

Genetics Lab

Activity Overview:

You will determine cattle phenotypes (physical traits) and possible genotypes (genetic traits). For instance, a black hair coat is dominant. If a cow has a black hair coat, they are either BB or Bb. If they do not have a black hair coat, they are bb.

Directions:

1. Use the following Punnett square for two cattle (sire and dam) which are heterozygous for two traits: Polled = P and Black = B. Alternatives for the cattle's offspring are horned and red. Determine the possible combination for their offspring.

	PB	Pb	pB	pb
PB				
Pb				
pB				
pb				

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2. Use the following Punnett Square to determine the genotype for a normal dam and a sire carrier of dwarfism. N = normal size and n = dwarfism.

	N	N
N		
n		