s upply.

Numbers of s ellers : If many s ellers bring more goods to the market, s upply will increas e

Trans port: Improved and efficient trans port facilitate delivery of farm produce to the market increas ing s upply

Price of other product (s ubs titute): Increas ed in the price of one will increas e demand for the other whos e price has not been increas ed hence lowering the s upply of the product in ques tion.

Government policy: Government influence s upply by levying high tax on a particular good more es pecially agricultural inputs , this leads to increas e in price of s uch good hence lowering demand which affect s upply negatively.

Weather condition: Good weather with adequate rainfall well dis tributed and s unny

harves ting period is neces s ary for high yields hence high s upply. Ques tion:

1(a) Define elas ticity of demand and des cribe the type of demand elas ticity (10 marks ) (b)Des cribe the factors that affect elas ticity of demand (10 marks )

2(a) Us ing s uitable examples des cribe how s upply of agricultural products of s ubs is tence farmers varies with market price (6 marks )

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

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

(b) Des cribe the characteris tics of agriculture production in Uganda (8 marks ) (c) Des cribe the ways of increas ing s upply of farmers ’ produce (6 marks )

The concept of Equilibrium and the relations hip between demand, s upply and price. The amount paid for a given commodity depends on mos tly demand and price

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

S upply and demand s chedule for milk

|  |  |  |  |
| --- | --- | --- | --- |
| Price(s hs ) | Amount  s upplied(litres ) | Amount  demanded(litres ) | Exces s  demand(litres ) |
| 100  80  60  40  20 | 250  220  185  120  85 | 95  140  185  200  240 | +155  +80  0  -80  -155 |

|  |  |  |  |
| --- | --- | --- | --- |
| 10 | 20 | 255 | -235 |

S upply and demand curve s howing equilibrium price and quantities dd Downward pres s ure on price

Eq price Equilibrium point

Price upward pres s ure on price dd

(s hs ) s s

Litres of milk demanded and s upplied

1. Downwrad pres s ure on price: S upplies of milk are plentifull.250 litre but at a high price of 100s hs per litre ,the cons umers only buys 95 litres . S upply exceed demand by

255 litres .The farmer is therefore forced to reduce price s o as to avoid was tage.

2. Demand deficit: At the price of 10 s hs per litre, farmer is dis couraged from s upplying milk yet the demand for cus tomers is very high, 255 litres .

At this price there’s is s hortage of milk in the market. This s ituation forces the price upward

3. Equilibrium quantities : When the price of milk is 60 s hs per litter, the cons umers are willing to buy jus t the amount of milk s upplied by the producers . There is no exces s of milk or demand deficit. This price is known as equilibrium price

Therefore Equilibrium quantity is the quantity at which demand equals s upply

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

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

CHARACTERITICS OF AGRICULTURE PRODUCTS

They are peris hable

They are bulky

They are s eas onal in production

They are of mixed quality

They have long ges tation period They have inelas tic demand They have s ynthetic s ubs titutes They have divergent production PRODUCT COMBINATION

1.Competitve products : Thes e are products which compete for the s ame res ources during production eg keeping animal and growing crop on the s ame piece of land.Increas e in one product reduces the production of the other in ques tion.

2. J oint products : Thes e are products which s re produced along the s ame line of production proces s eg meat and hide

3. Complementary products : Thes e are products which s upport each other during production eg growing pas ture legumes in a mixture with gras s , mixed farming s ys tem in which lives tock and crops are fully integrated and complementing each other eg manure from animal enriches plants with nutrients and plant res idues fed to lives tock.

4. S upplementary products : Thes e are products which have no effects on the output of the other during production eg keeping pig and poultry in the s ame farm.

Farm Efficiency:

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

Factors affecting production Efficiency / Factors affecting efficiency s tandards in farming

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

high efficiency.

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

Mechanis ation level and level of farming intens ification: Machines increas es labour efficiency and produce quality and quantity

Pes ts and dis eas es lowers efficiency of farming s ince they reduces the quality and quantity of farm produce.

Incidence of pes ts and dis eas es on a farm e.g. ins ect pes ts , rodents , dis eas es etc lowers quality and quantity output produced

Natural hazards like floods and earth quakes res ults into des truction of crops which lowers output

Ecological factors like fertility, aeration, mois ture content, s tructure of the s oil greatly affects yield. Favourable s oil conditions leads to higher return hence high efficiency.

Government policy e.g. provis ion of loan, input s ubs idies , reduction of taxes improves farm efficiency

S ecurity: This is a prerequis ite in agriculture production s ince good political atmos phere of the area encourages framers to work hard and more

Intens ification on res earch development in order to es tablis h improved crop verities that produce high yields .

Us e of improved farming methods increas es farm efficiency.

Availability of infras tructure s uch as proces s ing plant, s torage 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 decis ion in production s o as to become efficient S ize of the farm: Incas e farming is on large s cale, the farmer is able to enjoy economic of s cale and production integration hence become efficient.

Ways of as s es s ing efficiency of farm/ Types of farm efficiency

1. Technical efficiency: This is the meas ure of phys ical 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 s ubjected to the s ame type of s oil and growing condition,

s ame amount of s eeds , fertilizers , and labours .

2. Economic efficiency: This is the type of efficiency where the cos ts of production are weighed agains t the return obtained. Profitability is therefore us ed as comparis on e.g. two farmers s elling 1.5 liters of milk per day from their goats at the s ame price but with varying production cos t, profit difference between the two farmers will be the meas ure of their economic efficiency.

3. Efficiency S tandard: This is a phys ical data obtained through res earch finding about the productivity potential of factors of production. They act as performance s tandard/ yard s tick for a farm. There is two types of efficiency s tandard

(a) Partial efficiency s tandard: This is the meas ure of the performance of s mall fraction(part) of the production unit/ farm.eg Maize yield from one acre on farm A compared to farm B is meas ured by us ing the method below

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

S ys temic index = Output from an enterpris e on farm A/ Output from an enterpris e on farm B \* 100%

(b) Overall efficiency s tandard: This is the as s es s ment of the performance of the entire farm as a s ingle unit. The profit from all enterpris e on the farm is s ummed up and the average profit per acre obtained.

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

Agricultural Marketing and Pricing

A Market is an es tablis hed arrangement by which buyers and s ellers come together to exchange goods or s ervices

Marketing refers to all proces s es involved/ as s ociated with the flow of goods and s ervices from production to cons umption

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

Marketing functions includes the following;

1. Buying and as s embling of products : This involve buying products in s mall fraction

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

2. S elling: This involves pres entation of products in an attractive way for cons umers to buy. It involves bargaining and advertis ing.

3. Trans portation: Here commodities are phys ically moved from one location to another or from production centers to ultimate cons umption point.

4. Proces s ing: This involve changing the form of the produce from its raw form to better a form which is more acceptable and cons umable by the buyer. It involves value addition to meet cons umers need, and may increas e worth of a commodity.

Advantages of proces s ing

 It adds value to the products by improving quality inform of colour, tas te and flavor.

 To make it more attractive to buyers and therefore increas e demand

 It helps to des troy toxins in the products e.g. heating of s oya beans des troys tryps in inhibitor.

 Reduces was tage of the products due to s poilage.

 It eas es utilization of final products e.g. in maize

 It eas es trans portation of products s ince it is les s bulky.

 It extend the lifes pan of the products making it available in the market for long

5. Grading: This involve s orting/ categorization of products into uniform lots of different quality. Grading can be done according to s ize, colour, s hape, degree of ripenes s etc

Advantage of Grading

 It increas es farmers ’ profit s ince it encourages production and marketing of quality products .

 Makes it eas y for the farmer to fix price form the commodities .

 It ens ures cons umers s atis faction s ince cons umers get exactly what he/ s he

want in the market

 It facilitates marketing by not neces s itating pers onal ins pection of the commodities .

 It minimizes s poilage of the commodity s ince products of different qualities are s eparated from one another.

 It makes dis tribution of products eas ier s ince becaus e cus tomers in different locality are given the grade they want.

6. S tandardization: This is making quality s pecification us ed in grading uniform

among buyers from place to place and from time to time. S tandardization ens ures that s imilar commodities carries s ame prices in different location and provides the bas is for quality and quantity s tandard control.

7. Packaging: This involves placement of agricultural products in convenient packages / containers to facilitate handling, trans portation and s elling.

Advantages of packaging.

 It eas es trans portation and handling of the products .

 It reduces bulkines s of products .

 It facilitates trans portation of products .

 It controls leakages and s poilage of the products .

 It eas es advertis ement of the products .

 It encourages eas y identification of quality and quantity of products .

 It protects commodities from bad weather.

 It facilitates labeling and putting ins tructions on how to us e the commodities by the cons umers .

 It prevents s ubs titution and adulteration.

 It reduces s hrinkage and s poilage of the products due to environment.

 It increas es s helf life.

 It reduces other marketing cos ts by facilitating s elf s ervice retailing.

8. S torage: This is the temporary hoarding of the products s o that they are availed to cons umers when they need them and when prices are s atis factory. S torage improves quality of s ome produce, protects produce from bad weather and pes t attacks and it helps in preventing effects of price fluctuation.

9. Ris k bearing: Many Ris ks and uncertainty may be experience between the time of s etting up the enterpris e and actual marketing e.g. fire outbreak, thefts , change in demand etc. The farmer may need to ins ure to avoid the ris ks .

10. Financing: It takes both time and res ources to procure raw products from the s upplier/ producers and trans forming it into a commodity ready for cons umption. Capital is therefore neces s ary to fund all the activities involved, which may be acquired from different s ources .

11. Collection and analys is of market information: Efficient marketing requires adequate information to all parties involved in the proces s e.g. knowledge of s upply and demand helps cons umers and producers to determine price of the commodity.

12. Res earch: This helps to come up with the products on demand, bes t method of production, as well as the problems involved in performing marketing duties and how they can be s old.

Problems / challenges of marketing agricultural produce.

 Agricultural products are bulky as a res ult; trans portation of s uch products is difficult and expens ive.

 Production occurs in rural areas where trans portation to the market may be difficult due bad roads .

 Products s uch as milk, meat, vegetables are peris hable and therefore marketing has to be done quickly

 Agricultural products are s eas onal; prices will therefore fluctuate with s eas on of plenty and s carcity.

 Demand for agricultural products is inelas tic s uch that even with fall in price.

Cons umption may not increas e.

 Poor s torage lowers quality of produce hence lower price.

 There are many s mall s cale producers who individually may not be able to influence price and create competition for s mall 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, pes t and dis eas es 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 advertis ing s ervice.

 Political ins tability makes s ome part of the country inacces s ible, therefore cuts the potential market in thes e areas .

 Low income elas ticity of demand, as one’s income increas es beyond certain point, the proportion of that income s pent on agricultural [products decreas es .

Pos s ible s olutions to problems of marketing agriculture produce.

 Divers ification s o as to s pread ris ks in agricultural enterpris es .

 Encouraging indus trialization to add values to products through proces s ing.

 Encouraging marketing board to organize marketing of agricultural products s o as to s tabilis e prices .

 Formation of corporative to increas e production and improve bargaining power of the farm.

 Improvement of market information s ervice to help farmers to plan for their marketing programme.

 Improving on trans port s ervice 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 s tock to s ave farmers from price fluctuation.

 Introduction of s tabilization funds to control problems of price fluctuation.

 Irrigation, s praying and us e of fertilizer to improve quality of agricultural products .

 Timely provis ion of credits to farmers to enable them acces s farm inputs in time and perform farming operation at the right time pos s ible. Us e of quota s ys tem s ince it res triction of production or s ales s o as to s tabilize price.

 Proper extens ion s ervice to farmers

 Cons truction of proper marketing facilities

 Ins tituting market res earch and proper market information

The Marketing conditions that exis t in the market

1. Perfect Competitive Markets : This is a market where prices are determined by force of demand and s upply.Perfect competition exis t when no s ingle buyer or s eller is capable of changing the market price It exis ts in a free market economy.

Characteris tics of perfect competitive market.

 Many s ellers of the s ame s ize

 Free entry and exit by firms in the market.

 Perfect knowledge by both buyers and s ellers ,buyers has full knowledge of the prevailing market prices which they adhere to.

 Buyers purchas e the goods to maximis e s atis faction and s ellers Im their products with a s ole aim of maximis ing profit.

 No government regulation and intervention inform of price fixing, s ubs idies , rationing etc

Note: Exces s capacity refers to a s ituation where firms produce les s output than their ins talled capacity.

Reas ons for Exces s capacity.

 Inadequate capital to work to full capacity.

 Inadequate raw materials to us e in the factory.

 S mall market which is not enough to jus tify production at full capacity.

 High production cos ts due to high taxes , inflation and high cos t of rent.

 Poor technology of production that cannot enhance the firm to produce at full capacity.

 Des ire by the firm to divers ify their enterpris e in order to widen income bas e.

2. Imperfect market: This is a market where by prices are influenced by other factors other than demand and s upply. Imperfect competition exis t when one s eller or group of s ellers control the s upply of commodities , which differ from one another in the s ame market. They include the following

 Monopoly

 Oligopoly

(a)Monopoly: This is a market s ituation where there is one s eller of a product, which has no clos e s ubs titute,he can rais e the price up to a certain level as much as the cons umers can s till buy. Entry to the indus try is res tricted and there is no pers uas ive advertis ement. E.g. Lugazi s ugar indus try.

(b). Oligopoly: This is a s tate of limited competition in which a market is s hared by number of s mall producers dealing with a particular products which maybe s imilar to one another.Each s eller is free to fix the price of his product although he has to cons ider the prices charged by other competors .

Marketing agencies / ins titution.

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

Proces s ors are organization/ companies which proces s agriculture products into a us able form to s atis fy human needs

Wholes alers buys produce in bulk from the manufacture and s ell to retailers . Retailers buy from the wholes alers and s ells in s mall quantities direct to cons umers .

Brokers who bridge the gap between the s eller and the buyer without the broker handling the actual good. They locate markets and organize producers to s upply s o that they get commis s ion.

Commis s ion agents who always receive goods and s ell them on behalf of their principle for a commis s ion.

Corporative, farmers who always organize thems elves in-groups regis tered to market their produce.

Marketing board which is a public body s etup by the government to as s is t farmers I

the production, proces s ing and marketing of agriculture products .

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

Determination of prices of agricultural commodities in the market.

Haggling: Refers to a bargaining proces s taking place between one buyer and one s eller. The proces s of bargaining continues until the buyer and s eller agree on the s ame point.

Fixing by treaties : Here buyers and s ellers come together to fix the price of a commodity. The price can be revis ed by amending the treaties .

S ales Auction: This takes place between one s eller and many buyers where the buyer competes for a commodity by fixing high prices . The commodity is taken by one who pays the highes t price.

Force of demand and s upply: Thes e two ac t to form an equilibrium or market price. Retail price maintenance: Here the manufacture provides retail recommended price

ins cribed on the commodities e.g. airtime voucher

Fixing price by the government. Here maximum price is s et by the government to avoid exploitation of buyers and s ellers .

Contract agreement: Here the s upplier agrees with the buyer on the price before commencement of the bus ines s .

Cartel: Producers agree on the price of their products .

International commodity agreement: Here prices are s et by international produces . Through price leaders hip: This is where a big player in the market decides to rais e or

lowers the price of commodity in the market hence forcing other players to follow

Through us ing marketing cos t and des ired profit margin. Through us ing production cos ts and des ired profit margin. Through contract pricing

Importance of price in Agriculture

 It enables s mooth res ource exchange in production

 It controls cons umption levels of farm products through force of demand and s upply.

 It s timulates production becaus e 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 es pecially when price of certain commodity increas e.

Factors which influence price of a commodity

Forces of demand and s upply: High demands leads to high prices , high s upply reduces prices and vice vers a

Cos t of production: A high cos t of production implies high price and a low cos ts of production implies a low price.

Trans port cos t: High trans port cos t increas es price, low trans port cos t reduces price. S torage cos t

Government policy regarding s ubs idies and taxation: High taxes increas es cos t of production hence high prices and vice vers a.

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

Price Mechanis m and allocation of res ources .

Price mechanis m is a s ys tem in a free market economy where prices in the market are determined by the forces of demand and s upply.

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

How the government can interfere with price mechanis m

1.Price Legis lation: This is the interference in the price mechanis m by the government in order to avoid exploitation of cons umers and producers . The government interferes with the price mechanis m in the following ways .

a)Maximum price legis lation (price ceiling): This is the price s et below the equilibrium above which it becomes illegal to buy or s ell goods and s ervices . It’s s et in the cons umers ’ interes t.

d s

Price Pe EP

Pmax maximum price

Qe

Quantity

b) Minimum price (price flooring): This the price s et above the equilibrium below which it is illegal to s ell and buy goods and s ervices . It is s et in the interes t of the producers .

Pmin Minimum price

Price pe EP

S d

2. Buffer s tock: Buffer s tocks are products kept in s tore and are only releas ed when there is an acute s hortage in the market likely to caus e a big increas e in price. In this way the prices are brought down to normal and s imilarly, during bumper yeas (years when there is plenty of harves t likely to caus e decreas e in prices ), the products is withdrawn from the market and s tored.

3. Price s tabilization fund: This is a money s et as ide s o that if there is over production of a certain commodity e.g. cotton, the government can s till buy farmers ’ cotton at a fair price ins tead of allowing the price to be s et by forces of demand and s upply.

Problems faced by the government in trying to es tablis h/ implement s tabilization fund and buffer s tock policies .

 Competition from s ynthetic products leads to s hift of demand when agriculture produce prices are high.

 Conflicting government policies of trade liberalization which dis courage price control.

 High rate of illiteracy among farmers that object mos t development advances becaus e of unfounded s us picion and uncooperativenes s .

 Inadequate funding of agriculture s ector by the government perpetuated s ubs is tence farming and dis courages production that makes collective marketing difficult.

 Lack of adequate agriculture produces mechanis m control.

 Poor communication net work mainly in areas of production particularly roads limits movement of commodities .

 Production of mixed quality products by farmers .

 Uns us tainable s upply of agriculture raw materials to agro bas ed indus tries to encourage value addition and hence price s tabilis ation. Weak farmers ’

organization that would as s is t in the organization of marketing.

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

5. S ubs idis ation particularly on agriculture inputs like s eeds , agrochemicals , fertilizer etc to reduce cos ts of production that may res ults into increas ed in prices .

Price fluctuation in agriculture:

Price fluctuation or price ins tability refers to s udden changes that occur in the prices of agriculture products . Prices of agriculture products often fall and ris e erratically. This ins tability can be explained by the following facts :

S eas onal nature of production of agriculture products : This res ults into s urplus at harves t which leads to a drop in price and s carcity near harves t, which lead to price ris e.

Mos t agriculture commodities are highly peris hable and s o mus t be s old immediately regardles s of price prevailing {inelas tic s upply e.g. tomatoes ).

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

Mos t agriculture products have an inelas tic demand and when this is combined with s eas onal s upply, it means that market prices vary cons iderably.ie the demand for food crops does not res pons e quickly to price changes .

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

Farmers lack proper/ reas onable s torage facilities and s o they are forced to s ell the harves t at any price to avoid further pos t harves t los s .

There are many s mall s ale producers particularly in the villages that individually cannot influence market prices , s ince they have no bargaining power. S tiff completion from s ynthetic like polythene, plas tics , petroleum products for rubber and s is al.

Agricultural products form s mall part of manufactured products hence the exces s s upply cannot be abs orbed in the manufacturing indus try.

Low levels of indus tralis ation particularly in mos t developing countries . This limits

proces s ing of agricultural product which would have otherwis e added value to the

[products to attract high prices .

Changing technology which undermines agriculture products e.g. clothes made of polyes ter and les s cotton. This reduces demand for cotton hence price fall.

Climatic factors like rainfall and temperature greatly affects agriculture production. Ris ks and uncertainty which act together affecting the quality and quantity production. Bulkines s of agricultural commodities which make trans portation difficult from place

of plenty to place of s carcity.

Farm products are often of mixed quality due to bad weather, pes t and dis eas e and at times poor handling of commodity, and therefore fetch very variable prices .

Once a given crop has been planted it’s difficult to increas e or decreas e the res ulting output, s o readjus tment is low.

Remedies / Ways of reducing price fluctuation on a farm.

 Divers ification of agricultural s ector to s afeguard agains t total los s on the farm.

 Improving s torage facilities more es pecially for peris hable products s o that s upply can be regulated to meet demand

 Increas ed res earch s o that quality crops that are res is tant to drought, pes t and dis eas e with s hort ges tation period are grown to reduce ris ks .

 Fixing prices by the government i.e. minimum and maximum prices to avoid exploitation of both the cons umers and producers .

 Proces s ing of agricultural products like cotton and coffee before being s old to increas e their s helf life and value for higher prices .

 Improving technology in agriculture production through the us e of irrigation, fertilizer application etc this increas e production and reduce s carcity.

 International commodity agreement. Thes e fix quotas and prices for both buyers and s ellers of commodity to reduce exploitation.

 Improving trans port s o that products can be trans ported to places where there is s hortage to control price fluctuation.

 Price s upport where the farmers s ell their products at market price and pres ent their receipts to the government for a top up to realis tic price.

 Introduction of Buffer s tock and s tabilis atioin fund by the government to avoid price fluctuation.

 Improvement in communication. This enable the farmers to reach to far off market

 Provis ion of extens ion s ervice to educate farmers on bes t production methods and marketing.

 Formation of marketing organis ation 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-bas ed indus try to enable proces s ing of the raw products making them s torable and of higher value.

Effects of price fluctuation in agriculture.

 Leads to fluctuation of farmers ’ income and hence low s tandard 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 becaus e of uncertain future income.

 Agriculture mechanization becomes a problem when there is low income.

 It makes farm budgeting and planning difficult becaus e of low income.

 Political ins tability s ince people blames it all on government.

Ris ks and Uncertainty in agriculture:

Ris ks : Thes e are hazards in farming bus ines s whos e probability of occurrence can be predicted bas ed on pas t experience. And can be ins ured agains

Examples of Ris ks are

 Changes of weather which caus e des truction to farm buildings and properties .

 Pes t and dis eas e which can caus e los s es in both crops and animal.

 Fire outbreak which can des troy farm properties and life.

 Theft of farm produce and properties

 Variation in yield from s eas on to s eas on s ince production is control by natural factors like rainfall, temperature

 Damages of agricultural properties in trans it etc

Uncertainties . Thes e are an unfores eeable and unavoidable circums tance that affects the outcome of agriculture

Or uncertainties are hazards whos e occurrence cannot be predicted by probability es timates and therefore difficult to ins ure agains t. Here the farmer lacks perfect knowledge of the s ituation and the future outcomes cannot be completely predicted by probability es timates .

Examples of uncertainties in Agriculture:

Yield uncertainty: The farmer cannot tell accurately the yield he will obtain s ince he does not know to what extend the crops or animal will be affected by pes ts , 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 s ell 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 s uch abrupt changes are not known in advance. Examples of s uch policies can be made on;

Tax as s es s ment, s ubs idies on farm inputs , prices , what crops to grow etc.

Change in technology: Becaus e of rapid change in farming technology which always comes as a res ults of new crops verities being introduced to farmers , farmers tend to face challenges es pecially when they are more confident in us ing the old methods of production e.g. us e of a maize planter for planting maize when farmers are more experienced in us ing hand tools on a farm.

Change in demand: Demand for agricultural products keeps changing yet the los s es as res ult of this is difficult to meas ure. Farmers will never be certain of the demand of their products .

Unreliability of trans port and communication in times of high need, this caus e delays in trans portation and at times s poilage of products caus ing big los s es .

Management uncertainty: The policies and decis ion for people res pons ible for farm production varies from each individual, therefore change in farm management may caus e big los es on a farm if not properly meas ured.

Ways of guarding agains t Ris k and Unce6tainty:

 Divers ification of farming. This is the production of different commodities on the s ame farm at the s ame time. It s afeguard agains t total los s s ince los s in one enterpris e due to ris ks will be offs et by gain in the other enterpris e.

 Ins urance. This is where farmers pays relatively s mall amount of money (premium) to the ins urance company agains t ris ks s o that it is trans ferred to the ins urance company in cas e it happened. Ins urance company will compens ate for any des truction made on the farm once ins ured agains t making farmers s afe.

 Flexibility s o that production can be changed from one products to another i.e. from ris ky enterpris e to les s ris ky enterpris e e.g. cons truction of farm building in a way theft can allow change form poultry, pig, weaners ’ calves etc.

 Adopting modern method of production e.g. us e of irrigation, chemical s pray agains t pes ts and dis eas es in crop production.

 Contract production where agreement is made for a farm to produce s pecified 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 trans ferred to the buyer but the farmer los s es the chance to gain from higher prices .

 Proper s torage facility to maintain produce quality and exploit market prices when they s hoot up.

 Proper rationing of inputs in production and marketing. This is where a farmer us es fewer inputs than the recommended quantity to be us e in order to res erves s ome in the next planting s eas on in cas e the other ones fail.

 Intens ive training of extens ion s taff s o that farmers are not left behind with technology changes .

 Liquidity: Liquidity is the eas e with which farm as s ets can be converted into cas h. This helps in fighting agains t ris k and uncertainty s ince the as s ts can eas ily be converted into cas h if circums tances dictate. , hence the farmer can s ell off all the s tocks of his laying hens of the price of eggs fall.

 Choos ing the mos t certain/ profitable enterpris e (choos ing what to produce with care) to come up with more s ecured enterpris e.

 Through building adequate owner’s equity i.e., the farmer makes adequate pers onal s aving s o that the he can es tablis h other enterpris es in cas e of failure in s ome e of his enterpris e on a farm.

 Employing experienced pers onnel to avoid / reduce faulty managerial decis ion.

 Encouraging cooperative in order to pull res ources together to help the farmers .

 Government s upport through pricing, s ubs idies on inputs and is s uing credits to farmers to encourage farmers makes reas onable inves tment.

 Ens uring employment of people by the government to ens ure continuous effective demand of agricultural commodities s ince there would be high money in circulation among people.

S pecialization and Divers ification in Agriculture:

S pecialis ation: This is where a farmer decides to engage hims elf in one activity/ enterpris e.

Advantages of s pecialization.

 It enables the farmer to mas ter his production methods .

 Maximum returns are obtained due to better us e of res ources .

 It s aves time that would be us ed in moving from one enterpris e to another.

 It improves on the labour s kills in a particular field i.e. labours become s pecialis ed and more competent.

 It promotes the us e of machine in indus tries .

 It promotes higher production capacity s ince s pecialized production is always on large s cale.

 It improves the quality of produce.

 Eas y marketing of one product. Dis advantages of s pecialis ation.

 Greater los es are always experienced from natural calamities and price fluctuation

 It does not allow the farmer to get cons tant income throughout the year.

 Monotony of work creates boredom to the farmers .

 If one worker is abs ent, then the production proces s may come to a s tands till.

 There is greater ris k of unemployment if the bus ines s clos es down

Divers ification: This is a s ituation when the farmer decides to engage in more than one activity/ enterpris e at the s ame time es pecially on a large farm.

Advantages of divers ification:

 There is ins urance agains t los s from natural dis as ter e.g. when cattle is infected with contagious and infectious dis eas e the farmer can s ell his crops and is not likely to incur greater los s es .

 The farmer gets cons tant income throughout the year from different enterpris e.

 It enables efficient utilization of farm res ources es pecially labour, machinery and farm equipments .

 It enables the farmer 6o be s elf s us tained than the cas e with s pecialis ation.

 It offs et the challenges of price fluctuation s ince the farmer can afford to s tore produce whos e prices have gone down and s ell thos e whos e s atis fied market price. There is integration of farm bi products and indirectly reduces on cos t of production e.g. crop r4es idues can be us ed as lives tock feeds while poultry liters , cow dung and urine may be us ed in s oil fertility improvement as manure.

 It checks the problem of s eas onal unemployment s ince production activities are s pread throughout the year.

 It widens the export bas e of a country which is a prerequis ite for economic growth.

Dis advantages of divers ification.

 It is difficult to manage than s ingle enterpris e.

 It requires many s kills for workers to acquire.

 It is difficult to organize for marketing of many/ s everal products than marketing a s ingle product.

 There is difficulty in s election, combination and management of crops and lives tock.

 Pes t and dis eas e can eas ily s pread from one enterpris e to another on the farm.

 It requires large acreage of land to operate many enterpris es .

 Huge capital outlay is needed to finance s everal enterpris es at the s ame time.

 There is als o ris k of animal des troying crops in cas e of mixed farming.

 Divers ification may lead to land fragmentation with its effects on a farm.

Agriculture credits :

This refer to financial as s is tance given to farmers inform of loans to finance their farm production and repays with interes ts . It is a borrowed capital either in cas h or ki9nd us ed by farmers to finance their activities .

Importance of Agriculture credits .

 It’s us ed to purchas e long term as s ets s uch as land and machines .

 It’s us ed to provide working capital to buy farm inputs

 It is us ed to overcome Ris ks and Uncertainties e.g. total crop failure by giving the farmer capital to continue with production.

 It provides capital for cons truction of farm s tructures .

 It is us ed to increas e the level of production and for cons truction of s tores .

 It encourages better farming techniques in agriculture through the us e of improved breeds and verities .

 It can leads to improvement in farmers ’ s tandard of living.

 It als o encourages farmers to develop s ens e of s aving. S ources of Agricultural credits .

 Commercial bank like s atanic, DFCU

 Co-operative organization

 Farmers ’ organization e.g. Uganda National Farmers ’ Federation.(UNAFF)

 Ins urance company.

 Marketing board e.g. Uganda Tea Board.

 Government s cheme s uch as Entandikwa.

 International bodies like International Funds for Agriculture Development, Food and Agriculture Organis ation.

 Individual money Lenders like informal; credits borrowed from friends .

 Microfinance ins titution s uch as Pride women’s Finance Trus t.

Types of Agricultural credits :

S hort term credit: This is a credit repayable within one year and it is us ed to purchas e inputs s uch as s eeds and fertilizer.

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

Long term credit: This type of credit is repayable within many years s ay 15 years and it is us ually given for purchas e of long term as s ets like land, putting up buildings and

s oil cons ervation s tructures .

Note: A hard loan is the money borrowed after giving a s ubs tantial s ecurity and the interes t rate is high while s oft loan is the money borrowed without a s ubs tantial s ecurity and the interes t rate is low.

Problems of credit adminis tration.

 S hortage of trained s taff for credit adminis tration

 High rate of poor repayment of loan.

 Poor management s kills by the farmers .

 Many of the farmers are s till not yet aware of the credit.

 Limited facilities for land development.

 Rigidity in repayment s chedule.

 S hortage of capital.

 High interes t rate.

Meas ures that can ens ures effectivenes s of agriculture credit.

 Co-ordination of credit s upervis ion e.g. making us e of normal extens ion s taff and intens ification of pers onal training.

 Improvement of loan s upervis ion to ens ures prompt payment.

 Improving loan recovery program by encouraging part repayment over a period of time.

 Provis ion of extens ion s ervice to farmers on how to us e credit.

 S ens itizing the farmers to develop a commercial attitude not jus t produce for the s ake.

 The lenders s hould look for appropriate collateral s ecurity or giving s oft loan where pos s ible.

 The lending agents s hould demand for feas ibility s tudies before is s uing out a loan to the farmer.

 Repayment s chedule s hould be flexible to fit with maturity of the enterpris e..

 Increas e farmer’s knowledge on credit availability through frequent vis it to the media.

 Coordination of all credit ins tructions to avoid double lending.

 The loan s hould be given to the farmers in time with les s time s pent on paper work.

 There s hould be routine follow up and monitoring of farmers ’ activities by the lending agencie4s .

 There s hould be reas onable grace period given to the farmers and an appropriate loan repayment s chedule s hould be given to the farmers .

 Provide farmers with inputs at fair prices s o that they can earn profit for eas y repayment of credit.

 Provis ion of mos t credits in kind like giving improved s eeds , fertilizers

,agrochemicals etc. and les s In cas h to avoid mis us e.

 Organis e marketing of farmers produce at fair prices to s o that farmers can get profit early to pay back credit.

 Help farmers to identify viable projects with fewer ris ks to avoid los s .

 Credits s hould be taken to the farmers rather than farmers looking for it.

Reas ons why mos t famers fail to pay credit.

 High interes t rate charged by the lending agencies . This makes the farmers fail to repay credit within the repayment s chedule.

 Failure of the enterpris e due to natural factors and poor management.

 Ill health of the farmers leading to poor s upervis ion of his enterpris e.

 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.

 Unrealis tic nature of s ome farmers as s ome can borrow more than what they can afford to pay back within the s pecified period.

 Inflation which can erode the money value i.e. can increas e cos t of production making it difficult to fully cover the intended tas k.

 Political ins tabilities that may leads to des truction of farmer’s as s ets .

 Low level of education making farmers fails to analys e financial progres s of their farming enterpris e.

 Lack of extens ion s ervice to adequately advice farmer res ulting into poor decis ion making as regard to enterpris e s election, production technique and marketing.

 Poor loan repayment culture or dis hones ty of mos t farmers .

 Inadequate credit to effectively cover the entire production and marketing proces s .

 Late giving of loan to the farmers by the financial ins titution leading to untimely farm activities , poor planning hence poor loan performance as well.

 S hort repayment period given to the farmers by the financial ins titution which does not makes farmers to realis e the value of the money borrowed.

 Ris ks and uncertainties in farming may affect total production negatively.

 Poor loan s upervis ion among the loan providers who do not monitor and

evaluate the projects to which the loans were intended for.

 Mis us e of loan by mos t farmers who divert the loan for farming for their pers onal cons umption. It’s very common for thos e loans offered in cas h.

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

 Mos t farmers lack collateral s ecurity.

 Mos t farmers lack adequate knowledge about the availability of credits .

 Mos t credit ins titutions are located in urban areas , far away for eas y acces s by the potential borrowers .

 Long term loan requires s upervis ion and it would inconvenience whoever is charged with s upervis ion becaus e farmers are s cattered and roads I rural areas are poor.

 S ome credits are inadequate to enable farmers s tart a s erious bus ines s .

 Repayment period of mos t credit is s hort and with high interes t rate.

 Agriculture is faced with many ris ks and uncertainties therefore money lenders do not like to lend agriculture projects .

 Corruption and embezzlement of funds in credit adminis tration.

 Interes t rate is high and does not attract the farmers to acquire loan.

 Exis tence of inflation reduces the real values of credit therefore ins titution may los e.

Interes t: This is the percentage charged for the loan or the percentage charged for us e of loan. The amount of interes t paid to lending agencies by the borrower is determined always by;

The demand for the credit, s upply of the loanable money, s ize of the credit, type of credit, and collateral s ecurity of the borrower.

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

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

 Amount of money to be borrowed in relation to the purpos e of the loan.

 Type of credit i.e. s hort term, medium term or long term credit.

 Interes t rate to be charged.

 Availability of collateral s ecurity.

 Type of project to inves t in.

 Financial pos ition of the farm (project) bas ing on the farm records .

 Experience of the borrower in the propos ed projects

 Previous loan his tory.

 The intended contribution of the borrower to the project. When does agricultural credit s aid to be effective.

 When it promote agriculture development by increas ing the amount of capital available.

 When it has effective utilis ation of agricultural res ources .

 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 Organis ations

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

Types of co-operative.

Trans port co-operatives : This deals with trans portation of produce either fort the members or for profit from other organization e.g. Uganda cooperative trans port union.

Credit s aving co-operatives : This deals with s aving of member’s money and provis ion of s mall loans e.g. Uganda women credit and Trus t fund.

Cons umer co-operative: This s tocks and s ells commodity to members at s ubs idized prices and can als o give financial as s is tance to members .

Producer co-operatives : Thes e are concern with marketing of members / farmers produce e.g. Mas aka cooperative union.

Trade and craft co-operatives : Thes e are concern with building and cons truction work e.g. cons truction of ware hous ing for s torage of farmers ’ produce.

Principles of co-operatives :

Thes e are the bas ic guideline on which the formation and day to day running of co- operatives is bas ed on.

Open and voluntary members hip:

All people are free to join or leave the group without any res triction 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.

Interes t and profit:

The percentage of return on borrowed money s hould be low s ince the organis ation is a profit making one.

Co-operation:

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

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

Promotion of members : All promotion to places of high res pons ibilities mus t be bas ed on merits .

Education: Co-operatives mus t promote education for their members in order to reduce the rate of illiteracy and als o increas e the s kills needed in running of co- operatives .

Continuous expans ion: co-operatives mus t have continuous expans ion in terms of members and phys ical facilities . e.g. buildings , machineries etc.

S hare of dividends : There is s hare 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 s mall s cale farmers to achieve large s cale 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 .

 S tores farmers produce before s elling reducing ris ks to farmers .

 Can provide employment to members as accountant and management.

 Can provides trans port for produce from farms to market place.

 S ome co-operatives can proces s produce before s elling to add values .

 Can provide inputs to farmers at s ubs idized prices to increas e profits .

 Co-operatives can mobilize prices for agriculture products by buying produce during period of plenty and s elling it at the time of s carcity.

 They eliminate was teful competition and exploitation of farmers by middle men hence increas ing the farmer’s profit margins .

 They increas e the bargaining power of members in the marketing and protect weak ones .

Problems hindering progres s of farming organization.

 Inadequate s kills 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

inves tments and expans ions of co-operatives . This is mainly due to failure of members to pay s ubs cription fee regularly and failure to keep their money with the co-operatives .

 Embezzlement and corruption by managers has reduced the growth of mos t co- operatives in Uganda.

 Inadequate trans port: s ome co-operatives do have truck to trans port produce from production centers to market places .

 S hortage of s torage facilities . Mos t co-operatives I rural areas do not have enough s tores with facilities like freezers that help in s toring of products .

 Uns table price of agriculture products both at local and international market has limit co-operatives from expanding financially.

 High ris ks and uncertainty in agriculture: This reduces the profit margin for co- operative which greatly dis courage farmers .

 Political ins tabilities : In places where there is ins urgency it’s been very difficult for co-operative to operate.

 Dis hones ty of the members who refus e to pay back the loan borrowed.

 A high completion from private s ectors which has affected the amount of profits that can be earned.

 Lack of government s upport: is as res ults of introduction of liberalization policy where the government s topped s upporting farmer’s co-operatives .

 Tribalis m and nepotis m which endanger the unity of co-operatives .

 Wide s pread illiteracy es pecially of the rural population about the affairs of the co-operative. They are not aware of the benefits of joining s uch organization.

S olutions to problems facing co-operatives .

 More centers for training managers s hould be s et up to equip managers with s kills .

 Co-operative s hould acces s loan from Banks and other lending ins titutions in cas e of financial cons traints .

 Cons tant auditing s hould be done s o that the mangers are made to be more accountable to the los s es made hence reducing embezzlement.

 Government s hould s upport co-operative through s tabilization fund in cas e of low price.

 Members borrowing money from the organization s hould pres ent s ecurity to prevent defaulting.

Marketing Board:

Thes e are public bodies s et up by the government to as s is t farmers in the production, proces s ing and marketing of agriculture products .

The aims of the marketing boards .

 To provide es s ential s torage facilities for s toring agricultural produce from farmers .

 To ens ure s teady s upply of agricultural produce to the final cons umes .

 To s et and guaranteed prices for the goods produce by the farmers .

 To help farmers in order to produce high quality agriculture products .

 To promote expans ion of cas h crops e.g. cotton, coffee s o as to reduce economy’s dependence on one crop.

 To increas e s tate participation in economic affairs and public inves tment 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 s tore where they can be

exported to external market.

 They provide planting materials e.g. Lint marketing Boards provide cotton s eeds .

 They buy produce from farmers at fair price and res ell it abroad.

 They offer technical s ervice which an individual famer cannot afford to pay for.

 Marketing boards eliminate exploitation of farmers by private traders who tend to pay les s to the farmers .

 They advice government when fixing price for agriculture products .

 They collect agriculture produce from farmers and trans port it to the market, i.e. they offer trans port s ervice to farmers .

 They ens ure that produce from framers are of high quality s o as to meet market s tandard.

 Marketing boards can s tore produce on behalf of the farmers es pecially during period of s urplus when the prices are low.

 They offer credits to farmers inform of loan and inputs .

 Marketing boards can finance res earch in the development of better method of farming and bes t quality agriculture products .

 They can als o dis s eminate res earch information to farmers in the villages .

 They offer export licens e and therefore fight malpractices like s muggling.

 They encourage the production of crops that were previous ly imported by guaranteeing price to farmers .

Problems of marketing boards .

 S muggling which introduces cheap products in the market hence reducing profits of marketing boards .

 Inadequate s torage facilities for products .

 Exces s ive production hence low price for marketing board in the international market.

 Delayed payment of farmers which dis courages farmers from s elling their produce to the marketing boards .

 Poor road networks in rural areas makes trans portation of produce bought difficult and more expens ive for the marketing boards .

 Loan defaulting where s ome 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 harves ting and as a res ults , s urplus production may come with problems of purchas e due to financial problem.

Farm management

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

Characteris tics of a good record

 They s hould be s imple to make.

 They s hould be concis e.

 They s hould be accurate.

 They s hould 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 enterpris es are dropped and the profitable ones are concentrated on.

 They as s is t farmers in planning and budgeting for the farm.

 The enable a farmer to make a s ound decis ion.

 They help farmers to s hare profit and los s es at the end of a financial s eas on, in cas e of a co-operative.

 They help the farmer to obtain loan from the money lenders becaus e good records reveals the financial s tand of the bus ines s .

 They are us e to as s es s the farmer’s income tax becaus e and this s aves the farmer from being overtaxed.

 They helps the farmer to launch the claim to the ins urance company in cas e of los e.

 They help the farmer to carry management activities on the farm e.g. pedigree s election us ed in breeding and culling.

 They are us eful in comparing efficiency of the farm with other s imilar farms in the s ame area or els ewhere.

 They provide labour information which can be us ed to calculate terminal benefits of the farm.

 It als o helps in determining wage rate for labours on the farm.

 Records are very importance in s olving dis putes among family members more es pecially when the owner of the farm died.

 They act as an incentive to the farmer by revealing thos e areas which needs improvement.

 They help to determine the value of the farm in cas e of s ale.

 Health record helps in effective pes t and dis eas e control.

 It helps to s how the his tory 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 s ervice, dates of calving, s ex of the calf, expected date of drying off and s teaming up.

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

Health records s hows the identity of animal, name of dis eas e diagnos ed, date of treatment, kid of treatment given, any examination made.

Labour records s hows 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 s uppos ed to be done by each worker.

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

Inventories records s hows all the total phys ical properties of the farm, i.e. number of tools , machineries , , buildings etc.

Financial records s how profit and los s es of the farm, daily income and total s ales . Record s on farm his tory i.e. dates of s etting up the farm and owners hip of the farm. (b)Farm account: Thes e include financial documents , financial books and financial

s tatement.

 Financial documents : Thes e are invoices , receipts , delivery note, purchas e order and financial s tatement.

Invoice is a document is s ued to the farmer when he orders for the farm inputs and it s hows the quantity, price, and cos t of delivered goods .

Receipt is financial document is s ued by the s eller to the buyer as a proof for payment for the items bought.

Delivery note is a financial document prepared by the s eller to the buyer s howing the items included in the order and s upplied to the buyer.

Purchas e order is a document prepared by the buyer to the s eller on the goods he wants to obtain.

S tatement is a bill s howing details of various orders over a period of time after receiving s everal s upplies .

 Financial books : Thes e are inventories and cas h books .

Inventories is where the farmer records everything he owns on the farm while cas h book s hows the receipts and expens es on the farm over a s pecified time period.

 Financial s tatement: Thes e are the records which s how the financial s tatus of the farm/ enterpris e. They include the following;

Budget

Trading account/ Profit and los s acount

Balance s heet

Budget: This is a financial s tatement outlining the anticipated farm revenue and expenditure for an enterpris e or a part of the whole farm for the forth coming financial period.

Importance of farm budgeting.

 It enables the farmer to achieve the s et farm objectives .

 It motivates the farmer to work hard to achieve the s et goals for the budget.

 It helps the farmer in forecas ting profits and los s es es timating profitability of the farm.

 It can be us ed during allocation of funds to various areas of production.

 Us ed in decis ion making when comparing enterpris e.

 It helps the farmer in making effective change in the organis ation.

 It helps the farmer to es timate the required res ources in production interns of labour, capital etc.

 It guides the farmer when borrowing loan from the lending agencies .

 It can be us ed as reference during future planning. Type of budget

Partial budget: This is a financial s tatement outlining the anticipated revenue and expenditure for a part of the whole enterpris e in the forth coming financial period.

Complete budget: This is financial s tatement outlining the anticipated revenue and expenditure for an enterpris e/ whole farm in the forth coming financial period.

Procedures of making a complete budget on a farm.

 S tate the objectives of farming bus ines s s o that the budget can ans wer s uch objectives .

 Lis t all the enterpris e found on a farm.

 Lis t all the available res ources which can be us ed in production.

 Es timates the number of units of production for the given res ources e.g. number of plants , number of acres , number of animals etc.

 Es timate the phys ical inputs and their cos ts .

 Es timate the phys ical output and the expected return.

 Calculate the fixed cos ts in the next trading year or period.

 Work out the es timated profits for the different enterpris es .

 Work out the cos ts that would occur in the year’s bus ines s directly as a res ult of change.

 Calculate the opportunity cos t of any input s o as to make the right decis ion.

 Cons ider the different between total credits and total debts as the change in the net income.

 Add up the es timate for all the enterpris e on the farm. Points to cons ider in budgeting.

 Leas t combination of factors of production us ed on the farm.

 Farmer’s expectation through time.

 Opportunity cos ts for factors of production. Cons traints in budgeting

 Failure to s ee or identify complementary and s upplementary enterpris es .

 Inadequate knowledge about budgeting.

 Inadequate technical information about budgeting.

 Bias in choos ing enterpris e ins tead of aiming at maxims ing profit.

 Inadequate market information on prices of inputs and outputs .

 Price fluctuation in agriculture that makes anticipation to be unachievable. Importance information in budgeting.

 Res ults from res earch s tation-this can s how the expected production of an enterpris e.

 Data on input-output relations hip i.e. production function.

 Cos ts of input and output information s o as to forecas t los s es and profit.

 Farm record on operation of the farm.

Profit and Los s Account.

A profit and los s account can be defined in different ways ;

It is a projection of s ales and receipts agains t purchas es and expens es to determine the profit or los s of the bus ines s .

Or is a financial s tatement which s hows all the trans action carried during the trading period us ually a year and it reveals whether the bus ines s had made profit or los s .

Features / components of profit and los s account.

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

Example, A profit and los s account for Mr. Gonzaga farm for the year ending

9th/ Dec/ 2012.

It has two s ides i.e. purchas e and expens e which compris e of lis t of commodities and s ervices s pent on and it us ually appears on the left hand s ide, then s ales and receipts s ide which compris e of lis t of commodities offered for s ales by the farm that generate earning. It appears us ually on the right hand s ide.

It has an opening valuation put on purchas e and expens e s ide. Opening valuation is

the value of all the as s et a farm has at the beginning of a financial year. It is put on the purchas e s ide becaus e it is as s umed that if the farmer was to buy that farm that is the money he would s pend.

It has a clos ing valuation put on s ales and receipt s ide. Clos ing valuation is the money and as s ets that the farm has at the end of a financial year.eg fed in s tore.

It has either net profit or net los s and the net profit is put on the purchas e s ide where as net los s is put on the s ales and receipt s ide.

Note: A net profit or net los s is the difference between s ales and receipt, and purchas e and expenditure.

The different between gros s profit and net profit is that, gros s profit is the total revenue les s the variable cos ts and net profit can als o while net profit is the total revenue les s total cos ts (variable cos t and fixed cos t s ummed up).

Examples : Given the information prepare profit and los s account for Mr. S s enyonga’s farm for the year ending 31s t J uly 2012.

Drug purchas e 45000

Heifer s ales 1,500000

Milk s ales 7500000

Depreciation of mower 270000

|  |  |
| --- | --- |
| Clos ing valuation | 1800000 |
| Interes t on loan | 200000 |
| Crop s ales | 350000 |
| S eed purchas e | 190000 |
| Feed purchas e | 253000 |
| Fertilizer purchas e | 290000 |
| Payment from rented tractor 700000 | |
| Opening valuation | 1050000 |
| Egg s ales | 350000 |
| Labour | 250000 |

A PROFIT AND LOS S ACCOUNT FOR MR S S ENYONA’S FARM FOR THE YEAR ENDING 31s t J uly 2012

|  |  |  |  |
| --- | --- | --- | --- |
| Purchas es and  expens es | Ugx | S ales and receipt | Ugx |
| Opening valuation  Interes t on loan  Labour  Drug purchas e S eed purchas e Feeds purchas e Fertilizer purchas e S ub total  Profit | 1050000  200000  250000  45000  190000  235000  290000  2530000  2920000 | Clos ing valuation  Heifer s ales Milk s ales Crop s ales  Tractor payment  Egg s ales | 1800000  1500000  750000  350000  700000  350000  5450000 |

|  |  |  |  |
| --- | --- | --- | --- |
| Total | 5450000 |  | 5450000 |

Example 2

A profit and los s Account for Mrs .Clara’s farm as at 31s t December 2012

|  |  |
| --- | --- |
| Purchas e and expens es s hs | S ales and receipt s hs |
| Opening valuation  2300000  Veterinary cos ts  160000  Depreciation of machine  150000  Pes ticide  80000  Fertilizer  260000  Interes t payable  100000  Wages  2500000 | Clos ing valuation  4400000  Vegetable s ales  1000000  Rent receivable 595000  Increas e I machine value  205000  Milk s ales  850000  Crop produce s ales  1800000 |
| S ubtotal  4550000 | 8850000 |
| Net profit  4300450 |  |
| Total  8850450 | 8850450 |

(a)Us ing the information on the table above, determine the profit or los s

A Net profit = Total s ales and receipt – Total purchas e and expenditure

885045-4550000 = 4300450

(b) With reas on, s ugges t 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

us e the loan they give him profitably. Exercis e.

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

Cas ual labour 150000

Trans port charge 100000

Purchas e of animal feeds 103000

S ales of milk 160000

Fertilizer purchas e 120000

Purchas e of vegetable s eeds 20000

S ales of maize 100000

Egg s ales 350000

Other receipts 18000

Fixed cos ts 253000

S ales of one bullock 100000

Training workers 200000

Vegetable s ales 20000

(a)Draw up a profit and los s account for Mr.Eladu’s farm for the year ending 31s t

December 2012

(b)Calculate gros s profit and net profit s howing your work clearly.

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------------------------------------------------------------------------------------------------------------------------------------ Balance S heet

This is a financial s tatement drawn to s how the financial pos ition of the bus ines s of a bus ines s as at a particular time.

It is a financial s tatement s howing as s et 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 outs ide 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 ; Thes e are claims that mus t be paid in a s hort time not exceeding year e.g. rent, wages , bank overdraft, creditors etc.

2. Long term liabilities ; thes e are claims that mus t be paid within a long period of time exceeding a year e.g. capital s hares , development loan, Treas ury bill etc

As s ets : This refers to the values of all the items pos s es s ed by the farm. As s ets include the following;

The value of lives tock, equipment hous e, crops , machinery etc

Money that the farm hope to receive from a s ales of goods but not yet paid for

(dept receivable)

Cas h that the farmer has either in the hous e or in the bank. Types of as s et

There are bas ically two type of as s et i.e. fixed as s et and current as s ets

Fixed as s ets have more than one year of us efulnes s e.g. Machinery, building, breeding animals , perennial crops , land, fittings etc

Current as s ets have one or les s than one year of us efulnes s s uch as cas h at hand, cas h in bank, annual crops , debt receivable, pre-paid expens es , promis s ory notes , etc. or as s ets that can be eas ily converted into cas h e.g. Meat, milk, crop produce etc

Note: If the value of as s ets exceeds that of liability, the bus ines s is s aid to be s olvent i.e. the bus ines s can meet all its liability and have s ome balance left (net capital/ worth).If the value of liabilities exceeds that of as s ets , the bus ines s is s aid to be ins olvent i.e. cannot meet all its liabilities and a balance is called net capital deficit.

Working capital is the difference between current as s ets and current liabilities .

Ins olvency is a s tate of bankruptcy of the farm when liabilities are greater than the as s ets and the farm cannot run its elf.

Net worth or equity is the figure us ed to balance the balance s heet s tatement. Current liabilities are obligation or debts payable within a year e.g. s hort term loan. Long term liabilities are debts payable over s everal 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 trans fer of right over property us ually as s ecurity for a loan. Depreciation refers to decreas e in value of the fixed cos ts .

You are provided worth a balance s heet of Mr.Kajura’s farm as at 31s t December

2012.Detwermine the net worth value and s tate its importance.

|  |  |
| --- | --- |
| Liabilities s hs | As s ets s hs |
| Long term liabilities  Capital inves tment  1000000  Mortgage of farm with bank 1200000  Loan from his brother 100000  S ubtotal 2300000  Current liabilities  Bank overdraft 200000  Hire purchas e debt for van 250000  Agri marketing board 360000  S ubtotal 810000 | Fixed As s ets  Land 3000000  Building 1200000  Les s depreciation 1100000  Fence  300000  S ubtotal  5600000  Current As s ets  S tock 150000  Growing crops 190000  Debtors 77000 |

|  |  |
| --- | --- |
| Total liabilities 3110000 | Cas h at hand 270000  S ubtotal 687500  Total as s ets 6287500 |
| Net worth 3177500 |  |
| Balance 6287500 | 6287500 |

Net worth value=Total as s ets – Total liabilities

=6287500 – 311000

=3177500.

The net worth s tatement provides information on the s olvency of the bus ines s . It s hows the ability to meet s hort run financial demand.

Exercis e.

Us e the following information to cons truct a balance s heet for Mr. Apollo’s farm green valley zone Lacekocot.

Bank overdraft 1500000

Buildings 20000000

Cas h 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

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---------------------------------------------------------------------------------------------------------------------- Exercis e 2.

The information below s hows the as s ets and liabilities of Abacus mixed farm as at

31s t.12.2014

Debts receivable 860 000/ = Promis s ory notes 105 000/ = Dept payable 600 000/ = Cas h at bank 72 000/ = Pre paid expens es 890 000/ = Bank overdraft 966 000/ = Unpaid ins urance 28 000/ =

Value of s heep 365 000/ = Value of maize 512 000/ = Building 20 000 000/ = Depreciation 694 000/ = Long term loan 8,500 000/ = Interes t on loan 947 000/ =

(a)From the information given above, draw a balance s heet for Abacus mixed farm’s bus ines s .

(b)With reas on, comment on the financial pos ition of Abacus mixed farm.

© How can s uch financial record benefit Abacus mixed farm.

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Advantages of preparing a balance s heet.

 Help in planning and decis ion making

 Help during tax as s es s ment on the farm

 Help the farmer to acquire loan from the bank in cas e he has a net worth.

 Help the farmer to as s es s the values of his farm in cas e he wants to s ell it.

 It reminds the farmer of his debts in order to pay it in time.

 It s hows the farmer’s pos s es s ion and as s ets .

Gros s margin. This is the different between the value of total production or revenue and variable cos ts on a farm.

Gros s margin =Total revenue-total variable cos t. Importance of gros s margin

 Us e in meas uring profitability of each enterpris e on the farm

 To find out enterpris e that is not earning profit to the farm

 To find out how the cos t of productions are being us ed on each enterpris e on the farm.

 To compare profitability of enterpris es of one farm with another one in the s ame area.

 Us eful in making bes t choice/ opportunity cos t. Example.

A farmer planted 5 ha of maize and obtained 10000 kg maize. He s old the maize eat

300/ = per kilogram. His production cos ts were as follows ; Bought s eed at 5 000/ =

Bought fertilizer at 10 000/ =

Paid for cas ual labour 200 000/ =

S alary for 2 permanent workers 480 000/ = Other fixed cos ts 650 000/ =

Calculate the gros s margin per hectare.

Gros s margin = Total revenue – Variable cos ts

Total revenue = 10 000 \* 300

=3000 000/ =

Variable cos t include

Cos t of s eed 50 000/ = Cos ts of fertilizer 100 000/ = Cas ual labour 200000/ =

Total 350 000/ =

Gros s margin = 3000 000 – 350 000/ =

=2650 000/ =

Gros s margin/ ha = 2650 000/ 5

=530 000/ =

(b)What is the Net profit of the farm? Net profit = Gros s margin – Fixed cos ts GM=2650 000/ =

Fixed cos ts are s alary of 2 permanent workers =480000

Other fixed cos t =650 000

Total =1130 000/ = Net profit = 2650 000 – 1130 000

= 1520 000/ = Exercis e.

A farmer has 200 broilers and 200 local birds . He would incur the following cos ts in the production of local birds ; Hous ing 20 000s hs , chicks 400 000s hs , feeding 200

000s hs , labour 100 000s hs .In rais ing broilers he incurred the following cos ts hous ing

20 000s hs , chicks 450 000s hs , feeding 150 000s hs , labour 100 000s hs .The price per broiler on s elling is 20 000s hs and 15 000s hs for local birds .

Calculate the gros s margin for each enterpris e. With reas on s tate the type of bird the farmer s hould profitably keep.

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--------------------------------------------------------------------------------------- Note: Res earch on farm planning and management Ques tions .

1(a) Explain how farm records can be us ed to improve farm efficiency. (b) S tate how farm efficiency can be achieved

2(a) what is meant by divers ification in farming?

(b) Des cribe four farming practices that clearly s how divers ification in farming. (c) Explain the merits of divers ifications in farming.

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

(b)S tate the problems hindering the progres s of farming organis ation.

4(Des cribe the factors that influence the choice of an enterpris e

(a)Explain the s teps taken in making a farm plan

5(a) des cribes the functions of marketing board

(b)How can National Agriculture development are achieved

6(a) what are the common meas ures of fighting ris ks and uncertainties in farming bus ines s .

(b)What are the caus es of low s upply of agricultural products ?

7 Explain why the prices of agricultural products are uns table and s ugges t ways of overcoming the problems

8 Des cribe the pros and cons of s pecialis ation and divers ification.

9(a) Explain why a farmer makes budget before s tarting an enterpris e. (b)What limitations do farmers face when making farm budget

10(a) Define elas ticity of demand and des cribes the type of elas ticity of demand

(b)Des cribe the factors that affect elas ticity of demand.

11(a) us ing s uitable illus tration, des cribe hoe s upply of agricultural products for s ubs is tence farmers varies with market price.

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

12(a) us ing s uitable illus tration, 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 res pons ible for regres s ive/ backward s lopping of s upply curve of labour in agricultural production.

13(a) How does land contribute to agricultural and national development. (b)What roles does entrepreneurs hip play in agricultural production?

END