Progressive Ataxia

Phenotype: Progressive ataxia (BPA) of Charolais cattle is characterized by onset of unsteady gait and stiff hind limbs with gradual worsening of the condition that results in an inability to stand and permanent recumbency (lying down). Other signs of the disease include head bobbing when excited and, in females, irregular pulsatile urination. Onset of the disease is typically around 18 months of age but can occur as early as 6 months or as late as 3-5 years. The evolution of the disease is also variable from a few weeks to more than 18 months from onset of signs.

Mode of Inheritance: Autosomal recessive

Alleles: N = Normal/Unaffected, **BPA =** Progressive ataxia

Explanation of Results:

- Cattle with **N/N** genotype will not have this progressive ataxia and cannot transmit this progressive ataxia variant to their offspring.
- Cattle with **N/BPA** genotype will not be affected by this progressive ataxia, but are carriers. They may transmit this progressive ataxia variant to 50% of their offspring, but offspring may also be clear. Matings between two carriers result in a 25% chance of producing a calf with this progressive ataxia, but offspring may also be clear.
- Cattle with **BPA/BPA** genotype will have this progressive ataxia, a neurodegenerative disease, and may transmit this progressive ataxia variant to their offspring.