

# **Definition of the Terms Describing the Reaction of Plants to Pests or Pathogens for the Vegetable Seed Industry as adopted by the International Seed Federation (May 2005)**

## **1. Preamble**

Differing degrees of specificity exist in the relations between plants and pests or pathogens. Identification of such specificity generally requires the use of highly elaborate analytical methods. Recognizing whether a plant is subject to a pest or pathogen or not may depend on the analytical method employed. It is important, in general, to stress that the specificity of pests or pathogens may vary over time and space, depends on environmental factors, and that new pest biotypes or new pathogen races capable of overcoming resistance may emerge.

## **2. Definitions**

**Immunity:** Not subject to attack or infection by a specified pest or pathogen.

**Resistance** is the ability of a plant variety to restrict the growth and development of a specified pest or pathogen and/or the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest or pathogen pressure. Resistant varieties may exhibit some disease symptoms or damage under heavy pest or pathogen pressure.

Two levels of resistance are defined:

High/standard resistance (HR\*): plant varieties that highly restrict the growth and development of the specified pest or pathogen under normal pest or pathogen pressure when compared to susceptible varieties. These plant varieties may, however, exhibit some symptoms or damage under heavy pest or pathogen pressure.

Moderate/intermediate resistance (IR\*): plant varieties that restrict the growth and development of the specified pest or pathogen, but may exhibit a greater range of symptoms or damage compared to high/standard resistant varieties. Moderately/intermediately resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest or pathogen pressure.

**Susceptibility** is the inability of a plant variety to restrict the growth and development of a specified pest or pathogen.

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As to resistance codes Rijk Zwaan would like to add the following:

If in a resistance code of a certain variety reference is made to certain pest biotypes or pathogen races for which the resistance is claimed this means that no resistance is claimed to other biotypes or races of the same pest or pathogen.

If in a resistance code no reference is made to pest biotypes or pathogen races for which the resistance is claimed this means that resistance is claimed only to certain not further specified pest biotypes or pathogen races.