

## RECYC-QUEBEC FLW Survey – Horticultural Producer

### Introduction

**RECYC-QUÉBEC and the City of Montreal have commissioned Value Chain Management International to estimate the volume of food loss and waste (FLW) occurring in the province of Quebec from a whole of chain perspective, then extrapolate the findings in terms of greenhouse gas (CO<sub>2</sub>E) emissions.**

**As an expert industry stakeholder, we would greatly appreciate your completing a survey that we have designed to enable us to estimate loss factors in specific sectors and food types. The information that you provide is completely confidential. Only aggregated results at an industry level will be reported. No individuals or organizations will be identified at any stage of the analysis and reporting.**

**In completing the survey, please respond in terms of a typical year; therefore, prior to the onset of the COVID-19 crisis that began in March 2020.**

**Please complete the survey by Monday, March 1.**

**If you have any questions about the survey and overall study, please contact Dr. Martin Gooch (martin@vcm-international.com) or Mariane Maltais Guilbault m.maltais@recyc-quebec.gouv.qc.ca.**

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### Identifiers

\* 1. Of the production systems listed below, please identify the crop type and production system that represents the largest volume of production. **(Choose one only)**

- Fruit
- Field grown vegetables
- Greenhouse vegetables
- Mushrooms

2. What is your organization's primary location?

Postcode

Closest city/town

3. How many facilities do you operate in Quebec?

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### Scale of Operation

4. In **metric tonnes**, in a typical year, what is your total annual production of this crop? Please include in your estimate any of this crop that you typically grow though is not harvested. **Please enter numbers only.**

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### Production and Post-production Losses

Each type of loss is described below.

**A. Production losses occur during the growing of the crop prior to harvest. Production losses include crops that are grown though not harvested.**

**B. Post-production losses occur in your operation during harvest, grading, storage, and handling.**

5. In **metric tonnes**, what quantity of **production** and **post-production** losses do your organization typically experience each year? **Please enter numbers only.**

Production loss

Post-production loss

6. Indicate whether the quantities that you provided above were measured or are estimated.

Measured / Estimated

Production loss

Post-production loss

7. Identify if your organization is actively working to reduce its production or post-production losses.

Yes / No

Production loss

Post-production loss

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### Loss Management

8. Estimate the percentage (%) of **production** and **post-production** loss that would be edible, either in its present form or after processing into foods or nutritional supplements. **(Please enter numbers only.)**

Production loss

Post-production loss

9. Select from the list below the top three destinations of the **post-production** losses that you identified in Q8, and indicate the percentage that is directed to each of the three destinations.

Percentage of post-production loss

Rescue/redistribution for  
human consumption

Upcycling into foods,  
nutritional supplements,  
etc.

Animal feed

Biomaterial  
processing/rendering

Biomethanisation  
(anaerobic digestion)

Compost

Land application

Incineration or controlled  
combustion

Landfill/burial

Other (e.g. sewer)

10. Does your organization monitor the CO<sub>2</sub> emissions associated with food loss and waste?

Yes

No

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Loss Management (Continued)

11. If yes to the above, what is the quantity of CO<sub>2</sub>?

12. Is the figure above a measurement or an estimate?

Measured

Estimated

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### Causes of Losses

13. On a scale of 1 to 5, please rate the impact of each factor listed below on the **production** losses that you experience? (1 = minor impact; 3 = moderate impact; 5 = significant impact). Please ignore any causal factor that is irrelevant.

	1	2	3	4	5
Inaccurate forecasts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changes to customer orders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customer (over) specifications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Weather	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diseases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Equipment malfunction/failure, mechanical damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prices insufficient to warrant crops being harvested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Human factors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other - please specify in comment box below	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comment

14. On a scale of 1 to 5, please rate the impact of each factor listed below on the **post-production** losses that you experience? (1 = minor impact; 3 = moderate impact; 5 = significant impact). Please ignore any causal factor that is irrelevant.

	1	2	3	4	5
Inaccurate forecasts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changes to customer orders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customer (over) specifications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor quality inputs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Date code (products reach "best before" / "use by" dates)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Equipment malfunction/failure, mechanical damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Storage/inventory losses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Human factors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other - please specify in comment box below	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comment



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### Conclusion

15. Thank you for participating in this important study. Is there anything further that you would like to add on the topic of food loss and waste in Quebec, and its prevention?

16. Would you be willing to participate in a short follow-up interview?

Yes

No

17. If yes, please provide your contact details:

**Name**

**Company (optional)**

**Email Address**

**Phone Number**