

Activity Report 2018  
Yellowknife Farmers Market  
Waste Reduction and Compost Program

## INTRODUCTION

The Yellowknife Farmers Market (YKFM) initiated its “Waste Reduction Compost Program” (WRCP) in 2015 to effectively manage and reduce the amount of waste generated during weekly markets, which are held for 16 consecutive Tuesdays from June thru September. This is the fourth summer that the Waste Reduction and Compost Project has been in place.

The project targets this year were effectively the same as in 2017, and are explained in more depth throughout this report. The 2018 targets were:

1. Reduce the amount of waste generated at the YKFM;
2. Recycle all of the organics at City of Yellowknife’s composting facility;
3. Educate the public on reducing their waste, and the importance of composting.

The WRCP was successful in achieving its objectives, despite remarkably poor weather this market season (wind, rain, snow), which resulted in significantly reduced patronage (an average of 115 people less per market when compared with 2017). In 2016, 75% of waste produced at the market was rerouted to the City of Yellowknife’s compost facility. In 2017 86% was diverted, and this year an estimated 88% of waste was composted. Naturally, given reduced attendance, the overall waste produced was 2.5 times less than in previous years. The program also saw an increase of patrons participating in the Loyalty Card program. This report will delineate the WRCP’s successes and shortcomings, with a few recommendations moving forward.

Amongst which are the recommendation for the YKFM to promote its successes, including the WRCP as a whole. Below is an excerpt from the Yellowknife Farmers Market Tourism Strategy, 2018 that speaks to this point:

Not unlike the rise of Food/Culinary Tourism, Environmental and Sustainable Tourism is trending upwards with more and more travellers seeking out eco-friendly destinations and activities. The UN World Tourism Organization noted that 60% of North American travellers seek out these sustainable trips and activities.

It is recommended that the YKFM use its reputation of composting an average of 85% of market waste as a key value proposition in marketing material. The YKFM should confirm and claim itself as one of the most environmentally friendly farmers market in Canada, or North America. This proclamation should be used when targeting marketing material, including the YKFM website, at North American travellers, as they are the most likely to seek out such information as a decision indicator.

Furthermore, the WRCP should be showcased across media platforms, including YKFM website and social media.

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## **THE PROJECT**

The main activities of the Waste Reduction and Compost Program (WRCP) occurred on Tuesday markets between June 5th and September 18th, 2018. The Yellowknife Farmers Market (YKFM) held its annual Christmas market in the Centre Square Mall, on December 4<sup>th</sup>, 2018 however the information presented in this report strictly refers to the summer markets.

The WRCP ensures that food vendors use compostable dinnerware and that market patrons properly dispose their used compostable food containers in the organic bins. By doing so a significant percentage of the waste is composted and diverted from the landfill. There is a small team, primarily composed of volunteers, that work together to achieve these goals. The Compost Project Coordinator is a volunteered position held by a board member, and the Compost Project Assistant is a paid, three-month contract. There were eight other volunteers who supported the Program throughout the summer.

## **2018 PROJECT OBJECTIVES**

1. **REDUCE** the amount of waste generated at the YKFM by
  - a. Reducing the amount of single-use disposable dinnerware;
  - b. Offering smaller serving sizes of take-out meals.
  
2. **RECYCLE** organics using the City of Yellowknife Composting Facility by
  - a. Ensuring that all disposable dinnerware items are compostable;
  - b. Ensuring that all compostable items are disposed in the organics bins;
  - c. Collecting, sorting, and weighing all organics materials prior to disposal in the city's on-site organics dumpster
  
3. **EDUCATE** the public on reducing waste at public events by
  - a. Providing informational materials via social media (Facebook, Twitter) regarding how-to, facts, and tips on waste reduction and composting;
  - b. Engaging market patrons face-to-face at waste stations;
  - c. Promoting the Loyalty Card program, its benefits and rewards.

## **ACHIEVING OUR GOALS**

### **GOAL #1: REDUCE the amount of waste generated at the YKFM**

This year, the market hosted 52 vendors including 24 food stalls. Over the course of the 2018 summer, the market was visited 11,430 times. According to the 2017 patrons survey, 75% of the market's clientele come to purchase prepared meals. It is imperative to reduce waste that the Program targets disposable, single-use containers. As such, all food vendors are required to use compostable dinnerware.

In an attempt to further reduce waste, in 2016 the WRCP implemented the 'Loyalty Card' program as an incentive to encourage market attendees to bring their own reusable dinnerware. The participants received a "Loyalty Card" which was stamped every time the participants brought their own containers and a \$15 food voucher was earned when the card was

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completed. In 2016 and 2017, participants required to get eight (8) stamps on their Loyalty Card before earning a voucher, but given that the market is only 16 weeks long, there was a marked decline after the eight-week point. Therefore, in 2018 the number of stamps required was reduced to five stamps, which made it easier for participants to 'win'! Having attendees bring their own containers reduces the amount of single-use dinnerware required while also increasing the likelihood that leftovers will be eaten instead of discarded.

### Measurements:

- The Loyalty Card was used to count the number of people who entered the program;
- A ledger was kept to record each time a patron used its own container. Each use was indicated with initials and a smiley face on the patrons' card;
- A 15\$ voucher was awarded to people who brought their container five (5) times;
- Weekly postings on Facebook informed people about the Loyalty Card program.

### Results

- According to Facebook metrics, Loyalty Card posts garnered a weekly reach of approx. 700 users, with an average of 7 engagements (likes, comments, shares, etc.) per post;
- 97 individuals registered for the Loyalty Card program in 2018;
- Collectively, people brought their containers 263 times over the course of the summer (compared to 357 times in 2017, and 305 times in 2016). This gives participants an average of bringing their containers 2.7 times over the course of the summer, a decrease from 3.4 in 2017.
- Regardless of weather or turnout, there was a relatively consistent average of 20 Loyalty Card Participants per market.
- 26 people earned a 15\$ voucher; approx. 5 of which earned more than one voucher.
- Requiring 5 stamps to earn a 15\$ voucher was effective and more accessible, in that there wasn't a stark decline in participation, and new participants signed up until mid-late August. Anecdotally, there also seemed to be more enthusiastic and active patronage in the program than in previous years.
- Reusable produce bags were given away as draw-prizes to people who brought their own containers. The feedback from earning an immediate prize was very positive, and we hope that it reinforces positive behavioural changes.
- This year the market produced approx. 1000 kg of waste, compared to the 1,220 kg (or 2,668 lbs) produced in 2017. Although this is a slight decrease, given that there were fewer attendees and on rainy days people did not stay at the market and discarded their container at home, this isn't a particularly glowing achievement.

### Recommendations

- Continue offering 15\$ market vouchers after 5 stamps are earned in the Loyalty Card program.
- Facebook, and other social media platforms, seem to effectively engage a broad audience. Ensure that weekly posts are scheduled at the beginning of the market season, if not before. It'll likely take an afternoon of work to do so.
- Approach and engage market patrons while they are eating or socializing to promote the Loyalty Card program, and possibly to give out prizes to people who've brought their own containers. This real-time, face-to-face engagement will garner more positive relationships while increasing the visibility of the waste reduction and compost project.

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- Give prizes away in a more public setting (i.e. while they are standing in-line, or while sitting with a group) again to increase visibility. This year prizes were given away at the info tent, often in a one-on-one type setting, and although the reception was positive, it is unknown how broad the reach.
- When it comes to waste, it is often 'out of sight, out of mind'. Consider doing a public education piece by piling all of the waste produced at the market in a central location (i.e. picnic table area) so that people can see it, talk about it, and do something about it. Maybe have some educational stats (i.e. X is how much energy it took to produce all the compostable dinnerware for tonight's market, Y is what it would take if we used reusable dinnerware). Consider hosting a few waste-related games. Give out 'zero-waste prizes' like high-fives, handshakes, and hugs (if consensual).
- YKFM could consider providing re-useable dinnerware to market attendees. Unfortunately, the program wasn't offered in 2018 due to lack of funding.

## **GOAL #2: RECYCLE ALL THE ORGANICS AT THE CITY'S COMPOST FACILITY**

### A - ENSURING THAT ALL DISPOSABLE ITEMS USED AT THE MARKET ARE COMPOSTABLE

Following the success of the WRCP in previous years, the YKFM made it mandatory in 2018 for all vendors to have compostable dinnerware. It is imperative that vendors do so given that roughly a metric tonne of compostable waste is generated throughout the market season. At the beginning of the market season, however, there were two vendors known to the YKFM whose packaging wasn't 100% compostable. By the end of the market, one vendor had been able to source compostable materials, and the other maintained that there weren't any suitable compostable products available.

The necessity of participating, and how-to, were communicated with vendors through various means, including:

- A clause in the vendor's contract;
- An information session prior to the first market;
- A buyer's guide for vendors, indicating which compostable items are suitable (clamshells, cups, straws, sauce containers, lids, etc.)
- Vendors surveys performed at the beginning of markets to ensure the suitability of their products, to answer any questions they had, and to provide compostable bags and educational signage.

### Measurements:

- As mentioned above, vendors surveys were conducted diligently during the first few weeks of the market, and then as-needed throughout the season (i.e. arrival of new vendors, contamination found in the organic bins at the waste stations).
- When necessary the compost project coordinator and/or the compost project assistant worked with vendors (in person, over the phone, in conjunction with local distributors) to procure appropriate dinnerware.
- There were often volunteers standing at the waste stations (recycling, compost, and garbage) to provide market patrons with guidance, information, and to ensure that all items at the market were compostable.

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- After each market, the compost project coordinator and the compost project assistant would sort through all outgoing waste to ensure maximal diversion rates and clean feedstocks for the organics program. Contamination was tracked on a data spreadsheet (along with weights, attendance, etc.) and there was follow-up with vendors. This data served as a qualitative measure of the success of the program.

### Results

- By and large, the vendors did an excellent job this summer! The vast majority of the dinnerware used at the market this summer was compostable.
- Other than the two vendors previously mentioned, there were only three other food vendors throughout the summer who mistakenly used recyclable (vs. compostable) cups. There was also a new vendor who initially hoped to use plastic bags for their baked goods. The reception to constructive feedback was positive, and most vendors resourced their materials within a week.
- In 2017, the majority of vendors switched to bottles for sauces and small compostable sauce containers (vs. individual plastic soya sauce packets). The trend continued again this year as most food vendors were returning members.
- Some vendors exceeded our expectations, particularly those offering baked-goods, whose packaging was not only compostable, it was re-useable and well-designed.
- There was one vendor who dropped out of the market half-way through the summer because all the YKFM requirements ( Health Safety, payments, weekly reporting etc..) seemed too laborious. They also complained about the WRCP requirements. They had difficulty discerning compostable from recyclable and claim that they were given misinformation at the distributors. The compost project assistant worked with this food vendor to find accessible solutions, but was ultimately unsuccessful. The vendor has stated that they'd be willing to try again next year, and hopefully they follow-through.
- Having volunteers at each waste station was indispensable in ensuring civic engagement, as well as vendor compliance.
- Feedback from the public was often glowing. Innumerable attendees thanked staff and volunteers alike for our impressive efforts in waste reduction. Additionally, a number of people were pleasantly surprised to discover that their utensils and cups were 100% compostable. There were also other visitors who took to social media to promote the YKFM because of our commitment to waste reduction. Way to go YKFM!

### Recommendations:

- Continue to have volunteers stationed at the compost bin to help direct market attendees on waste disposal.
- Continue to use a positive approach with vendors and patrons alike (i.e. smile, use humour, 'can-do' attitude) as this has proved to be successful.
- Continue to work with local distributors to ensure that they have sufficient compostable ware in-stock prior to the beginning of the market.
- Given that there is one vendor who has been unable to find suitable compostable packaging for a number of years, consider updating the YKFM vendors contract to include a clause that reads (something like): 'When at all possible, compostable items must be used for products consumed on-site.' However, if the YKFM board decides that there is no room for such a caveat, then perhaps it is in the market's best interest to only host vendors who can comply entirely.

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**B - ENSURING THAT ALL COMPOSTABLE ITEMS ARE DISCARDED IN THE ORGANICS BIN**

There are (10) organic carts (compost bins) that are strategically placed around the periphery of the market, including six 'waste stations' that all have garbage bins and sometimes recycling (blue) bins that are permanent city structures. Additional organic carts are placed on either side of the stage at the amphitheatre, and doubled-up at the busiest stations. To increase visibility and understanding, each green cart is adorned with a 3D sign that indicates which items are compostable. Signs are affixed to the garbage bins encouraging patrons to ask themselves 'Is that really garbage?'. Volunteers and compost staff are regularly stationed near waste receptacles, providing additional assistance and grateful acknowledgement to patrons for separating their organics at the source.

**Measurements:**

- Volunteers and compost staff observed what was being discarded.
- Volunteers informed the program if a non-compostable item was being used by a vendor, in which case either the compost project assistant or the compost coordinator would follow-up in person with the vendor.

**Results:**

- As with previous years, the feedback from market patrons was overwhelmingly positive. However, some people still struggle with the idea that food is compostable or seem overwhelmed or perhaps confused by the multiple waste receptacles available, sometimes opting to scrape their food into the garbage before composting the containers, or just throwing everything out because they seem unsure what to do.
- There seems to be a discernible difference in the quality of waste management when a person is there to offer guidance. Essentially, there is less garbage in the compost bin, and less organic waste in the garbage bin.

**Recommendations:**

- Instead of using tape to affix the posters to the garbage bin, consider using strong, little magnets to produce less waste.
- Consider having volunteers engage the public about the Loyalty Card program while they're discarding their food scraps and dinnerware. This might result in less net waste.
- Consider having some garbage cans signs that read 'WAIT! Is that garbage, or compostable?' or 'Is that really compostable?' Some patrons commented that to them all waste was garbage and, therefore, upon reading the sign 'is that really garbage?' the answer was 'yes'.

**C - COLLECTING, SORTING, AND WEIGHING ALL ORGANIC MATERIALS PRIOR TO DISPOSAL IN THE CITY'S ON-SITE ORGANICS DUMPSTER**

All waste is collected and stockpiled throughout each market, after which the compost project assistant and compost project coordinator sort, weigh, and collect data to maximize diversion rates. The garbage bins are emptied prior to each market, and then again at each market by a

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City of Yellowknife employee. This guarantees that all diversion rates are calculated based upon waste that is produced during the market. Compost was collected by market staff. Recyclables were not taken into the equation. The calculation used to determine diversion rates is:  $(\text{compost weight} / (\text{compost weight} + \text{garbage weight})) * 100$ . Data was collected on a google spreadsheet throughout the course of the summer.

Measurements:

- Compost staff routinely collected, sorted, and weighed all waste prior to disposal, producing both qualitative and quantitative data for analysis. All of the bags were weighed prior to sorting, sorted, and then additional diverted waste was weighed again and subtracted from one category (garbage) and put into another (compostable items). Using this methodology, we were able to establish how much additional waste was being diverted from the landfill.

Results

- Post-market sorting has proved to be an effective means of consistently increasing the diversion rate by 5 - 10%. The organics feedstocks are consistently clean, with minimal contamination. However, garbage bags regularly consisted of compostable materials, anywhere from 25-75%, making it necessary to sort.
- If there was contamination in with compostable materials, it was easy enough to trace them back to the vendors and to target the problem at the source.
- The primary source of contamination were recyclable (not compostable) plastic cups, and coffee cups from chain restaurants (i.e. McDonalds, Tim Horton's, etc).
- The first market diversion rate was merely 69%, subsequent markets, however, managed diversion rates upwards of 85%. The highest of which was 95% in mid-July.
- As mentioned in the previous section, having a volunteer stationed at the bins had a demonstrable effect in improving the quality of the feedstocks.

Recommendations:

- Consider changing how and when waste is processed. Instead of weighing the compost at the end of the market, which can easily take an hour when the market has been busy, compost program staff should consider weighing the compost throughout the duration of the market as the compost is collected. For example, the first 30-45 minutes of the market could be used to promote the Loyalty Card program (in-line, with prize giveaways, etc.) and then from 6:00 p.m. onwards compost staff could start collecting, sorting, and weighing the organics feedstocks.
- Consider revising and modifying waste-related targets. The diversion rate is an accessible and effective way of confirming how much waste the YKFM is keeping from the landfill. However, perhaps it shouldn't be the only or primary marker of success. If the amount of compostable waste is reduced (by introducing a reusable dish program, for example) then it would likely result in a lower diversion rate, which might give a skewed vision of the program's 'success'. For next year's market, consider aiming to reduce the amount of waste produced at the market (both compostable materials and garbage).

**GOAL #3 - EDUCATE THE PUBLIC ON REDUCING WASTE AT PUBLIC EVENTS**

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Given that most of these subsequent goals have already been outlined in previous points, this section will focus primarily on media outreach. Last year there was sponsorship and funding for print media. This was an excellent opportunity to promote upcoming markets while simultaneously celebrating successes. Unfortunately, the YKFM did not have access to this funding or sponsorship. Therefore, most of our public outreach was conducted online using platforms such as Facebook and Twitter. Additionally, the compost staff had limitations when it came to using online mediums. Despite their limitations, however, in July they managed to schedule a series of compost-related facts and funny memes until the end of the market season. But given their limitations, the media outreach was eventually tasked to a media-savvy board member. Warehouse Media was also contracted to take pictures and produce videos about the YKFM for social media purposes. Although there was a significant amount of content produced, it wasn't as effectively utilized or promoted until being taken over by the board member.

As for in-person engagement and education, the compost program and staff easily spoke with thousands of people throughout the course of the summer.

Measurements:

- Data tracking using Facebook and Twitter analytics.

Results:

- It was previously recommended that posts are unique to each platform (i.e. no cross-posting from Facebook to Twitter, or vice versa) as users tire from seeing the same posts.
- The posts on Twitter had limited success, often being retweeted or liked by under 10 people.
- The same can be said for Facebook, in that none of our posts were overly popular (i.e. being liked by 100 people, etc.). Nevertheless, our posts garnered anywhere from 600 - 1,000 views on FB, and some had upward of 25 engagements per post (liking, sharing, commenting).
- Using humour to promote the compost program (via funny memes) was well received and appealed to an audience that might not otherwise engage with compost-related content.
- Posts that were regularly repeated, such as the reminder about the Loyalty Card, consistently had remarkably lower views (engagements or shares) than other media posts (i.e. videos or memes), roughly 600 vs. 1,000, respectively.

Recommendations:

- Consider having a designated social media person prior to the first market. If the compost staff do not have limitations, then they can be in charge of their own online presence. Otherwise, the compost staff can schedule posts prior to the beginning the market season, which will compliment any additional media publicized by the designated social-media person throughout the market season.



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- Consider prioritizing Instagram over Twitter as it is a more pertinent platform for market promotion. Twitter seems better suited to political happenings, back-and-forth conversations, and real-time news. It seems that Twitter has a specific way that it needs to be used in order to be most effective, and semi-regular posting doesn't seem to garner much attention. Instagram, on the other hand, is more popular now among youth than Facebook, and it creates a compilation of posts so that posting can be more sporadic and still effectively engage a broader audience.
- Given that Warehouse Media's content was under-utilized this summer, it can easily be scheduled for promotion prior to the first market next year.

**CONCLUSION:**

The WRCP is an integral part of the YKFM, obviously decreasing its environmental impact, but it also adds to the 'feel-good' nature of the market, while positioning the YKFM as a progressive leader and champion of environmental stewardship. The YKFM should continue to embrace and promote the WRCP across various platforms, increasing awareness and civic engagement with regards to waste reduction initiatives in Yellowknife. As demonstrated throughout this report, the reach of the YKFM's WRCP goes far beyond the market's limits.