

An **Urban Farmer Macro Solution** includes the provision of analytical services, the design and formulation of feeds, the manufacture and supply of customized macro premixes, as well as ongoing monitoring and support of the solution.

The Solution brings together the knowledge and products of the world's leading animal nutrition and animal health companies and makes them accessible to the farmer. Urban Farmer pays particular attention to the ingredients that it includes in its feeds and its macro premixes.

**An Urban Farmer MACRO PREMIX comprises:**

**VITAMINS | MINERALS | AMINO ACIDS | ENZYMES | OTHER FEED ADDITIVES**

### **VITAMINS**

Urban Farmer uses only the highest quality ingredients. Vitamins are selected based on their stability, bioavailability, mixability and safe handling characteristics. The individual supplementation levels are guided by the target species, its specific phase of production and the desired level of performance.

### **MACRO AND TRACE MINERALS**

Urban Farmer uses only the highest quality ingredients. Trace minerals may be inorganic or organic and the choice of which type of mineral to use is based on its stability, bioavailability, mixability and safe handling characteristics. The decision is also guided by the target species, its specific phase of production and the desired level of performance. In addition to the trace minerals a premix would also typically include the macro minerals; monocalcium phosphate, sodium bicarbonate and salt.

### **AMINO ACIDS**

The protein content of animal feeds is primarily of plant origin. These proteins are typically deficient in lysine, methionine and threonine requiring that synthetic versions of these limiting amino acids be added to the macro premix in order to meet the animal's requirement.

### **ENZYMES**

The ability to reduce feed costs without compromising animal performance has been made possible through the use of enzymes. Urban Farmer utilises a range of feed enzymes in its macro premixes to harness the potential of a wide range of different feed ingredients in a cost effective and sustainable way. Urban Farmer and its partners are continually looking at ways to improve the nutrient delivery to the animal from alternative ingredients through the use of enzymes.

- **Phytase**

Phosphorus is an essential nutrient in the diet of all animals. Phosphorus of plant origin is largely unavailable to poultry and pigs requiring that producers supplement their feed with inorganic phosphorus to address this deficiency. Phytase is able to release phosphorus of organic origin reducing the requirement and cost of supplementation.

- **Carbohydrase**

Energy is one of the most important nutrients in a well-balanced feed. The carbohydrates found in cereals such as maize are a critical source of this energy. Not all carbohydrate types are equally digestible by animals. Urban Farmer uses a combination of carbohydrase enzymes to increase the digestibility of the non-starch polysaccharides (NSP s) and improve the energy utilization of the diet.

- **Protease**

The cost of high-quality protein in a diet requires that we maximise its utilization. Although protease enzymes do occur naturally in the digestive system of animals, supplementation with protease further improves the digestibility of this essential nutrient. It also allows for the inclusion of lower quality protein sources without compromising the diet.

Individual enzymes can be used alone or in combination with each other. Urban Farmer offers its clients the benefit of these exciting products in correctly formulated diets.

## OTHER

Urban Farmer aims to add value to its clients' businesses through creative solutions to manage the quality and cost of the feed and improve performance.

An **Urban Farmer MACRO PREMIX** may also contain:

- **NON-NUTRITIVE FEED ADDITIVES**

While the producer should always strive to use feed ingredients of the highest quality it is not always possible. Producers are often obliged to consider ingredients that are contaminated by mycotoxins or bacteria, or that may be susceptible to oxidation once stored. Urban Farmer uses non-nutritive additives such as toxin binders, anti-oxidants and organic acids to protect the integrity of the feed and enhance the performance of the animal.

- **IN-FEED MEDICATION**

Livestock production conditions place a huge burden on the animal's welfare and health. A compromised animal will not perform to its genetic potential. In consultation with its veterinary partners Urban Farmer uses its macro premixes as a vector for administering in-feed medication such as coccidiostats and antibiotic growth promotants in a controlled and responsible manner.

- **COLOURANTS**

Yolk colour matters. Urban Farmer is able to assist its clients achieve the desired yolk colour, reliably and repeatedly, regardless of the ingredients, through the inclusion of nature identical carotenoids. A well pigmented yolk always comes from a healthy hen.

***The value we offer far exceeds the cost of the premix to you!***