## FBN®GRO-DEV MIN 12:4 R1600

## Mineral for Stocker or Heifer/Bull Development

FBN GRO-DEV MIN 12:4 R1600 is formulated for growing calves fed forage-based diets.

Minerals and fat-soluble vitamins are supplied to meet or exceed predicted requirements. Trace minerals are added in hydroxychloride form to ensure availability and prevent antagonism from sulfur or other compounds.

Ionophores are added to improve metabolizable energy of the diet and increased amino acid availability. Plant essential oils can be substituted to improve rumen function and provide a natural alternative to ionophores.



## **SPECIES**

**Beef Cattle** 

## **STAGE OF PRODUCTION**

Cow-Calf

## **CATEGORY**

**Dry Mineral & Vitamin Supplement** 

## FEEDING ENVIRONMENT

Free Choice; Pasture; Forage-Based Diets

## **PRODUCT FORM**

Granular

## **PACKAGING**

50LB Bag; 1 Ton Tote; Bulk

#### **HOW TO USE**

Feed free-choice with expected consumption of 2 to 4 oz/hd/day.



# FBN<sup>®</sup>GRO-DEV MIN 12:4 R1600

## **Product Composition Benefits**

## 12% Calcium, 4% Phosphorus

FBN GRO-DEV MIN 12:4 is designed for growing calves and developing heifers on high quality forage-based diets. Macrominerals are formulated to meet requirements in calves and support growth and development potential.

## **Ionophores (Or Essential Oils)**

Ionophores or plant essential oils (flavors) are formulated in FBN GRO-DEV MIN 12:4 to improve diet use by the animal. Ionophores (Rumensin, Bovatec) improve efficiency of the animal by increasing diet metabolizable energy and protein use. Essential oils have been shown to have similar benefits and are a natural feed ingredient.

#### **Trace Minerals**

Trace minerals are involved in several cellular reactions important to health and productivity of cattle. This product was formulated to meet trace mineral requirements. Similar to all FBN mineral products; however, oversupply of trace minerals was guarded against to control costs.

### **Hydroxychloride Trace Minerals**

Hydroxychlorides are inorganic complexes of copper, zinc and manganese that have been shown to prevent antagonists, such as sulfur, from reacting with the minerals and making them indigestible. Research has also shown that hydroxychlorides had equal or better nutritional attributes compared to organic complexed minerals.

#### **Vitamins**

Cattle typically receive their water-soluble vitamins from the rumen microbes. Vitamins A, D3 and E (fat-soluble vitamins) come from their diet. FBN GRO-DEV MIN 12:4 provides fat-soluble vitamins at levels to meet requirements.

Guaranteed analysis and ingredients may differ slightly between manufacturing facilities. For exact specs, refer to tag supplied with product.

## **Guaranteed Analysis**

Calcium12%Phosphorus4%Salt17%Magnesium0.7%Potassium0.8%

Copper 1,250 ppm

**lodine** 60 ppm

Manganese 4,900 ppm

Selenium 12 ppm

**Zinc** 3,700 ppm

Cobalt 12 ppm

**Vitamin A** 165,000 IU/LB

**Vitamin D3** 11,550 IU/LB

Vitamin E 100 IU/LB

**Trace Mineral Source** 50% Hydroxy-chlorides

## **Included Additives**

Celmanax (MOS, beta-glucans)

## **Ingredients**

Calcium Carbonate, Processed Grain By-Products, Salt, Monocalcium Phosphate, Manganese Sulfate, Vegetable Oil, Potassium Chloride, Magnesium Oxide, Zinc Sulfate, Zinc Hydroxychloride, Copper Sulfate, Vitamin A Supplement, Sodium Selenite, Basic Copper Chloride, Ethylenediamine Dihydroiodide, Vitamin D3 Supplement, Vitamin E Supplement, Cobalt Carbonate.

