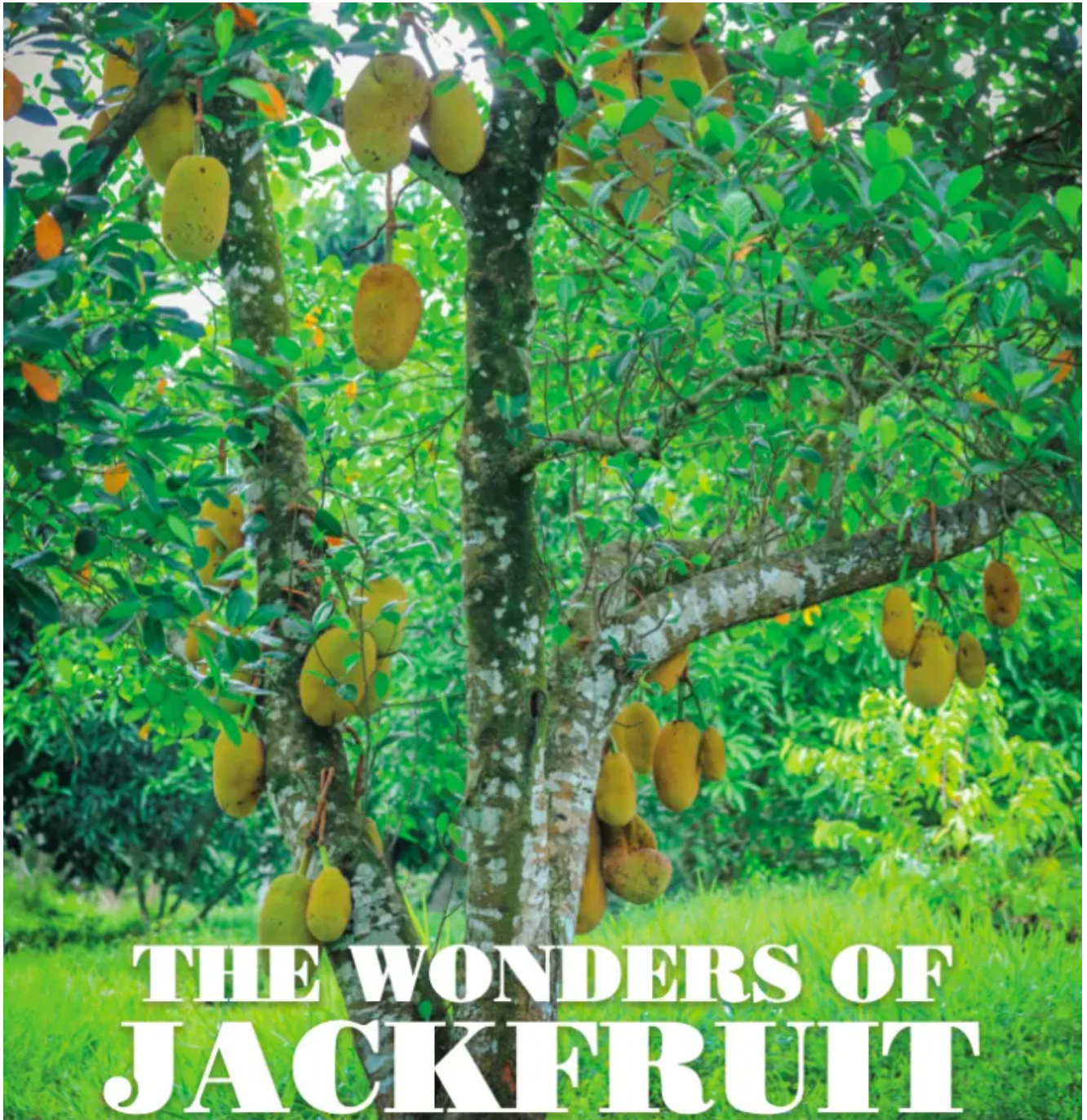


THE WONDERS OF JACKFRUIT



Growing up in a culture where the jackfruit was eaten as a sweet juicy fruit and cooked as a vegetable, one certainly knows that with a jackfruit tree you can live a food-filled life of one flake at a time. The Jackfruit tree provides many benefits and its timber is one of the best.

Words Jennifer Paldano Goonewardane. Photographs Menaka Aravinda.

only second to our staple rice, the jackfruit tree is dubbed the 'tree of rice' not without reason. It was first introduced from Malaysia in 1918 by Arthur V Dias. His visionary hindsight grasped the ubiquitous nature of jackfruit to make the country self-sufficient as rice cultivation got neglected under the colonial yoke while the wars and plagues of the time induced extreme food shortages. With time this fruit has become 'nativized' as an essential presence in our home gardens and gastronomic tradition.

Other than for consumption, the tree is used for timber and the tree parts for medicine. However, jackfruit remains as one of the most underutilized crops in Sri Lanka where only 20 percent is consumed and 10 percent is sold.

In Sri Lanka's wet zone the tree thrives, but will yield a good harvest even in the intermediate and dry zones as it can tolerate long dry spells. The existing population of jackfruit trees are so numerous that there are distinct differences not only between the trees, but also the leaves, and the fruit, and from one tree to another. A protected tree in Sri Lanka, with an estimated 31,131 hectares of land cultivated, and 150,185,121 fruits produced annually, seed planting is the normal method of propagation, although grafted trees have become more cost-effective methods, which allow the tree to bear fruit in less than four years.

Sri Lanka has several jackfruit cultivars such as, Fatherlong, Maharagama, Kothmale, Hirosh, Mandoor and Singapore or Ceylon Jackfruit. At the height of the jackfruit season in Sri Lanka from March to June and minor season from November to January, there'll be plenty of stalls selling flakes in different forms.

With a relatively high productivity of about 25.71 tons per hectare, a mature tree can yield from 10 to 200 fruits. The favorable weather condition for jackfruit is between 1000 - 1500 millimeters of rain, with temperature between 25 - 35°C and an elevation of up to 1000 meters.

Sunlight is vital for growth. The soil must be fertile, ideally, made of clay, loam and silt, the pit size being at least three feet in depth and width, filled with top soil and compost manure. Generally the ground is prepared two weeks ahead of planting, when a combination of 10 kilograms of organic manure (compost) is mixed with the top soil. The application of organic fertilizer continues through the first year of growth and after, applied once in six months, gradually reducing to around five kilograms, assessed according to the width of the canopy, which

would be around one kilogram of fertilizer per square kilometer. As the tree can't tolerate too much moisture, irrigating has to be done cautiously in the initial stages lest the roots decay. Good moisture drainage is crucial to growth. While the wet and the intermediate zones experience intermittent rainfall, the best way to gauge water requirement is to observe the level of aridness around the soil and the plant. Moreover, excessive soil moisture during flowering and fruiting will affect the quality of the fruit. Uprooting weed around the growing tree is important to retain the nutrients in the soil. If properly nurtured, a tree grows rapidly in the first four years, reaching a height of up to 1.5-2 meters annually.

The jackfruit cultivars are classified into 'Vela' and 'Waraka' - soft and firm variety according to the texture of the flake. Rich in carbohydrates, proteins, vitamins, minerals and dietary fiber, the flakes in 'vela' and 'waraka' exhibit a wide diversity in color, from cream, light yellow, yellow, deep yellow, light saffron, saffron, deep saffron, to an orange. Generally, the flesh of 'vela' is soft, rubbery, and spongy. 'Waraka', is crunchy with crisp flakes and is considered more desirable for consumption and better preserved and hence, high in quality. As the fruit matures at 12 to 16 weeks, the smell surrounding the tree is an indication for harvesting, along with the change in the surface color from green to a greenish yellow and the hollow sound that it releases when the surface is tapped. The weight of a fruit may vary between two and 20 kilograms; larger fruits of about 50 kilograms have also been recorded.

The jackfruit cultivars are classified into 'Vela' and 'Waraka' – soft and firm variety according to the texture of the flake.



Jackfruit can be the 'poster child' to showcase the link between food and culture; our skill and knowledge surrounding harvesting, cutting, and cleaning, the recipes and preparation and preservation. It is, after all a meal staple. The fruit's flakes are boiled and consumed with grated coconut or grated coconut relish known as 'pol sambol', which is filling and astoundingly scrumptious, it suffices for the everyday rice-lunch of the natives. Mature flakes cut and cooked to a thick dish in coconut milk is 'Kiri kos', meaning milk jackfruit, a dish given to new mothers to increase lactation. The red hot 'polos' curry made from the tender fruit is the quintessential dish for rice, milk rice, or string hoppers because it is full of spice seasonings and culinary herbs. Cooked in coconut milk, it tingles and brims with exotic flavors.

Boiled 'polos' can also be pickled in a combination of mustard paste, vinegar, and salt or cut finely to be combined with mustard and pepper- infused grated coconut to prepare a 'malluma'. This wonder fruit is a vegan's delight as it's the new meat that can make fleshy fillings for short eats. One of its best long-term usages locally is dried flakes known as 'Atu Kos', prepared by boiling unripe mature bulbs in salt-infused water until it turns pale and sun-dried for at least four days prior to being stored in a stove hood built above the hearth in the kitchen - the 'Dum Messa'. Or else, stored in an airtight container or bag. This can be cooked, boiled, or deep-fried. Similarly, fresh seeds (kos ata) can be well-preserved in sand

and retrieved when required.

Despite these benefits, the jackfruit is not widely grown as a commercial crop in Sri Lanka owing to the wide variations in fruit quality and the time taken to bear fruit, which vary between three to seven years for trees originating from seedlings, whereas grafted trees can be better managed by maintaining a maximum height of 15 meters by pruning during growth and is bushier and will bear fruit after two years, allowing the fruits to be harvested with a ladder or fruit picker. Significantly, the Singapore or Ceylon Jackfruit tree begins to bear fruit by its third year.

In a bid to promote commercial farming in jackfruit, the Department of Agriculture is developing dwarf varieties for high density planting in Sri Lanka. High density planting involves bushy varieties, which will allow a large number of high yielding trees to be planted in a hectare. While a distance of at least 20 meters is required between grafted trees, the dwarf varieties will require only 15 meters spacing between them. The cultural practices surrounding ground and soil preparation, and fertilizer use and harvesting will be easier, and thus, reduce the cost of labor in high density planting.

Meanwhile, the red jackfruit is the ‘new kid on the block’; promoted by the Department of Agriculture, nearly 500 trees of this variety have been planted, which will take at least another two years for fruition. With its minimal fluid content, glassy appearance and texture, and longer shelf life of up to two weeks, it’s hoped that it will take off as a commercial crop.

As we live in unprecedented times, it’s not too late to plant a jackfruit tree. Unlike before, newer grafted dwarf varieties yield fruit in a shorter time and are easier to pluck and ideal for today’s little homesteads. A step further would be to promote the fruit commercially by introducing high- density planting for easy harvesting and management. Simultaneously, newer varieties, such as the red jackfruit, a high-yield semi-dwarf tree, that can be stored longer following harvesting can be an excellent start to a consistent program.

Information provided by:

Mangala Agalakumbura

Assistant Director of Agriculture Fruit Crop Research and Development Center

Department of Agriculture Horana



Sunlight is vital for the growth of a jack tree.





Jackfruit bulbs vary in size, shape, and texture.



Jackfruit seeds (kos ata) like the flakes, can be cooked and prepared as a snack in many ways.



The jackfruit seed (kos ata) curry has a uniquely flavorsome recipe.



Kiri Kos is a mild and creamy accompaniment with rice.



Red 'Polos' curry brimming with spices, herbs, and exotic flavors.