

Detection of Fungus Causing Scab Disease of Citrus in Punjab, Pakistan

Neelma Munir*, Sundas Moazzam, Rukhama Haq and Shagufta Naz*

Department of Biotechnology, Lahore College for Women University, Lahore, Punjab, Pakistan.

Corresponding authors, neelma.munir@yahoo.com, drsnaz31@yahoo.com

Nature has blessed Pakistan with an ideal climate for growing a wide range of delicious fruits. Thus a very wide range of tropical, sub-tropical and temperate fruits are grown in the country. In Pakistan, citrus is among the main cash crops for the farmers. Citrus is primarily valued for the fruit, which is either eaten alone as fresh fruit, processed into juice, or added to dishes and beverages. Various bacterial, fungal, viral and viral-like diseases attack citrus crop in Asia during the past couple of years. Among the fungal diseases of citrus, scab is very common. Citrus scab produces external blemishes on citrus fruit, reducing acceptability of the fruit for the fresh market. The disease is widespread in many humid, citrus-cultivating areas around the world. Different fungal species affect the citrus plants in different regions. Because these species cannot be reliably distinguished by morphological or cultural characteristics, host range and molecular methods must be used to identify different isolates. Presently, the plant disease detection techniques available are enzyme-linked immunosorbent assay (ELISA) and polymerase chain reaction (PCR). PCR is a more advance technique than ELISA. The purpose of the present work focus on the detection of scab causing fungus infecting citrus cultivars of Punjab, Pakistan. Out of 46 samples 13 were found positive for scab. On the basis of band size it can be suggested that the isolated fungus is *Elsinoe australis*.

Keywords: Citrus, detection, disease, fungus, scab