

# [Mutation legged sheep was discov­ered by english](https://assignbuster.com/mutation-legged-sheep-was-discovered-by-english/)

Mutation may be defined as sudden heritable change in a gene due to change in sequence of nucleiotides which alter the phenotype of an individual, e.

g. Short legged sheep was discov­ered by English farmer Wright (1791). Morgan (1910) studied mutation in Drosophila and reported white eyed mutant in red eyed flies. Major classes:

#### 1. Chromosomal aberration-

Change in structure and number of chromosomes.

#### 2. Gene mutations-

Change in single gene. Types of mutations:

#### 1.

#### Germinal mutation:

Change in reproductive cells (sperms and eggs) of the individual take place. The change may take place in gamete (gametic) or zygote (zygotic).

#### 2. Somatic mutation:

Change in somatic vegetative cells. How­ever, they are not hereditary they perish with the individual in which they occur.

#### 3. Reverse mutation:

The mutated gene undergoes change i. e.

back to the normal, hence they are also called reverse or back mutations. They are rare and less frequent than normal muta­tions.

#### 4.

#### Spurious mutation:

When recessive genes appear phenotypically by the crossing over it is known as spurious mutation. They are generally hidden mutations, e. g.

Pink eye color in Drosophila.

#### 5. Anomozygous mutation:

Changes occur due to structural variations in the chromosome i.

e. chromosomal aberrations or change in chromosome number (heteroploidy).

#### 6.

#### Biochemical mutation:

They affect biochemical process i. e. loss of ability to synthesize vitamins and amino acids. They are studied in Neurospora by Beadle and Tatum.

#### 7. Lethal mutation:

They cause death of organisms similarly loss or alternation in essential function of an organism.