

Practical examples

1. Calculate the additive genetic relatedness matrix for the 5 evaluated individuals, taking into account inbreeding, using the tabular method.

Pedigree of the evaluated individuals (tabular method)

Animal	Sire	Dam			A	B	C	D	E
A	-	-		A					
B	-	-		B					
C	A	B		C					
D	A	C		D					
E	D	B		E					

Source: Schaeffer (2010)

2. Solve the same example using the CFC software (software package for pedigree analysis and monitoring genetic diversity).

Pedigree of the evaluated individuals (CFC software)

Animal	Sire	Dam			A	B	C	D	E
A	-	-		A					
B	-	-		B					
C	A	B		C					
D	A	C		D					
E	D	B		E					

Source: Schaeffer (2010)

3. Solve the same example using the R software (R-Studio).

Pedigree of the evaluated individuals (R software)

Animal	Sire	Dam			A	B	C	D	E
A	-	-		A					
B	-	-		B					
C	A	B		C					
D	A	C		D					
E	D	B		E					

Source: Schaeffer (2010)