

DRAGON FRUIT

A native plant from Central and South America, dragon fruit (*Hylocereus* sp.) or “pitaya” is gaining its popularity in the Philippine market. The plant is adapted to tropical or arid climates with rainfall of 30-40 inch and any kind of soil with organic matter.

The fruits with red or pink, leathery skin are eaten by spooning out the flesh, or in slices. Fruits can be processed to juice, ice cream or wine. The beautiful flowers, only blooming at night, are used for tea or aroma therapy.

Fruits are healthy (high in vitamin C, fibers, anti-oxidants) and nutritious. It strengthens the human immune system and is used in the treatment of diabetes. Medicine made from flower and stem promotes blood circulation. Therefore, Dragon Fruit can be marketed as a prestigious “health food”.

The potential of dragon fruit is bright because it commands a very high price in the local market; it costs around P120-150 per kilo. In a demo of a three-year old dragon fruit farm, it can produce 5-6 t/ha with a value of P720,000 in the local market alone. Considering its current demand, it is no wonder that dragon fruit is now dubbed as the new money crop—truly, a high revenue earner for farmers/producers.

Sweet Dragon Fruit (Pitayas) come in three types, all with leathery, slightly leafy skin:

Hylocereus undatus (Pitaya blanca or White-fleshed Pitaya) has red-skinned fruit with white flesh. This is the most commonly seen “dragon fruit”.

Hylocereus costaricensis (Pitaya roja or Red-fleshed Pitaya, also known as *Hylocereus polyrhizus*) has red-skinned fruit with red flesh.

Hylocereus megalanthus (Pitaya amarilla or Yellow Pitaya, also known as *Selenicereus megalanthus*) has yellow-skinned fruit with white flesh.

Propagating Dragon fruit:

Site Selection: Dragon fruit must be planted in an open field with direct exposure to sunlight. It is not conducive to plant the crop in areas where rainfall is well distributed. Site should be free draining with a sandy loam soil with a high organic content.

Ground Preparation: Rows or individual sites are mounded to 300 mm, poles should be no more than 2 m long with 600mm in the ground.

Poles can be anything from concrete to PVC, (but treated timber should be avoided) with a frame attached to the top to allow the plant to hang down.

The recommended planting distance is three meters between posts and four meters between rows. Proper distance of planting is important since a narrower spacing gives quicker production than larger spacing.

Red flesh pitaya prefers to grow on a trellis or fence line.

Planting Material: Dragon Fruit is propagated through seeds or cuttings. From seeds, it grow well in a compost or potting soil mix – even as a potted indoor plant. Dragon fruit (Pitaya) cacti usually germinate between 11 and 14 days after shallow planting. As they are cacti, overwatering is a concern for home growers. As their growth continues, these climbing plants will find something to climb on, which can involve putting aerial roots down from the branches in addition to the basal roots. Once the plant reaches a mature 10 pounds in weight, the plant may flower. From the cuttings, plant them in plastic bags for two months and transfer them in an open field. Cuttings can be purchased from some local commercial nurseries and pitaya growers. Seedlings are too variable for commercial production.

Irrigation: Water daily through the dry at a volume of 80 L/day, regular organic mulching is strongly recommended. Water stress can cause fruit splitting; slow shoot development, yellowing and flower drop.

Under tree sprinklers with a 1 -1.5 m diameter wetting area to concentrate water into root zone are suitable.

Nutrition: A combination of organic and complete fertilizer (14-14-14) and urea (46-0-0). Use more organic and more nitrogen. The ideal is to apply fertilizer every 3 months if possible or every six months. Use 2 kg of organic + 25 g urea + 75 g complete fertilizer per plant.

Pests: Meat ants, ginger ants, and birds have been recorded as causing serious damage to plants and fruit. Plants will need some form of netting to prevent bird damage to fruit.

Diseases: A soft watery rot can occur after damage such as sunburn.

Pruning: Regularly prune them to obtain an open, manageable, and productive umbrella shape canopy. Also, it is important to prune right after harvesting the fruits. Regular pruning will induce new shoots for the next cropping season.

Harvest: After establishing the plant in the field, it would take around 26 months to bear fruits. Harvest must be done 35-40 days after the flower opening.

Fruit can be harvested approximately 28 days after fruit set when there is a colour change from green to 85% pink.

Fruit harvested with a red skin colour are generally larger and sweeter.

Post Harvest: Fruit will keep for two to three months in a cool room at 7-10°C and 90-98% relative humidity.