fvgo FRESH VEGETABLE GROWERS OF ONTARIO

Project #1625 – Nutrient Management in selected Fresh Vegetable Crops

Brief Description: New legislation such as source water protection may limit nutrient applications. However, if nutrient use efficiency is increased then crop yield and quality may not be compromised. The proposed research will evaluate:

1) the most economic rate of N in fresh market peppers
2) N cycling and dynamics in peppers including potential for nitrate leaching
3) methods to increase nitrogen use efficiency such as split N applications and nitrification inhibitors.

The proposed project includes one year of field studies (2 sites) with fresh market peppers to complement three previous years of field trials with Aristotle variety of green bell peppers.

Objective: In green bell peppers (variety Aristotle):

To calculate the most economic rate of N (MERN)

To determine if there is a yield advantage to split applying N fertilizer

To determine if there is a yield advantage to slow release fertilizers, such as UMAXX

To estimate crop N uptake and removal values to ensure that current and accurate data is used in Ontario's nutrient management (Nman) program

To assess soil residual N at harvest of applying zero N fertilizer compared to various N rate