

RESEARCH PAPER

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# Physical properties of jackfruit (*Artocarpus heterophyllus* Lam.) and its components

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## SUMMARY :

Jackfruit is a tropical large size exotic cylindrical-round shape fruit consists of bulbs (seed and carpel) and rind including mesocarp. Unripe and ripe jackfruits both have application in day to day use. Size, shape, volume and density of the components of the fruit as a whole and its components were determined. The unripe jackfruit average weight was in the range of 7-10 kg and average diameter was 32.35 cm and length was 40.4 cm which were reduced by about 20 per cent on ripening. Bulb, seed and rind components of ripe fruit were 47, 10 and 53 per cent, respectively. Volume of unripe jackfruit was 7.07 litres (7007 cc) and solid density and bulk density were 1005 kg/m<sup>3</sup>, 150.24 kg/m<sup>3</sup>, respectively. The weight for the unripe fruit bulb was 16.67 g and of ripe bulbs was 11.77 g. The volume of unripe fruit bulbs was 16.80 cm<sup>3</sup> and that of ripe bulbs was 11.44 cm<sup>3</sup>. The bulk density of the unripe fruit bulbs were 809.59 kg/m<sup>3</sup> and of ripe bulbs was 728.61 kg/m<sup>3</sup>. Seed of jackfruit weighed 3.88 g and volume and bulk density respectively was 3.51 cm<sup>3</sup> and 854.28 kg/m<sup>3</sup>. Jackfruit was classified into three sizes based on length 28-34 cm as small, 35- 45 as medium and more than 45 cm in length as large size fruits.

**KEY WORDS :** Jackfruit, Bulbs, Bulk density, Tropical, Size, Shape

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