Jackfruit *(Artocarpus heterophyllus)*

## Seed extraction, germination and seedling selection

Seed should be collected from firm but mature fruit harvested directly from the tree and occur before fruit starts to decay. Seeds should be rinsed in running tap water for a minimum of 10 minutes to remove sugars and perianth flesh. Air dried seeds should be sown immediately. If short-term storage is required (maximum seven days @ >15◦ C) then seeds should be wrapped loosely in dry newspaper and placed in a sealable bag.

Seed orientation at sowing influences the quality of seedlings. Seeds should be positioned with the micropylar scar placed down into the media, as this is more likely to generate seedlings with good, straight taproots.

Jackfruit is typically grafted onto its own rootstock and therefore production of rootstocks is focused on establishing uniform propagules to ensure uniformed planting stock for orchard establishment. In jackfruit, the basal stem diameter is the strongest indicator of a good root system. Therefore, it is recommended that poorer seedlings within a batch are culled visually by seedling basal stem diameter rather than seedling height prior to grafting.

## Clones and rooting hormone

Vegetative cuttings of 15-20 cm long should be taken from mature terminal shoots. Cuttings should be dipped in rooting hormone and placed in preformed peat and coir plugs. Recent investigations into cloning products indicated that Rootex-P powder 3 g/L IBA had the highest strike rate at 83%, followed by Red Clonex gel 8 g/L IBA and Rootex-P powder 8 g/L IBA at 75% success rate, respectively. Root development should start to occur around 30 days after placement, with the majority of cuttings rooted by 90 days.

## Nursery hygiene and propagation media

Good nursery hygiene practices such as pot sterilisation, nursery sanitation, drainage canals and gravel underneath raised seedling beds have considerable effects on reducing disease incidence within the nursery. The use of high air-filled porosity (AFP) potting mixes is desirable for jackfruit seedlings. Jackfruit seedlings can be raised in either unsterilized or sterilized potting media depending on availability. It was shown that unsterilized media with 21% AFP produced seedlings with significantly higher mean stem diameter compared to unsterilized media with 4% and 9% AFP, and sterilized media with 4%, 9% and 21% AFP.

## Further information

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