

Growth promoters

As producers continue to try to produce quality carcasses with greater feed efficiency, they continue to look to genetics, feeding programs, and growth promoters. Growth promoters are substances used to increase the feed efficiency, average daily gain, carcass quality or milk production of animals. Research indicates that genetics and nutrition are the two most important factors; however, growth promoters can improve the efficiency of animals.

Ultimately, the meat animal producer is concerned with the amount of protein fed that is converted into muscle deposition. Muscle tissue is constantly deposited and broken down. This process allows for larger muscles. Protein formation can be estimated by comparing the amount of nitrogen fed to the amount of nitrogen in the animal's waste. Remember that nitrogen is a key component of amino acids that build protein.

Feed additive

A feed additive is a food supplement for farm animals that can't get enough nutrients from regular meals that the farmers provide. Vitamins (A, B, C, D, E, K...), amino acids (methionine, lysine...), preservatives (citric acid...), essential fatty acids (omega-3 and omega 6), emulsifiers (agar, guar gum) and essential micro minerals (iron, manganese, zinc...) are examples, among many others. In some cases if an animal does not have some specific nutrition in its diet it may not grow properly. The nutritional values of animal feeds are influenced not only by their nutrient content, but also by many other factors. These include feed presentation, hygiene, digestibility, and effect on intestinal health. Even with all of the benefits of higher quality feed, most of a farm animal's diet still consists of maize, wheat and soybean meal because of the higher costs of quality feed.

Types of feed additives

A *sensory additive* is an additive that stimulates the appetite, improving the voluntary intake of a diet. Examples include feed flavors or sweeteners.

A *nutritional additive* provides specific nutrients for an animal for optimal growth. Vitamins and amino acids fall into this category.

A *zootechnical additive* improves the nutritional value of a diet. It doesn't give nutrients directly to the animal, but through its diet. This category includes, among others, enzymes and certain phytonutrients.

Prebiotics

Prebiotics are non-digestible fermented food ingredients that stimulate the growth and/or activity of bacteria in the digestive system in ways claimed to be beneficial to health.

Probiotics

Probiotics are micro-organisms that have claimed health benefits when consumed. Lactic acid bacteria (LAB) and bifidobacteria are the most common types of microbes used as probiotics, but certain yeasts and bacilli may also be used. Probiotics are commonly consumed as part of fermented foods with specially added active live cultures, such as in yogurt, soy yogurt, or as dietary supplements.