ONTARIO GREENHOUSE VEGETABLE GROWERS

OGVG Domestic Action Plan
Taking Stock

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Background

- 2010: MOECC inspections and sampling identified high background P levels in the Leamington tributaries
- 2011: TOGA established a formal collaboration with OMAFRA and MOECC defined as the Ontario Greenhouse Environmental Strategy (OGES) group
- Vision: "the greenhouse sector be recognized as a leader in environmental performance, innovation and compliance" while recognizing "the need to balance improved environmental performance with the need for greenhouse operators to remain financially competitive."

Background

- With the passing of the *Great Lakes Act* and the declaration of the binational phosphorous reduction targets for Lake Erie, this issue has become more urgent and is a top priority for OGVG
- Efforts of the OGES group have been instrumental in defining a stagey for enhanced environmental performance through atmosphere of open communication

ACHIEVEMENTS

- Since 2010 over 1000 new/existing vegetable greenhouse acres have transitioned to nutrient recirculation.
  - Recirculation reduces fertilizer consumption by **30-50% per acre**.
  - Over **90%** of the acreage represented by OGVG recirculates.
- 2011: TOGA undertook a research project focusing on identifying technologies to allow for closed loop production. This project was supported by MOECC's **Showcasing Water Innovation Program (SWIP)**.
- 2012: Supported by **CAAP**, OGVG & FCO put in place dedicated staff resources to aid in the development of sector specific regulations, work with growers to develop plans for environmental sustainability and aid with compliance related matters.

ACHIEVEMENTS

- 2013: OMAFRA finalized their **'Self-Assessment and BMPs for Water and Fertilizer Use in Greenhouse Vegetable Production'**
- 2015: Inclusion of **Greenhouse Nutrient Feedwater (GNF)** under the NMA provided greenhouse farmers with an effective tool for repurposing valuable nutrients that can no long be used in the greenhouse.
- 2014/15: Expansion of the sanitary sewer in Kingsville resulted in 18% of greenhouses in the region of the Leamington tributaries having access to a reliable solution for the management of both domestic waste and excess fertilizer solution, eliminating the need for on-site septic beds.

ACHIEVEMENTS

- 2015/16: TOGA worked with MOECC to develop a streamlined, low-cost, sector-specific regulatory tool for stormwater management.
- 2015/16: OMAFRA and OGVG formed a directed task team focused on one-on-one grower interactions to identify potential barriers to achieving zero discharge production and to offer technical support to growers. This arrangement has resulted in enormous benefit to both the individual growers and to informing the OGES team.

FINDINGS

- Lack of understanding of the regulatory requirements for land application.
- Equipment failure and lack of sufficient storage can lead to discharge events.
- Limited window of opportunity between crops to install upgrades.
- Limited access to funds, especially for smaller operations.
- Lack of reliable and economic disposal options through limited sanitary sewer access.
- Small leaks within the greenhouse can lead to small but measureable discharges.

GOING FORWARD

- **Grower Communications**: OGVG is committed to ensuring its membership is fully informed as to the importance of this issue and delivering meaningful and impactful information/data related to phosphorus in the Great Lakes.
  - Regulatory requirements for land application of GNF under the NMA through the delivery of directed workshops.
  - Regulatory requirement for stormwater management under the new streamlined process.
  - Information related to the Environmental Farm Plan, Growing Forward 2 (GF2) and/or any additional funding streams that become available.

Going Forward

- **Grower Outreach**: OGVG in collaboration with OMAFRA will continue to offer one-on-one support to its membership to aid in improving environmental outcomes and ensuring regulatory compliance.
- **Good News Stories**: OGVG is working with Farm and Food Care to promote sector success stories outlining how growers have overcome obstacles to eliminate phosphorous containing discharges from their operation.
- **Adaptation and Contingency Funds**: While GF2 remains the backbone of producer adaptation funds, given the importance of this issue across all agricultural sectors, it is vital that dedicated phosphorous reduction funds be put in place that aid in adaptation, support innovation and target tangible regional reductions.

Going Forward

- **Watershed Remediation**: Given the relatively unknown timeline associated with remediation of a watershed that has been subject to historical nutrient contamination, OGVG has started to explore low-cost options for regional phosphorus capture. This will be done in conjunction with local Conservation Authorities.

GOING FORWARD

- **Sustainable Economic Development**: OGVG is pursuing a multi-phase sanitary sewer expansion project in Kingsville/Leamington.
  - Reliable and low-risk solution for waste water management for the entire region
  - 58% of the current acreage in this region would be serviced, reducing the risk of nutrient contamination in the waterways
  - Drives economic development by defining a **greenhouse investment corridor**
  - We estimate that this investment could attract 1650 new acres over the next 10 years, representing a regional investment of over $1.2 billion and creating 7,000 new jobs.
- This investment could go a long ways towards achieving the commitment Canada has made under the Great Lakes Water Quality Agreement to reduce phosphorus entering Lake Erie.

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QUESTIONS?