



Results Interpretation

This guide will help you understand and interpret genomic testing results in cattle by explaining common terms and what the results mean for your animals.

Definitions

Homozygous - An animal has two *identical* versions of the same gene (one inherited from the sire and one inherited from the dam)

Heterozygous - An animal has two *different* versions of the same gene (one inherited from the sire and one inherited from the dam)

Carrier - An animal carries a gene that is either causative or associated with a disease, trait or other genetic condition

Affected - An animal is affected with the disease, trait or genetic condition

Results

SINGLE TRAIT RESULTS

Result	Interpretation
N	Homozygous Non-Carrier
C	Carrier
A	Homozygous Affected
NR	No Result

COAT COLOUR

Result	Interpretation
ED/ED	Homozygous dominant black
ED/e	Dominant black/recessive red
ED/E+	Dominant black/wildtype
E+/e	Wildtype/recessive red
E+/E+	Homozygous wildtype
e/e	Homozygous recessive red

HORN POLL

Categories

Pc = Polledness of Celtic Origin **Pf** = Polledness of Friesian Origin **H** = Horn

Result	Interpretation	Animal's Appearance
PcPc PfPf PcPf*	Homozygous Poll (PP)	Predominantly Polled (intermittent scurs) *PcPf can be also referred to as a compound heterozygote.
HPc HPf	Heterozygous Poll (PH)	Polled or Scurred
HH	Horned (HH)	Horned

MYOSTATIN

Result	Interpretation	Impact when breeding
0	Zero copies of mutant Myostatin variant present	Animal has normal muscling.
1	One copy of mutant Myostatin variant present, animal is a carrier and mostly unaffected.	One mutant copy and one working copy of Myostatin variant present. Possible intermediate muscling. 50% chance of animal passing the mutation onto their calves.
2	Two copies of Myostatin mutant variant present, animal is likely affected by Myostatin.	Animal has two copies of the mutant Myostatin variant and will pass the gene onto their calves.

Below is a list of nine of the Myostatin variants we test for. An individual result has been provided for each variant so you can identify which one, if any, is affecting your animal.

These variants include: C313Y, D182N, E226X, E291X, F94L, NT419, NT821, Q204X, S105C