

SCHOOL: KOLA

SECONDARY

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AGRICULTURE

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GRAFTING AND BUDDING

Grafting: is the practice of joining two separate closely related plants. It has the upper part called scion and the lower part known as rootstock.

Methods of grafting:

a) Kiltip or Tongue grafting

It is used for material in which the scion and the root stock are of the diameter.

b) Side grafting.

It is practised when the stock has a large diameter than the scion the scion is inserted into the side of the stock.

c) Approaching grafting

d) Bark grafting

e) Notch grafting.

Grafting is done by uniting the scion and the root stock to form one complete tree.

Condition necessary for grafting to be successful;

Temperature: Temperature is required to cool the process.

Compatibility: The scion and rootstock must be of the same species to enhance compatibility.

Relative humidity: Relative humidity should be high and maintained physiological maturity of plants that is the scion and rootstock.

Budding is the practice of uniting a vegetative bud (scion) to a seedling or another plant (root stock).

method of budding : 1- Budding

Top Budding

patch Budding

Importance of Budding and Grafting.

- ✓ They facilitate the changing of the tree from being undesirable to desirable.
- They make it possible to grow more than one type of fruit or flower on the same plant.
- ✓ They help to shorten the maturing age.
- ✓ They help to propagate clones that cannot be propagated in any other way.
- ✓ Grafting helps to repair damaged trees.

CRIME SUCH AS THEFT.

Also had also discover that our surrounding society. Crime rate is very high this has caused a lot on insecurity in the society. This knowledge of grafting fruit trees to people in the society will have something to generate income through selling the fruit and the grafted seedling in our society. And through this having source of income the crime rate will decrease

Also when many people in the society have lost their jobs and others don't have and they have been looking job vacancies and yet there is no job they can plan on how to go to a certain village, house, shop, supermarket and also groceries do local the items so that they can sustain and satisfy their needs and the needs of their families.

If the many people in the society are equipped with the knowledge of grafting fruit trees they will be able to generate by selling the grafted seedlings and fruits from the fruit trees thus will provide job for those who don't have and then do provide basic needs to their families using legal ways hence minimising high crime rates in society and do maintain peace order and security

Mulnutrition of the children and hygiene.

When we visited different home from the surrounding society, we discovered that children were suffering from mulnutrition. This is condition whereby children lack or balance diet and they are even unhealthy. This is because their parents were unable to provide a balanced diet.

If the parent or the people of the society have knowledge of grafting fruit trees, they would be able to generate income through selling the grafting scion and fruit from the fruit tree.

The generated income would be used to provide a balanced diet more so to the children and their families. On poor hygiene was visited the nearby hospital, some families don't have shower you find the children in a dirty places where there is a lot of garbage. And after conducting oral interview on the people in the society, we discovered that most of the people suffer from stomach related illness.

This is because in their homes they do not maintain proper hygiene. Even we had visited some of the nearby school and discovered that they the hygiene there was not pleasing at all some of the student there.

Follonars.

A lot of people are idle in the community surrounding our school this is affecting mostly the youths for example, when we visited the market place during the day, we found many groups of young boys and girls doing nothing, follonars can also lead to committing crimes such as stealing where they can sit down and plan on how they can break into banks, markets or even supermarkets to take from them so that they can fulfil their needs.

And if they are caught stealing they can be stoned by mob justice to death hence leading to poor population of youths in the society. Follonars has also led to drug abuse which has resulted to drugs addiction, for example at the market place there were many young boys who looked like mad people but in those real sense it's just the effect of the drugs they take.

So we have decided that by educating the youths about grafting of fruit trees, they will have something to do and be occupied during the day, thus the number of idlers in the market places and at home will reduce.

Unemployment.

Unemployment is most harmful thing that has increased in the society are unemployed this is because of illiteracy and high rate of school drop out that has lead to increase in crime and low living standard. that has lead to the suffering in the people.

If the knowledge of grafting fruit trees is introduced to them they will be occupied by a constructive activity that will make people to get money by selling and seedlings they will get income to sustain their families in their daily living life. This can be done by advising people in the surrounding society

To plant more grafted fruit trees in their farm and maintain the fruit trees by clearing the unwanted woods from the farm, applying fertiliser for faster growth and harvest good grafted fruit trees; using this methods of grafting fruit trees we will reduced the number of people who are loitering around in the rural and urban areas searching for a job.

DEFORESTATION

As we know that deforestation is cutting down of trees which is very much pronounced in the surrounding society around our school. This is brought by major cutting down of trees for domestic uses such as burning of firewood and burning of the charcoal which has major effects on the soil, that is makes the land unproductive because the micro-organism which decomposes to form nutrients used by crops in producing yields are burned.

Micro burning of the charcoal produces smoke which interferes with the ozone layer hence leading to low rainfall standards. If the people in the surrounding society are educated about grafting of fruit trees they will be able to plant fruit trees which will provide land cover hence replacing the trees that has been cut in the previous year. After planting the fruit tree the people in the surrounding society will be able to generate income through selling of grafted seedlings and fruit from the grafted fruit trees thus ~~minimising~~ deforestation.

Then the income generated after selling the fruits and seedlings from the grafted fruit trees will be used in activities such as paying school fees for the youths in the community to live freely hence making them committed into academics.

poor roads.

Also also observed that food roads in our surrounding society are very poor and it has lead to poor transport more so during rainy seasons. During rainy seasons perishable fruits like mangoes, vegetables and oranges are likely to rot due to delation caused by the roads prone to occur accidents because they are slippery and this may cause death of the driver or damage of the fruits.

During dry seasons, roads are dusty. The dust tends to make drivers suffer from fever or chest pain and can also lead to breathing problems which the time taken to heal he could have used it to transport more fruits to the market. It creates high market demands of the fruits in the market. To solve this problem people are educated on grafting of fruit trees, because they need to use roads when transporting these grafted fruits and seedlings.

Then after selling the fruits and seedlings they will be able to generate income. The income generated after selling the fruit and seedlings from grafted fruit trees, they will be forced to make roads more passable for all weather conditions thus the problem of poor roads is solved.

EARLY MARRIAGE

Early marriages are another problem that is affecting the society around our school. This has led to generation of poverty that is highly affecting the society at large through the knowledge of grafting. Parent can generate income through selling the grafted fruit trees and the income can be used to pay school fees for their children thus containing them in school and minimizing the early marriage.

Early marriages are also encouraged by lack of basic needs for the girls, this makes them to see marriage as a solution for their problems. This makes them to be married at a very young age and this also increases the birthrate in the community at large number. If the parent are educated about grafting of fruit trees, this will enable them to sell fruit trees and seedlings from fruit trees thus making them generate income which will be used to pay school fees, satisfy their basic needs and provide for them in everything thus making all the youth be contained in school hence reducing early marriages and also reducing high birth rate in the community.

HIGH DEATH RATES

He also discovered that the death rate in the surrounding society is very high. This is caused by lack of finances to buy balanced diet for themselves hence this leads to diseases such as rickets, marasmus and many more other diseases due to lack of finances; the sick will not be taken to better hospitals buy drugs for them. This has led to reduced human labour and increased number of orphans.

If the people in the surrounding society are educated about grafting of fruit trees they will be able to plant fruit trees. After planting the fruit trees they will be able to generate income through the selling of the fruit strand seedlings from fruit trees. Then this income generated will help them to take good care of their beloved ones by buying balanced diet for them to prevent sickness and also take those who are sick to the better hospitals for better treatment hence this will increase human labour because of healthy people in the surrounding society.

Also after generating income they will give their beloved ones good care whereby death rate will reduce as the people are healthy in the society hence this reduces large number of orphans and will bring a better society.

SCARCITY OF KLATER.

As klo toured around the school society klo noted that klater is a major challenge their per due to lack of trees in the society which helps in bringing rain. The trees have been cut down for no major reason. Due to lack of water the livestock and also people are dying as there is no more land to plant crops. people in the society walk for long distances searching for klater which has lead to pain and suffering of the people in the society.

If the people in the society are educated about the grafting of fruit trees they will be able to generate income through the selling of the grafted fruit trees. The planted fruit trees will provide land cover which will help in bring rainfall in the society hence this will reduce scarcity of klater. Then the income generated will help them supply klater in the whole society hence they will reduce klater scarcity and lead people to live a better life in society.

High Birth Rate.

Due to school dropout many youths have involved themselves to early intimate relationship and also involved themselves into early marriages which has lead to high birth rate in the society in every day children are born in large numbers of educated people is very low hence this leads to lack of knowledge of giving birth to few kids.

For example lack of food, shelter, clothes and money to pay school fees for their born kids and also the money to take care of their born kids. So you find in the society young girls are engaged in marriage so that they can get the basic needs they want.

If the people in the society around our school are educated about the grafting of fruit trees they will be able to plant the in come through selling of the seedlings and fruits from fruit trees the income generated will help them to pay school fees for their children hence minimizing early engagement and marriage which will reduce birth rate in the society and large number of young children in the society will reduce.

Poor Health

As we toured around the surrounding society around our school we discovered that many people suffered from poor health whereas this is a major problem because of the poor living standards such that they do not have work which can enable them generate income. Since they are jobless they are unable to buy balanced diet for their families, they will be also unable to take care of their sick people. Whereas this has led to reduce or low human labour.

Also as we visited the market near the school we noticed that a lot of sewage were unclean and stagnant water which made a lot of people to suffer from cholera. Whereas there were many children suffering from malaria and other related diseases because of the poor living conditions such that most of them lacked money to go to hospital or money to buy medicine. And other also can't afford a balanced diet.

Through the knowledge of grafting fruit trees the society will be able to generate income through selling and grafted fruits from fruit trees where the income generated will be used to take care and used to clean all the markets and sewage to prevent spread of mosquito.

High Rates of School Dropout

One of the things that are pulling back the growth of the surrounding society is the school dropout. There is where by young boys and girls stop going to school before completing the primary, secondary or even tertiary standards. which impedes the parent from paying school fees for their son and daughters thus unable to sustain them in school.

This has lead to generational poverty in the surrounding society to be high through the knowledge of grafting fruit seedlings the people will be able to sell grafted seedlings and the produced fruit the generated income can be used to pay school fees for their children thus sustaining them in school.

Again the parent will be able to provide all the basic needs required by the children thus minimizing the number of school dropouts in the society surrounding our school.

low Agricultural produce.

low agricultural produce is a situation where the farm and livestock yields are reduced due to weather and climatic condition such as low rainfall standards and job opportunities. Many people in the society suffers as they walk for long distance looking for work and water as many rivers are seasonal and they dry up immediately after the season.

The community around our school and we had conducted some oral interview we discovered that the Agricultural producer the society generally is very low. This has lead to food shortage to the community But we found out that many people from urban centres have been relying on agriculture which is majorly practiced in rural areas.

If the people are educated about fruit trees they would be able to sell the grafted seedling or fruit produced by fruit trees and the income generated can be used to buy food and sustain their families. It will also increase farm labour and human hence increase food and agricultural produce. It will also increase demands for the agricultural produce and help those in urban areas have enough food to reduce expenses.

soil Conservation.

As we moved around the surrounding society we discovered that soil erosion is highly pronounced. This is because the deforestation is practiced majorly in the society and lack of land to cover genetically some of the common types of soil erosion in the society which include the splash erosion where the impact of water droplets are directly on soil particles by detaching and transforming the splashers and leaving the land exposed further +

When the land is exposed it leads to low agricultural produce where people can suffer from starvation as the community has no good and fertile soil to plant or do farming to produce crops. If the people in the surrounding society are educated about grafting or fruit trees they will be able to plant trees which will provide land cover as a result of conserving.

The fruit trees planted whose root will help to hold the soil particles together thus minimising soil erosion. Also the remains of the fruit trees like leaves decompose thus adding fertility to the soil and conserving the soil which will increase the growth of agricultural produce.

Sexual Immorality

It is a situation where people of both genders are being harassed. After we visited the community around our school we conducted oral interviews which made us know that sexual immorality is commonly practiced in the society. This has been caused by high rate of school dropouts and low living standards that is when people are raped or commit adultery. The easily get pre-mature or early pregnancies which make the dropout of school.

This has led to high death rates as people suffer from sexual transmitted disease such as Gonorrhea, Syphilis, HIV/AIDS and many more others and if people maintain themselves well and abstain from all those sexual immoralities they will reduce high death rates in the community.

If the people in the society are educated or equipped with the knowledge of grafting fruit trees they will be able to plant fruit trees which help them to generate income through selling from the planted fruit trees. The income generated will allow people in the community to get their basic needs without engaging in sexual immorality and harassment.

Low living standards

Low living standards can be brought up by lack of food, clothing basic diet and houses after studying the society around our school we discovered that many people have low living standards which has led to depression and isolation.

Depression is the state where one is stressed beyond control isolation is the state where one likes living alone without interacting with others. people they have stress because they don't have money to buy food or basic diets money do pay school fees so you find that there childrens are been sent a way to bring money and the parent don't have the money the parent may have the stress.

Through our project on grafting we found out our problem can be solved if the people had been educated about grafting they are able to sell seedling fruit and the produced fruit and the produced fruit can generate income or after planting the seed trees they can sell the fruit and generate income as well.

Group discussion - Monchi presentation
group of four

Group NUMBER: 1.

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low living standards.

malnutrition of the children and hygiene

low agricultural produce.

Unemployment

High death rates.

poor health

poor roads

High birth rates.

Deforestation

poverty or lack of resources.

Illiteracy

Early marriages

school drop outs

crime such as theft

crop conservation.

After discussion on our project of grafting
procedures, some of the problems we encountered
are listed above which I have discussed in
the previous pages.

PROJECT IMPLEMENTATION.

Grafting is the practice of uniting two opposite blosomy stems. Usually one of the two parts provide the base and has a rooting system whereas the other part is obtained from another plant.

The rooting system is known as root stock while the grafted root stock is known as scion.

The scion has buds which develop into the future plant. The ability of scion and root stock to form a successful union is termed as compatibility.

A young man is the Society came to our school to show us different ways of grafting avocado. After he showed us, we then did it individually using Tongue Grafting method.

problem and project identification - 30 mks

Group discussion and presentation - 31 mks

Group project poster. - 5 mks

Project implementation. - 42 mks

Reporting on progress - 18 mks

Project report - 18 mks