

FUTURE RENOVATIONS ON PLANT CARE AND DISEASE MANAGEMENT

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Abstract

Plant pathology is a science that studies plant diseases and attempts to improve the chances for survival of plants when they are faced with unfavorable environmental conditions and parasitic microorganisms that cause disease. Principles of diseases management are avoidance, exclusion, eradication, protection, host resistance and therapy. Molecular technology increase understanding of the biology and population structures of plant pathogens provides quick and accurate answers to epidemiological questions about plant diseases and support disease management decision. Procedures and protocols of molecular techniques are isolation and separation of nucleic Acids. Electrophoresis in agarose or polyacrylamide gels is the most usual way to separate DNA molecules according to size. Restriction mapping involves the size analysis of restriction fragments

produced by several restriction enzymes individually and in combination. Nucleic acid analysis methods are numerous methods for analyzing DNA and RNA; however, many of them are solution based or more recently include the use of chip-based array systems. Indeed, the lab-on-a-chip approach is developing rapidly and it is possible to envisage many detection and analysis methods being developed in this format in the future. PCR is used to amplify a precise fragment of DNA from a complex mixture of starting material, usually termed the template DNA, and in many cases requires little DNA purification. Molecular biology tools are new being used to facilitate the conventional disease resistance breeding program and to shorten the duration to develop a resistant cultivar in different crops used in plant disease management.

Biography

Takele kusa is currently working as a professor in wollega University, Ethiopia.