

**SOCIAL CONNECT AND
RESPONSIBILITY**

21UH36

MODULE 1

PLANTATION AND ADOPTATION

SAPOTA TREE

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3rd Semester

ISE

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INTRODUCTION

The Mayans and Aztecs first recognized the potential of this tree and its sweet, grainy-textured SAPOTA commonly known as is mainly cultivated in India for its fruit value, while in South-East Mexico, Guatemala and other countries it is commercially grown for the production of which is a gum like substance obtained from latex and is mainly used for preparation of chewing gum. This natural gum was reportedly extracted from the plant. Now, you know it!! Again, you must be thinking about how this Mexican fruit landed in India. No, it wasn't the Europeans but a textile

businessman Sir Petit who brought this fruit is mainly composed of water (78%), carbohydrates, vitamins, reducing and non-reducing sugars, ashes, dietary bio-irons needed for the formation of and vitamin A, copper, and amino acids The native to Central America, particularly Mexico, where it has been cultivated for thousands of years. The Mayans and Aztecs first recognized the potential of this tree and its sweet, grainy-textured fruit. Most of the common names of like come from Spanish meaning other common names in English include bully tree, marmalade plum and dilly tree. Most of the common names of "sapodilla", and come from Spanish meaning little Other common names in English include bully tree marmalade plum and dilly tree.



RESEARCH NEEDS

Sapodilla is considered as a minor fruit in Sri Lanka and there is no strong research and development program to promote it as an economic commercial fruit crop. One of the main constraints is the lack of suitable varieties and good quality planting materials. It is necessary to start with the planting materials raised from selected local trees yielding good quality fruits. At the same time an effort should be made to collect the available germplasm in the country and evaluate them for commercial production. In addition, it is necessary to introduce promising cultivars from countries with similar climatic conditions. The true genetic diversity of the existing varieties in the country should be established using molecular techniques and then an attempt should be made to introduce varieties to fill the gaps in existing collection. Conservation of genetic resources both in-situ and ex-situ are important. A variety development program through conventional breeding as well as through novel biotechnological techniques is necessary. To support such a program basic studies with regard to characterization of existing varieties and studies on floral biology will be required. At present, planting materials are produced by grafting Sapodilla on Alternative rootstocks should be identified which can impart characteristics such as tolerance to ill drained soil conditions, dwarfing, precocity and tree productivity. Existing propagation methods should be standardized. Mass propagation methods have to be developed to cater to the high demands of planting materials. Sapodilla fruits should be carefully harvested in order to minimize losses. Dwarfing trees will facilitate harvesting and other cultural operations.



Methods to dwarf trees by rootstocks, pruning, growth regulators etc. need to be studied. Maturity indices should be developed and techniques for proper harvesting and harvest management

SAPORTA (plural) The tropical fruit from the sapodilla tree,. The fruit is 4–8 cm in diameter, has a fuzzy brown skin with very sweet earthy-brown flesh

Environmental Impact:

Large-scale plantations can lead to soil erosion, water pollution, and loss of biodiversity due to monoculture farming practices.

Water Consumption: Plantations require significant water resources, potentially depriving local communities and wildlife of this essential resource

Exploitation : Plantation workers are often subjected to poor working conditions, low wages, and exploitation .

Loss of Ecosystem Services: Plantations simplify ecosystems, reducing ecological diversity and resilience.

PLANTATION PHOTOS





APPLICATION:

Economic Applications:

Timber production (forestry plantations)

Agricultural production (crops like palm oil, rubber, tea, coffee)

* Livestock grazing (cattle, sheep)

* Fruit and vegetable production

* Essential oil production (e.g., eucalyptus, tea tree)

Social Applications:

Job creation and employment opportunities

* Community development and empowerment

Indigenous community engagement and partnership

* Education and training programs

Other Applications

* Urban planning and green infrastructure .



CONCLUSION

It is grown in variety of soil but deep alluvial, sandy loam soil and black soil having good drainage are ideal for doing farming. pH having 6.0-8.0 is optimum for farming. Avoid cultivation in shallow clayey soil and in high calcium content. Growth is rapid, in flushes. It is densely branching, drooping at maturity. Young trees tend toward a single, limber stem for first 2 years often requiring staking.

White a taproot and other fibrous roots that are wandering and greedy like citrus. Consuming raw fruit may also lead to irritation and inflammation of the throat that may cause breathing problems in children. Furthermore, the seeds of are hard and hooked and ingesting them may cause abdominal pain and vomiting
