

Program: Domtar Soil Conditioner on Forages 2003 - 2005



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In Partnership With



Objective:

➤ To determine forage crop yield following the application of soil conditioner from Domtar Cornwall (DCSC) and Domtar Ottawa/Hull (DOHSC), a multi-year trial (2003-2006) on alfalfa and a grass crop was selected.

➤ To measure the effect of two applications per year (spring and after 1st cut) of DCSC and DOHSC on the yield of an alfalfa and a grass crop.

Background:

This study was initiated by Domtar Inc., Cornwall Mill, as part of its ongoing Agronomic Research to support the land application of Domtar Soil Conditioner.

The research was conducted under the direction of W. E. Cumoe, D.C. Irving and assistant W. R. Hossie had the responsibility for the daily supervision of the field program, data collection and report publishing. Domtar was responsible for making the DCSC and DOHSC available and soil analysis and plant tissue analysis was determined independently by Accutest Laboratories of Nepean, Ontario.

CONCLUSIONS (2003 - 2005)

- Soil N-NO₃ levels at the alfalfa and grass sites remain low after three years of application of DCSC and DOHSC.
- DCSC has increased P levels after three years of bio-solids application on the low testing site. However, the K levels have fallen on the same site indicating supplemental commercial fertilizer may be required in addition to the bio-solid application for the long term.
- The application of DCSC at 12.5 t/ha in the spring and 12.5 t/ha after the 1st cut and the application of DOHSC at the same rate on alfalfa produce a similar crop yield to recommended commercial fertilizer rates.
- DCSC is able to produce a grass crop with higher nitrogen content than either commercial fertilizer or DOHSC.



Support Appreciated from:



Community Benefits Include: More efficient use of DCSC on hay fields