



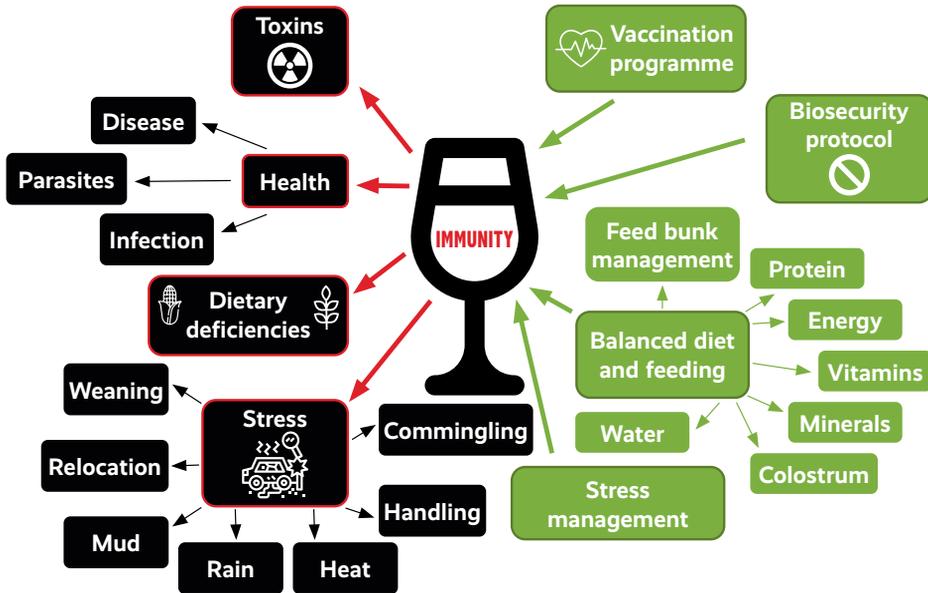
by Ashley Grimsell

A toast... To better immunity in livestock!



How has the COVID-19 pandemic left you so far? With your glass half full, half empty, or are you leaning towards just plain empty? Whatever the case, livestock immunity will be vital to keep your farming enterprise's cup full to the brim during 2021. Here are some tips on how to fill your livestock immunity glasses (and keep them filled) on-farm.

Figure 1 Factors affecting immunity in livestock



a young ruminant is underdeveloped and, therefore, unable to provide optimal levels of protection against the disease challenges its new environment poses. Colostrum, which is rich in maternal antibodies, is vital for the lifetime production of the young animal. Within 12 hours of birth, youngstock should consume approximately 10% of their body weight in colostrum. Another essential nutrient is water, which is consumed in large quantities. Water sources should be tested, monitored, and cleaned on a regular basis. Water contaminated with bacteria will place further pressure on the animal's immune system.

Feeding

Animals that aren't fed regularly tend to overeat in one sitting, which can cause digestive disorders such as acidosis. Acidosis can cause damage to the rumen, which can lead to the infiltration of unwanted bacteria and toxins into the circulatory system, predisposing it to disease. Mycotoxins are toxins produced by fungi that may be present on pastures, on field crops, or in harvested forage or grains that have been stored. These are also important to consider as they pose immune challenges to the animal.

Any event (albeit due to environmental conditions or from human activities) that causes an animal to stress may put strain on their immune system. For example, during heat stress, a lot of blood is directed away from the internal organs toward the peripheral organs, such as the skin, for the animal to dissipate heat. This, however, has a negative implication for the intestines; due to reduced blood flow, the intestinal barrier integrity can be challenged, which can lead to infection. Rain should also be considered an immunity challenge. Not only do wet and muddy conditions provide ideal conditions for bacteria to thrive and multiply, but excessive moisture can cause hooves and claws to become soft and susceptible to cracking and infection. This would pose another immune challenge to the animal, hampering its production.

Cheers to 2021

Will 2021 have you caught up in an immunity pandemonium, or will you be boasting on the production podium? By using these tips, you will be able to charge the livestock immunity glass! Cheers! 