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**155. Trends in the peat industry.** Short, P. *Greenhouse Management* 31(3):48, 50, 53. 2011.



The Canadian horticultural peat industry has supported the development of the VeriFlora Certification for Responsible Peatland Management.

# Trends in the peat industry

## Sustainability accounting

This year the peat industry is also conducting Socio/Economic LCA research. The intent is to ensure that the industry and companies understand the social and economic implications related to their sustainable management.

As the results of LCA research are completed and future studies are conducted, it is anticipated that the peat industry and individual companies will provide corporate sustainability reports on their accounts for environmental, social and economic implications. Over time the improvements in these accounts will be traceable and the evidence of improvement in the overall sustainable management of the companies and industry will be more transparent.

It is expected that greenhouse operators will eventually be held accountable for their claims of sustainability. Armed with the documented accounts from the horticultural peat industry, individual growers will be better positioned to verify the commitment to sustainable management by their principle substrate suppliers.

## Climate change, emissions

Climate change continues to emerge as a driver in the

Canadian sphagnum peat moss producers continue to investigate how to manage peatland resources

The North American horticultural peat industry is currently influenced by three external drivers:

1. The market challenges regarding sustainability.
2. The debate on climate change and emissions.
3. The need for consumer assurance.

## Market challenges

Sustainability accounting and measurement have been recognized as drivers for change in the peat industry for a number of years. Environmental management of peatland resources has been at the center of the Canadian Sphagnum Peat Moss Association's restoration research since 1992. The Industrial Research Chair for peatland management through Laval University's Peatland Ecology Research Group

has formed the foundation for much of the association members' current restoration management practices and the Preservation and Reclamation Policy of the industry.

## Environmental impact

Currently Environmental Life Cycle Analysis (LCA) of peat and peat products has provided insight into key hot issues related to environmental impact of the peat industry. Investigations are ongoing on

these issues to determine ways of reducing the association members' impacts.

## Transportation

A key area of concern is transportation. Studies are underway that will reduce the emissions impact resulting from the transporting of peat and peat products. Innovative means to maintain the volumes to be shipped but reduce the emission may result in changes in the delivery to users.

## Key Points

1. Studies are underway that will reduce the emissions impact resulting from the transporting of peat and peat products.
2. The peat industry and individual companies are expected to provide corporate sustainability reports that provide traceable evidence of actions being taken to meet environmental, social and economic accountabilities.
3. The peat industry has worked with Scientific Certification Systems, government regulators and the scientific research community to develop the VeriFlora Certification for Responsible Peatland Management, the first peatland management certification system globally.



Post harvest restoration of peatlands is essential to return the ecosystem wetland functions.



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activities of the Canadian horticultural peat industry. Regardless of the position to support or reject climate change the measurement and accountability of greenhouse gases, primarily carbon dioxide, and the sequestration of carbon are key concerns to the management of peatland resources.

Much has been discussed and reported about the carbon sequestration challenges and the anthropomorphic impact of peatland use. Europe and Indonesian reports on the impact of drainage and human-caused fires have provided numerous headlines and much controversy regarding peatland uses.

The Canadian peat industry has examined its impact on the harvesting of horticultural peat. An evaluation conducted by masters student and researcher J.P. Cagaman and assistant professor Maria Strack at the University of Calgary entitled "Peatland disturbance and climate change: What is the role of Canada's horticultural peat industry?" identified the following impacts.

- Canadian peat horticultural emissions (all sources) of 0.89 Metric tonne (Mt) represent 0.03 percent of all degraded peatlands, 3 gigatonne (Gt) worldwide.

- Emissions are 0.006 percent of all total global net anthropogenic emissions (15.7 Gt).

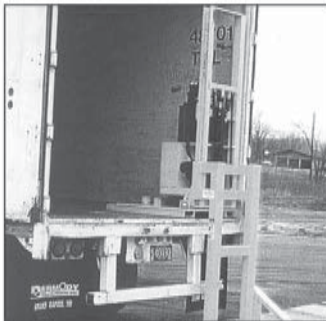
With national total greenhouse gases in Canada at 771 Mt carbon dioxide in 2006, the peat industry represented 0.1 percent of total greenhouse gases.

These findings indicate that the Canadian harvesting of peat contributes very little to global and national greenhouse gas emissions.

This does not mean that Canadian harvesting operations do not disrupt the carbon sequestration of peatlands, an important sink for carbon dioxide. Peatlands are natural biological resources and as such are subject to natural disturbance regimes. The major disturbance in Canada's boreal peatlands is wildfires. Studies carried out in western Canada indicate that the direct and indirect effects of these fires amount to a source to the atmosphere totaling 23.1 Mt carbon dioxide per year (6.3 Mt C yr<sup>-1</sup>). It is estimated that decomposition from all harvested peatlands in Canada is 0.26 Mt carbon dioxide per year.

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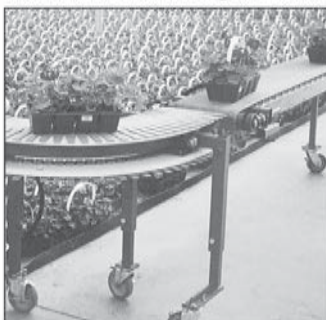
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Studies are underway that will reduce the emissions impact resulting from the transporting of peat and peat products.

### Peatland restoration

Post-harvest restoration of peatlands is essential not only to return the ecosystem wetland functions but also the restoration of the carbon sink/source dynamic. Harvested peatlands remain a source of carbon dioxide emissions for a period of time even though the ecosystem functions (biodiversity and water) have been restored. Therefore it is important to restore peatlands soon after harvesting is complete. The Canadian horticultural industry is committed to the Preservation and Reclamation Policy established through the Canadian Sphagnum Peat Moss Association.

A key element missing in the understanding of the full implications to peat and carbon within the greenhouse industry are the greenhouse gas values associated with the various operations and products of the grower industry. Understanding the emissions within various greenhouse operations and values related to different products will be areas of future interest for joint research.

### Consumer assurance

Customer assurance that goods are managed responsibly considering environmental, social and economic values is a major market driver. The emergence of third-party audited standards that certify these values for products and processes has become a mainstay within markets.

This assurance requirement applies for the purchaser of peat and peat products as well as the purchaser of greenhouse products. The concept of "chain of custody" links all elements of the value chain.

In response to this increasing request for accountability, the Canadian horticultural peat industry has supported Scientific Certification Systems (SCS) in the development of the Veri-Flora Certification for Responsible Peatland Management ([www.scs-certified.com/docs/DRAFT\\_VER\\_STN\\_PeatMossAnnex\\_V1-1\\_070910.pdf](http://www.scs-certified.com/docs/DRAFT_VER_STN_PeatMossAnnex_V1-1_070910.pdf)). SCS has worked with the peat industry, government regulators and the scientific research community to develop and complete the peatland certification.

Peat manufacturing companies are required to comply with specific criteria and their compliance is validated through external audits completed by an independent third party. Certification takes into account the following elements:

- Responsible management of peatlands
- Protection and conservation of ecosystems
- Conservation of resources and energy efficiency
- Integrated waste management
- Equitable working conditions
- Benefits to the community
- Quality of products

This is a very significant and important step by the peat industry in meeting its commitment to improving sustainability measures throughout the industry. It is anticipated that the certification system will provide increased assurance to consumers of the management commitment by the Canadian peat industry to responsible peatland management. **GM**

Paul Short is president, Canadian Sphagnum Peat Moss Association, (780) 460-8280; [www.peatmoss.com](http://www.peatmoss.com).

# Greenhouse<sup>®</sup> MANAGEMENT

**ON THE COVER:** (See page 12)

Banner Greenhouses sells vegetable transplants for field production directly to local growers and some growers in western North Carolina.

Photo by Jon Eckard Photography

## COVER STORY



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As a result of contraction in the supply chain, Banner Greenhouses has looked to diversify both its customer base and its product offerings.

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