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 (CO2E) 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.

dentifiers				
* 1. What is yo Cows Sheep Goats	ur primary dairy busine	ess? (Choose one o	nly)	
. What is your or	ganization's primary lo	ocation?		
ostcode				
losest city/town				

Scale of Operation

4. In litres, what is the total quantity of milk that your operation typically produces annually? This includes milk that your herd produces though is not sold. **Please enter numbers only.**

Unavoidable and Unplanned Losses

Each type of loss is described below.

A. Unavoidable losses are inevitable – perhaps due to having to withhold an animal's milk from sale due to treating with antibiotics.

B. Unplanned losses are typically caused by supply, internal operations, or market related factors. This includes the inability to sell products due to having reached your quota limit.

5. In litres, what quantity of **unavoidable** and **unplanned** loss does your operation experience each year? **Please enter numbers only.**

Unavoidable loss	
Unplanned loss	
6. Indicate whether the	e quantities that you provided above were measured or are estimated. Measured / Estimated
Unavoidable loss	
Unplanned loss	
7. Identify if your orga	nization is actively working to reduce its unavoidable or unplanned losses.
	Yes / No
Unavoidable loss	
Unplanned loss	

Loss Management

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

Unavoidable loss	
Unplanned loss	

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

	Percentage of unavoidable loss	Percentage of unplanned 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 CO2 emissions associated with food loss and waste?

- 🔵 Yes
- 🔵 No

Loss Management (Continued)

11. If yes to the above, what is the quantity of CO_2 ?

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

Measured

Estimated

Causes of Losses

13. On a scale of 1 to 5, please rate the impact of each factor listed below on the **unavoidable** 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	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Changes to customer orders	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Customer (over) specifications	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Weather	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Diseases	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Equipment malfunction/failure, mechanical damage	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Storage/inventory losses	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Human factors	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Other - please specify in comment box below	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Comment					

14. On a scale of 1 to 5, please rate the impact of each factor listed below on the **unplanned** 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	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Changes to customer orders	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Customer (over) specifications	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Weather	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Diseases	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Equipment malfunction/failure, mechanical damage	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Storage/inventory losses	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Human factors	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Other - please specify in comment box below	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Comment					

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?

- O Yes
- 🔵 No

17. If yes, please provide your contact details:

Name	
Company (optional)	
Email Address	
Phone Number	