

Macro propagation of banana plantlets

Macro propagation technology is a means to produce clean banana plantlets in a 2 to 4 months' period provided the suckers are got from healthy plants and contamination avoided in the process.

Healthy sword suckers are selected and uprooted from healthy looking mother plants. Sword suckers are suckers which are about 1m in length with leaves shaped like a spear. The suckers are cleaned and trimmed to remove the outer tissue like roots, sheath and the top most layer of the corn and then immersed in boiling water for 30 seconds. Care should be taken not to over heat the suckers as this kills the suckers.

Steam heating

The sheath is peeled off at the point of their connection to the corn to expose the buds, which buds are cross cut in the centre to allow sprouting of multiple shoots and after exposing all the buds, the main growing point is killed by removing the smooth growing tissue in the middle.

The substrate into which the suckers are going to be planted is sterilized to kill banana pests and disease causing agents by steam heating for between 2 to 4 hours depending on the substrate. The substrate could be saw dust, soil or husks.

The sterilized substrate is then put in a humidity chamber and the peeled corn placed in the substrate at a spacing of about 5cm from each corn and watered thoroughly and then watered every 3 to 5 days depending on the conditions.

Where the plants have attained 3 leaves, they can be detached and planted in plastic bags with manure.