Biosecurity and animal care for the prevention of future pandemics

Covid-19 has brought to light the concept of One Health, which proposes the integration of public policies for the prevention and control of diseases.

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What do Covid-19, the Middle Age bubonic plague, the 1918 Spanish influenza, the 2005 avian influenza (H5N1), and the 2009 swine flu (H1N1) have in common? In addition to being considered historical pandemics, these diseases arose from or had an animal as a host. This raises an important question: the importance of health care in animal production.

A study by Insper (a higher education and research institution in Brazil) on the impact of Covid-19 on agribusiness and Brazil's role, shows that about 70% of human infectious diseases resulting in outbreaks are zoonoses. These include Ebola, Influenza, SARS, and Covid-19. This understanding is critical to identifying, managing, and preventing future episodes.

The new coronavirus pandemic has also brought to light the concept of One Health, which became popular in the 2000s. The term deals with integrating human health, animal health, the environment, and the adoption of effective public policies to prevent and control diseases by working at local, regional, national, and global levels.

Maintaining health and following the biosecurity rules in animal production is essential to slow down the transmission of viruses and decrease contamination levels. Considering that Brazil is one of the leading producers and exporters of animal-origin food, sanitary control becomes increasingly relevant to our growing success.

Biosecurity

Biosecurity is a set of daily technical procedures applied to the farm and the pasture to prevent, stop, or reduce the spread of diseases, thus controlling the challenges faced in production.

Among the various procedures we can highlight:

- Ensure the proper location of the facility, preferably away from other production farms and in a quiet environment and with protective barriers.
- Control of birds, rodents, wild animals, and flies to prevent the transmission of diseases.
- The entry of animals, as well as the acquisition of inputs, must follow a plan that ensures the lowest transmission rate of disease-causing agents.
- Restricted access and disinfection of people and vehicles entering the farm, emphasising that the sanitary waiting period must be respected according to the disinfection schedule.
- The management of manure and disinfection residues is also a significantly relevant factor in the production, which must follow the planning of the destination routine in the property and, in addition to collaborating with the reduction of the incidence of diseases, will ensure the environmental conservation and compliance.
- Proper daily management of quality food and water.

These and many other biosecurity procedures are included in the Good Production Practices (GPP) programmes, which prioritise animal welfare, environmental quality, worker welfare and, consequently, productive efficiency and quality of the final product. With such care, it is possible to reduce the pressure of contamination in the farm, as well as in the area close to the facility, preventing the spread of pathogens. The producer will optimise production since it will reduce the cost of medication and ensure the animals' health, promoting better performance and quality for the end product.

Innovative solutions for animal nutrition based on yeast additives

ICC Brazil values animal nutrition, health, welfare, and the quality of the end product. It has a wide range of 100% natural products, which contribute to healthy development and enhanced performance, being an alternative to growth promoters and acting intelligently and safely while strengthening the animals' immune system.

One of ICC Brazil's main products is ImmunoWall, which is composed of MOS and a high concentration of β-glucans, that act in the control of pathogens and have an immunomodulatory action, favouring a faster and more effective response against the challenges imposed by the field.

Consequently, the animals' gut health and welfare, as well as their performance, are significantly enhanced.

ICC also has Hilyses, which has free nucleotides and nucleosides, enhancing cell multiplication and ensuring that the animal reaches its maximum potential. It is especially suitable for the early stages of growth, reproduction, lactation, periods of stress, and major challenges.

For ruminants, RumenYeast is one of the most recommended products. Composed mainly of fermentation metabolites, it helps to regulate the animal's pH. It is the ideal nutrition for the ruminal microbiota and promotes the improvement of intestinal health and strengthening of the immune system. ■