

HISTORY OF PLANT PATHOLOGY IN INDIA

- The development of science of Plant Pathology in the modern era in India as in other countries followed the development of mycology. The study of fungi in India was initiated by Europeans in the 19th century. They used to collect fungi and send the specimens for identification to the laboratories in Europe.
- During 1850-1875, D.D. Cunningham and A. Barclay started identification of fungi in India itself. Cunningham made a special study of rusts and smuts.
- K.R. Kirtikar was the first Indian scientist who collected and identified the fungi in the country.
- E.J. Bulter who is also known as the 'Father of Plant Pathology' in India, initiated an exhaustive study of fungi and diseases caused by them in 1901 at Imperial Agricultural Research Institute at Pusa (Bihar).
- During his stay of 20 years in this country, he made a scientific study of mostly fungal plant diseases known in India at that time. The diseases studied by him for the first time included wilt of cotton and pigeon pea, different diseases of rice, toddy palm, sugarcane, potato and rusts of cereals.
- He wrote a monograph on 'Pythiaceae and Allied Fungi'; and a classic text book, 'Fungi and Diseases in Plants' in 1918.
- J.F. Dastur (1886-1971), a colleague of Butler, was the first Indian Plant Pathologist who is credited with a detailed studies of fungi and diseases in plants.
- He studied the genus *Phytophthora* and diseases caused by it in castor and potato. He is internationally known for the establishment of *Phytophthora parasitica* from castor.
- G.S. Kulkarni published exhaustive information on downy mildew and smuts of sugarcane and pearl millet.
- B.B. Mundkur started work on control of cotton wilt through varietal resistance.
- He was also responsible for the identification and classification of large number of Indian smut fungi.
- His most significant contribution to plant pathology will be remembered through the 'Indian Phytopathological Society' which he started almost single handedly in 1948 with its journal 'Indian Phytopathology'.
- He also authored a text book entitled, 'Fungi and Plant Diseases'.
- Dr. K.C. Mehta of Agra College, Agra investigated the life cycle of cereal rusts in India during the first half of 20th century.
- Dr. R. Prasada trained by Dr K.C. Mehta continued the work on rusts and added to the knowledge of linseed rust.
- Luthra and Sattar (1953) developed the solar heat treatment of wheat seed for the control of loose smut. SN Dasgupta carried out exhaustive studies on black tip of mango.
- T.S. Sadasivan worked out the mechanism of wilting in cotton due to *Fusarium oxysporum* f. sp. *vasinfectum*.
- M.K. Patel, V.P. Bhide and G. Rangaswami pioneered the work on bacterial plant pathogens in India.

- M.J. Thirumalachar conducted exhaustive studies on rusts and smuts, and developed a number of antibiotics for controlling plant diseases in India.
- Afterwards, Plant Pathology became a major subject in various agricultural colleges and universities and organized research was conducted on major plant diseases affecting crop plants in India.
- Notable contributions included the works of B.L. Chona on sugarcane diseases and Agnihotrudu in tea diseases, R.K. Agrawala on apple diseases and G.S. Saharan on oilseed plant diseases to name a few.