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Introduction

Grafting and budding are horticultural techniques used to join parts from two or more plants so that they appear to grow as a single plant. In grafting, the upper part (scion) of one plant grows on the root system (rootstock) of another plant. In the budding process, a bud is taken from one plant and grown on another.

Since grafting and budding are asexual or vegetative methods of propagation, the new plant that grows from the scion or bud will be exactly like the plant it came from. These methods of plant reproduction are usually chosen because cuttings from the desired plant root poorly (or not at all). Also, these methods give the plant a certain characteristic of the rootstock - for example, hardiness, drought tolerance, or disease resistance. Since both methods require extensive knowledge of nursery crop species and their compatibility, grafting and budding are two techniques that are usually practiced only by more experienced nursery operators.

Grafting and budding can be performed only at very specific times when weather conditions and the physiological stage of plant growth are both optimum. The timing depends on the species and the technique used.

Objective

1. Understand the significance of grafting and budding techniques.
2. To produce the varieties the colour of flower.
3. Increase the growth rate of the plant.
4. To give stronger, more diseased-resistant roots.

Materials

Knife, PVC tape, secateurs, rootstock, scion and bougainvillea.

Procedure of Grafting

1. In this grafting techniques, we were use bougainvillea flower trees to combine with the another bougainvillea flower different colour to produce the new variety colour of flower.
2. Firstly, we split up the stub of the bougainvillea flower into 2 with the 1 cm depth. The smooth straight-grained section should be used so the split will be even.
3. Then, we also prepare the scion to be inserted into the rootstock. The basal ends of the scion should be cut to a slightly V-shaped wedge to match the end of the rootstock.
4. After that, the scion was carefully inserted to the stock matching the cambium layers at a slight angle so that the cambium scion and stock cross.
5. Lastly, wrapped the attachment with PVC tape tightly to prevent water from entering the plant. After 21 days we got the result.



Materials to do grafting techniques.



Split up the stub into 2 with the cm depth.



Insert the scion the rootstock.



Wrapped the attachment with PVC to prevent water entering the plant.

Result



Budding techniques unsuccessful
because the plant dead.

Discussion

From the two results that we can see this propagation techniques is unsuccessful. It is because this techniques is difficult to be done. Not only that, the plant tissue of scion maybe left too long and it will cause the plant tissue become infected. Besides the wrapping material that we used is PVC tape which is not suitable. The plant will be entered by water because the plant was not protected by any material which covered the whole stock which aimed to protect the plant from being entered by water.

Next, the best way that we can to reduce this problem from happening again is make sure the plant tissue are not infected by germs that can make the plant tissue damage which is do not left the plant tissue exposed too long. After that, use the right techniques of the budding and grafting. After that , a suitable one to combine the plant tissue that we can use such as Parafilm wrap because it was transparent and that can makes easier for us to identify the propagation techniques is successful or unsuccessful. In the other hand, we can covers the plant with the small plastic bag to prevent water enters to the plant.

Conclusion

As conclusion, the grafting and budding techniques have a lower rate of successfulness. It is because this technique should be careful when attachment of scion and rootstock to prevent the plant tissue from infected by any germs that can damage the plant tissue. From this technique we can produce varieties colour of flower from the attachment of scion and rootstock. Lastly, technique of grafting and budding can increase the growth rate of the plant.