## UBC Vancouver's Climate-Friendly Food Labels: A Field Study

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### **Executive Summary**

#### Background

UBC's Climate-Friendly Food (CFF) labels are rolling out to several locations on campus. Yet, previous field experiments with the CFF labels have shown mixed results. Therefore, this project aims to examine the impact of the CFF labels – in addition to a taste-focused promotional poster – on real food purchases at UBC's Mercante.

#### Methods

During baseline (Dec. 14<sup>th</sup>, 2024 – Feb. 13<sup>th</sup>, 2025), no CFF labels or promotional materials were present in Mercante. On February 14<sup>th</sup>, 2025, the CFF labels were added to Mercante's menu. Out of the ten pizza options available, nine had a red label and one (the Vegan Feature) had a green label. On March 13<sup>th</sup>, a promotional poster for the Vegan Feature was added, which framed it as "irresistibly tasty" and renamed it "Pepperoni Giardino." The last day of data collection was April 3<sup>rd</sup>, 2025. The main dependent variable was the proportion of Green Label (i.e., vegan) pizzas sold relative to the total pizza sales.

#### Results

Adding Climate-Friendly Food labels to the menu was not associated with an increase in the proportion of Green Label (i.e., vegan) pizzas purchased at Mercante. Adding the promotional poster was associated with an increase in purchases of the vegan pizza.

#### Conclusion

CFF labels alone may not be sufficient to increase climate-friendly food choices. Adding a promotion that highlights the tastiness of climate-friendly food and decreases the effort required to order it may be more effective.

#### Recommendations

In addition to CFF labels, establishments can highlight the tastiness of climate-friendly food options and decrease the effort required to order them. Future research should examine the isolated impacts of taste-focused promotions, effort, and CFF labels on sustainable food choices at UBC. Future studies would be strengthened with the inclusion of a control location.

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## List of Abbreviations

- GHG: Greenhouse Gas
- UBC: University of British Columbia
- CO2eq: Carbon Dioxide Equivalent
- CFF: Climate-Friendly Food

CFF LABELS

### Introduction

At the University of British Columbia (UBC), food systems account for approximately 31% of all extended greenhouse gas (GHG) emissions (University of British Columbia, 2021). Previous research has shown that choosing food with lower emissions, such as vegan or vegetarian options, can reduce GHG emissions by up to 2.1 tons of CO<sub>2</sub>eq per capita per year (Ivanova et al., 2020). Therefore, previous studies have examined various ways to encourage the choice of climate-friendly food options, such as changing the default option, changing the presentation of the food options, and providing environmental information (see Abrahamse, 2020 for a review). Another promising intervention to encourage climate-friendly food choices is the use of environmental sustainability labels.

Environmental sustainability labels are provided alongside a product, such as a food item, to inform consumers about the environmental impact of the product with the aim to facilitate pro-environmental decision-making (Potter et al., 2021). Previous studies have found the presence of these labels, with a variety of messages and formats, to be associated with the selection and purchase of more sustainable food products (see Potter et al., 2021 for a review). For instance, a recent experiment compared three different carbon labels for food products in an online grocery shopping environment. These labels were either: (1) GHG emissions expressed as kilometers travelled by a common motor vehicle, (2) a singular dot that was green to represent lower GHG emissions, orange to represent moderate GHG emissions, or red to represent higher GHG emissions, or (3) three color-coded dots following the same color pattern, each representing either the associated GHG emissions, marine eutrophication, or air acidification. They found that all types of carbon labels resulted in online grocery baskets with fewer GHG emissions, but that the three color-coded dots were the most effective at reducing GHG emissions, eutrophication, and acidification (Muller et al., 2019). Similarly, a large-scale field experiment in a university canteen examined the use of a carbon footprint label that continuously ranged from green to orange to red to represent low-, medium-, and high-carbon emissions, respectively. They found that the presence of the label significantly reduced high-carbon meal choices and increased medium-carbon meal choices, leading to an average carbon emission reduction of 4.3% per meal. However, the label did not increase choices of low-carbon meal options (Lohmann et al., 2022).

Therefore, the use of environmental sustainability labels may be a promising avenue to help UBC reach their target of a 50% reduction in food system-related emissions by 2030 (University of British Columbia, 2021). In fact, UBC has developed their own environmental sustainability label – the Climate-Friendly Food (CFF) label. Similar to other carbon labels,

UBC's CFF label uses a traffic-light system with a green earth to indicate that a meal generates relatively less GHG emissions, a yellow earth to indicate the meal generates a moderate amount of GHG emissions, and a red earth to indicate that the meal generates the largest amount of GHG emissions compared to other similar meals (University of British Columbia, 2022).

In the pilot phase of the CFF label project, the labels were originally designed to be a globe with a thermometer in green, yellow, or red to represent the relative emissions of the meal, and cut-off points for each label were determined for the Mercante menu – a pizza place on UBC campus (Huang, 2021). In phase 1 of this project, the impact of these labels on consumer food choice were evaluated with the use of an online survey and a field experiment at Mercante. The online survey showed that pizzas with a green label were chosen more frequently and those with a red label were chosen less frequently when the labels were included on the menu compared to when they were not. These results were replicated in the field experiment (Luo, 2022b).

In phase 2 of the project, the labels were redesigned based on participant feedback during the online survey in phase 1. The new labels represented a traffic light - a vertical rectangle with three circles. Green traffic lights had an earth in the bottom circle, yellow traffic lights had an earth in the centre circle, and red traffic lights had an earth in the top circle. To test the effectiveness of these new labels, another online survey was conducted, as well as field experiments in Mercante and Open Kitchen, a residence dining hall on UBC campus. Consistent with the survey results from phase 1, their survey found that the number of green and yellow pizzas chosen were higher and the number of red pizzas chosen were lower with the CFF labels than without the labels. In contrast to the findings from phase 1, the field experiment in Mercante showed that participants increased the purchase of both greenlabelled pizzas and red-labelled pizzas when the labels were introduced compared to baseline. The field experiment at Open Kitchen also produced mixed results, as all purchases decreased from baseline to intervention in both the experimental and control locations; yet the sales of red items remained highest from baseline to intervention in the control location and lowest in Open Kitchen. Therefore, the labels may have mitigated a potential increase in the purchase of red items in Open Kitchen. Due to the mixed results of these studies, the author recommended a simpler label design (Luo, 2022b).

To address this recommendation, phase 3 of the CFF labels project designed three separate labels and conducted a survey that showed that participants preferred a globe with a smiley face to represent climate-friendly food options. A field experiment was then conducted in Open Kitchen as the experimental site and Vanier as the control site, both locations being residence dining halls on UBC campus. The authors found that both locations maintained the

same average percentage of climate-friendly food items sold from baseline to intervention in both locations, suggesting that the simpler label design did not increase the purchase of climate-friendly food items. However, the authors also note that Open Kitchen increased the number of non-climate-friendly food items offered during the intervention period, while Vanier did not. This menu change in only the experimental location may have impacted the results (Galazzo et al., 2022).

Given the mixed results from phases 2 and 3, new labels were once again designed for phase 4. These new labels have a green earth to represent low GHG emissions, a yellow earth to represent moderate GHG emissions, and a red earth to represent high GHG emissions. The relevant earth is displayed beside the relevant food item, highlighting its relative GHG emissions (Luo, 2022a). The calculations for these labels were also updated to include a land use factor in the environmental impact evaluation of recipes to better reflect their environmental footprint (Marfatia, 2024). The impact of the new labels was assessed in an online survey with a simulated menu from Open Kitchen. A field experiment was also conducted at UBC's three residence dining halls, but only proposed analyses are provided in the report due to the complexity and changes in sales transactions. The survey showed that, in a hypothetical dish ordering task, the presence of the labels increased the number of green dishes ordered and decreased the number of yellow and red dishes ordered (Luo, 2022a).

More recently, the labels developed during phase 4 of the project have been launched at UBC's restaurant the Gallery, the Blue Chip cafe, and Mercante, with plans to continue the rollout of these labels to other locations on campus. While previous online studies show promise for these labels to meaningfully reduce GHG emissions from food systems on campus, the field experiments have shown mixed results. Therefore, this project aims to examine the impact of the CFF labels on real food purchases at UBC's Mercante. Due to methodological issues discussed in more detail later, data from the Gallery and Blue Chip were not available for these analyses. Moreover, another project occurred simultaneously as part of PSYC 421 that examined the effect of a taste-focused promotional poster for the vegan pizza in Mercante (Beaudry et al., in press). Therefore, we consider both projects together in this report. We hypothesized that the proportion of pizzas with green labels (i.e., vegan pizza) purchased will increase after implementation of the labels in Mercante compared to baseline. We also hypothesized that the proportion of pizzas with green labels purchased will increase after the addition of the promotional poster compared to baseline and compared to the CFF labels alone.

CFF LABELS

### Methods

#### Data

According to an a priori power analysis for a chi-square test of independence, assuming alpha=0.05, power=0.95, and df=2, a total of at least 1,545 sales are required (515 per condition) to detect a minimum effect size of w=0.1. We collected a total of 10,268 independent pizza sales from Mercante, with 5,057 in the Baseline condition, 2,527 in the Labels condition, and 2,684 in the Labels + Poster condition.

#### Conditions

In the Baseline condition (December 14<sup>th</sup>, 2024, to February 13<sup>th</sup>, 2025), no Climate-Friendly Food labels or promotional materials for the Vegan Feature pizza were present. In the Labels-only condition (February 14<sup>th</sup> to March 12<sup>th</sup>, 2025), only the Climate-Friendly Food labels were present (see Appendix A). Out of the ten pizza options available, nine had a red label and one (the Vegan Feature) had a green label (see Appendix B). In the Labels + Poster condition (March 13<sup>th</sup> to April 3<sup>rd</sup>, 2025), both the Climate-Friendly Food labels and a promotional poster for the Vegan Feature pizza were present in the restaurant. The promotional poster focused on framing the Vegan Feature as "irresistibly tasty" and renamed it to "Pepperoni Giardino" to better match the Italian-style names of the other pizzas in Mercante (see Appendix C; Beaudry et al., in press).

#### Measures

The main dependent variable in this study was the proportion of Green Label (i.e., vegan) pizzas sold relative to the total pizza sales. The number of sales for each pizza during each condition were provided by Mercante staff. The number of pizzas sold for each pizza with a red label were combined to create one Red Label variable, and the number of Vegan Feature pizzas sold represented the Green Label variable. As a result, Green Label pizza and vegan pizza will be used interchangeably in this report.

#### Procedure

First, a detailed analysis of the carbon emissions of each pizza sold at Mercante was conducted to determine their respective Climate-Friendly Food labels. Out of the ten pizza options available, nine were assigned a red label, while one (the Vegan Feature) was assigned a green label. No pizzas were assigned a yellow label, limiting our ability to test the effects of

a yellow label in this study. Sales data were collected for December 14<sup>th</sup>, 2024, to April 3<sup>rd</sup>, 2025 and provided by Mercante staff at the end of the study. The climate-friendly food labels were added to the menus in store on February 14<sup>th</sup>, 2025. On March 13<sup>th</sup>, 2025, the promotional poster for the Vegan Feature was also added in Mercante and placed in three locations: the entrance window, the cash register, and the waiting area after ordering (see Appendix D; Beaudry et al., in press).

Originally, we had also planned to collect sales data from the Gallery restaurant and Blue Chip café, as these establishments also implemented the Climate-Friendly Food labels in February 2024 and February 2025, respectively. However, the Gallery installed a new Pointof-Sale system in August 2024, which rendered all previous sales data inaccessible. The sales data for Blue Chip was accessible; however, certain items on the menu had been assigned labels that were not calculated by the Climate-Friendly Food label team. Therefore, it remained unclear how those labels were determined and when they were implemented. As a result, we opted not to examine those data. We also intended to use Uncle Fatih's pizza as a control location for Mercante but were unable to access the data in time.

### Results

A chi-square test of independence revealed a significant difference in the proportion of Green Label pizza sold between the three conditions [ $X^2(2, N = 10,268) = 11.49, p = .003, V = 0.033$ ]. Additional chi-squares tests with Bonferroni correction were conducted for pairwise comparisons. The tests showed a significant difference in the proportion of Green Label pizza sold between the Baseline (2.16%) and Labels + Poster (3.09%) conditions [ $X^2(1, N = 7,741) = 6.36, p = .035, V = 0.029$ ] and the Labels-only (1.74%) and Labels + Poster conditions [ $X^2(1, N = 7,741) = 5,211$ ] = 9.99, p = .005, V = 0.044], but no significant difference between the Baseline and Labels-only conditions [ $X^2(1, N = 7,584) = 1.46, p = .68, V = 0.014$ ]. In summary, the addition of the Climate-Friendly Food labels alone was not associated with an increase in purchases of the Green Label pizza compared to Baseline, which does not support our first hypothesis. Yet, adding the promotional poster to the CFF labels was associated with an increase in purchases of the Green Label pizza compared to the Baseline and Labels-only conditions, which supports our second hypothesis (see Figure 1).



Figure 1. Proportion of Green Label (i.e., vegan) and Red Label pizzas sold at Mercante by Condition.

### Discussion

This study showed that adding Climate-Friendly Food labels to the menu was not associated with an increase in the proportion of Green Label (i.e., vegan) pizzas purchased at Mercante. Yet, adding a promotional poster for the vegan pizza that renamed it to "Pepperoni Giardino" and highlighted the tastiness of the pizza was associated with an increase in purchases of the vegan pizza. This suggests that Climate-Friendly Food labels alone may not be sufficient to increase the purchase of climate-friendly food, and adding a promotion that highlights the tastiness of the food may be more effective.

There are a few potential explanations for the lack of effect of the Climate-Friendly Food labels in this study. First, it's possible that people didn't notice the CFF labels or care about the labels enough for them to influence their pizza choice – especially since the majority of the label options were the same (i.e., red labels). A recent survey of 159 students on UBC campus supports this idea, as 58% of respondents indicated they had never noticed Climate-Friendly Food labels on campus, and 71% reported that the labels did not influence their food purchasing decisions (Pradeep et al., in press). Future research could examine the impact of the CFF labels for menus with a variety of label colors compared to menus with a limited variety to determine whether one is more likely to grab the attention of customers or influence their food choices. Second, the menu did not provide any information about the CFF labels. Previous studies have shown a lack of information to be a significant barrier to proenvironmental action (Dioba et al., 2024). Therefore, a legend that outlines what the various labels represent may be necessary to influence behavior change. Future research can test the impact of the CFF labels alone compared to the labels with a clear legend on climate-friendly food purchases. Additionally, according to Beaudry et al. (in press), Mercante was sold out of the plant-based pepperoni they use for the vegan pizza for a few days during the Labels-only condition, meaning that it was not possible to order the vegan pizza during this time. This may have contributed to the null result between the Baseline and Labels-only conditions.

Moreover, the only Green Label pizza option was the Vegan Feature. In the description of the Vegan Feature on the menu, it states "Ask your server about today's feature." Requiring people to ask their server about the Vegan Feature to learn the ingredients may be an additional barrier to ordering that option, as it requires more effort than simply reading the ingredients on the menu. In fact, a recent meta-analysis showed that interventions targeting effort for environmental decisions had the largest effect size, significantly higher than interventions targeting extrinsic motivations (e.g., rewards), attention, or perception (e.g., framing; Luo et al., 2022). Finally, Beaudry et al. (in press) noted that when they asked about the Vegan Feature at Mercante, the staff discouraged them from ordering it because they insisted it wasn't very good. Social feedback, such as approving or disapproving statements from peers, has been shown to influence motivation to engage in pro-environmental behavior (Pongiglione, 2014). Disapproving statements from the staff may therefore act as a form of punishment for ordering the Vegan Feature, stopping people from following through on their order and potentially preventing them from attempting to order it again in the future (Zhao et al., 2024). Climate-Friendly Food labels may not be enough to overcome these barriers to ordering the climate-friendly food option.

This may also explain why the Labels + Poster condition was associated with higher sales of the vegan pizza compared to the Baseline and Labels-only conditions. Perhaps providing people with the ingredients of the Vegan Feature without requiring them to ask the server – thereby decreasing the effort required to order it and avoiding discouragement from the staff - contributed to the increase in sales. Another explanation is that the taste-focused framing of the poster may be driving the effect. As theorized by Beaudry et al. (in press), people may be largely motivated by taste when ordering traditionally indulgent foods such as pizza. In fact, a recent survey of UBC students showed that taste and convenience are considered to be the two most influential factors among students when choosing food on UBC campus (Pradeep et al., in press). This lends support to the theory that both decreasing the effort required to order the vegan pizza and highlighting its tastiness contributed to the success of the promotional poster intervention. Future research should test the impact of taste-focused framing compared to reducing the barriers of ordering climate-friendly food options to tease these factors apart. Future research may also benefit from conducting an in-depth analysis of how student food preferences (e.g., taste, convenience, protein) moderate the effect of the Climate-Friendly Food labels.

Finally, it's important to note that there was no Poster-only condition, so we are unable to isolate the effects of the poster alone on climate-friendly food purchases. It may be that the poster alone increased climate-friendly food sales, or that the combination of the labels and the poster was necessary to see such an effect. Future research would benefit from isolating the effect of a promotional poster and comparing it to the isolated effect of the labels as well as the combined effect of both interventions. Additionally, given the lack of a control location, confounding variables such as the time of year, student stress, and the impact of other environmental initiatives are not controlled for, limiting our ability to draw casual inferences from this study.

## Recommendations

#### **Recommendations for Action**

While the findings of this research should be interpreted with caution due to a lack of a control condition, there are a few recommendations for action that can be made.

- 1. Ensure a legend is always present and highly visible to explain the Climate-Friendly Food labels, such as including it on the bottom of the menu itself.
- 2. Enhance staff training and awareness around the Climate-Friendly Food labels.
- 3. Provide more climate-friendly food options so consumers have a variety of options to choose from.
- 4. Reduce the effort to order climate-friendly foods by including descriptions of the items on the menu rather than requiring them to ask the server.
- 5. Increase the appeal of the climate-friendly food options by highlighting taste in addition to the Climate-Friendly Food labels.

#### **Recommendations for Future Research**

In addition to the promising avenues for future research outlined in the discussion, below are specific recommendations for SEEDS to consider in future research with the Climate-Friendly Food labels.

- 1. Choose future study locations that have a promising control location. Control locations should be as similar as possible to the testing location in every aspect, including menu, type of establishment (e.g., café, sit-down restaurant, etc.), typical patrons (e.g., UBC students), average cost of the items, etc. For example, Loafe would be an excellent location for future testing, as it has two locations on UBC campus with identical menus. Another example would be Uncle Fatih's Pizza as a control location for Mercante, as they are both pizza places that serve vegan pizza options on UBC campus.
- 2. Include menus with multiple options for each label (e.g., 3 green, 4 yellow, 3 red) in future studies.
- 3. Establish relationships with potential study locations early in the process to ensure sufficient time to collect the sales data and establish that the data is available and accurate.
- 4. Complete Climate-Friendly Food label analyses for the control locations to allow for direct comparison of the number of sales that correspond to the various labels between locations.

- 5. Oversee the implementation of the labels in the study locations to ensure there are no incorrect implementations and to limit and make note of any potential confounding variables.
- 6. Ensure time for a follow-up analysis a couple months after the implementation of the labels to examine whether any effects remain over time.

CFF LABELS

### Conclusion

This study provides insight into how to potentially increase the effectiveness of UBC's Climate-Friendly Food labels and achieve UBC's target of a 50% reduction in food systemrelated emissions by 2030. Establishments that would like to increase the purchase of climatefriendly foods may benefit from minimizing the effort required to order these items and highlighting the tastiness of these options in addition to the Climate-Friendly Food labels. Future research should choose establishments that have promising control locations and menus that will allow for a wider variety of label options. Future studies can examine the isolated impacts of taste-focused promotional materials, effort, and Climate-Friendly Food labels on sustainable food choices at UBC.

### References

- Abrahamse, W. (2020). How to Effectively Encourage Sustainable Food Choices: A Mini-Review of Available Evidence. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.589674
- Beaudry, B., Desilva, N., Karadalieva, A., Madhuk, S., Wan, J., & Arianto, J. (in press).
  *Indulgence Sells: Marketing Vegan Pizza with Taste-Focused Framing*. University of
  British Columbia Social-Ecological Economic Development Studies (SEEDS)
  Sustainability Program. https://sustain.ubc.ca/programs/seeds-sustainability program/seeds-sustainability-library
- Dioba, A., Kroker, V., Dewitte, S., & Lange, F. (2024). Barriers to Pro-Environmental Behavior Change: A Review of Qualitative Research. *Sustainability*, *16*(20), Article 20. https://doi.org/10.3390/su16208776
- Galazzo, R., Deines, M., & Siebel, R. (2022). Climate Friendly Food System Label Impact Evaluation on Consumer Behaviour. University of British Columbia Social-Ecological Economic Development Studies (SEEDS) Sustainability Program.
- Huang, S. (2021). CLIMATE-FRIENDLY FOOD SYSTEMS (CFFS) LABELLING PROJECT: An Evaluation Framework for the Operationalization of UBC Vancouver's Climate-Friendly Food Label. University of British Columbia Social-Ecological Economic Development Studies (SEEDS) Sustainability Program.
- Ivanova, D., Barrett, J., Wiedenhofer, D., Macura, B., Callaghan, M., & Creutzig, F. (2020).
  Quantifying the potential for climate change mitigation of consumption options.
  *Environmental Research Letters*, *15*(9), 093001. https://doi.org/10.1088/1748-9326/ab8589
- Lohmann, P. M., Gsottbauer, E., Doherty, A., & Kontoleon, A. (2022). Do carbon footprint labels promote climatarian diets? Evidence from a large-scale field experiment. *Journal of Environmental Economics and Management*, *114*, 102693. https://doi.org/10.1016/j.jeem.2022.102693

- Luo, Y. (2022a). UBC Vancouver Climate-Friendly Food System Label: Follow-up Study. University of British Columbia Social-Ecological Economic Development Studies (SEEDS) Sustainability Program.
- Luo, Y. (2022b). UBC Vancouver Climate-Friendly Food System Label: Phase 1 and Phase
  2. University of British Columbia Social-Ecological Economic Development Studies
  (SEEDS) Sustainability Program.
- Luo, Y., Li, A., Soman, D., & Zhao, J. (2022). *A meta-analytic cognitive framework of nudge and sludge* [Preprint]. In Review. https://doi.org/10.21203/rs.3.rs-2089594/v1
- Marfatia, S. (2024). UBC Climate-Friendly Label recipe analysis 2023-2024. University of British Columbia Social-Ecological Economic Development Studies (SEEDS) Sustainability Program.
- Muller, L., Lacroix, A., & Ruffieux, B. (2019). Environmental Labelling and Consumption Changes: A Food Choice Experiment. *Environmental and Resource Economics*, 73(3), 871–897. https://doi.org/10.1007/s10640-019-00328-9
- Pongiglione, F. (2014). Motivation for Adopting Pro-environmental Behaviors: The Role of Social Context. *Ethics, Policy & Environment*, *17*(3), 308–323. https://doi.org/10.1080/21550085.2014.955318
- Potter, C., Bastounis, A., Hartmann-Boyce, J., Stewart, C., Frie, K., Tudor, K., Bianchi, F., Cartwright, E., Cook, B., Rayner, M., & Jebb, S. A. (2021). The Effects of Environmental Sustainability Labels on Selection, Purchase, and Consumption of Food and Drink Products: A Systematic Review. *Environment and Behavior*, *53*(8), 891–925. https://doi.org/10.1177/0013916521995473
- Pradeep, A., Lam Kin Teng, S., Bihan, L., Zeng Zhang, H., Narain, A., & Partrat, C. (in press). COMM468 Report: Rethinking plant-based dining at UBC. University of British Columbia Social-Ecological Economic Development Studies (SEEDS) Sustainability Program. https://sustain.ubc.ca/programs/seeds-sustainability-program/seedssustainability-library

University of British Columbia. (2021). *UBC Vancouver Campus: Climate Action Plan 2030*. University of British Columbia. (2022, December 15). *Climate-Friendly Food Labels*.

Sustain.Ubc.Ca. https://sustain.ubc.ca/climate-friendly-food-labels

Zhao, J., Radke, J., Chen, F. S., Sachdeva, S., Gershman, S. J., & Luo, Y. (2024). How do we reinforce climate action? *Sustainability Science*. https://doi.org/10.1007/s11625-024-01486-6

# Appendices

### Appendix A: Climate-Friendly Food Labels



### Appendix B: Mercante Menu with Climate-Friendly Food Labels

LE PIZZE Made-to-order traditional Italian pizzas cooked in our fiery-hot stone hearth oven	
Ask your server about today's feature	16.95
MARGHERITA 😚 Classic tomato, basil and bocconcini	16.95
PIZZA BIANCA 🛞 Bocconcini, mozzarella, gorgonzola, parmesan and chevre cheese	17.95
<b>ORTOLANA</b> Basil, mozzarella, bocconcini, arugula, artichokes and pickled tom	10.05
PESTO POLLO (Section Policies and pickled rushroom Pesto, roasted chicken, mozzarella, artichokes and pickled mushroom	19.45
<b>ROSCIUTTO E RUCOLA</b> (S) omato, prosciutto, arugula, bocconcini and basil	17.95
LLA SALSICCIA 😚 norizo, tomato, basil, oregano and mozzarella	17.95
<b>PESTO (S)</b> sto, prosciutto cotto, mozzarella, gorgonzola, artichokes pickled tomato	18,95



Appendix C: Vegan Pizza Promotional Poster

### Appendix D: Promotional Poster Locations in Mercante



Figure from Beaudry et al. (in press)