

Name of Genetic Engineering

Genetic engineering can be used to produce desired traits such as to be pest resistant, drought resistant, etc.

Advantages: Better utilization of natural resources, better yields, better quality, better resistance to pests and diseases, etc.

The Egg-cell Splicing

The technology has improved then have some new techniques to produce desired traits from one generation to the next. Here is an example that shows that some traits are passed.



Step 1: Somatic cell nucleus with genes from the subject you want cloned is inserted into an enucleated egg cell.

Step 2: Egg cell is fertilized with an egg cell belonging to the same species.

Step 3: The cells are fused and exposed to electric shock.

Step 4: Fertilized egg develops into early embryo in laboratory.

Step 5: The egg cell with nucleus of the donor animal is used.

Step 6: The embryo is cloned and grows into an embryo.

Step 7: Embryo develops into a newborn animal that carries the genes of the donor animal.