

Mendel's Laws

Mendel's Laws of Heredity

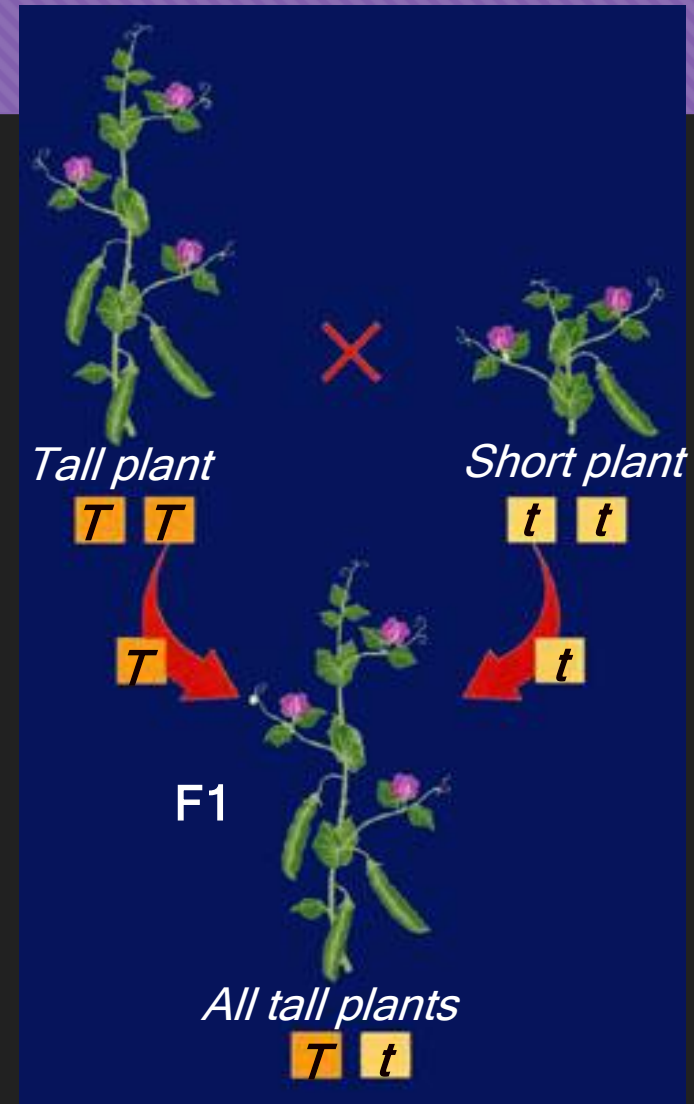
- Gregor Mendel, an Austrian monk, in 1865 carried out important studies of heredity - the passing on of characteristics from parents to offspring.
- Mendel was the first person to succeed in predicting how traits are transferred from one generation to the next.

The Rule of Dominance

- Mendel called the observed trait dominant and the trait that disappeared recessive.
- When recording the results of crosses, it is customary to use the same letter for different alleles of the same gene.

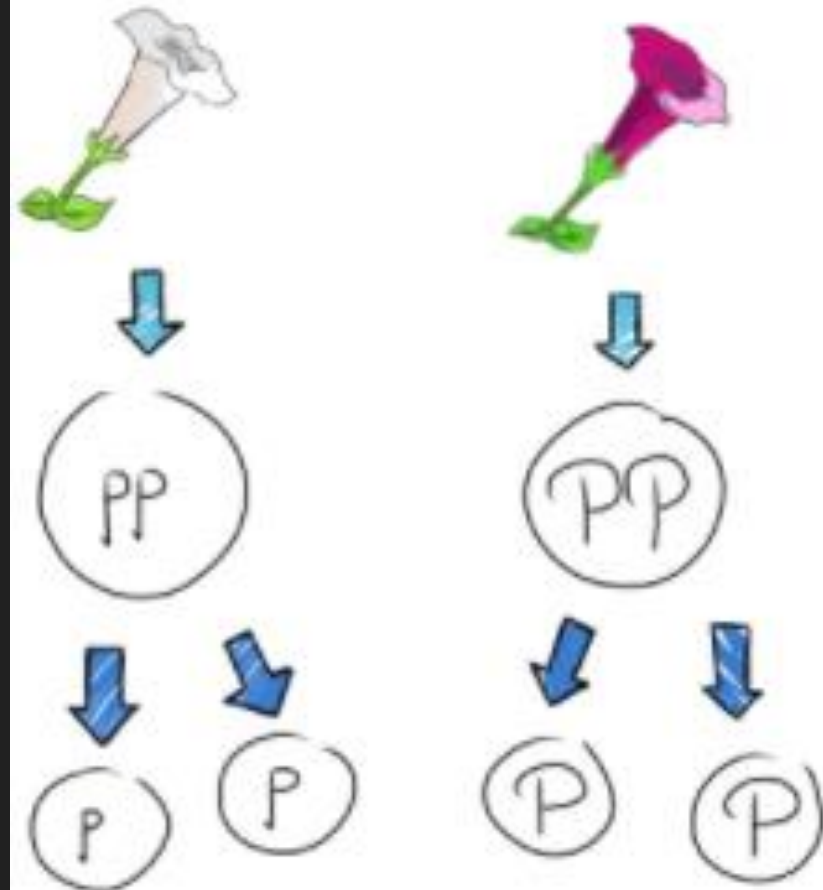
The Rule of Dominance

- An uppercase letter is used for the dominant allele and a lowercase letter for the recessive allele.
- The dominant allele is always written first.



The Law of Segregation

- The law of segregation states that every individual has two alleles of each gene and when gametes are produced, each gamete receives one of these alleles.
- During fertilization, these gametes randomly pair to produce four combinations of alleles.



The Law of Independent Assortment

- Genes for different traits are inherited independently of each other
 - Going back to the law of segregation, we know that OUR chromosome pairs from our parents must get split in order to make gametes
 - **HOWEVER**, lets look at a second gene pair, how pair 1 splits does **NOT** play a role on how any other pairs split. They do so independently of one another.

