

FERTILIZER IS NOT A DIRTY WORD



High crop yields often come under scrutiny because of the need for fertilizers and the perception of their potential environmental impacts. Newspaper articles, letters, and advertisements from well-intended, but poorly informed, citizens seem to perpetuate old myths and clichés about modern fertilization practices. The fact is, maintaining food production for the growing world population requires the use of new technology and the intensification of management to grow more food on the existing crop land...and fertilizer is essential for accomplishing this.

Sometimes I get tired of hearing about the negative fertilizer issues that are associated with our abundant, affordable, and nutritious food supply...a truly amazing supply of healthy food that is clearly unprecedented in the history of the world! Misapplication and misuse of agricultural fertilizers have undoubtedly occurred and their impact on the environment needs to be minimized, but to fairly judge the use of fertilizers, the risks of their use should be compared with their benefits for food production.

I have had people tell me that raising yields with commercial fertilizer is somehow immoral and dangerous for our soils...that strictly organic or specialty products will meet the demand of global food production. The time has come for all of us to dispel myths about fertilizers and nutrients, and to convey a correct message to a world which is becoming increasingly urbanized and removed from what agricultural production is all about... providing healthy food.

A survey of U.S. crop production estimated that the average corn yields would decline by 40% without N fertilizer, with even greater declines if regular additions of P and K were also halted. Few people appreciate that corn yields have continued to increase in the Corn Belt of the U.S. without a similar increase in N fertilization. In fact, N use efficiency has increased at least 35% in the past 25 years (where less N fertilizer is now required to produce a bushel of grain).

Animal manure can provide a useful nutrient supply for crops...and it should certainly be used in the most beneficial manner possible. However, many people have the mistaken idea that manure has some special property for building soils. Manures contain no more nutrients than were present in the animal feed. No nutrients or organic matter are produced during the digestion process.

Recently, I received a testimonial for a special fertilizer where a few pounds of a product with N-P₂O₅-K₂O analysis of 8-2-2 was claimed to meet all the nutritional needs for 10 acres of crops! Consider for a moment that 2 lb of such a low-analysis fertilizer will provide about 3 oz. of N, and 1 oz. of P₂O₅ and K₂O spread over the entire 10 acres. Then compare this with the removal of over 1,000 lb N, 500 lb P₂O₅, and 400 lb K₂O in corn grain...or a high-yield potato crop on this 10 acres will remove 2,000 lb N, 300 lb P₂O₅, and over 2,000 lb K₂O in the tubers. It irks me that some educated people continue to believe these wild claims and provide a market for these products.

I marvel that people will eagerly buy the latest miracle product, but fail to sample the soil and to monitor their fields for fertility levels, pH, or nematodes. Proper crop nutrition plays a vital role in maintaining the world's food supply. Use fertilizer appropriately to get the best results and don't be afraid to speak out for farming practices that are such a benefit to humanity.

A handwritten signature in black ink that reads "Rob Mikkelsen". The signature is written in a cursive style.

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