



Different Types of Plant Pathogens and their Characteristics

Cheng Li*

Department of Agriculture, Tokyo University, Tokyo, Japan

DESCRIPTION

Plants cover most of the living environment on earth as trees, grasses, flowers, etc. Plants play a variety of important roles in the environment, including ecosystem balance and nutrition for animals and humans. In addition, wild or cultivated plants are considered to be powerful biofertilizers for the soil as they continue to supply the soil with sufficient organic matter even after they die and decompose. Plant care is therefore a great duty and a difficult mission that requires constant improvement. The study of plant pathogens belongs to the branch of biology known as plant pathology. The latter is also involved in overcoming plant diseases caused by biotic and/or abiotic origin. Biotic (infectious) diseases are caused by microbial infection, while abiotic (non-infectious) diseases are caused by environmental factors. This study deals with plant pathogens or phytopathogenic microorganisms such as bacteria, viruses, fungi and mollusks). Organisms that cause infections include fungi, oomycetes, bacteria, viruses, viroids, viral organisms, phytoplasmas, protozoa, nematodes, and parasitic plants. Excludes ectoparasites such as insects, mites, vertebrates and other pests that affect plant health by eating plant tissue. Plant pathology includes the study of pathogen identification, disease etiology, disease cycles, economic impact, plant disease epidemiology, plant disease resistance, effects of plant diseases on humans and animals, pathogenetics, and plant disease management. is also included.

A plant disease is defined as "anything that prevents a plant from reaching its full potential." This definition is broad and includes abiotic and biotic plant diseases.

Plant disease control is essential for reliable food production and poses significant problems for agricultural use of land, water, fuel and other inputs. Plants in both natural and cultivated populations have inherent disease resistance, but there are many

examples of the devastating effects of plant diseases such as citrus canker.

However, disease control is fairly successful in most crops. This includes the use of plants that have been bred to have superior resistance to many diseases, as well as crop rotation, use of pathogen-free seeds, proper planting dates and planting densities, moisture management of the field, application of pesticides, etc. Continued advances in plant pathology are needed to improve disease control, respond to the ongoing development and migration of plant pathogens, and to respond to changes in agricultural practices.

CONCLUSION

Crop diseases cause large economic losses to farmers worldwide. Across large areas and many crop species, diseases are usually estimated to reduce yields by 10% annually in more developed environments, whereas yield losses due to diseases are often as high as 20% in less developed environments. The Food and Agriculture Organization estimates that pests and diseases are responsible for about 25% of crop loss. Solving this requires new methods for early detection of diseases and pests.

Fungi are members of a large and diverse group of eukaryotic microorganisms. They have chlorophyll-less cells with membrane-bound nuclei, mitochondria, and rigid cell walls. Fungi have plant-like vegetative bodies consisting of minute branches. They have filamentous filaments of varying lengths called hyphae, some of which extend into the air and others penetrate the substrate on which these fungi grow. They are arranged in networks called bodies. Because of this mycelium mass, mushroom growths appear fluffy. They reproduce both sexually and asexually. They produce large amounts of spores of various types.

Correspondence to: Cheng Li, Department of Agriculture, Tokyo University, Tokyo, Japan, E-mail: chans@gmail.com

Received: 01-Nov-2022, Manuscript No. JPPM-22-19308; **Editor assigned:** 04-Nov-2022, PreQC No. JPPM-22-19308 (PQ); **Reviewed:** 18-Nov-2022, QC No. JPPM-22-19308 (R); **Revised:** 25-Nov-2022, Manuscript No. JPPM-22-19308; **Published:** 02-Dec-2022, DOI: 10.35248/2157-7471.22.13.650.

Citation: Chan S (2022) Different Types of Plant Pathogens and their Characteristics. J Plant Pathol Microbiol. 13:650.

Copyright: © 2022 Chan S. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.