

Humans influence the inheritance of desired traits.

The goal is to produce plants and animals with improved genetic characteristics.

Uses knowledge of DNA and the relationship between genes and traits.

Has taken place for thousands of years since early civilizations began using agricultural practices to produce their food rather than relying on hunting and gathering.

Improvements take place over many years or generations.

The desired gene or trait is found within a specie's genome (without any transferring).

The desired gene or trait is NOT found within the genome of a particular species. It requires advanced science technology to transfer the gene.

Once a desired gene (trait) is identified in one organism, it is transferred to another.

The use of this breeding technology is not regulated.

The use of this breeding technology is heavily regulated to ensure the resulting plant variety is safe for the environment and human consumption.

Genes can be specifically selected and “silenced” to mute undesirable traits.

A technology first used to improve food crops in the 1990s.