

## Laws of Inheritance :-

1. Law of Dominance
2. Law of Segregation & Purity of Gametes
3. Law of Independent Assortment of characters.

1. Mendel thought that in a pair of opposed factors, one factor is dominant & other is recessive. The hybrid ( $F_1$ ) round pea contain both the characters smoothness & wrinkledness but the effect of smoothness is visible and not the wrinkledness because the smoothness is a dominant character & wrinkle is recessive character.

$RR \times rr$  P.

↓

$Rr$  —  $F_1$

↓

All plants having smooth seeds.

Law of dominant explains the appearance of a particular character in the hybrids.

Characters are controlled by discrete unit called factor

└ pairs

In a dissimilar pair of factors one member of the pair dominates & other recessive

In  $F_1$  expression of only one of the Parental characters in monohybrid cross.

$F_2$  └ both characters are expressed.

Ratio will be 3:1 in  $F_2$

### 5.2.1 Law of Dominance

- (i) Characters are controlled by discrete units called factors.
- (ii) Factors occur in pairs.
- (iii) In a dissimilar pair of factors one member of the pair dominates (dominant) the other (recessive). Tt →

The law of dominance is used to explain the expression of only one of the parental characters in a monohybrid cross in the  $F_1$  and the expression of both in the  $F_2$ . It also explains the proportion of 3:1 obtained at the  $F_2$ .