



## Guaranteed Analysis GoingVibrant.com

The **Guaranteed Analysis** of VIBRANT outlines the composition of indicating and the percentage of key nutrients it contains. Let's break it down:

### Primary Macronutrients:

#### Guaranteed Analysis

11-4-13 (N-T-K)

Total Nitrogen (N)...11.9%

Available Phosphate  
(P2O2)...4.6%

Soluble Potash  
(K2O)...13.2%

Calcium (Ca)...7.8%

Magnesium (Mg)...15%

Sulfur (S)..... 15%

Boron(B)...0.16%

Iron (Fe)...0.26%

1. **Nitrogen (N) - 11.9%:** Nitrogen is crucial for promoting lush, green vegetative growth. It's vital for chlorophyll production, which is essential for photosynthesis.
2. **Phosphate (P<sub>2</sub> O<sub>5</sub>) - 4.6%:** Phosphorus, in the form of phosphate, helps with root development, flowering, and seed production. It's essential for energy transfer and photosynthesis.
3. **Potash (K<sub>2</sub> O) - 13.2%:** Potassium (K) supports overall plant health, aids in water uptake, and helps plants resist diseases. It also plays a role in flower and fruit development.

### Secondary Macronutrients:

4. **Calcium (Ca) - 7.8%:** Calcium is important for cell wall structure, helping prevent issues like blossom end rot in tomatoes. It also improves root and leaf development.
5. **Magnesium (Mg) - 15%:** Magnesium is a key component of chlorophyll, which is vital for photosynthesis. It also helps in enzyme activation and energy transfer.
6. **Sulfur (S) - 15%:** Sulfur helps in protein synthesis and enzyme activity. It's also essential for forming certain vitamins and amino acids.

### Micronutrients:

7. **Boron (B) - 0.16%:** Boron is essential for cell wall formation and helps with nutrient movement within the plant, particularly sugar transport. It's also involved in flower and fruit development.
8. **Iron (Fe) - 0.26%:** Iron is necessary for chlorophyll production and is involved in respiration and energy transfer within the plant
9. **Key Points:**

- The N-P-K ratio (11-4-13) shows that this fertilizer is relatively high in **nitrogen (N)** and **potassium (K)**, making it well-suited for promoting both vegetative growth and strong roots, flowers, or fruit.
- The higher levels of **magnesium** and **sulfur** indicate that this fertilizer is beneficial for plants that need extra support in photosynthesis and protein synthesis, particularly in deficient soils.
- The small but important amounts of **boron** and **iron** help ensure that the plants' metabolic processes and growth cycles function smoothly.