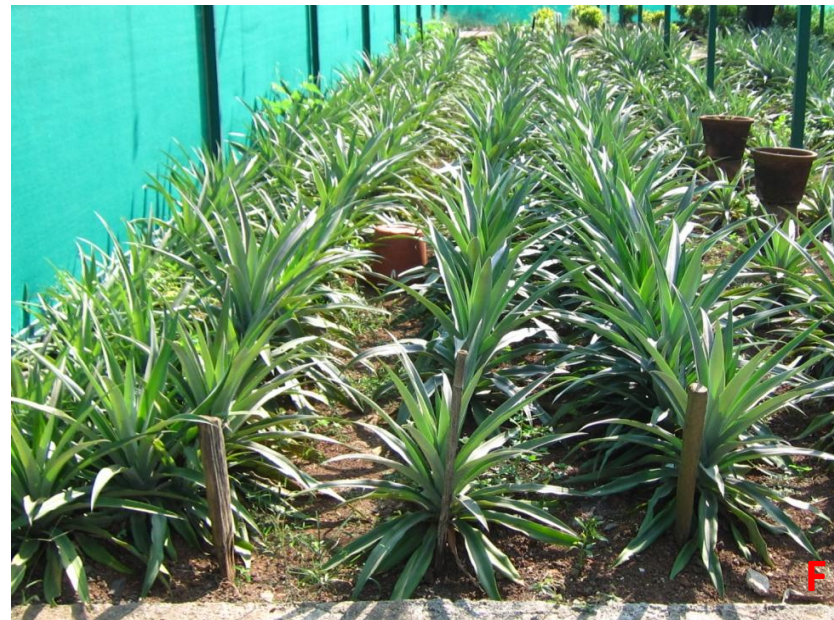
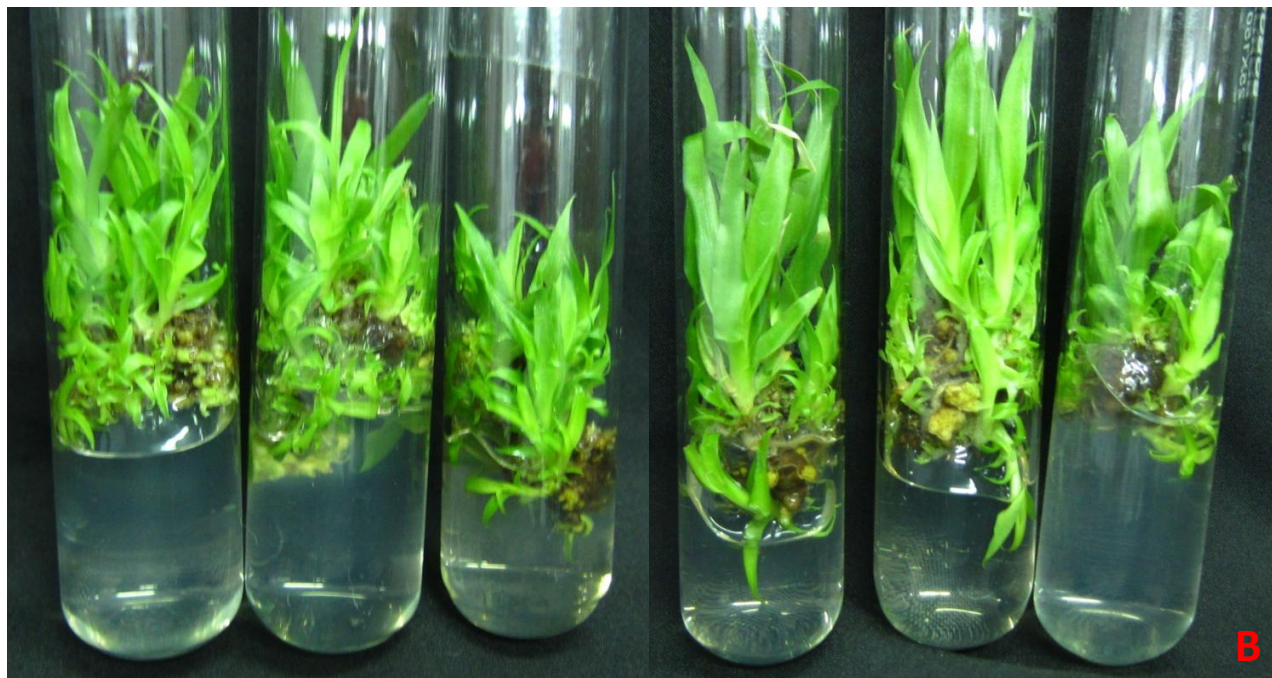


Different Stages in the Tissue Culture Multiplication of Pineapple (*Ananas comosus* L. Merr) plants



Legend to Figures

A: Excised shoot tip cultured on nutrient medium for culture establishment.

B: Multiple shoots obtained from shoot tip cultures.

C: Rooted plantlets.

D: Primary and E: secondary hardening of tissue culture derived plants.

F: Field planting of tissue culture derived plants for evaluation.

Pineapple (*Ananas comosus* L. Merr.) belongs to the family Bromeliaceae, is one of the important commercial fruits propagated vegetatively. Conventionally the average production is 4-5 propagules per year and it takes considerable time to produce enough planting material. Large-scale production of planting material can be achieved by using the plant tissue culture techniques. A protocol for large-scale multiplication has been established using shoot tip as well as dormant axillary buds from pineapple crowns with a capacity of producing 1000-1200 plants in a year from a single crown. The protocol has been standardised for the establishment of cultures, multiplication, rooting and hardening of the plants in the green house and their field planting. Tissue culture derived plants have been field planted in the BARC campus. The established tissue culture technique is useful for rapid multiplication and production of disease free planting material of elite varieties through out the year. The standardised protocol is also useful for applying the *in vitro* mutagenesis technique for inducing the genetic variability for the improvement of this important fruit crop.

Advantages:

- Efficient and rapid multiplication protocol.
- Production of disease free planting material on a large scale.
- Production of plants throughout the year irrespective of the season.
- The technique can be employed for *in vitro* mutagenesis for inducing the genetic variability for the improvement of this fruit crop.