

LITCHI **(*Litchi chinensis* Sqnn.)**

Litchi is the most important subtropical, evergreen tree. Litchi fruit is famous for its attractive red colour, excellent quality characteristics and pleasant flavour.

Cultivars

A large number of varieties are grown in different part of India. Bambia, Ellaichi Early, China, Deshi, Purbiand Kasabare the suitable varieties for E region.



Soil and Climate

Litchi grows in a variety of soil types. However, fairly deep, well-drained sandy loam soil rich in organic matter with a pH of 5.5-7.0 is best for its cultivation. High lime content in soil is also beneficial to its trees. Litchi cannot tolerate frost in winter and dry heat in summer, it flourishes best in a moist atmosphere, having abundant rainfall and free from frost.

Propagation

Propagation by seed is not preferred because the plants raised from seed take 7-12 years to come into bearing and it does not produce true to type fruits. The most common and easiest method is air layering. About 2 cm wide ring of bark is removed just below a bud from healthy and vigorous twigs about one year old and 2.5-4.0 cm across. IBA or Root on may be applied at cut portion for early and more rooting. The cut is surrounded by mud ball containing moss (2 parts damp moss and 1 part of soil from the basin of old litchi tree) and wrapped with a polythene sheet. Both ends are tied with fine rope to make it air tight, when sufficient roots are formed in about 2 months, the branch is cut below the soil or sphagnum moss and potted in a nursery. July to October is most appropriate time. About 6 months old air-layered plants should be transplanted in permanent field in monsoon.

Planting

The pits of 1 m x 1m x 1m should be dug at a spacing of 10 m apart in square system. Under acidic soil conditions, culture of mycorrhizal fungi should be applied or soil of old litchi orchard should be used for pit filling along with FYM. Planting should be done during early monsoon season. Planting can also be done in the spring if irrigation facilities are available. Planting of litchi orchard is not advisable when the weather is either too dry or too wet.

Manure and Fertilizer

Age of plant

Fertilizer /plant/year (Kg)

	Farmyard manure	Calcium ammonium nitrate	Super phosphate	Muriate of potash
1-3 yr	10-20	0.3-1.00	0.2-0.6	0.05-0.15
4-6 yr	25-40	1.0-2.00	0.75-1.25	0.20-0.30
7-10 yr	40-50	2.0-3.00	1.50-2.0	0.30-0.50
About 10 yr	60	3.50	2.25	0.60

FYM, P & K should be applied in the month of December, whereas, Y2 dose of N in February, 1, 4 in April and remaining 1, 4 after harvesting of fruits. Besides, litchi orchard may also be sprayed with Zinc sulphate @ 4 kg and hydrated lime @ 2 kg dissolved in 500 L water.

Intercultural operation

Weeds are controlled mainly by hand weeding or hoeing. Spraying of herbicides Diuron or Atrazine @ 5kg/ha at one month interval keep the weeds under control. Use of black polythene mulch controls weed more effectively than organic mulch.

Intercropping

In litchi orchard intercropping of vegetable and some fast growing fruit plant like papaya can be done.

Fruit cracking

This is a serious problem under dry conditions and should be kept under checked by giving judicious and ample irrigation during the development of the fruit. Application of two foliar spray of NAA (2 g 100 L water or 445 ml Planofix/100 of L water) first at pea stage and second spray 10 days after first spray followed by irrigation at 3 days interval during dry period should be given to control the disorder.

Insect/Pests

The pedicel end borer is most destructive insect in this region. The caterpillar bores the fruit around pedicel end making a small hole. The infested fruits fall off prematurely or are left unfit for human consumption. Two spray of Fenvalerate 625 ml in 500 L of water at fruit setting stage followed by second spray 20 days later reduce the pest incidence.

Harvesting and yield

Harvesting of litchi is usually done in May to June. To maintain quality and avoid Gluts fruit should be stored properly. Keeping fruit in storage at 5-7QC may minimize The losses. Besides retaining colour and taste the storage also minimize the heavy loss In fruit weight.

Yield varies from 80-150 kg fruit /tree depending upon variety and tree vigour.