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The importance of livestock nutrition

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ABSTRACT

The majority of the global food sources come from farm animals. Find out why livestock nutrition is important and what impacts it can have if neglected.

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Introduction

Meat, dairy, and eggs are just some of the products we obtain from livestock for our food and process industries. Animals reared for meat make a large chunk of our livestock, considering the ever-increasing global demand for it. Advancements in livestock technology and selective breeding have allowed us to gain a higher yield, but all these efforts mean next to nothing if livestock nutrition isn't monitored and managed carefully. Let's look at why livestock nutrition is important.

Proper Livestock Nutrition Prevents Diseases and Promotes Good Health

The current pandemic has given us a flavor of how a virus can have devastating effects. Some theories suggest that COVID-19 virus entered our food chain via the consumption of another animal. Though it is uncertain whether the animal in question was raised as part of our livestock resource, similar cases have happened in the past, like swine flu (H1N1) and avian flu (H5N1), which directly impacted our livestock, and in turn, our lives. It's just the first that COVID-19 is reached the level of a pandemic.

Hence, livestock nutrition becomes our primary mode of defense against disease, increasing immunity within our animals and mitigating the transmission of diseases down the food chain. Additionally, it is imperative that livestock be monitored, actively screened and quarantined if any disease presents itself within a herd.

Food Safety

In its simplest form, livestock for consumption is part of a food chain. Plants utilize energy from the sun. We grow them to make feed for our livestock. The livestock is then slaughtered to make food products. We consume them and utilize the energy. Any effects along this process get transmitted down the food chain to the end consumer. If it happens at the feedstock level, such as heavy metal leaching into plants, they will eventually enter our bodies and can impact our cell chemistry and have adverse effects on our bodily functions in large doses.

Figure 1.

An image of the face of a cow with its snout in focus

Similarly, the excessive use of antibacterial substances in the feed of our livestock can improve their health and yield but also translates to antibiotic resistance and disturbance of probiotic bacteria in our intestinal flora. This presents a food safety hazard that has the potential to produce superbugs we may

not be equipped to handle with our current bacterial treatment regimes.

Hence, livestock nutrition and veterinary practices need to be standardized such that they do not excessively incorporate antibacterial drugs in our food chain. Monitoring and testing of meat products is also a surefire way of determining the level of resistant bacteria in our food chain possess.

Obtaining Higher Yield

As mentioned in the opening statement, the demand for livestock is increasing. This is a direct result of a rise in population and an improvement in the quality of life throughout the world. Hence, food producer chains need to keep up so that the supply chain does not get disrupted. There are two ways this can be done: increasing the number of animals in our farms or rearing higher yield producing animals. Since it may become challenging to secure more farmland while increasing our livestock population, supplementing feed with essential amino acids like arginine and glutamine can increase their protein level and lead to a higher yield, thereby keeping up with demand and supply.