



# SWANA – Residential Organic - but then what?

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# Green Cart Update

Approval sought late 2019



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## Disclaimer

This presentation outlines my professional opinion developed through working in solid waste management. The views are my own and they do not necessarily reflect the official policy or position of the City of Lethbridge.



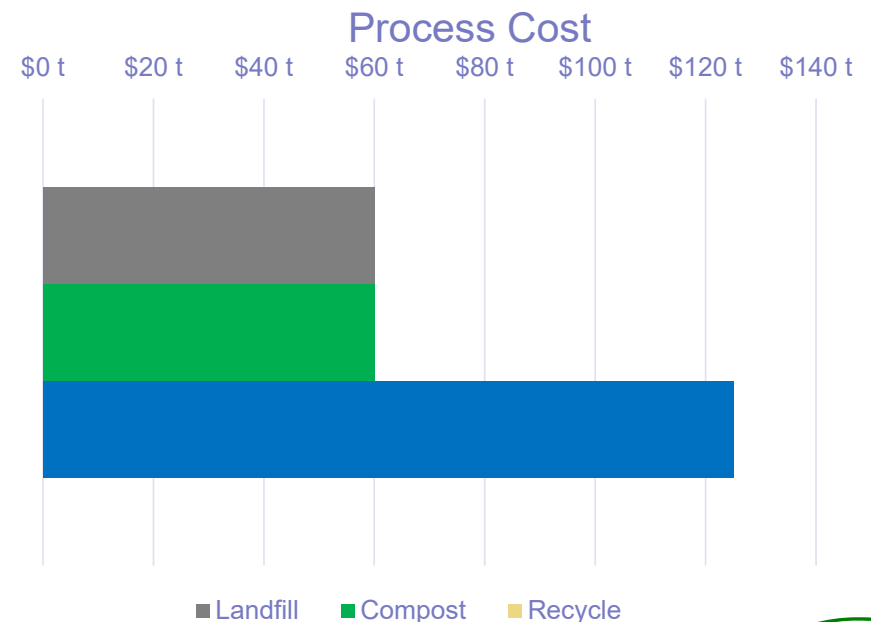


## Cost Effective

Switch to alternate weeks collection largely eliminates extra costs

Processing in the range of \$50-75/t.

Compares well with \$60+/t landfilling and \$125+/t recycling.





# Feed people and animals



Lethbridge Food Bank



Las Vegas

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# Impact



Saskatoon – 58%



Calgary -65%

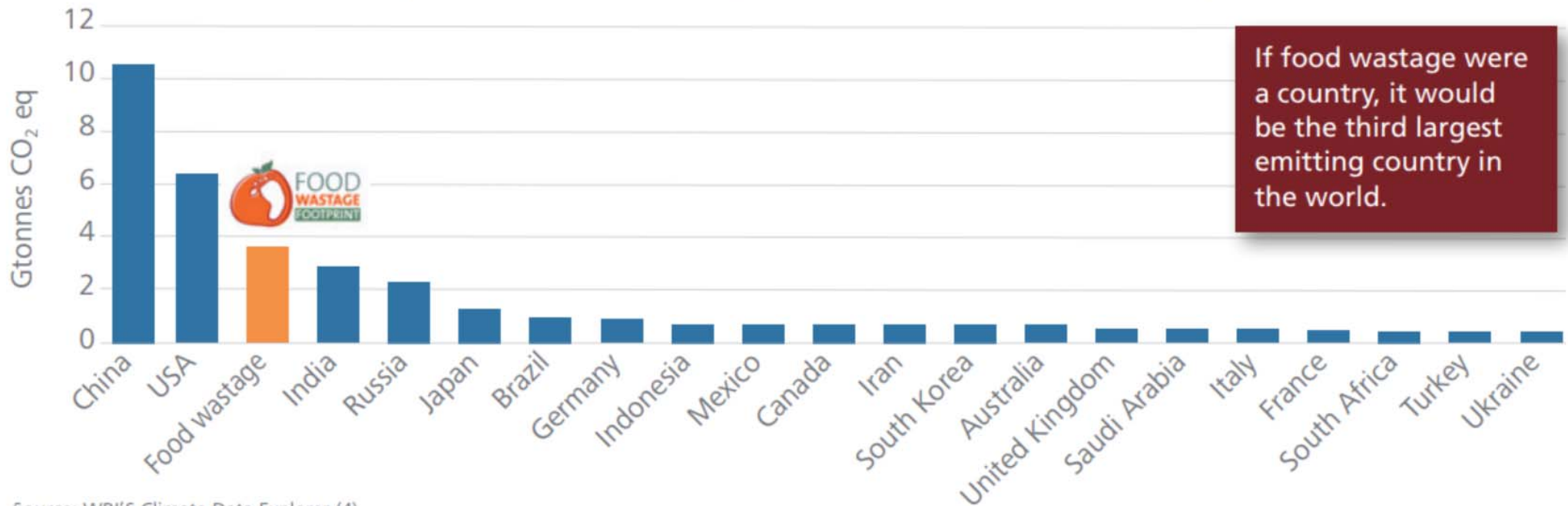


Lethbridge – 60%+



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Total GHGs emissions excluding LULUCF  
Top 20 of countries (year 2011) vs. Food wastage



If food wastage were a country, it would be the third largest emitting country in the world.

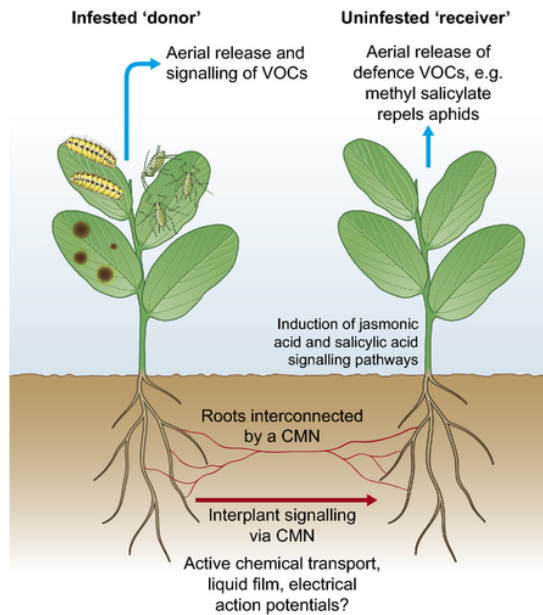
Source: WRI'S Climate Data Explorer (4)



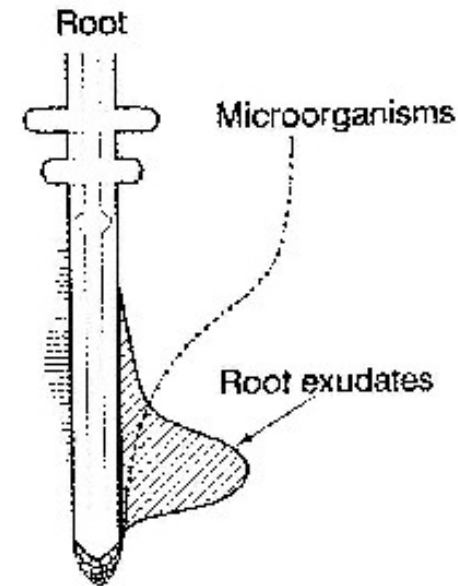
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# Plants and compost are amazing



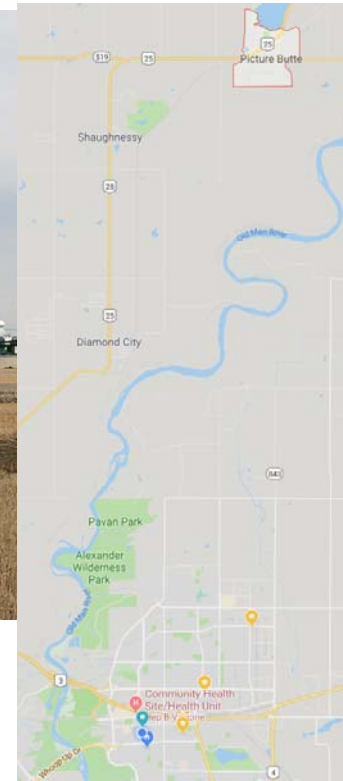
Interplant signalling through hyphal networks  
David Johnson Lucy Gilbert



From Marschner, 1995.



# Existing Processing Options



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## System 1 – Organics Waste



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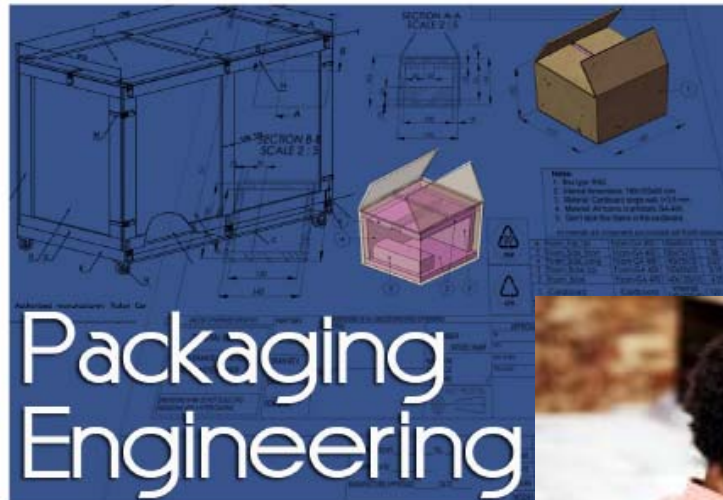
# System 1 – Organics Waste



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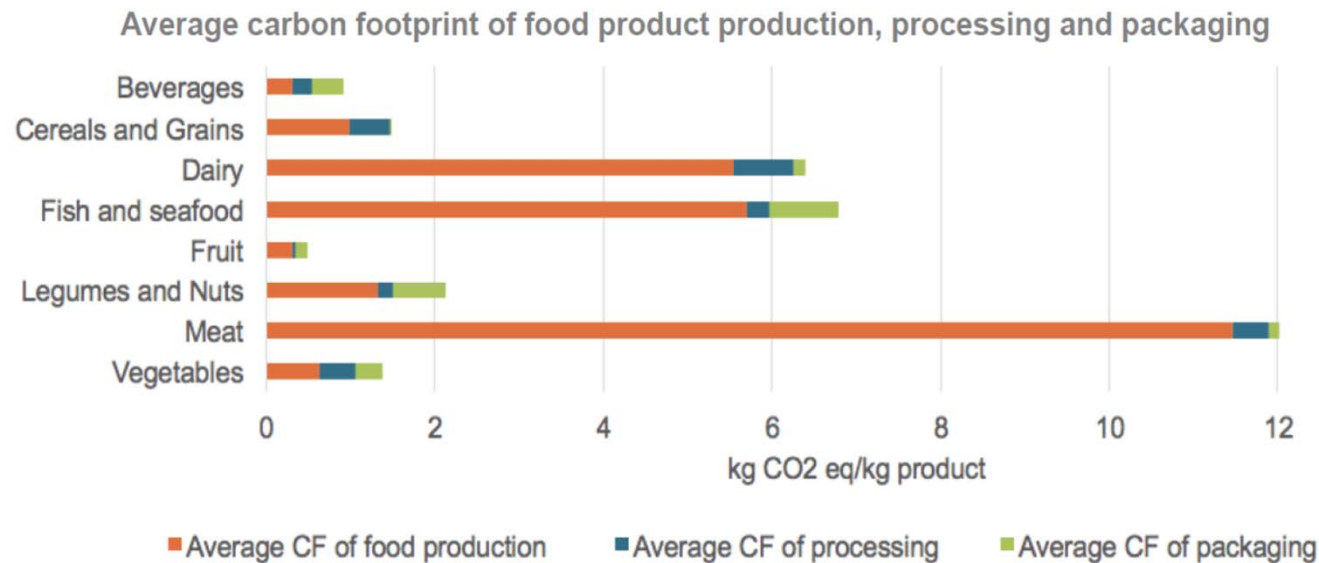
## System 2 – Packaging Waste



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# Package Versus Contents



Oregon Department of Environmental Quality

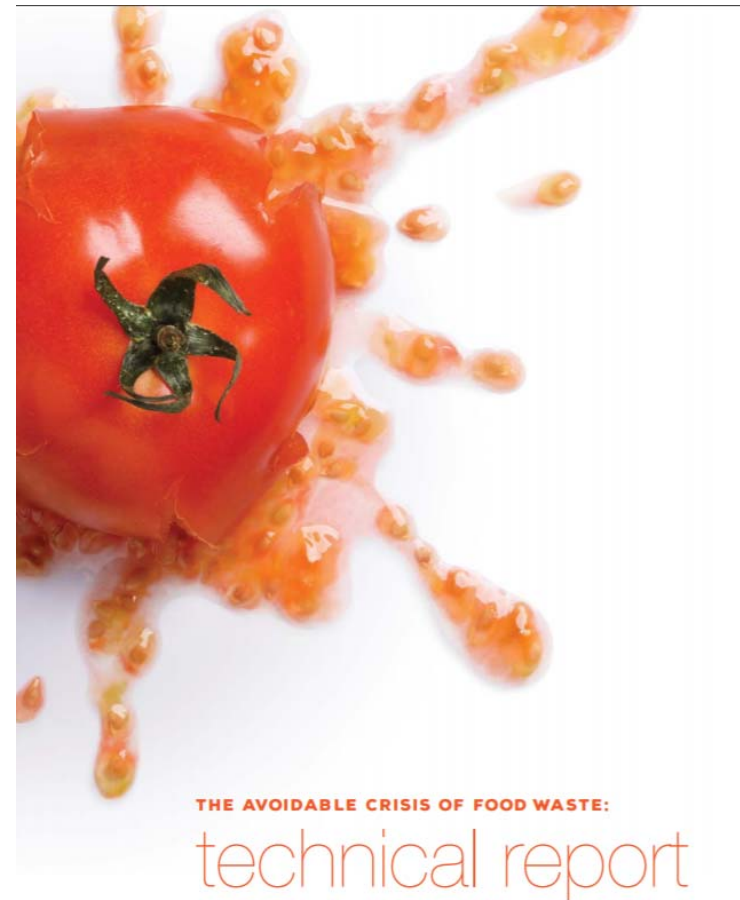
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# Wasted Food

## Second Harvest – The Avoidable Crisis of Food Waste

<https://secondharvest.ca/wp-content/uploads/2019/01/Avoidable-Crisis-of-Food-Waste-Technical-Report-January-17-2019.pdf>

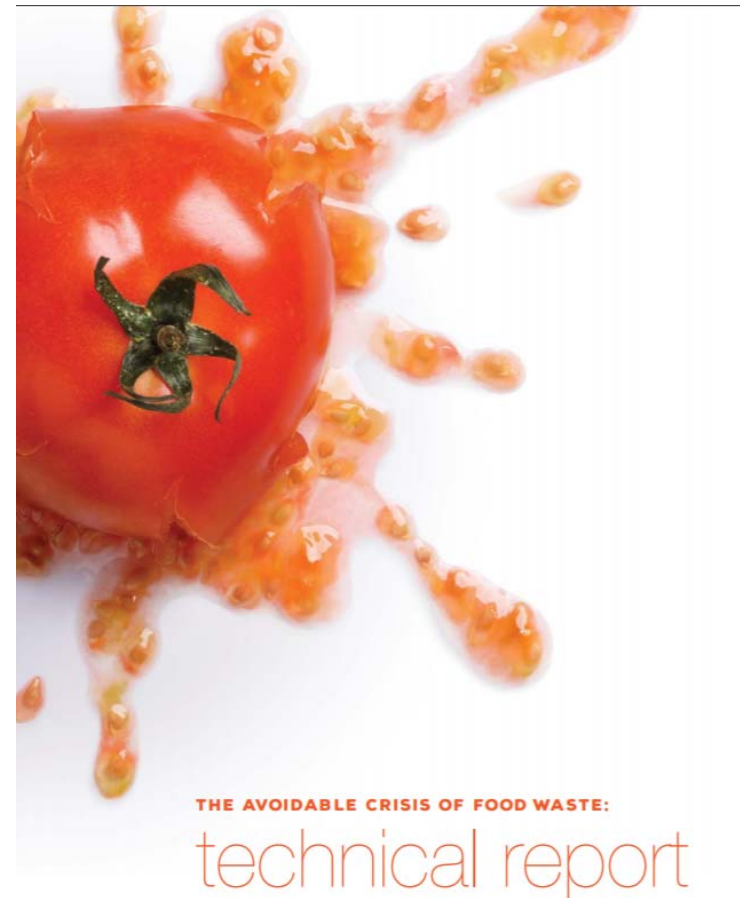


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## Role Munis can play

### Source Reduction –

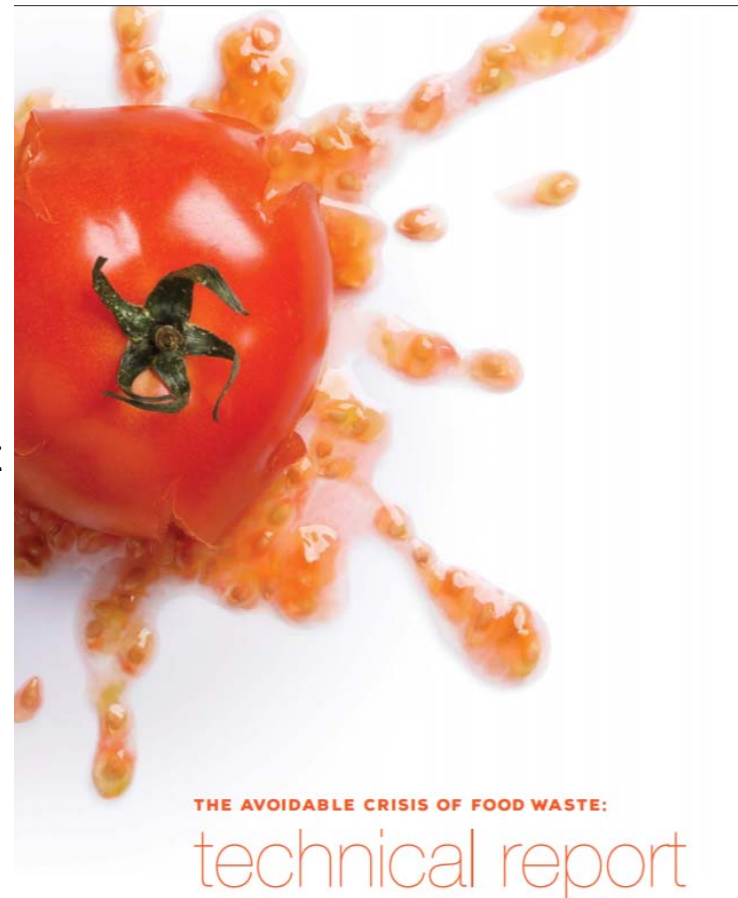
- Review landfill policies, regulations, Legislation and fees
- Increase fees for dumping organics in landfill
- Communicate responsible purchasing and food handling behaviours to consumers
- Legislate mandatory reporting of FLW



# Role Munis can play

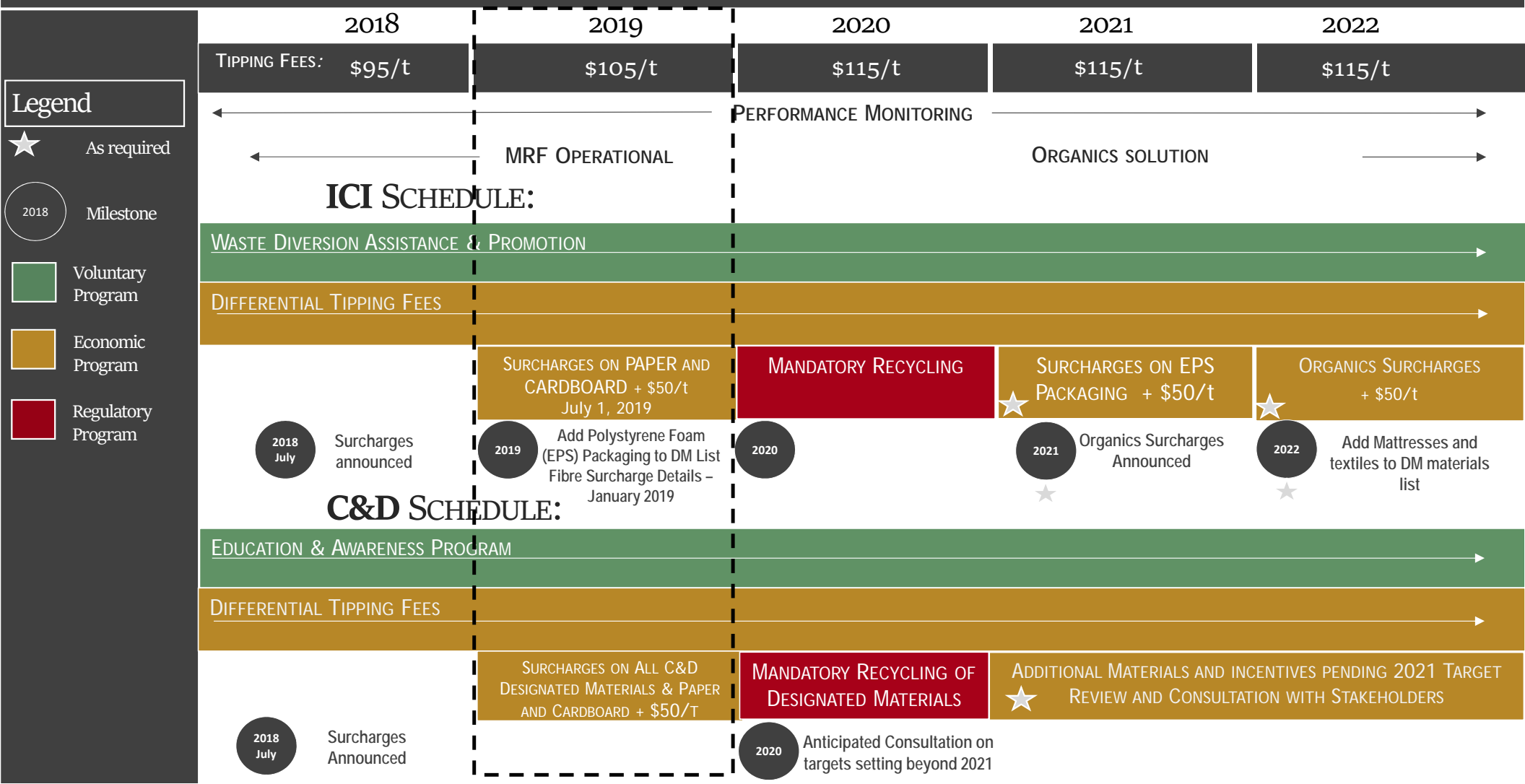
## Waste Mgt.—

- Identify infrastructure gaps preventing reuse and recycling
- Encourage and support the development of new business models by waste management haulers
- Invest revenue from increased landfill and emissions taxes in the development of innovative reuse and recycling infrastructure and initiatives
- Assist businesses to individually and jointly evaluate long-term investment options to reduce FLW



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# INDUSTRIAL, COMMERCIAL, INSTITUTIONAL & CONSTRUCTION AND DEMOLITION 5 YEAR SCHEDULE:





## Surcharges – “Organics”



### **cardboard & paper**

newspaper, catalogues, magazines, mixed paper, boxboard, corrugated cardboard



### **recyclable wood**

dimensional lumber, pallets, tree pruning, and other items that are made of raw and un-processed wood



### **asphalt shingles**

asphalt shingles from new construction or re-roofing



### **scrap metal**

general scrap metal including appliances and structural or decorative metal and metal items suitable for recycling



### **drywall**

clean gypsum wall board from new construction suitable for recycling



### **concrete**

concrete foundations, sidewalks, brick, rubble, gravel & sand suitable for recycling



### **brick & masonry block**

structural or decorative, with or without mortar, crushed or whole



### **asphalt pavement**

road asphalt



# 2019 – Commercial lawn/Garden



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## 2019 – Major Organics Generators - Retail



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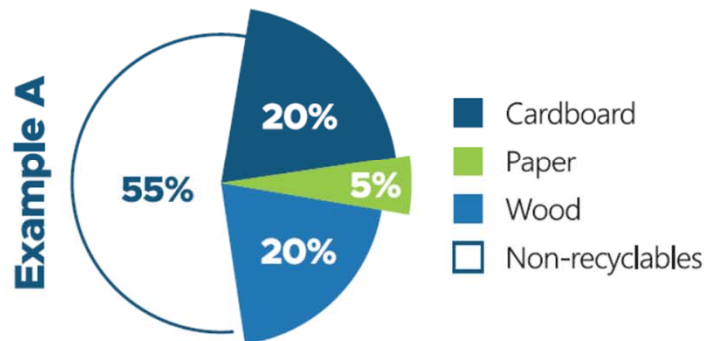


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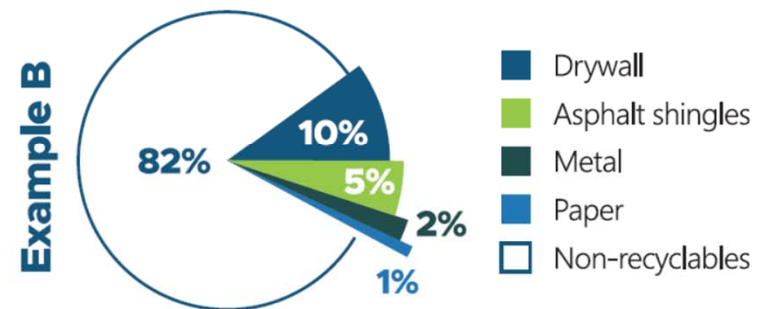
# Examples

**Beginning October 1, 2019, loads that contain more than 25% recyclable materials (designated materials) will be charged a fee of \$50 per tonne.**



A 5 tonne load of waste appears to be 20% cardboard, 5% paper and 20% wood.

This load contains approximately 45% designated materials. For this hypothetical load, the total surcharge would be \$250 in addition to the appropriate tipping fee.



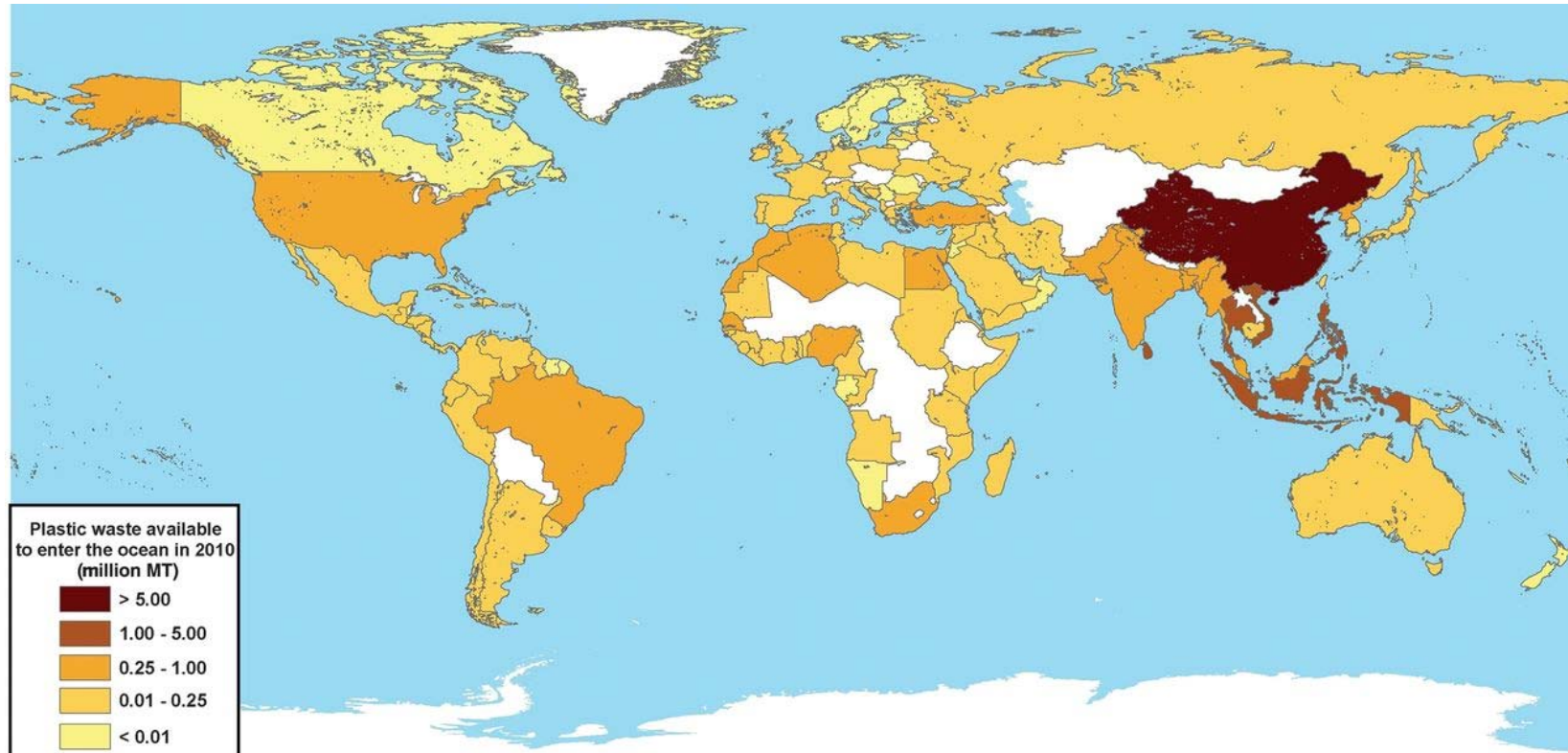
A 5 tonne load of waste appears to be 10% drywall, 5% asphalt shingles, 2% metal and 1% paper.

For this hypothetical load there would be no surcharge as the load contains less than 25% recyclable materials.





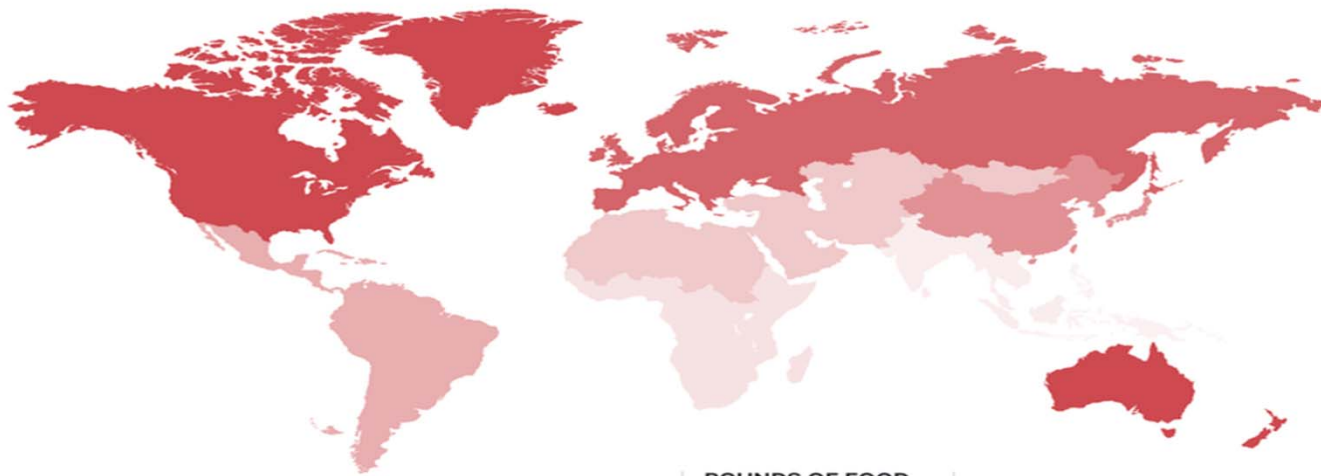
# Ocean Plastics



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# Food Waste Generation

The biggest food wasters around the world



RANK/REGION	POUNDS OF FOOD WASTE PER PERSON /PER YEAR	TYPES OF FOOD MOST WASTED
3 East Asia	530 pounds	 Roots/tubers
2 Europe	610 pounds	 Roots/tubers
1 North America & Oceania	640 pounds	 Roots/tubers

SOURCE: The Food and Agriculture Organization of the United Nations

TECH INSIDER

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## Summing up

- **Organics – The case is strong and CoL is planning for progress.**
- **Focus on what can be done now.**
- **Focus on most impactful areas.**
- **Keep reduction of Food Waste and Loss in mind – not just diversion to processing.**
- **Direct engagement with business works.**
- **We can't do everything, but we can do something meaningful.**



# Questions



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