AGR232-PLANT PROPAGATION

PRACTICAL REPORT

(GRAFTING& BUDDING)

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INTRODUCTION

Grafting is the art of joining two pieces of living plant tissue together in such a manner that they will unite and subsequently grow and develop as one composite plant.

OBJECTIVE

1. To create special and unusual plant forms.
2. To propagate plants that may be difficult to bud.
3. To give plants stronger, more diseased-resistant roots.

APPARATUS AND MATERIALS

Rootstock, scion from mother plant, PVC tape and cutter.

PROCEDURES

1. First, prepared the root stock by making a vertical cut on the top of the root stock.
2. Then, the scion is made by cutting a long gradually tapering wedge.
3. The outside edge of the wedge should be slightly thicker than the inside.
4. Next, split open the cut area for insertion of the scion. Scion was inserted in a stub.
5. After the scion was properly placed, wrapped the splitting area with the PCV tape tightly.
6. Lastly, after 21 days opened up the PVC tape and checked the scion.

RESULTS

Make a vertical cut on the root stock.

Wrap the open area with PVC tape.

The scion is not successful join with the root stock.

DISCUSSION

After 21 days the scion does not successfully join with the root stock and die. This graft failure can be caused by poor craftsmanship as this is the first time we conduct a grafting process. Next, it can be also caused by adverse environmental conditions. Lastly, the plant may be affected by the disease as we might touch the cut area with our fingers and transfer the bacteria or microorganism to the plant.

CONCLUSION

In a conclusion, we better take proper measurement and precaution in handling grafting process as the microorganism transmission can affect the joining process of the scion and root stock. Besides, there is grafting incompatibility occurs because of adverse physiological responses between the grafting partner.

INTRODUCTION

Budding is a form of grafting that uses a smaller scion piece-sometimes just a piece of the stem with an axillary bud. The scion is reduced in size and usually contains only one bud and becomes the new shoot system of the graft. The scion should be of desired cultivar and free from disease.

OBJECTIVE

1. To change varieties or cultivars.
2. To produce certain plant forms.
3. To increase the growth rate of seedlings.

APPARATUS AND MATERIALS

Root stock, scion from mother plant, cutter and PVC tape.

PROCEDURES

1. First, prepared the root stock by removing rectangular patches of bark.
2. Then, the patch contained the buds is cut from mother plant.
3. Inserted the bud into the root stock.
4. Wrapped the patch tightly with PVC tape.
5. Lastly, leave the plant healed for two to three weeks or 21 days before unwrapped the patch.

RESULTS

Scion from the mother plant.

Wrap the patch with PVC tape.

The scion is patch to the root stock.

DISCUSSION

After 21 days the budding is not successful. This is because of the knife is contaminated with the dirt or other plant latex. Besides, the cut surface was left unprotected too long as it dry out. Next, if the cut surfaces exposed to long it can contaminate with the microorganism in the air. Lastly, wrapped the patch tightly so that the plant will not loss excess water.

CONCLUSION

In a conclusion, budding and grafting technique are quite similar as it is involve the root stock and scion from the mother plant. The difference between budding and grafting is for budding the shoot from the rootstock will be cut off after the scion produce new shoot while for grafting the shoot will cut off immediately to attach the scion.