Farmers see Soil Health Benefits in Combining Mono-Ammonium Phosphate (MAP) with Fertoz-Phos Granulated Sedimentary Rock Phosphate

Replace 20% (or more) of your phosphate needs with Fertoz-Phos. Start by blending 80:20 (MAP : Fertoz-Phos) to improve soil and crop phosphorus requirements and reduce reliance on traditional MAP fertilizer.

Fertoz-Phos Benefits and Soil Building

- Decreased leaching, runoff and contamination of adjacent aquifers and waterways
- Reduces the rate of acidification and soil salinization
- Builds the soil phosphorus reserve over time
- Improves soil health and structure
- Builds the soil micro biome, micro biota then contribute to enhanced P solubility, availability and use

Beneficial Nutrients

Fertoz-Phos adds other beneficial nutrients to the soil such as calcium and silica, which are important in building soil structure, enhancing nutrient balance, and regulating pH and CEC. These important nutrients improve resistance to biotic and abiotic stresses such as drought, salinity, carbon sequestration, pathogens and pests, lodging, extreme weather and nutritional deficiencies. Fertoz-Phos enhances crop germination, growth and structure.

Planning Ahead – Long Term Effectiveness

Sedimentary soft rock phosphate is a naturally formed source of phosphorus with over 20% total phosphate. Fertoz-Phos provides a slow release window, equipped with a season long release of P and builds the soil available phosphorus reserve over time. Re-application of phosphate fertilizer in season is not necessary with Fertoz-Phos.

The Research

On lower pH (acidic) soil rock phosphate has been shown to be as effective as commericial fertilizer. At the Agriculture Canada Research Station Brandon, Manitoba, rock Phosphate alone and rock phosphate blended with superphosphate performed as effectively to superphosphate in terms of P supply and yields in cereal-legume crop rotations over a 16 year period (pH 5.9 – 6.2) (Choudhary et al., 1994). In a portion of the study, rock phosphate was only applied once over an 8 year period at 8x the annual rate, demonstrating the effectiveness of this source of phosphate over the long term.

Similarly, in a study by Habib et al., 1999 blends of triple superphosphate and rock phosphate performed as well as triple superphosphate alone in terms of canola yields on high pH soils (pH = 7.7). Other studies have show that rock phosphate with an acidic agent, such as elemental sulphur or humates, perform as well or better than commercial fertilizer alone on higher pH soils (Osman, 2015). A third study showed that Ammonium Sulphate (or Ammonium Nitrate) fertilizer and Rock Phosphate both performed better than DAP alone (Pillai, et al., 2014). This indicates that a blend with an acidic fertilizer, like MAP (which is more acidic than Ammonium Sulphate) and Rock Phosphate will perform better than MAP on its own.

References

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