

MONOHYBRID CROSS

Law of segregation or Law of purity of gametes

During the formation of gamete, each gene separates from each other so that each gamete carries only one allele for each gene.” Law of segregation is the second law of inheritance

Monohybrid Cross Definition

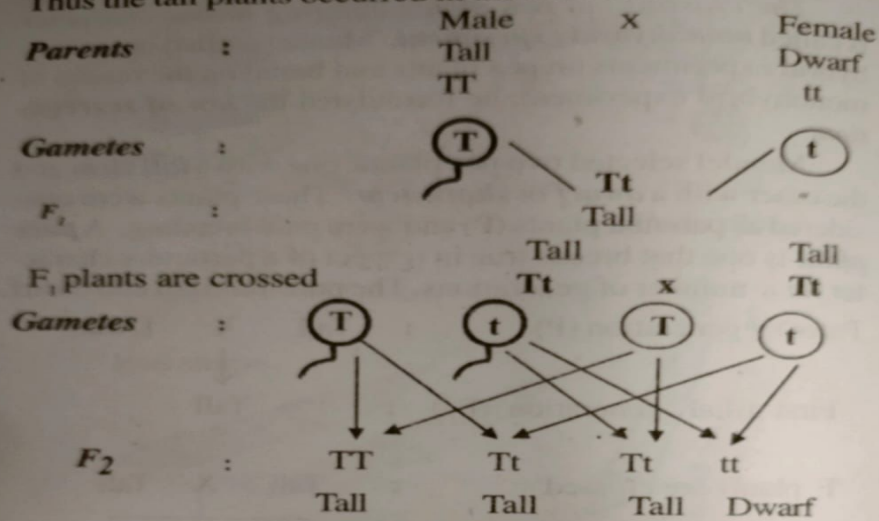
“A monohybrid cross is the hybrid of two individuals with homozygous genotypes which result in the opposite phenotype for a certain genetic trait.”

“The cross between two monohybrid traits (TT and tt) is called a Monohybrid Cross.”

Monohybrid cross is responsible for the inheritance of one gene. It can be easily shown through a Punnett Square.

Monohybrid cross is used by geneticists to observe how homozygous offspring express heterozygous genotypes inherited from their parents.

Thus the tall plants occurred in the ratio 3:1.



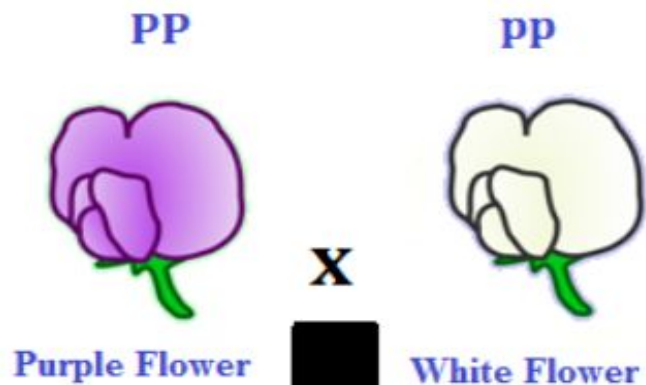
75%
3
25%
1

Gametes	T	t
T	TT Tall	Tt Tall
t	Tt Tall	tt Dwarf

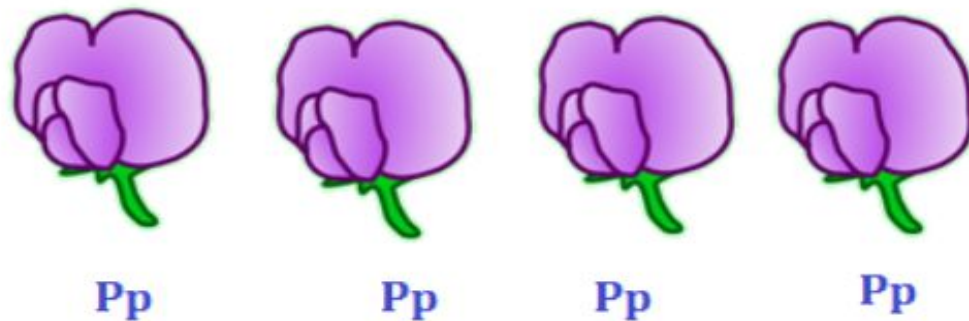
Phenotypic ratio : 3:1 (Tall : Dwarf)
Genotypic ratio : 1:2:1 (TT : Tt : tt)

Fig.2.3: Monohybrid experiment.

Parental



F₁ Generation



Monohybrid Cross

