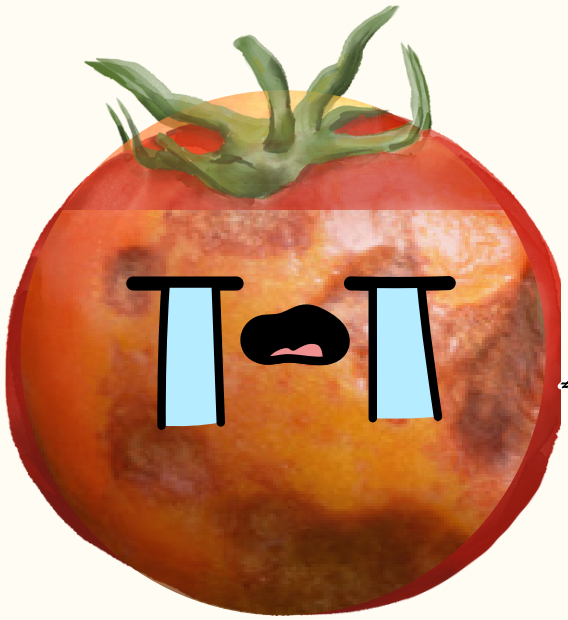
What is a deleterious gene?

A deleterious gene is a gene that can cause harm or have detrimental effects on the organism's health, development or survival.

Deleterious genes often lead to the **expression of harmful traits or contribute to the predisposition to certain diseases**. These genes may be inherited or can arise through mutations.

*See resources on the last page



I have a susceptibility gene that makes me prone to late blight, a pathogen. Its impact on yield and quality is devastating!*

Our offspring inherited a combination of NBS-LRR genes that causes hybrid necrosis (cell death).*

*See resources on the last page

Deleterious genes can sometimes be **lethal** or cause death of certain plant parts.

Plant breeders try to figure out various strategies to manage deleterious genes in breeding programs. The specific approach depends on the nature of the deleterious gene, its impact on the plant's phenotype, and the breeding goals.

Breeders use various methods, including **selection, backcrossing and new genomic techniques**, to eliminate deleterious genes and enhance the overall genetic quality of cultivated plants.

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