

## Stage 5 Agricultural Technology: Plant nursery production

### Individual investigation into an aspect of vegetative propagation

Each plant is different in the best way to propagate it. Propagation of a plant is usually very similar to other closely related plants, but a simple change in propagation conditions can make a huge difference in the success of propagation.

The purpose of this assignment is for you to work out an aspect of propagation that will improve the success of vegetative propagation of a plant species of your own choice.

#### 1. *Which species are you going to investigate?*

You should consider the availability of sufficient plant material for propagation, and the desirability of producing plants of this type.

#### 2. *What are you going to investigate about the propagation of this type of plant?*

The type of propagation you choose will influence the choice you will make here, for example propagation by layering introduces less options than cuttings.

Some ideas you could consider are:

- cuttings versus layering
- length of cuttings
- amount of hormone applied
- type of soil mix used
- position of the cuttings on the parent plant (tip versus stem)
- other types of cutting systems
- time of year.

#### 3. *What you expect the experiment to show (hypothesis).*

This needs to be indicated in the write up of your experiment.

#### 4. *Methods you used in your experiment.*

This is the step-by-step method of your experiment. Factors which should be considered are: replication, control and standard conditions.

#### 5. *Results*

These are measurements on the success of propagation using the range of conditions in your experiment. They can be presented as a table (with averages) or as a graph of the averages.

#### 6. *Conclusions*

This is your opportunity to explain what your experiment showed. It will also be an opportunity to suggest other questions that your experiment led you to think about.