

Soil, Water and Air

The Ontario Soil, Water and Air Research & Services Committee (OSWARSC) is composed of 3 subcommittees: The Ontario Soil Management Research & Services Committee (OSMRSC); the Ontario Water Management Research & Services Committee (OWMRSC) and the Ontario Agrometeorology Research and Services Subcommittee. The Ontario Soil Management Research & Services Committee is also the parent committee for 6 sub-subcommittees which deal with horticulture crops, field crops, soil test, tobacco, waste utilization and, soil and water quality.

2005 was a minor reporting year for OSWARSC and as a result the report highlights the emerging issues in Ontario. The committee is preparing for a major reporting year in 2006. Some of the key issues that were brought to the table pertained to nutrient management legislation, climate change issues as well as the Ontario Environmental Scan which is part of the Agricultural Policy Framework and connected to the National Agri-Environmental Indicators and BMP cost-sharing initiatives.

The Resource Management and Environment Program at the University of Guelph is in its second year of the program. There was an amalgamation of smaller research studies into 6 larger research programs. There was interest expressed in having an annual workshop to present research results from this program and to encourage collaborative linkages with OMAFRA and AAFC.

It was reported that the Nutrient Management legislation for Ontario now covers farms with >300 nutrient units (NU). The phase-in of existing large operations was completed by September 1. Greater than 700 farms have submitted strategies and plans for approval. Farms (>5 NU) will require an approved nutrient management strategy when they apply for building permits in the future.

The Ontario Soil Management Research & Services Committee introduced a new method for determining the amount of N fertilizer required by corn. In the past, the recommendations were based on the location in the province whereas they are now based on corn heat units (CHU) as well as other soil and management data (ex. previous crop, soil type, etc.).

The Ontario Water Management Research and Services Committee identified two key issues in their report. They identified the need to link databases about on-going research/projects to water quality and quantity. Further, research at the watershed scale is required to study mechanisms for source water protection.

The Ontario Agro-meteorology committee has not been active for some time. The committee co-chairs are tasked to either form an active committee by April/May of 2006 or to have interested individuals report agro-meteorology issues at either the Soil Management or Water Management Research & Services Meetings.

There were six emerging issues identified by the parent and subcommittees These include: 1). Source water protection: The impact that manure and nutrient management

programs and water taking programs have on agriculture; 2) The increasing costs of energy as it influences both fuel and fertilizer costs; 3) Air quality including particulate matter and odour; 4) Appropriate water quality indicators; 5) Land use policy (ex. GreenBelt); and 6) Ecological goods and services.

There were also 3 opportunities identified which include: 1) The use of biofuels as energy alternatives; 2) Greenbelt foundation type funding; and 3) the national agricultural land strategy.

The following are the Research & Services Issues which were identified during our last strategic review (2003):

- Nutrient Use Efficiency
- Manure Management
- Water Management
- Soil and Crop Management
- Identification/Validation of BMP's
- Biosolid/Waste Application and Treatment
- Greenhouse Gas Emissions/Climate Change
- Rural Air Quality