

### 3. Darwin's cross-fertilized and self-fertilized plants

Darwin, C. (1876) *The Effect of Cross- and Self-fertilization in the Vegetable Kingdom*, 2nd edition, London: John Murray.

These data are from Charles Darwin's study of cross- and self-fertilization. Pairs of seedlings of the same age, one produced by cross-fertilization and the other by self-fertilization, were grown together so that the members of each pair were reared under nearly identical conditions. The aim was to demonstrate the greater vigour of the cross-fertilized plants. The data are the final heights of each plant after a fixed period of time. Darwin consulted Galton about the analysis of these data, and they were discussed further in Fisher's *Design of Experiments*.

Final heights of plants (inches):

Pair	Cross-fertilized	Self-fertilized
1	23.5	17.4
2	12.0	20.4
3	21.0	20.0
4	22.0	20.0
5	19.1	18.4
6	21.5	18.6
7	22.1	18.6
8	20.4	15.3
9	18.3	16.5
10	21.6	18.0
11	23.3	16.3
12	21.0	18.0
13	22.1	12.8
14	23.0	15.5
15	12.0	18.0