

AB0807-PLANT PATHOLOGY

LECTURE 5

Plant Defense Mechanisms to Pathogens

- Constitutive Structural Defense
- Constitutive Biochemical Defense
- Inducible Structural Defense
- Inducible Biochemical Defense
- Hypersensitive Response (HR)
- Systemic Acquired Resistance (SAR)

INTRODUCTION

- **Most plants are resistant to most potential pathogens in most times**, because plants have evolved defense systems to protect themselves.
- The contact between plant and pathogenic microorganism lead to a particular chain of events in the plant organism.
- Communication requires a mobile 'systemic signal'.
- Interaction leads to one of two types of response:
 - compatible (disease-causing) response, OR
 - incompatible response
- Defense (resistance) is always controlled by **GENES**

CLASSIFICATION OF PLANT DEFENSE

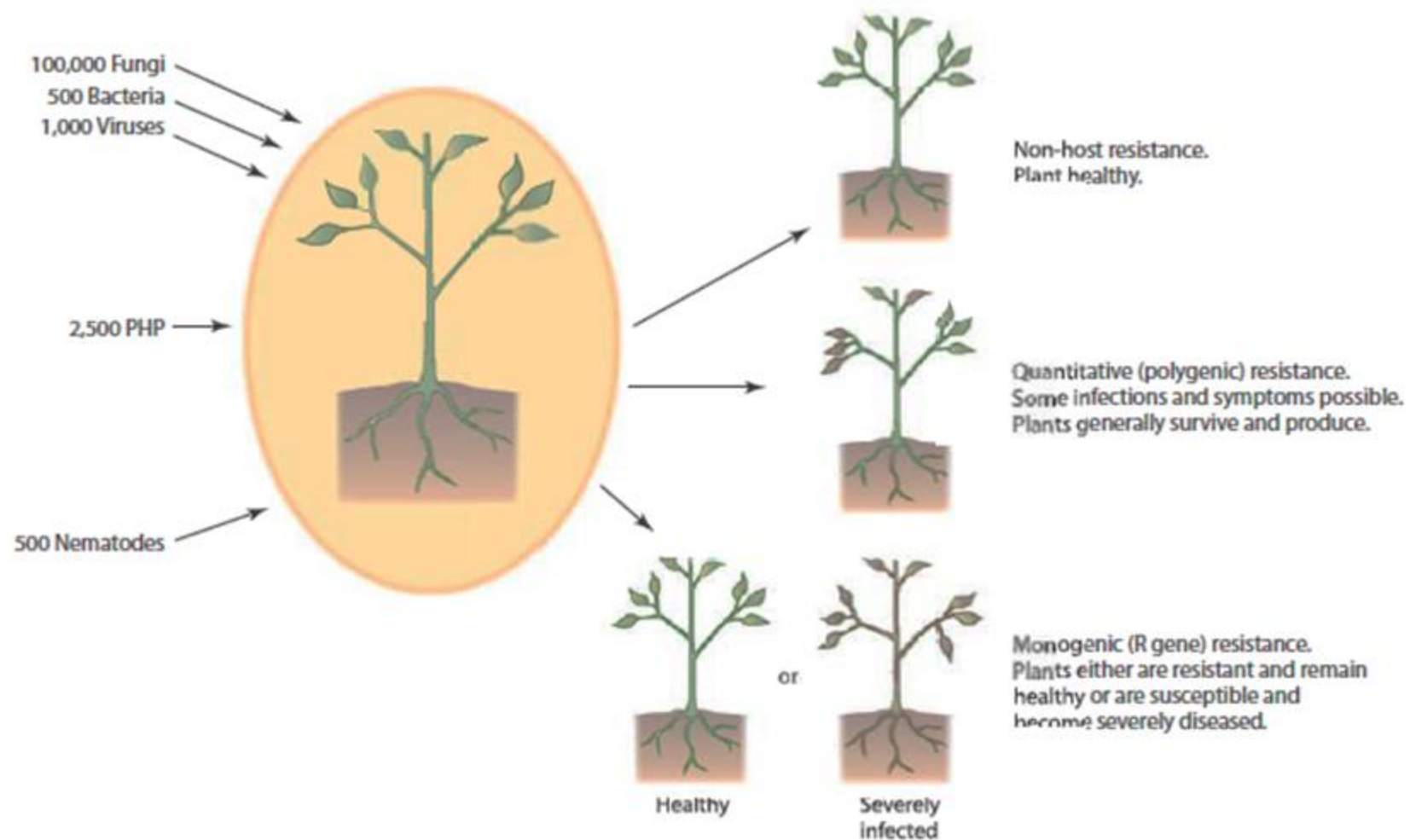


FIGURE 6-1 Types of reaction of plants to attacks by various pathogens in relation to the kind of resistance of the plant.