



HARRIS MORAN'S TERMINOLOGY FOR THE REACTION OF PLANT VARIETIES TO PESTS OR PATHOGENS AND TO ABIOTIC STRESSES

OVERVIEW

Different degrees or levels of interaction exist between plants and their pests and pathogens. In the last year, the seed industry has begun using a standardized terminology to describe the different levels of reaction of plant varieties to pest/pathogen infection in order to clearly characterize and communicate to growers and seed users the degree or level of the reaction of a specific variety to a pest/pathogen.

TERMINOLOGY FOR DEFINING THE REACTION OF A PLANT VARIETY TO PEST AND PATHOGEN ATTACK

Immunity. Plant varieties which are not subject to attack or infection by a specific pest/pathogen are considered immune.

Resistance. Not as strong as immunity; two levels of resistance are defined.

Resistance (R): plant varieties that restrict the growth and development of the specific pest or pathogen under normal pest or pathogen attack pressure when compared to susceptible varieties. These plant varieties can exhibit some symptoms or damage under heavy pest or pathogen pressure. Plant varieties with Resistant (R) are not immune to the pest/pathogen.

Intermediate Resistance (IR): plant varieties that restrict the growth and development of the specified pest/pathogen, but may exhibit a greater range of symptoms or damage compared to resistant varieties. Intermediate resistant plant varieties will usually show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest/pathogen pressure, but may have heavy damage under heavy pressure. Plant varieties with Intermediate Resistance (IR) are not immune to the pest/pathogen.

Susceptible is defined as the inability of a plant variety to restrict the growth and development of a specified pest/pathogen. Plant varieties that are susceptible will show damage when infected and are more likely to have heavy damage under moderate levels of pest/pathogen pressure.

The abbreviations used by Harris Moran for these levels or degrees of reaction to a specific pest or pathogen are:

R (Resistance)
IR (Intermediate Resistance)
S (Susceptible)

TERMINOLOGY TO DESCRIBE THE REACTION OF A PLANT TO ABIOTIC STRESSES

Abiotic stresses are those caused by the environment and not by a living organism.

Tolerance is the ability of a plant variety to endure abiotic or environmental stress with more limited effect on growth, appearance and yield although, under higher levels of abiotic stress, the plant variety may be damaged.

NOTE: Harris Moran will no longer use the term Tolerance to describe a seed variety's level of reaction to pests or pathogens.