



## A Case Study

### Article history :

Received : 19.01.2012

Revised : 23.04.2012

Accepted : 20.05.2012

# Studies on the diseases affecting banana cultivars in Kanyakumari district

■ J. LOHI DAS

### Author for Correspondence

J. LOHI DAS

Department of Botany, Scott  
Christian College (Autonomous)

Nagercoil, KANYAKUMARI

(T.N.) INDIA

Email : lohiscott@yahoo.co.in

**Abstract :** Kanyakumari district is the southern most tip of India lies in the Western Ghats. The present paper describes the diseases affecting banana varieties cultivated in Kanyakumari district. Fungal, bacterial, viral diseases were identified and their symptoms, causing agent and control measures were studied. For the identification of diseases, the traditional banana cultivators and horticultural officers were interviewed.

**Key words :** Banana, Psuedostem, Fusarium, Peduncle

**How to cite this article :** Das, J. Lohi (2012). Studies on the diseases affecting banana cultivars in Kanyakumari district, *Asian J. Hort.*, 7(1) : 229-232.

**B**anana is one of the most important tropical crops cultivated all over the world. It is included in the genus *Musa* of the family Musaceae.

Banana plants are the world's biggest herbs, growing abundantly in many developing countries. They are considered to be one of the most important source of energy in the diet of people living in tropical humid regions. Banana is a stenothermic plant, cultivated in hot and wet regions, and it bears fruit all year round. Banana is not only the world's most popular fruit; it has carved an indelible niche for itself in popular culture. Banana is considered as the fourth most important food in the world after rice, wheat and maize.

The total banana production in the world is estimated to be 28 million ton. Of these, 65 per cent of the banana is produced by Latin America, 27 per cent in Southeast Asia and 7 per cent in Africa. Brazil is the leading banana grower in South America, while Columbia and Ecuador are the leading exporters (Thippesha *et al.*, 2006).

India is the leading banana producer in Asia. India stands in the second place behind China. Banana is cultivated extensively in South India. It is one of the most important commercial crops in South India. The common South Indian banana varieties are Poovan, Chenkadali, Nendren, Robusta, Moris, etc. Kanyakumari district ranks first in Tamilnadu. In Kanyakumari district 30 per cent of the total cultivated area is occupied by banana cultivars. Farmers cultivate banana plants in three important methods, namely mono-cropping,

intercropping and mixed cropping, according to the cultivars (Raj, 1998).

Banana grows very well under humid, tropical condition but can be cultivated even under humid or semi-arid sub-tropical condition. It can be cultivated at the temperature range between 10 - 40°C. Banana comes up well at altitude ranging from sea level to 1000 m above sea level (Dodds, 1943).

Bananas are grown in variety of soils such as light sandy soil, loamy alluvial soil and clayey brown cotton soil. The ideal pH is about 6.5 – 7.5. It needs well drained soil. Banana plant is a herb and propagated mainly by suckers. Tissue culture plantlets are also used for cultivation (Morton, 1987).

### Systematic position:

According to Engler and Prantl the family *Musaceae* is included in the order Scitamineae of monocots. Rendle has also included the family in the same order. Bentham and Hooker anyhow placed this family in the order Epigynae. Hutchinson put this family in his own way in the order Zingiberales.

## RESEARCH METHODS

Kanyakumari district part of the western ghats is the richest biogeographic province of India. It lies in the Agasthiyamalai region and very much potential for the cultivation of banana. The tropical climate and rainfall influence the rich diversity of the plants in this district. This study highlights the different disease affecting the banana plants.