

NAME..... STREAM.....

S.3 AGRICULTURE

SECTION A

SOIL SCIENCE AND VALUE ADDITION

Item 1.

Nassir harvested groundnuts from his garden. After shelling them, he placed them on a bare ground for further drying. Upon drying, he stored them in a store that had a leaking roof and marram floor. He supplied some ground nuts to a nearby hotel. Clients of the hotel complained about chewing simple stones and maize grains while enjoying roasted ground nuts.

Due to need for more profits. He transported ground nuts to Masaka city using lorry that had carried manure. In Masaka city, he staged a simple store where he sells ground nuts at a price of 1,000 Ugandan shillings per kilogram. He measures groundnuts for selling using cups.

In Nyendo town (a division of Masaka City), A kilogram of groundnut paste is sold at 10,000 Ugandan shillings.

Task.

Advise Nassir on how he can solve his challenges so as to get more profits from his business.

Item 2.

Mulumba purchased an acre of land for maize growing. Maize requires a Ph of 6.8. Heavy lorries had used the upper part of the land to carry construction materials to the neighbor's plot. One side of the land had gully like depressions. In need to carry out a detailed analysis about his land, he obtained a soil sample from two spots which were under the tree which were rejected by experts.

The experts from the district carried out sampling on their own and they discovered that the soil had a Ph of 13. Upon establishment of the maize garden, the maize plants that emerged had yellow leaves and purple leaves. Mulumba had a poor harvest.

Task.

Advise Mulumba on how to manage his land to solve the challenges he faced so that he can improve on maize production.

SECTION B

*This section has **two** parts; **I** and **II***

PART I: ANIMAL PRODUCTION

Item 3.

Paul is a goat farmer in Mpala parish. He rears local goats for meat production. He keeps goats on a piece of land he owns near a wetland that borders a game park. Some goats were observed under a tree shade lying with nasal discharge, difficulty breathing and shivering.

On some days, he feeds his goats on freshly harvested dry soya beans and maize grains as supplementary feeds. He was advised by an expert to feed kids a ration of 15% crude protein how he is not aware of how to do it. His kids can feed on 50kg feeds a day. He owns maize bran which is 10% crude protein and cotton seed cake which has 32% crude protein.

The goats drink water from trough that contain some algae and some soil particles. He slaughters goats at the age of two months for meat in a banana plantation.

Task.

Guide Paul on how to manage goats better for increased production of quality meat.

Item 4.

A poultry farmer keeps local chickens for commercial egg production. The birds are kept in a structure with a floor made out marram soil and iron sheets covering the entire structure. In the evening, she gives them plain maize bran in feed troughs that have moulds growing on them.

He was advised by an expert to feed birds on a ration of 15% crude protein how he is not aware of how to do it. His birds can feed on 1000kg feeds a day. He owns maize bran which is 10% crude protein and soya bean meal which has 36% crude protein.

Some of the eggs laid have soft egg shells and easily breakdown. Some hens break and drink the laid eggs. She treats her birds with ash and red pepper when they are sick. Some of the eggs are laid in the nearby bush.

Task

Write a message advising the poultry farmer above to gain profitably from his project.

PART II: CROP PRODUCTION

Item 5.

A farmer signed a contract with Serena hotel to supply freshly harvested beans at an interval of 85 days. He obtained bean seeds from a neighbor where they had been kept in a store for a year. The bean variety grown by the neighbour matures in five months. The seeds had some hole and some of them were wrinkled.

He cultivated his garden and dug plant holes with depth equivalent to the length of a long class/student ruler. He planted five seeds in each planting hole. However few bean seeds to germinated due to unknown reasons.

After sometime, bean plants were observed with holes on their pods while others were observed with brown patches and orange like powdery substances their leaves. The farmer harvested dry beans after five months however he got low yields. The beans were rejected by the hotel since he failed to meet the contract.

Task.

Write the information you would give the farmer to sensitize him on how to solve his challenges to improve on his bean growing project.

Item 6.

Through the “*mwanyi terimba*” programme of Buganda kingdom which focuses on efficient and profitable growing of coffee, several farmers were donated coffee cuttings. These farmers rented land for strictly one year and established the coffee plantations. They intercropped their coffee with eucalyptus as the farmers aimed at getting double profits.

Ahebwa dug the planting holes at a depth equivalent to the height of his index finger and planted seedlings at a distance he determined by pacing with his feet. The distance was about 2 feet. The coffee plants had numerous branches both at the top and the bottom with few and small sized coffee beans.

His mature coffee bared coffee beans which were in various colours of yellow, green and red and this prompted him to harvest mixture of all the colours. Some of the coffee plants had rusty leaves and tiny black holes on the small branches.

Task

Guide the farmers on how they can improve their coffee production.