

## Increased Nutrient Content, Elimination of Al Toxicity Kerr Farms, Chatham Ontario



Kerr Farms is a 1700 acre operation growing both conventional and organic crops. Commodities grown include corn, soybeans and sugar beets. Specialty crops grown are tomatoes for Heinz, organic tomatoes for Thomas Canning Co., (Utopia brand), strawberries, certified organic asparagus and processing peas.

Fattening cattle has always been a significant part of farm operations. In 1997 the cattle were switched over to a grass system. Grass fed beef is at the heart of the Kerr Farm transition to ecological farming practices. Grass based agriculture is not only a major contributor to soil rejuvenation but cycling plant matter through livestock ensures soil nutritional requirements are met in the form of farm produced compost.

In the spring 2001, Boreal (AMP) commenced soil audits at the Kerr farms. The evaluation of soil geology recognized that historical farming practices coupled with open sand loam soils resulted in

organic matter and calcium depletion. This resulted in accelerated clay mineral degradation releasing aluminum, iron and manganese into soil solution. Tissue analysis of clover cover crops showed excessive plant uptake of aluminum. A test plot utilizing 350 lbs/acre of Spanish River Carbonatite was established for comparative tissue analysis. Within 5 weeks aluminum levels were suppressed and replaced with a 200% increase in calcium uptake.

**Kerr Farms- Tissue Analysis Summary**

**Plant type : Clover**

**Date sampled : May 29, 2001**

**Analysis by A&L Canada Laboratories**

<u>Plot</u>	<u>Calcium</u>	<u>Aluminum</u>
Control	0.81%	1181 ppm
350 lbs/acre Carbonatite	2.45%	263 ppm
Change	202% Increase	78% Decrease

SRC become an integral part of Kerr Farms fertility program. Significant changes in crop production are:

- Increased brix and nutrient content in all crops grown.
- Increased densities in tomatoes produced for Heinz.
- Elimination of soil metal toxicities.
- Suppressed weed growth.
- Improved soil health; improved tilth, microbial activity, mineral cycling.