

Mutation legged  
sheep was discov-  
ered by english



**ASSIGN  
BUSTER**

Mutation may be defined as sudden heritable change in a gene due to change in sequence of nucleotides 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.