fertilizer

65,120 metric tons per year

Solution of nitrates, chlorides and phosphates.

Benefits of Nitrates.

Mineral nitrogen fertilizers, depending on their chemical composition, have distinct impacts on yield and environment. For many years now, farmers have been aware that nitrate-based fertilizers are the most efficient and most reliable nitrogen source available. In addition, these products have a significantly lower environmental impact than urea-based products (urea, UAN) through better control of leaching, lower volatilization and a lower life cycle carbon footprint.

Nitrate-based fertilizers such as ammonium nitrate, calcium ammonium nitrate and nitrate-based NPK compounds are pure nutrients, offering the required precision, efficiency and reliability to meet the agronomic and environmental imperatives of modern agriculture.

Nitrate-based fertilizers are the natural choice for farmers who care for both, yield and the environment.

Benefits of Chlorides.

Osmosis, diffusion and passive transport are important factors that regulate membrane and cellular structure. Osmosis will occur if a gradient is present. Plant cells in a soil hypertonic solution will lose water across its membranes and cause the plant cells to shrink. However all cells have salt which is critical in regulation and balance. It is important to have that critical level so equilibrium and an isotonic balance between plants and soil exist. Low levels of soil salts or a hypotonic solution will cause the reverse condition and be just as severe.

If soils were chloride deficient it would actually be beneficial to add chloride since plant roots adsorb chloride, which is important in photosynthesis. Also, chloride is beneficial in controlling plant disease, inhibiting conversion of N to NH4 and helping with magnesium uptake. The physical regulation of osmosis and diffusion, which include the transport nutrients, sugars, amino acids and organic acids are important factors dependent on salts such as chloride. All of these factors will indirectly influence effects on the plant either positively or negatively, which will directly reflect on the plants ability to withstand external stress and resist disease and physical damage from insects.

Benefits of Phosphates.

Farmers and gardeners apply phosphate-based fertilizer to plants and soil to boost local phosphorus (P) levels. Young plants are especially vulnerable to deficient P levels, but almost every plant needs it to maintain healthy growth. Artificial phosphate fertilizer and manure or compost are used together to revitalize severely depleted soil. Adequate soil phosphorus (P) is essential for optimal crop yields. Phosphorus (P) enables a plant to store and transfer energy, promotes root, flower and fruit development, and allows early maturity.