

Project #8900

Herb Production Trials

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Duration of Project: June 1, 2006 – November 30, 2007



I. Brief Project Description

This proposed research project is split up into medicinal and culinary/essential oil crops and will take two to three years to complete. Cord IV funding is requested for 2006, 2007 and will be supplemented with grants from other sources. Sage and oregano are two essential oil and culinary crops with potential for expansion in Ontario. Replicated trials on research station and grower sites will determine N-P-K requirements over a range of soil types and environments and the selection of superior clones will improve crop uniformity and quality. There are numerous medicinal crops grown around the world. This project will focus on a small group of perennial/biennial herbs hardy in Southern Ontario with the potential for commercial production. Demonstration plots will be located on research station and grower sites to determine adaptability and yield in different environments. Lemon balm is a promising new crop for Ontario but fertility requirements, especially under organic production, are unknown. Quality and yield, both biomass and essential oil content will be key measurements in these studies. OMAFRA staff will scout all sites and identify insects and disease for the development of an IPM program for herbs.

II. Project Objectives

- 1 Determine the effect of varying rates of nitrogen, phosphorous and potassium on yield, visual quality, and essential oil content oregano and sage;
- 2 Screen oregano and sage clones for high essential oil content to overcome plant variability and develop superior clones;
- 3 Establish demonstration plots of 12 different medicinal herbs for determination of yield, quality, and adaptability to Ontario growing conditions;
- 4 Determine optimum application rates of composted manure and compare 3 types of organic mulch to increase yield and quality of Lemon Balm
- 5 Determine optimum drying conditions to maintain high visual quality and essential oil content of Lemon Balm