

Plant pathology: Terms and definitions

Thuật ngữ và Định nghĩa – Kiểm tra thường kỳ

1. Plant pathology – BH Thực vật

2. Plant Disease – Bệnh cây

3. Pathogen - tác nhân gây bệnh

4. Parasites - ký sinh trùng

5. Pathogenesis - cơ chế bệnh sinh / sinh bệnh học

The process or chain of events leading to the development of disease is called pathogenesis

6. Vector – Ký chủ trung gian

An organism, especially an insect, which carries a disease-producing microorganism (pathogen) from one host to another, either within or on the surface of its body is called a vector.

7. Biotrophs - Sinh vật ký sinh

8. Necrotrophs - Sinh vật hoại sinh

9. Inoculum - tác nhân gây bệnh/nguồn bệnh

Inoculum is the infectious material that can cause disease and it is that portion of individual pathogen that is brought into contact with the host plant.

10. Inoculation - Giai đoạn lây nhiễm

The process of coming in contact of the inoculum of the pathogen with the host plant is called inoculation.

11. Infection – Lây nhiễm/Nhiễm trùng

Infection implies the establishment of the pathogen inside the host following penetration in which a parasitic relationship between the host and the pathogen is established

12. Visible and invisible infection - Nhiễm trùng nhìn thấy và không nhìn thấy

The infection when visible externally on the host surface is known as visible infection. It is commonly called appearance of the disease.

When infection is established in the host tissue but is not visible from outside the host it is known as invisible infection.

13. Disease cycle – Chu kỳ bệnh

A series of events involved in disease development, including the stages of development of the pathogen and the effects of the disease on the host, is called the disease cycle

14. Disease triangle – Tam giác bệnh cây/ Tam giác gây bệnh

15. Etiology – Nguyên nhân

16. Symptoms – Triệu chứng

17. Signs – Dấu hiệu

18. Wilt - Héo: A drooping condition of the leaves, shoots, or other parts is usually due to a diseased vascular system. The wilting may be temporary, the plants recovering at night, or it may be permanent and progress to death of the affected plant part.

19. Blight - Cháy: A condition developed due to the rapid killing of foliage, blossoms, etc., by pathogens is called blight. The killed tissue is often transformed into slimy mass which emits pungent odour

20. Spot – Đốm: A very common symptom in many diseases is the development of more or less circular diseased areas on the affected plant parts. Often the affected tissue dies, turns brown and dies out. Sometimes the central dead area is surrounded by one or more zones of reddish or yellowish tissue

21. Blast – Chết lụi: The sudden death of above ground plant parts like young buds, inflorescence and young fruits is called blast.

22. Die-back – Chết ngược: A symptom resulting from death of twigs or branches from tip towards the base is called die-back.

23. Anthracnose – Thán thư: Elongate, more or less angular spots appear on the lower side of the leaf spreading into surrounding tissue and eventually appearing on the opposite side. Petioles, stems and often fruits may be affected.

24. Canker – Loét thân: This is a sunken necrotic lesion developed in the cortical tissues of the stem, fruits or leaves. A sharp demarcation of the area by a sharp crack separating the diseased part from the healthy part often marks a stop in canker development.

25. Endemic disease – Bệnh đặc hữu: A disease is said to be endemic when it is constantly present in a moderate or severe form and is confined to a particular geographical region like country or district
26. Epidemic disease – Dịch bệnh: An epidemic or epiphytic disease usually occurs widely, but periodically in a destructive form. The pathogen may be present, as in endemic disease, but the environmental.
27. Pandemic disease – Đại dịch: Pandemic outbreak is an epidemic which occurs over vast and extensive areas causing severe loss. This occurs all over the world and result in man mortality, i.e. it has a global scenario.
28. Monocyclic - Đơn chu kỳ:
- Some pathogens complete only one or even part of one disease cycle in one year and are called mono-cyclic or single cycle pathogens
29. Polycyclic – Đa chu kỳ:
- Some pathogens complete more than one generation per growth season and so are called polycyclic or multi-cycle pathogens
30. Polyetic – Tác nhân gây bệnh đa năm:
- Some pathogens may not complete one disease cycle in one year, but instead may take several years before the inoculum it produces in the host can be disseminated and initiate new infection. They are called polyetic or multi-year pathogens
31. Koch's postulates – Định đề/Nguyên tắc Koch
32. Host – Vật chủ
33. Susceptibility – tính nhạy cảm: Degree of a host to what extent it favours a pathogen to invade itself.
34. Resistance – tính kháng: Degree of a host to disfavour a pathogen to invade itself.
35. Tolerance – Chịu đựng/chống chịu: A type of defense that minimize crop losses without restricting disease development or the ability of a plant to survive against the attack of the pathogens without appreciable loss or reduction in yield.
36. Substrate – cơ chất: Means food base from where microorganisms take nourishment.
37. Compatibility- Tính tương thích: Compatibility means ability of a plant and a pathogen to co-exist at least during the early stage of disease development

38. Incompatibility – Tính không tương thích: The inability of a plant and pathogen to co-exist results in incompatibility and the absence of disease.

39. Phytoalexin

40. Hypersensitive reaction - Phản ứng quá mẫn

41. Biotype - kiểu sinh học: Biotypes are individuals of the same pathogenic species, which can cause different types of symptoms in a variety of a crop species. They are morphologically and physiologically same but different biological character (symptom differences).

42. Immunity – Miễn dịch: This implies exemption from infection by a pathogen and this sense is an absolute quality of plant.

43. Antigen – Kháng nguyên: A foreign protein and occasionally complex lipids and carbohydrates, which upon injected into animal induce the production of antibody.

44. Antibody – Kháng thể: A new or altered protein produced in a warm -blooded animal in reaction to an injected foreign antigen.

45. ELISA (Enzyme-Linked Immuno Sorbent Assay): A serological test in which the sensitivity of the reaction is increased by attaching an enzyme that produces a colored product to one of the reactants.