

Wright's Inbreeding Coefficient (COI)

Inbreeding can be defined as follows:

1. The probability that both genes of a pair in an individual are identical by descent, ie homozygous
2. The probable proportion of an individual's loci containing genes that are identical by descent
3. The Inbreeding Coefficient is expressed as a percentage. The more common ancestors there are in a pedigree, and the closer they are in terms of generations to their descendant, the higher the Inbreeding Coefficient of that descendant.

Wright's Coefficient of Relationship (COR)

1. A measure of pedigree relationship between any of the ancestors and the final entry.
2. The probable proportion of one individual's genes that are identical by descent to genes of a second individual
3. The correlation between the breeding values of two individuals due to pedigree relationship alone.

The Relationship Coefficient (R) estimates the probable percentage of genes passed down from a particular common ancestor.