



Agroforestry Facts

Jack Fruit



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| Botanical Name | <i>Artocarpus heterophyllus</i> L. |
| Name in English | Jack fruit |
| Name in Kannada | Halasu |
| Family | Moraceae |
| Seeds Collection | Fruits start bearing from 7 th year onwards. Harvesting of fruits starts from March – June. Seeds from the ripe fruit are separated. |
| Seeds Processing & Treatment | No processing and pre-treatment required. Immediately after harvest it has to be used for germination, otherwise loses its viability. |
| Nursery | <p>Jackfruit is commonly propagated by seeds. Seed should be sown immediately after extraction since they lose their viability during storage. Soaking seed in NAA (25 mg/L of water) for 24 hrs improve their germination and seedling growth.</p> <p>Air layering: It is one of the best methods to obtain true to type plant. Air layering of one-year-old shoot of bearing plant gives higher success when treated with IBA (500 ppm).</p> <p>Soft wood grafting: Large scale propagation of jack can be done by cleft grafting during July-August on 4-month-old seedling rootstock</p> |
| Plantation Management | Deep well drained soil is necessary for jack cultivation. Soil pH around 5.5 at the time of planting is desirable. Otherwise treat |



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| | <p>the soil with 1% Aluminium sulphate in the pit to reduce the pH. The crop comes up well in the plains and up to an elevation of 1200 m.</p> <p>Dig pits of 1 m x 1 m x 1 m. Fill up the pits with top soil mixed with 10 Kg of FYM and 1 Kg of neem cake per pit. Plant preferably grafts during June – December at 8 x 8 m spacing. Once in a week till the plant gets established. Thereafter irrigation is given as and when necessary.</p> <p>The manures and fertilizers should be applied in two splits during May - June and September - October.</p> <p>It is advisable to utilize the inter-space by growing some intercrops during the gestation period of jackfruit, which gives some extra income to the grower. Vegetable like radish, brinjal, chilli, cabbage etc can be grown with assured irrigation facilities.</p> <p>Jackfruit is cultivated in northeast as a rainfed crops. The young trees are sensitive to drought. So, for better growth of the seedlings, watering should be done during summer and winter months.</p> |
| Model/Spacing | Seedlings are planted in square system with spacing of 10m x10m. June to August is ideal time for planting. |
| Pests, diseases and Management | <p>Fruit borer: Apply Carbaryl 50 WP @ 2 g/lit.</p> <p>Spittle bug: Spray methyl parathion 50 EC 2ml/lit or Methyl demeton 25 EC @ 2ml/lit. or Phosphamidon 40 SL 2 ml/lit or dust Methyl parathion 2 D or Quinalphos dust 1.5 D.</p> <p>Rhizopus rot: Spray 1 % Bordeaux mixture or Copper oxychloride 2.5 g/lit. Three sprays must be given at 15 days interval.</p> |
| Plant Rotation | Crop rotations with leguminous plants which enhance nitrogen content. Keep soils covered year-round with living vegetation and/or tree residue. |
| Yield | <p>The crop yields about 30-40 t/ha. First fruiting take place 6-8 years after planting. The fruits mature towards the end of summer in June. The yield of jackfruit varies widely with the type and climate condition. The trees produce a few fruits to as high as 250 to 300 fruits/tree/year.</p> <p>They grow up to 40 kg and sometimes more. Smaller fruits weigh 8-10 kg easily.</p> |
| Uses | <p>Its fruits are used both for culinary purposes and as table fruit but it is mainly used for culinary purposes. Tender fruits appear in the market in spring and continue till late summer as popular vegetable. Since common vegetables are scarce and costly at that time of the year, jackfruit enjoys a high demand and premier price. The fruits are also used for preparation of pickles, dehydrated leather, thin papad, soft drinks like nectar, squash and to some extent for canning purposes. The rind of the fruit is rich in protein. Extract from the rind can be used for jelly making. The skin of the fruit and leaves are excellent cattle feed. Jackfruit tree is a valuable timber for making furniture as it is rarely attacked by white ants.</p> |
| Buyers /Industries | Timber industry |



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| Harvesting | The yield commences from 5th year in grafts and 8th year in seedling trees. Harvest is done during March-July |
| Economic Returns | With 40 trees per acre, the total yield is 2000 fruits per acre. Assuming that the fruits are all 10 kg, the average yield of 20 tonnes is modest. Farmers are known to cultivate up to 32 tonnes and some more but even with the least yield per acre, you can assume that the farmer will get 2,00,000 rupees per year from an acre of jackfruit plantation. |
| Current Market Rate | Rs. 1500 – 2200 per CFT |