



Real Food Challenge Spring 2019

Katelyn Cline, Bailey McNeil, and Carter Schmitt



Overview and Goals



- Verify and audit percentage RF purchased
 - September 2018 purchasing data
- Investigate potential new vendors
- Give recommendations for the future of RFC

Internship Deliverables

- Full audit of September 2018 purchases
- Spreadsheet [database of Real Food 2.1](#)
- Fully [functional and coded website](#) to help calculate data
- [Detailed syllabus](#)

RFC Calculator by Katelyn Cline
string

Food Data

Spring '19 Research to upload.c

Percent real food purchased: 15.02%
string

Table 1: Food Percentages
string

Conventional Food:
string

Amount spent: \$727632.90
string

Percent of conventional food purchased: 84.98%
string

REAL FOOD 2.1 AS OF SPRING 2019

Vendor	Distributor	Product category	Real Food 2.1 (A or B)	Real category	Explanation
Your Local Greens		Produce	B	Local	Does not co sound beca standards, tl
Simply Natural Creamery		Milk	A	Local, Humane	The milk def and gross pr Grassfed Ce
Annie's Organic Condiments		Condiments	B	Ecologically Sound	Their ketchu more are all
				Ecologically	All of Larry's exclusively p

+ ≡ Sheet1 ▾

SPRING 2019 RFC SYLLABUS

Goals:

- **Audit September & finish the final report and presentation**
- Marketing Strategy
 - Develop social media, in-person events, establish a presence on campus
- Vet new vendors and make recommendations
- Make structural suggestions
 - Reorganize Sakai site resources section and create an overview page
 - Resources breaks into marketing, audit, and a general syllabus
 - In audit folder, have sections for past reports, previous communications, helpful documents, etc.
- Visit farms?

Meeting Structure:

- Review syllabus and see what we wanted to get done for this week
- Do work
- Summarize the work from today in the syllabus and set goals for next week
- Email Cooke and Havice what we did this week, what we need to complete before next meeting, and what we intend to do next week to maintain contact

Meeting Date	Notes During	To-Do Before Next Week	Goals for In-Meeting Next Week
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Methodology



- Upload all CDS data into Real Food spreadsheet
- Research each item and vendor
 - via the internet, phone calls, and emails with vendors
 - Verify farther up the supply chain when necessary
- Categorize each by Real Food (and Real Food Category)
- Coded website to minimize calculation error

Results

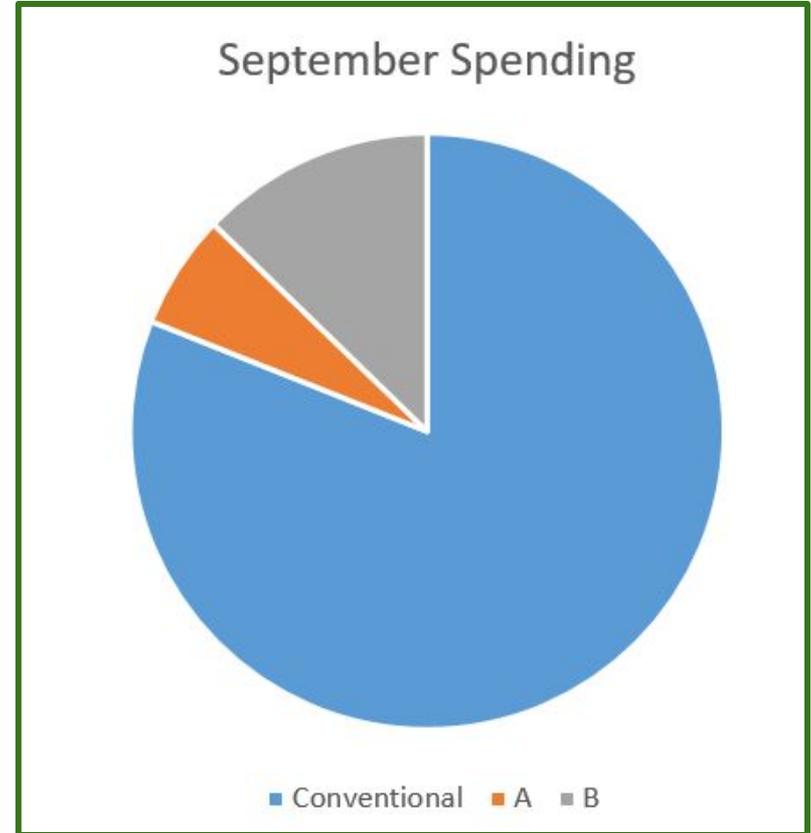


18.98 %

81.02 % conventional food

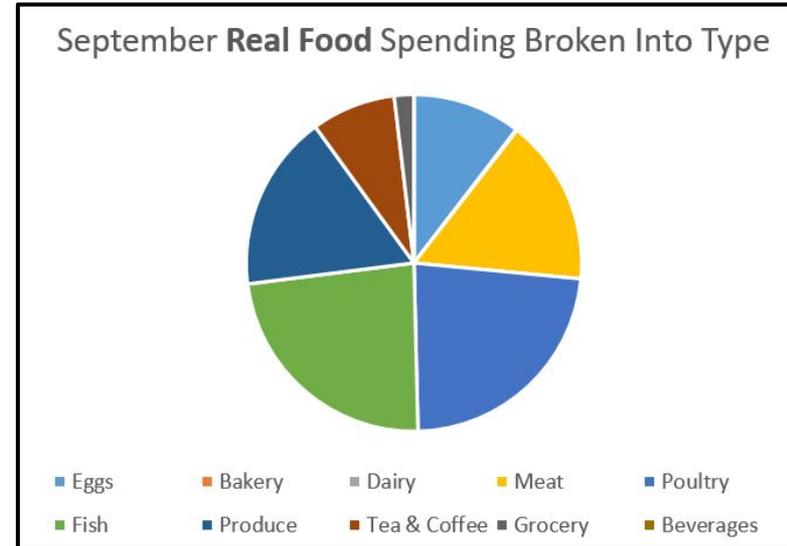
6.22 % real food A

12.76 % real food B



Results: Real Food Break Down by Category

1. Fish: 22.52% - Carolina Catfish, Icelandic Seafood, Mr. Big Seafood, Inland Seafood
2. Poultry: 22.26% - Joyce Farms
3. Produce: 19.35% - Burch Farms, Deal Orchards, FreshPik, JW Johnson, organic bananas
4. Meat: 15.36% - Lady Edison, Brasstown Beef
5. Eggs: 10.08% - Abbotsford Farms
6. Tea/Coffee: 7.83% - Larry's
7. Grocery: 2.51% - Cascadian Farms, Pulmuone Tofu
8. Dairy: 0.08% - Goat Lady Dairy
9. Bakery: 0.00%
10. Beverages: 0.00%



Differences since last semester (Feb 2018 audit)

- Delight Soy (\$10,000)
- More real meat purchased in Feb. vs Sept.
 - ~\$41,600 from Joyce Farms vs. ~\$26,000
 - ~\$14,660 from Harris Robinette vs. zero
 - \$2,295 from Lady Edison vs. ~\$1,940
 - More purchased in Sept. from Tyson and Sysco Classic
- Stonyfield vs Chobani
 - \$1,200 from Stonyfield (real) vs. \$500 Chobani (not real)

Challenges



- Local standards
- Misunderstandings/discontinuity between intern groups
- Depth of research
 - Brand response
 - Delight Soy (appearance vs reality)
- Sources of error

Multi-ingredient products:

Company must meet ALL the following criteria:

- A. **Ownership:** Company must be a privately or cooperatively owned enterprise
- B. **Size:** Company or cooperative must gross \$50 million/year or less
- C. **Distance:** All processing and distribution facilities must be within a 250 mile radius of the institution.

-AND-

At least half (50%) of the ingredients by volume must come from farms meeting ALL the following criteria:

- A. **Ownership:** Company must be a privately or cooperatively owned enterprise
- B. **Size:**
 - Produce: Individual farms must gross \$5 million/year or less
 - Baked goods, beverages, dairy, eggs, grocery, meat, poultry, seafood: Company or cooperative must gross \$50 million/year or less
- C. **Distance:** All production facilities must be within a 250 mile radius of the institution

RFC Local Standards 2.1

- Company must meet criteria, *and*
- At least 50% of ingredients by volume must come from farms meeting criteria
- Arbitrary revenue cap?
- Investigating supply chains--origins of ingredients
- Ex. Manhattan Bakery, Neomonde

Misunderstandings/discontinuity between intern groups

- Ex. Delight Soy, Neomonde findings
- Repeated communication with vendors
 - Real Food Database can help solve
- RFC late to “check” data (ex. Sep 17 & Feb 18 data)

Fix / V	Notes	Mont	Year	Description
Verify	I couldn't figure out which business this product comes from -	9	2017	SHRIMP 51/60 R
Verify	I couldn't figure out which business this product comes from -	9	2017	TUNA LOIN C/C S
Verify	Is this a small or medium-size farm or business that grosses l	9	2017	HONEY 12/22OZ
Verify	Is this a small or medium-size farm or business that grosses l	9	2017	HONEY 12/22OZ
Verify	Is this a small or medium-size farm or business that grosses l	9	2017	SAUSAGE BREAK
Verify	Is this a small or medium-size farm or business that grosses l	9	2017	SAUSAGE PORK
Verify	Is this a small or medium-size farm or business that grosses l	9	2017	SAUSAGE PORK
Fix	Is this a small or medium-size farm or business that grosses l	2	2018	Tropical Nut and
Fix	Is this a small or medium-size farm or business that grosses l	2	2018	SAUSAGE PATTIE
Fix	Is this a small or medium-size farm or business that grosses l	2	2018	SAUSAGE PATTIE

Recommendations for CDS



- Already extremely promising! Impressive commitment to sustainability and desires of students
- Possibilities for raising percentages
 - Buy more real meat and dairy
 - Simply Natural Creamery (up 4.21%)
 - Buy more USDA organic (easy to verify as Real Food)
 - Buying Fair Trade Spices increases RFP by 0.35%
 - Buying all real lettuce, spinach, and other leafy greens (Your Local Greens?) increases RFP by 1.14%
- Re-evaluating RFC?

Recommendations for RFC



RFC Pros	RFC Cons
<ul style="list-style-type: none">● It has many schools, mostly smaller schools, committed to it and is gaining attention● It has standards that target important areas of sustainability and equity in the food system● Defines local in a way that excludes nearby unsustainable corporate organizations.● Supports extremely local organizations and identifies key certifications for other categories	<ul style="list-style-type: none">● Not a diverse enough array of certifications (B-corp & King Arthur Flour)● There is no scale between yes and no (maybe create a sliding scale?)● Local standard for multi-ingredients products does not allow for getting ingredients from farther away (difficulty in that some foods are incapable of growing within 250 miles of UNC)● Feedback timeline

Recommendations for Future Interns/Internship

- Verify IN DETAIL
 - Researching beyond whether a vendor/farm “seems” real
 - More check-ins, accountability
- Maintain the database of vendors that do and don’t count
- More facilitated communication between RFC, CDS, and past interns
- Potential external events
 - Marketing or collaboration with other groups
- Advertise internship on ConnectCarolina with set meeting times

Suggestion for Future Sustainable Food at UNC



- Future of RFC
 - Identify how to more comprehensively evaluate UNC specifically
 - Identify UNC's priorities
 - Purchasing locally by different standards?
 - Research what other large institutions are using to measure sustainability
 - Collaborate with RFC and other large universities
 - The University of Pittsburgh is also committed to RFC, has met their 20% goal, and has about the same number of enrolled undergraduate students.



Real Food Calculator Final Report

Spring 2019

Katelyn Cline

Bailey McNeill

Carter Schmitt

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I. Executive summary

The purpose of the Real Food Calculator (RFC) Internship is to increase the percentage of “Real Food” served in the Carolina Dining Services (CDS) facilities. Real Food items are products that meet one or more of the following criteria, as determined by RFC in the Real Food Standards 2.1 (Appendix B): local or community based, ecologically sound, humane, or fair. Products are automatically disqualified if they contain GMOs, are sourced from CAFOs, display human rights violations, or can be defined as ultra-processed foods. In the Spring of 2019, we audited CDS’s purchases from September 2018 to verify their purchases of Real Food per the 2.1 standards.

Over the past semester, we have researched vendors’ websites and personally reached out to farmers and owners via phone and email. We have concluded that UNC purchased 18.98% Real Food in September of 2018. Sources of error can arise in this value from difficulties obtaining information about supply chains.

II. Internship Purpose

The Real Food Calculator internship exists to verify that CDS is meeting its commitment to purchasing 20% “real food.” CDS completes their own real food audit for every month of the year, so interns serve to verify their audit to ensure that CDS is meeting the real food commitment. Interns also have more time to track down some information that may be more difficult to verify. Additionally, we coordinate between the national Real Food Challenge organization and CDS.

As a whole, the Real Food Challenge exists to shift university spending to food that is more equitable and sustainable. Universities, especially ones the size of UNC, are large institutions that can influence the nature of the broader food system with their purchasing power. Students are also increasingly demanding that their dining halls serve more “real food,” so RFC is a student-driven initiative.

III. Spring 2019 Research Focus

Our research focused on auditing CDS’s purchases for Lenoir and Chase dining halls from the month of September 2018 to determine what products qualify as “real food.” Real food is determined by criteria laid out by the Real Food Challenge in their latest guide, Real Food Standards 2.1. The criteria for real food includes food that meets any of the following criteria: local and community based, humane, ecologically sound, and fair.

By analyzing CDS’s purchasing invoices from September 2018, we determined the percentage of food items purchased for Top of Lenoir and Chase dining halls that qualify as “real” based on the 2.1 standards.

This semester, we also investigated potential new vendors per CDS’s request to determine if these vendors would count as real. We included our findings in a spreadsheet database of “Real Food 2.1” for CDS and future interns to refer to (see Appendix C). This database also includes vendors and products that CDS already purchases food from and whom we have confirmed as real per the 2.1 standards. In this spreadsheet database, we justify our inclusion with an explanation about what category is met and why. In a separate section of the

spreadsheet, we also included a few vendors that may have used to count as real under earlier standards, or would seemingly count as real, but do not per the 2.1 standards. We include these vendors with explanations about why they do not count as real.

Based on our research, we have come up with recommendations for CDS to increase its purchases of “real food”, as well as recommendations for RFC and future interns to improve the program and internship as a whole.

IV. Calculator Methodology

Our research covered a five week period from the last week of August to the end of September 2018. CDS supplied us with redacted invoices of every purchase made during this time period via digital files and physical receipts.

Beginning in January, we uploaded all of these purchases to one spreadsheet. Each food item was entered as one row, with each row containing headers for the following categories: item name, category, product code, product code type, label/brand, vendor, and calculator rating version, cost, and facility, along with boxes to indicate whether or not an item was local, ecologically sound, humane, fair, or disqualified (for any foods whose attributes would automatically disqualify it from being real food). Once every item was uploaded, we began to methodically go through each product to see if it would or would not meet any real food categories.

We knew that we could immediately discount some food items as not being real, such as all of the purchases from Pepsi, which are ultra-processed and thus disqualified. To research whether or not a product was fair, humane, or ecologically sound, we researched the products and vendors online to check for third party certifications. It was more difficult to determine if a product would count as “local/community based” online because of the revenue cap standard defined under the criteria for local, so the bulk of our research for this category was conducted via personal phone calls and emails with vendors.

To determine whether or not a product was local, we would first determine whether or not the company or farm who produced this food item was located within 250 miles of UNC (or 500 miles for meat, poultry, and seafood) by using the address found on their website and Google Maps. If it was, we then contacted vendors to determine if their business or farm met the criteria for being privately or cooperatively owned and earning revenue under the income cap. If it was a multi-ingredient product, we asked vendors whether or not at least 50% of their ingredients came from farms or companies meeting the following criteria: farms must be independently or cooperatively owned and gross \$5 million/year or less; baked goods, beverages, dairy, eggs, grocery, meat, poultry, or seafood companies must be independently or cooperatively owned make \$50 million/year or less; and production facilities must be located within a 250 mile radius of UNC.

Verifying the origin of produce and product ingredients proved to be difficult, as this often required companies themselves to research their supply chain. The ingredient requirements is what discounted many vendors who from counting as local, even though they themselves would count. For example, Neomonde bakery is independently owned, located less than 250 miles from UNC, and makes \$50 million/year or less, yet their flour is sourced from large companies in the Northeast.

One of the first steps in researching the food from Freshpoint and Cheney Brothers was determining which brand the food came from. We sent the redacted spreadsheet we were given to the representatives of the distributors, Lauren Horning from Freshpoint and Sarah Yocum from Cheney Brothers, and both responded with the brands of *some* food items listed next to the food. We were not given the brand for each line item because the distributors had an idea of what RFC was and what the criteria were and would only send us the brands they speculated would be real. This meant that some line items in the research spreadsheet had to be marked as NA and could not count as real.

Another key part of our methodology that helped calculate our percentage of real food to the most accurate degree is a computer program that Katelyn coded. She used Typescript to create a program that takes in a .csv file, reads each line, and then performs the necessary calculations to determine the percentage of real food. The program was especially useful when it came time to make recommendations to CDS as to which areas they should focus their purchasing on to increase their percentage of real food. We would just adjust the numbers in the spreadsheet, re-run the code, and see how the percentage changed. The coded program is currently an online website but Katelyn hopes to work on it a little more and improve its appearance.

V. Results

Table 1 : Food Percentages for CDS

Real Food vs Conventional	Amount spent	Percentage of Total Food Purchased
Conventional Food	\$ 668,006.64	81.02 %
Real Food A	\$ 51,264.20	6.22 %
Real Food B	\$ 105,259.48	12.77 %
Total	\$ 824,530.32	100%

Note: The total value here differs from the total value in Table 4 because the catering value is pulled out here but not in the later table. Catering can't be broken into food type so those values have to stay in.

Graph 1: Illustrated Data from Table 1

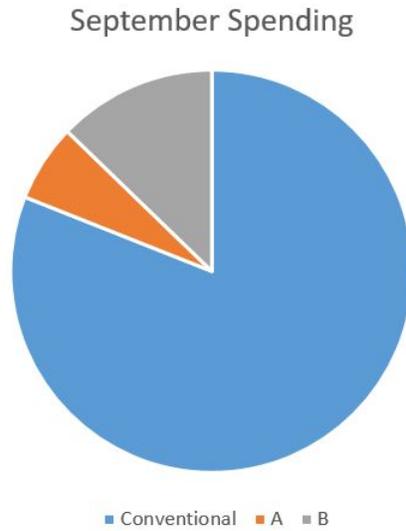


Table 2: Progress of CDS Real Food Percentages under 1.0 standards since RFC began

Semester	Real Food Percentage
Fall 2010	13%
Fall 2011	10%
Fall 2012	20%
Fall 2013	23%
Spring 2014	26%
Fall 2014	21%
Spring 2015	29%
Fall 2015	28%
Spring 2016	24.2%
Fall 2016	22.87%
Spring 2017	23.5%

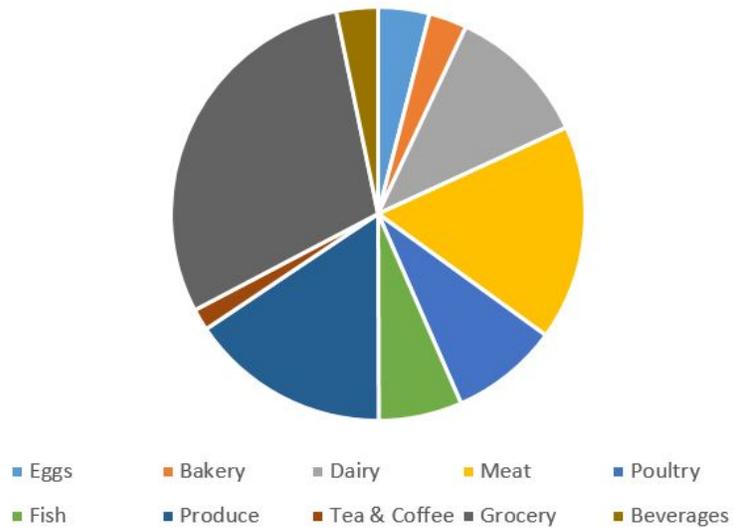
Table 3: Semesterly Real Food Percentages under the (more strict) 2.0/2.1 Standards

Spring 2017	19%
Fall 2017	20.24%
Spring 2019	18.98%

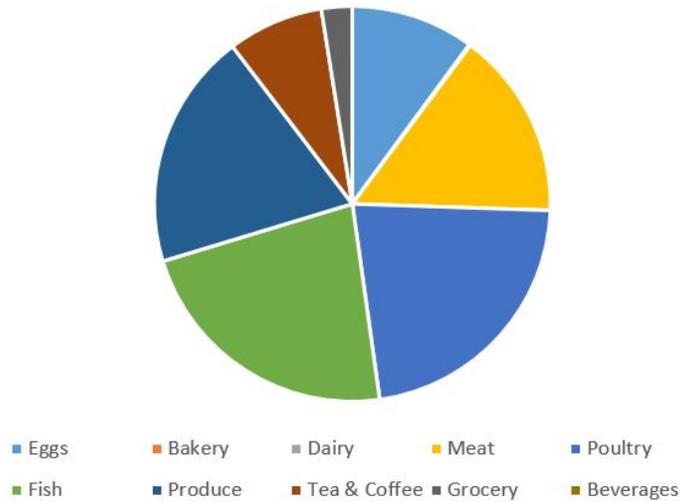
Table 4: Real Food Breakdown by Food Type

Food Type	Total Spent	% of Total Spent	\$ Spent on RF	% of RF total
Eggs	\$ 34,274.72	4.16 %	\$ 15,779.55	10.08 %
Bakery	\$ 25,463.78	3.09 %	\$ 0.00	0.00 %
Dairy	\$ 95,518.38	11.58 %	\$ 128.15	0.08 %
Meat	\$ 144,173.40	17.49%	\$ 24,048.50	15.36 %
Poultry	\$ 72,287.02	8.77 %	\$ 34,848.37	22.26 %
Fish	\$ 55,844.62	6.77 %	\$ 35,255.90	22.52 %
Produce	\$ 133,758	16.22 %	\$ 30,284.13	19.35 %
Tea/Coffee	\$ 14,545.07	1.76 %	\$ 12,248.75	7.83 %
Grocery	\$ 252,107.84	30.58 %	\$ 3,930.33	2.51 %
Beverages	\$ 27,780.42	3.37 %	\$ 0.00	0.00 %
Totals	\$ 855,753.89	100.00%	\$ 156,523.68	100.00 %

Graph 2: Evaluates Entire Month Spending
September Spending Broken Into Food Type



Graph 3: Evaluates only categories within Real Food
September **Real Food** Spending Broken Into Type



VII. Sources of Error

We quickly realized that the food system is very complex. There are farms, distributors, aggregators, and so much more, which makes it difficult to track down the exact origin of every single item of food listed in our spreadsheet. Some farms are actually aggregators of produce

from other nearby farms and if this is not discovered at the time of research then their status of real or not may be different.

Sources of error can exist between different semester findings because of discontinuity between intern groups and misunderstanding about what and what does not count as real. For example, previous interns have counted Delight Soy products as real under the Local standard, but this semester we concluded they are not. We found that the majority of their products are imported and that the soybeans are not grown in eastern NC. However, their website makes it seem as though they are a local company. These sources of error between different semester's research points to a challenge in maintaining consistent findings to guide sound purchasing decisions.

Another source of error may have resulted from decision-making that occurred later in the research process. Katelyn started with all the Freshpoint data and took a long time investigating and reaching out to each farm on the list so by the time Cheney got back to her and provided the data, there was less time to do all the vendors justice. At that point, she evaluated the websites and picked a few vendors whose ability to meet the criteria seemed unclear and just reached out to those. This may have lessened or decreased the real food percentage slightly.

VIII. Challenges

- **Standards:** We encountered multiple vendors that clearly embodied the values and philosophies of local, sustainable food, but technically did not count as local under the RFC standards. For multi-ingredient products, it is difficult to determine that at least 50% of ingredients are local, come from a privately owned farm, with each ingredient coming from a farm that makes \$5 million a year or less. For example, though Neomonde is a locally owned bakery, they use flour made by large companies in the Northeast, and it is unclear where the wheat for that flour is grown.
- **The income cap:** The income cap seems arbitrary. Excluding local farms because they gross \$5 million a year in revenue or more discourages schools like UNC from purchasing from local farmers. Farming, which requires expensive machinery and significant acreage, necessitates high capital so it seems unfair to place such a cap on farms. If local, independently owned farms are excluded just because they gross over \$5 million, this discourages local spending and could push CDS to purchase from non-local farms for cheap product because both do not count as "real."
- **Local bakeries:** We investigated Manhattan Bakery, a small, local bakery because UNC is interested in buying their baked goods and bread from them. In our investigation to determine if they are real or not we found that they obtain 80% of their flour from King Arthur Flour (KAF). KAF does not meet any of the real food standards despite being a certified B-corp, which means that Manhattan Bakery cannot be considered real because less than 50% of their ingredients by volume meet the criteria for local. We found this upsetting because two of the interns were able to go tour the facility and meet one of the owners. They told us their story of how their family immigrated from Jerusalem to New York City, started Manhattan Bakery, and then moved South. The bakery is less than 30

minutes away from UNC and is fairly small. Purchasing from them would mean supporting an extremely local business, however, they are not considered real. A similar issue has arisen with Neomonde Bakery, which we concluded was not real per the “local” standard this semester because they source their flour from large, non-local companies. Essentially, less than 50% of their ingredients by volume come from companies or farms meeting the criteria under Local. However, previous interns had told CDS that Neomonde was real, and CDS shifted their purchasing strategy to increase their real food percentage by purchasing from Neomonde. These situations with Manhattan and Neomonde bakery highlight the challenge of obtaining “real” food from local bakeries. It is extremely difficult, if not impossible, to operate as a local, independently owned bakery that sources and mills enough locally grown flour from NC to meet the purchasing demands of a large university like UNC, all while remaining under the income cap (with each supplier remaining under the income cap, too).

IX. Recommendations

Our recommendations to CDS include...

- **Purchase more Organic food:** One recommendation for CDS to increase its percentage of Real Food is to purchase more USDA Certified Organic food. This category is easy to verify and does not have as many caveats as the “Local” category. Purchasing more organic food would direct purchasing power towards products under sustainable cultivation.
- **Eggs:** We recommend that CDS begin to look into purchasing American Humane Certified pasture-raised, rather than American Humane Certified cage-free eggs. According to a representative from RFC, cage-free eggs normally do not count as real food, but RFC has made the exception for UNC CDS to allow cage-free eggs to count as real, but only until 2020. Once this deadline passes, CDS eggs will no longer count as real which will significantly diminish the percent of real food purchased.
- **Purchase from new qualifying vendors:** Our last recommendation is to purchase more products from 3 of the 8 vendors that Scott Weir requested the interns look into at the beginning of the semester. The eight vendors he requested we research are: Simply Natural Creamery, Sir Kensington Condiments, Annie’s Organic Condiments, Villari Foods, Manhattan Bakery, Your Local Greens, Murray Chicken, and Big Spoon Roasters. The four brands that qualify as real are Your Local Greens, Villari Foods, Simply Natural Creamery, and Annie’s Organic Condiments.
 - **Your Local Greens (YLG):** Your Local Greens is an indoor hydroponic farm located in Burlington that grows lettuces and microgreens year-round. YLG counts as Local because it is within the mileage radius and under the income cap. Although they use no chemicals or pesticides, they cannot be USDA Certified Organic because they do not grow in soil. They count as Real Food B instead of Real Food A since they technically only meet one category, even though they are “post-organic.” We recommend that CDS source all or most of its lettuces from YLG because this could represent a large portion of produce

counting as real. According to our calculations from just this semester's data, buying all real spinach, lettuce, and other leafy greens could increase CDS's real purchasing by 1.14%. UNC Charlotte sources product from Your Local Greens, so UNC Chapel Hill could follow suit.

- **Simply Natural Creamery:** Simply Natural Creamery is located within the 500 mile radius, is under RFC's income cap, and also has AWA Grassfed Certification, so it would count as Real Food B. Switching from Maola dairy products (\$34,023.50 this semester) to Simply Natural Creamery would increase real food by 4.12%, so for our data, it would have taken the real food percentage from 18.98% to 23.1%.
- **Annie's Organic Condiments:** Annie's sells 4 different types of mustard, 3 types of barbeque sauce, ketchup, and worcestershire sauce that are all certified USDA Organic. This means that they would all count as Ecological under the Real Food 2.1 standards.

Our recommendations to RFC include:

- **Improved communication with schools:** The first recommendation we have for RFC is to facilitate better communication with schools, particularly large universities. This semester, we've realized that there is a general lack of communication between RFC and CDS staff. Although interns have an open line of communication with RFC and they have been generally responsive, we feel that RFC does not always communicate with CDS staff about the standards and why they are changing. This has resulted in some tension and frustration. We recommend that RFC regularly communicate with CDS staff, not just through interns because the interns change every semester. In facilitating better communication, we recommend that RFC provide justification to universities for why they change the Real Food Standards. In a call with RFC and CDS staff, CDS staff voiced their frustrations over changing standards, and RFC's justification for the changing standards was that "the food system is constantly changing so the standards must change as well." We feel RFC should communicate with committed schools before the standards change to justify the updates, and give them notice of the impending changes.
- **Re-evaluate standards for Local category:** We recommend that RFC re-evaluate and potentially relax the standards, particularly the revenue standard, under the local criteria because of how it excludes smaller businesses that rely on larger operations for ingredients. Manhattan Bakery, one of the vendors researched and discussed above, does not count as real because it purchases its flour from King Arthur Flour. King Arthur Flour is a certified B Corporation, is 100% employee-owned, and has been named one of the best places to work in Vermont every year since the award was established in 2006, however, none of these certifications or awards counts under the real standards. By either relaxing the standards for the ingredients of local multi-ingredient products or adding more certifications that qualify a brand as real, more smaller companies can count as real. Another reason to relax the local standard is the revenue cap. The revenue cap is strange way to limit brands because it excludes large, successful,

sustainable companies and it is not a pleasant question to ask to small, private companies.

Asking about the revenue cap can also create tension between research interns and farm representatives. In conducting the research and reaching out to small farmers and business-owners, many tend to shut down and become less-inclined to discuss real food and the standards after asking the question “Does your company gross more than \$5 million?” If excluding larger companies is the intention of the revenue standard, different criteria like the number of people employed or the number of acres farmed could serve a similar purpose.

- **Defining real food on a sliding scale:** The stringent standards for what counts as real under the local category discourage large universities like UNC from purchasing locally produced food. If Manhattan Bakery and Neomonde are both not real, then what is to stop CDS from sourcing cheaper baked goods from non-local, large, industrial bakeries up North? In this situation, both the local bakeries and the non-local bakeries are in the same category: not real. Perhaps RFC could define real food on more of a sliding scale, with some vendors/farms having more or less “weight” in the real food total, as opposed to just black and white real and not real.

Our recommendations about the RFC internship to future interns are...

- **Reach out and talk with farmers and owners:** Because of the historically low percent of real food calculated this semester, we think there may have been a discrepancy between semesters regarding the rigor of the conducted research. If past interns did not go beyond the website and really contact and talk to farmers and business-owners, we speculate this may have artificially inflated the percentage of real food. We recommend that future interns really dig beyond websites and reach out and talk to vendors and farmers. Additionally, we recognize that multi-ingredient foods are difficult to research and determine as real or not because of the requirement that the ingredients are real too, but it is important to do the work. Doing so can reveal the true nature of a brand and the products it makes.
- **Be sensitive when discussing the revenue cap:** This semester, Katelyn was responsible for completing the Freshpoint data which meant a lot of phone calls and email with farmers and small-businesses. It can be extremely awkward to ask about their gross revenue but the best way she found to go about it is to preface the question with a statement like “I don't like asking this next question but it is one of the standards of RFC.” This helps to address the awkwardness before the question is asked.
- **Try to set up a marketing event:** This semester, we tried to set-up a marketing event to make the campus more aware of CDS' commitment to the Real Food Challenge but it did not work out because of the timing with Earth Day. There was already a large celebration of sustainability on campus and there wasn't room for us to join so instead dedicated our time to organizing resources and data for future interns. However, if a more suitable time arises, we recommend that the future interns execute a marketing event similar to The University of Pittsburgh (Pitt). Pitt has an Instagram account dedicated to its commitment to RFC and it shows some successful tabling events.

- **Create a syllabus:** This semester, we created a syllabus that details what we did every week and our overall goals for the semester. We encourage future interns to look at the syllabus for a general timeline of their semester and to create their own to help plan the semester. Once a few syllabi have been created over the course of several semesters, we recommend that one general syllabus be created and used by all interns moving forward.
- **Maintain the database:** This semester, we created a spreadsheet database of all the brands, farms, and vendors that we researched and we *highly* recommend that future interns build upon the database of brands. This is an invaluable resource for interns and CDS staff to keep an updated list of all the brands we research, their status as real or not, and the justification for their status. This can help alleviate difficulties with having different interns research each semester.

Appendix A: The Definition of “Real Food”

- The Real Food Challenge defines real food as meeting at least one of four criteria: local and community based, ecologically sound, fair, or humane. Under each category, RFC specifies criteria that a product must meet if it is to qualify. Products that meet just one category count as “Real Food B,” and products that meet two or more categories count as “Real Food A.”
- The calculator recognizes the extent to which foods meet their qualifications within each category with “green light” and “yellow light” foods, but these green and yellow light designations are not factored into the designation of a food as real or not. Green light foods “best represent” the standard of real food, while yellow light foods “do not represent the *fullest* expression of the standard” (cite real food guide here). For example, if 95% of the ingredients in a multi-ingredient food meet the standards for local and community based, it is a “green light food,” and if only 50-94% of the ingredients meet the standards, it is a “yellow light food”; however, both foods would count as real. Real Food also has a “red light” category, which pertains to foods that are automatically disqualified and cannot be counted as real. Disqualifiers include food that is produced with egregious human rights or labor violations, concentrated animal feeding operations (CAFOs), genetically modified organisms (GMOs), or ultra-processed food.

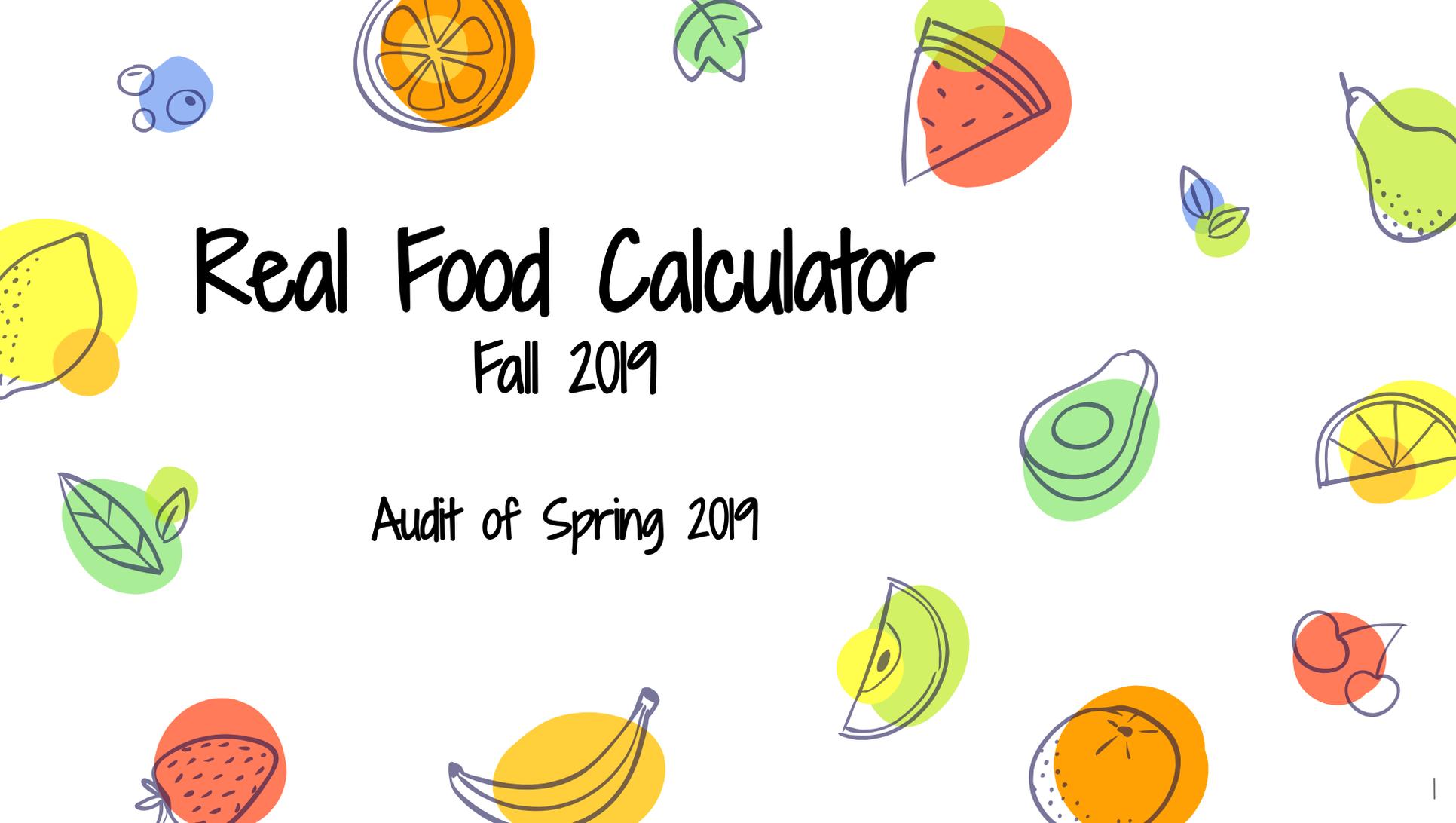
Appendix B: Real Food Guide 2.1
Page 1:

The Real Food Guide			
Local & Community Based	Fair	Ecologically Sound	Humane
<p><i>These foods can be traced to nearby farms, ranches, boats, and businesses that are locally owned and operated. Supporting small and mid-size food businesses challenges trends towards consolidation in the food industry and supports local economies.</i></p>	<p><i>Individuals involved in food production work in safe and fair conditions, receive fair compensation, are ensured the right to organize and the right to a grievance process, and have equal opportunity for employment.</i></p>	<p><i>Farms, ranches, boats, and other operations involved with food production practice environmental stewardship that conserves biodiversity and ecosystem resilience and preserves natural resources, including energy, wildlife, water, air, and soil. Production practices minimize toxic substances, greenhouse gas emissions, natural resource depletion, and environmental degradation.</i></p>	<p><i>Animals have their mental, physical, and behavioral needs met in a low-stress environment and throughout their life are only administered drugs for treatment of diagnosed illness or disease.</i></p>
<p>GREEN LIGHT: Products meeting these criteria or certifications qualify as Real Food and best represent the standard</p>			
<p>Single-ingredient products: A product must meet ALL the following criteria: A. Ownership: Producer must be a privately or cooperatively owned enterprise. <i>Wild-caught seafood must come from owner-operated boats.</i> B. Size: <ul style="list-style-type: none"> • Produce: Individual farms must gross \$5 million/year or less • Baked goods, beverages, dairy, eggs, grocery, meat, poultry, seafood: Company or cooperative must gross \$50 million/year or less C. Distance: All production, processing, and distribution facilities must be within a 250 mile radius of the institution. <i>This radius is extended to 500 miles for Meat, Poultry, and Seafood.</i></p> <p>Single-ingredient products (aggregated): 100% of the products must meet the criteria for Ownership, Size, and Distance</p> <p>Multi-ingredient product: The company and at least 95% of the ingredients by volume must meet the criteria for Ownership, Size, and Distance</p>	<p>A single-ingredient product must be certified by ONE of the following approved certifications or criteria:</p> <p>International products:</p> <ul style="list-style-type: none"> • <i>Ecocert Fair Trade Certified</i> • <i>Fair for Life Certified</i> by Institute for Marketecology (IMO) • <i>Fairtrade America (Fairtrade International FLO)</i> • <i>FairWild</i> • <i>Hand in Hand</i> • <i>Small Producer Symbol</i> <p>Domestic products:</p> <ul style="list-style-type: none"> • <i>Equitable Food Initiative (EFI)</i> • <i>Food Justice Certified</i> by Agricultural Justice Project • <i>Farms unionized through FLOC (AFL-CIO), FUJ, PCUN, UFW</i> <p>Worker-driven Social Responsibility programs*:</p> <ul style="list-style-type: none"> • <i>Fair Food Program</i> by the Coalition of Immokalee Workers • <i>Milk with Dignity</i> by Migrant Justice 	<p>A product must be certified by ONE of the following approved certifications:</p> <p>Single-ingredient products:</p> <ul style="list-style-type: none"> • <i>Biodynamic Certified</i> by Demeter • <i>FairWild</i> • <i>Food Alliance Certified</i> (produce and grocery only) • <i>Rainforest Alliance Certified</i> • <i>Regenerative Organic Certified</i> • <i>Salmon Safe</i> • <i>USDA Organic</i> and approved certifiers <p>Coffee only:</p> <ul style="list-style-type: none"> • <i>Bird Friendly</i> by Smithsonian <p>Produce only: Produce grown in a farm or garden at the institution, in which the researcher can confirm the use of organic practices</p>	<p>A product must be certified by ONE of the following approved certifications*:</p> <p>All products:</p> <ul style="list-style-type: none"> • <i>Animal Welfare Approved/Certified (AWA)</i> by A Greener World • <i>AWA Grassfed</i> by A Greener World • <i>Biodynamic Certified</i> by Demeter • <i>Global Animal Partnership Steps 4-5+</i>

YELLOW LIGHT: Products meeting these criteria or certifications qualify as Real Food but do not represent the <i>fullest</i> expression of the standard			
<p>Multi-ingredient products: Company must meet ALL the following criteria:</p> <p>A. Ownership: Company must be a privately or cooperatively owned enterprise</p> <p>B. Size: Company or cooperative must gross \$50 million/year or less</p> <p>C. Distance: All processing and distribution facilities must be within a 250 mile radius of the institution.</p> <p style="text-align: center;">-AND-</p> <p>At least half (50%) of the ingredients by volume must come from farms meeting ALL the following criteria:</p> <p>A. Ownership: Company must be a privately or cooperatively owned enterprise</p> <p>B. Size:</p> <ul style="list-style-type: none"> • Produce: Individual farms must gross \$5 million/year or less • Baked goods, beverages, dairy, eggs, grocery, meat, poultry, seafood: Company or cooperative must gross \$50 million/year or less <p>C. Distance: All production facilities must be within a 250 mile radius of the institution</p> <p>Single-ingredient products (aggregated): At least three-quarters (75%) of the product (by volume) must meet the criteria for Ownership, Size, and Distance</p>	<p>A product must meet ONE of the following criteria:</p> <p>All products:</p> <ul style="list-style-type: none"> • <i>Fair Trade USA</i> <p>Multi-ingredient products:</p> <ul style="list-style-type: none"> • At least one of the primary ingredients (20% by volume) meets the Green Light criteria 	<p>A product must meet ONE of the following criteria:</p> <p>Single-ingredient products: Be certified by one of the following approved certifications:</p> <ul style="list-style-type: none"> • <i>ANSI/LEO-4000</i> (gold- or platinum-certified) by Leonardo Academy • <i>Bee Better Certified</i> • <i>Certified Sustainably Grown</i> • <i>Fair Trade USA</i> • <i>LEAF Marque</i> (Linking Environment and Farming) • <i>USDA Transitional Organic</i> <p>Multi-ingredient products:</p> <ul style="list-style-type: none"> • At least half (50% by volume) of the ingredients meet the Green Light criteria <p>Seafood (wild-caught only):</p> <ul style="list-style-type: none"> • <i>Marine Stewardship Council (MSC)</i> Blue Eco Label paired with the <i>MSC Chain of Custody Certification</i> • <i>Monterey Bay Aquarium Seafood Watch Guide</i> "Best Choices" and "Good Alternatives" 	<p>A product must be certified by ONE of the following approved certifications:</p> <p>Broiler chickens:</p> <ul style="list-style-type: none"> • <i>Certified Humane Free Range/Pasture Raised</i> • <i>Global Animal Partnership Step 3</i> <p>Laying hens:</p> <ul style="list-style-type: none"> • <i>American Humane Certified Free Range / Pasture Raised</i> • <i>Certified Humane Free Range / Pasture Raised</i> • <i>Global Animal Partnership Step 3</i> <p>Swine:</p> <ul style="list-style-type: none"> • <i>Global Animal Partnership Step 3</i>
DISQUALIFICATIONS: Products containing disqualifying characteristics cannot count as Real Food in any category			
<ul style="list-style-type: none"> • Egregious human rights violations <ul style="list-style-type: none"> ◦ Forced labor (including Prison labor): Producers have been found guilty of criminal charges of forced labor within the previous 10 years OR products that have been produced in prisons or using prison labor (through state or county correctional industries or through lease to, or partnership with, private agricultural or food processing companies). • Labor violations: Producer has been found guilty of or has been cited for three or more cases relating to serious, repeat, or willful Occupational Safety and Health Administration (OSHA), National Labor Relations Board (NLRB), or Fair Labor Standards Act (FLSA) violations within the last three years. • Concentrated Animal Feeding Operations (CAFOs): Producer is a Concentrated Animal Feeding Operation (CAFO) <ul style="list-style-type: none"> [<i>Except for dairy that has been aggregated from multiple farms if the average farm size is less than 200 cows</i>] • Genetically Modified Organisms (GMOs): Products made with genetically engineered ingredients (including corn, soy, rapeseed, beet sugar, papayas and summer squash) and their derivatives <ul style="list-style-type: none"> [<i>Unless these ingredients are used in trace amounts or the product carries a certification that precludes the presence of GMOs (Non-GMO Project Verified or any of the certifications that qualify as Ecologically Sound)</i>] • Ultra-processed foods: Products made with the following ingredients: Aspartame; Butylated hydroxyanisole (BHA), Butylated hydroxytoluene (BHT); Caramel coloring; Partially hydrogenated oil (trans-fats); Potassium bromate; Propyl gallate; rBGH/rBST; Saccharine; Sodium nitrate added; Sodium nitrite added; Dyes: Red #3, Red #40, Yellow #5, Yellow #6. <p><i>*Worker-Driven Social Responsibility Programs are exempt from Disqualifiers and can count as Real Food even if they have a disqualifying characteristic.</i></p> <p><i>**Animal products that meet the certifications in the "Green Light" Humane category are exempt from the CAFO disqualifier. All other animal products should be researched for the CAFO disqualifier.</i></p>			

Appendix C: UNC Food Database & Contacts with Various Vendors

- Database:
https://docs.google.com/spreadsheets/d/1H98uruR2xXq_4lg9_AC9DxTph0JuTW5LtPIJMkDF8HI/edit?usp=sharing
- Freshpoint Contacts and Justifications:
<https://docs.google.com/document/d/1t2E3apTSrx5-vgx0P0GABQ4ZBup1T4vef1bgZNf7wm4/edit?usp=sharing>
- Cheney Contacts and Justifications:
<https://docs.google.com/document/d/1zyakWvye0AVDTc9QfnG73MGojbLsV0adDv-f-qFx0ys/edit?usp=sharing>
- Larry's Coffee Contact:
https://docs.google.com/document/d/1AwAfr7hN9E8kA01K5S1Xh8P4qJe2NUmC5_wfnKxwql8/edit?usp=sharing



Real Food Calculator

Fall 2019

Audit of Spring 2019

Meet the Team!



Vanessa Bernal



Vivian Le



Tricia Kay McAuley



Diamond McKoy

Executive Summary

The purpose of Real Food Calculator is to increase the percentage of "Real Food" in Carolina Dining Halls.

Real Food is Defined as:

- Local and Community Based
- Fair
- Ecologically Sound
- Humane



Importance of RFC in Carolina Dining

- Students want to and are also encouraged to be more aware of what they are eating and where it is coming from
- Promotes CDS's commitment to providing the highest quality of food



Calculator Methodology

1. All Food + Vendors inputted into Spreadsheet
2. Is it local? → can immediately eliminate by proximity to campus
3. Google! → does the vendor/product have any certifications?
4. Look for disqualifiers, many multi-ingredient products had preservative/coloring



Final Results

RF 2.2

21.65 %

Real Food A - 4.88 %

Real Food B - 16.81 %

RF 1.1

28.95 %

Real Food A - 4.88 %

Real Food B - 24.10 %





Real Food Breakdown

Eggs - 21.97 %

Fish - 25.11 %

Baked - 0 %

Produce - 15.4 %

Dairy - 0 %

Tea/Coffee - 2.61 %

Meat - 11.72 %

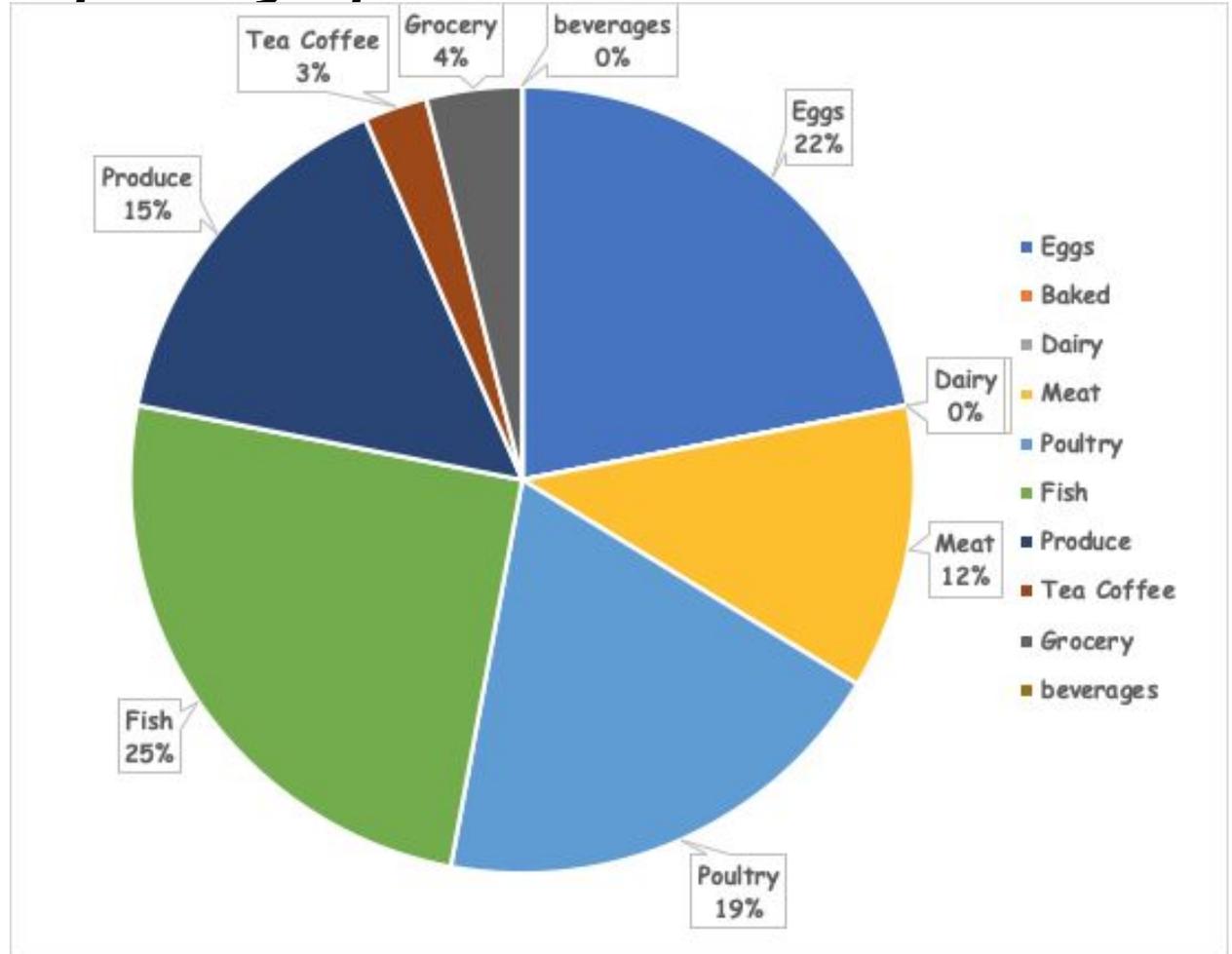
Grocery - 3.95 %

Poultry - 19.24 %

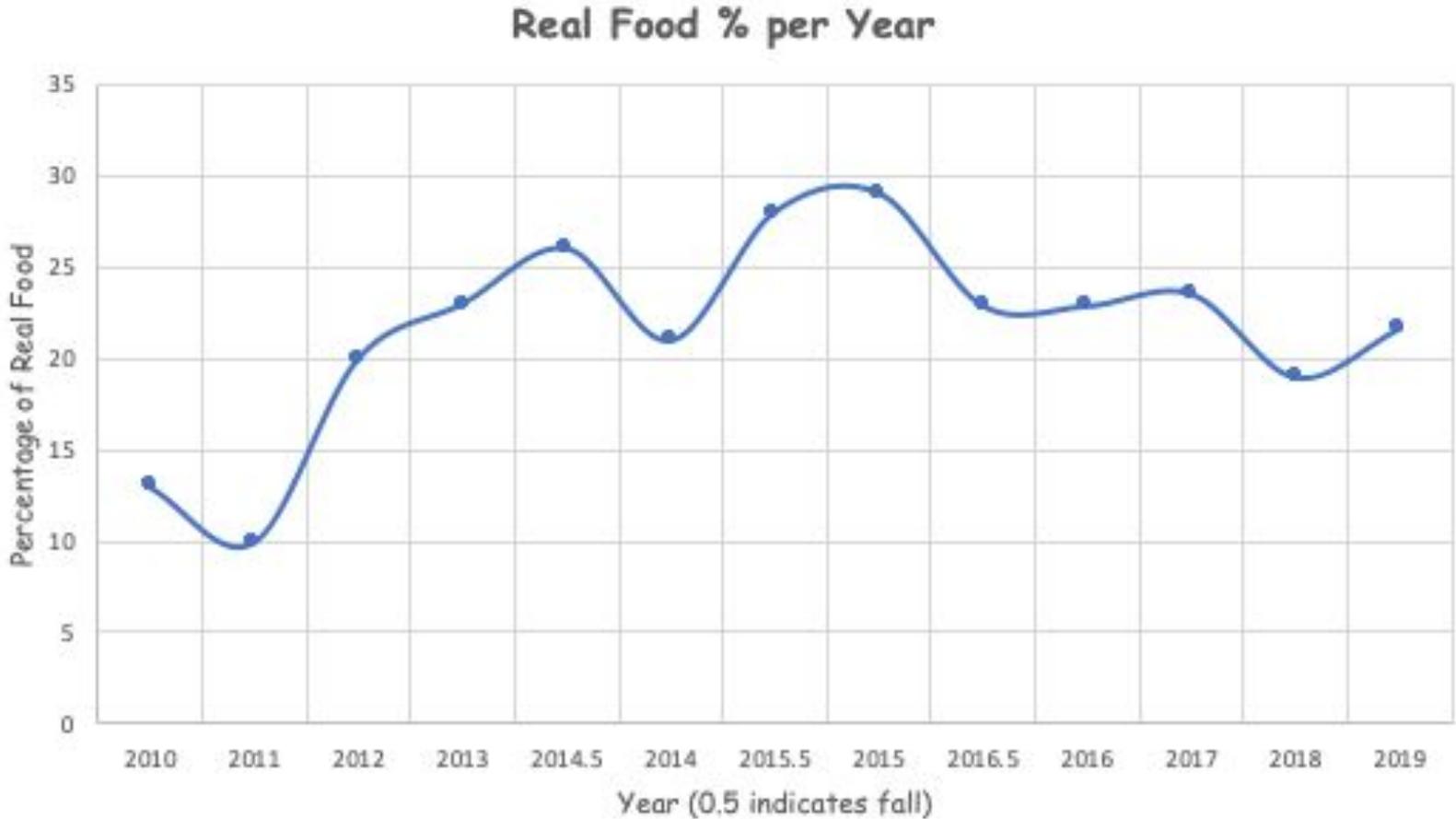
Beverage - 0%

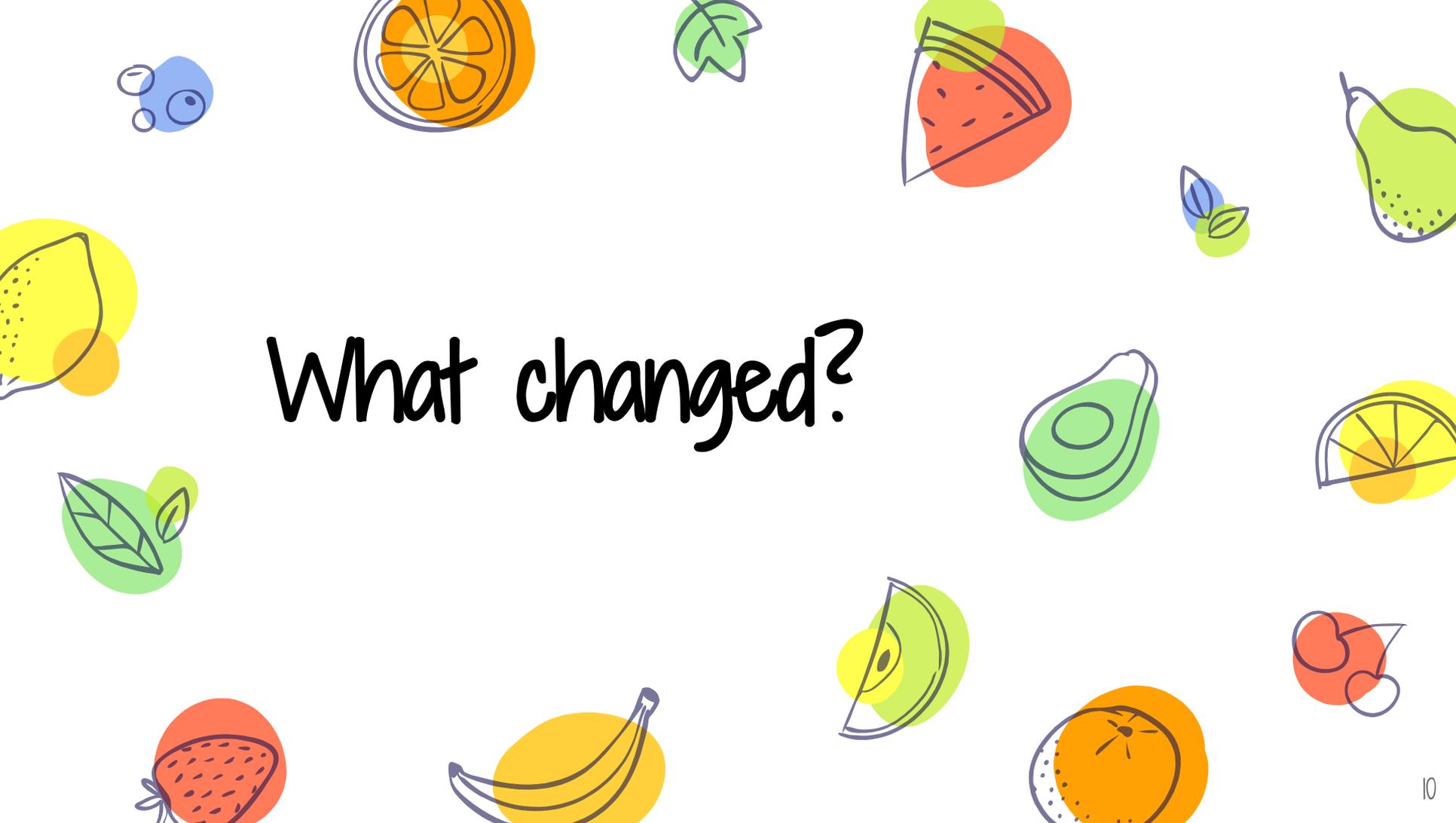


Real Food by Category



Comparison to Previous Years





What changed?

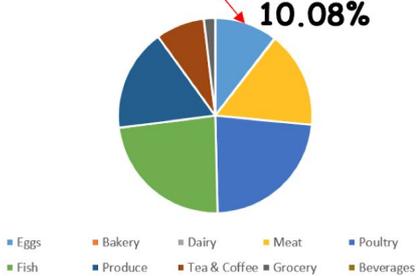
Significant changes in Egg purchases

Fall 2018

Total - \$34,379

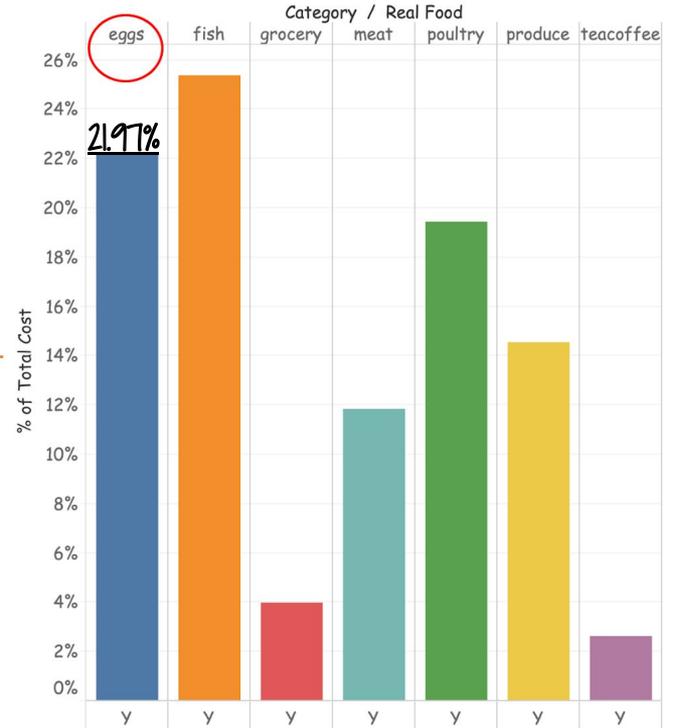
Real Food - \$15,780

September Real Food Spending Broken Into Type



Total - \$31,791
Real Food - 30,039

Spring 2019



Steep decline in tea/coffee purchases

Fall 2018

Total - \$14,546

Real Food - \$2,297

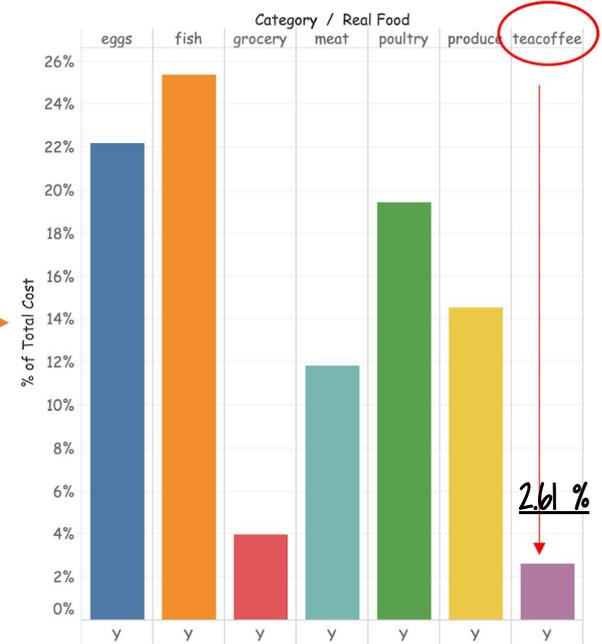
September Real Food Spending Broken Into Type

7.83 %



- Eggs
- Bakery
- Dairy
- Meat
- Poultry
- Fish
- Produce
- Tea & Coffee
- Grocery
- Beverages

Total - \$4,380
Real Food - \$3,690
Spring 2019



Changes in RFC Standards 1.1 vs 2.0

- Change in definition of "local"
 - Size
 - From 150 mile radius to having to gross \$5 mil - 50 mil less
 - Ownership
 - Private Ownership is now required
 - Distance
 - 150 mile radius to 250 and 500 for meat
 - Traceability
 - In order for students to determine the size, ownership and distance



Changes in RFC Standards

Real Food Guide 1.1

Producer must meet **ALL** of the below criteria:

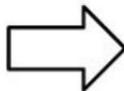
1. All production, processing, and distribution facilities controlled by the producer, its parent or family companies, and contract farmers must be within **150 miles** of the institution
2. Producer must be privately-traded or cooperatively-owned business that grosses less than 1% of the industry leader
 - o Independently owned businesses must have full autonomy and decision-making power about business, processing, and distribution practices
 - o Products from cooperatively owned businesses must have been produced, processed, and distributed within **150 miles** of the institution. Must be a true co-op rather than contractors to a larger corporation

Producer must meet **ALL** of the below criteria:

1. All production, processing, and distribution facilities controlled by the producer, its parent or family companies, and contract farmers must be within **250 miles** of the institution
2. Producer must be privately-traded or cooperatively-owned business that grosses less than 1% of the industry leader
 - o Independently owned businesses must have full autonomy and decision-making power about business, processing, and distribution practices
 - o Products from cooperatively owned businesses must have been produced, processed, and distributed within **250 miles** of the institution. Must be a true co-op rather than contractors to a larger corporation

Multi-source or multi-ingredient products:

Producer and 50% of the ingredients must meet all of the above criteria



Real Food Guide 2.0

Single-ingredient Products

A product must meet **ALL** of the following criteria:

- A. **Ownership:** Producer must be a privately or cooperatively owned enterprise. | *Wild-caught Seafood must come from owner-operated boats*
- B. **Size:**
 - o Produce: Individual farms must gross **\$5 million/year or less**
 - o Meat, Poultry, Eggs, Dairy, Seafood, Grocery: Company must gross **\$50 million/year or less**
- C. **Distance:** All production, processing, and distribution facilities must be within a **250 mile radius** of the institution. | *This radius is extended to 500 miles for Meat*

Single-ingredient Products (Aggregated):

100% of the products must meet the criteria for Ownership, Size and Distance

Multi-ingredient Products:

(e.g. Baked Goods)

Company must meet **ALL** of the following criteria:

- A. **Ownership:** Company must be a privately or cooperatively owned enterprise.
- B. **Size:** Company must gross **\$50 million/year or less**
- C. **Distance:** All processing and distribution facilities must be within a **250 mile radius** of the institution.

-AND-

50% of the ingredients must come from farms meeting **ALL** of the following criteria:

- A. **Ownership:** Company must be a privately or cooperatively owned enterprise.
- B. **Size:**
 - o Produce: Individual farms must gross **\$5 million/year or less**
 - o All other ingredients: Company must gross **\$50 million/year or less**
- C. **Distance:** All production facilities must be within a **250 mile radius** of the institution

Single-ingredient Products (Aggregated):

At least three-quarters (75%) of the product (by volume) must meet *Green Light* criteria for Ownership, Size and Distance



UNC-CHAPEL HILL

REALFOOD
CHALLENGE

Changes in RFC Standards

Real Food Guide 2.0

- Clear explanations of the labor abuses and extreme human rights violations that must go
- Guidelines for determining if a product originates from a truly "Local + Community-based business"
- Disqualifications for animal products that are produced under confinement (also known as CAFOs)
- New recognition for innovative "Worker-driven Social Responsibility Programs" that bring products that support farmworker dignity to cafeterias and grocery stores near you.

Real Food Guide 2.1

- Calling out prison labor
- Uplifting the power of organized workers and small producers
- Raising the bar on sustainability
- Expanding purchasing for local, community based seafood



Real Food Standards 2.1



Sources of Error

- If a farm/vendor did not answer a question or respond to an inquiry, they had to be counted as "no"
- Difficulty finding the brand/vendor of some products
- Lack of transparency
- Several "small farms" actually outsourced from other farms → ambiguity



Challenges



Lack of communication/miscommunication between all parties



Lack of information on many, if not all, the companies' websites



Not knowing how to exactly check our work and see if our numbers are correct (had to check and make estimates from prior semesters' work)

Recommendations



Recommendations for RFC

Define what constitutes a product to fall under the different categories (i.e. dairy, grocery, etc.)



Reevaluate criteria for "local" food



More liberty in researching different certifications that may not be listed

FARM - Farmers Assuring Responsible Management Program

Global GAP

Certified B Corp



Potential Impact of New RFC Certifications



FARM - Farmers Assuring Responsible Management

Dairy Farm certification
RFC Category - Humane



Global GAP (Good Agricultural Practices)

Standards for worker health, animal welfare, livestock transport, processing crop
RFC Category - Humane and/or Fair



Certified B Corp



Measures entire social and environmental performance

Recommendations for CDS

- Dairy (0%) → Homeland Creamery
- Purchase more USDA Organic (easily certifiable)
- Fair Trade Spices
- CIW Tomatoes



Homeland Creamery

YES! Real Food

- Paige (owner) confirmed via email on 11/5
- Located in Julian, NC (Guilford County)
- Products - Milk
- Previously purchase from Maola, Silk, and Sysco
- February - total \$18,000 (would increase RF by 4%)

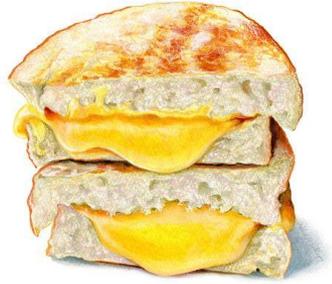


Other Possible Vendors

Vendor/ Brand	Local	Humane	Fair	Ecologically
Homeland Creamery	✓			
Your Local Greens 	✓			
<u>Villari Foods</u> 	✓			

Recommendations for Future Interns

- If you have a question or are lost - ask for help
- Start working on the excel sheet as soon as possible
- Social Media Campaign
 - Lack of knowledge around campus that RFC exists, spread the word!
- Maintain database of vendors and abbreviations



Conclusions and Take Away

- Impressive commitment to sustainability and providing the best food for students
- Surprising lack of transparency from many large companies regarding where their food was grown/produced



Questions?



Fall 2019

Real Food Challenge

University of North Carolina at Chapel Hill



Introduction

Vanessa Bernal, Vivian Le, Tricia Kay McAuley, and Diamond McKoy

UNC's campus food system allows us to better understand the connections between production, distribution, consumption and sustainability. The Real Food Challenge is a national organization that provides institutions with tools and strategies that support and promote the development of real food systems. Our campus has made the commitment to purchasing 20% of the already existing food budget go toward local & community based, fair, ecologically sound, and humane food sources -- what real food is. Real food has a concern for producers, consumers, communities, and the earth.

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I. Executive Summary

The purpose of the Real Food Calculator (RFC) is to increase the percentage of “real food” in Carolina Dining Halls. Real Food, according to RFC is defined as: local and community based, fair, ecologically sound, and humane. After our semester long audit, we found that UNC has exceeded their goal and purchased 21.65% real food for the month of February 2019.

II. Real Food Challenge (RFC) and Internship Overview

The Real Food Calculator Challenge was created in 2008 when they launched their first campaign. It set out to build a fair and sustainable food systems in universities. Their goal was to end higher education’s support for Big Food corporations and white supremacy in the food system and to direct efforts and energy towards food sovereignty. RFC trains and supports students across campuses to make this shift to create a healthy, fair, and green food system. Below we have defined each of the categories based on RFC standards. Please refer to the appendix for more details.

- 1) Local and Community based foods can be traced back to nearby farms, ranches, boats, and businesses that are locally-owned and operated.
- 2) Fair foods ensure that individuals involved in the production work in safe and fair conditions, receive fair compensation, are ensured the right to organize and the right to a grievance process while having an equal opportunity for employment.
- 3) Ecologically sound foods ensure that farms, ranches, boats and other operations involved with food production practice environmental stewardship that conserves biodiversity and ecosystem resilience. This will preserve natural resources, including energy, wildlife, water, air, and soil. Production practices should minimize toxic substances, greenhouse gas emissions, natural resource depletion and environmental degradation.
- 4) Humane foods make sure that animals have their mental, physical and behavioral needs met in a low-stress environment and throughout their lives are only administered drugs for treatment of diagnosed illness or disease.

There are many immediate disqualifiers to real food and a few are listed below:

-
- 1) Human rights violations such as forced labor
 - 2) Labor violations such that the producer has been found guilty or has been cited for three or more cases relating to serious, repeat, or willful Occupational Safety and Health Administration (OSHA), National Labor Relations Board (NLRB), or Fair Labor Standards (FLSA) violations within the last three years.
 - 3) Concentrated Animal Feeding Operations (CAFOs) with an exception
 - 4) Genetically modified organisms (GMOs)
 - 5) Ultra-processed

This past semester, we have researched extensively, each and every vendors' websites and personally reached out to farmers and owners via email and phone. In the end, we concluded that CDS purchased 21.65% real food for the month of February 2019. This percentage may not be entirely accurate due to sources of error that we will later describe as well as difficulties and challenges that we faced with gathering the information.

III. Importance of RFC in Carolina Dining

The Real Food Calculator Internship is used to verify that Carolina Dining Services (CDS) meets its commitment of purchasing 20% real food. Every semester, CDS completes their own real food audit for every month so the interns serve to verify their audit to ensure that CDS is meeting that percentage. Given an entire semester, interns are able to research information that may be difficult and more time consuming. The interns coordinate between the national Real Food Challenge organization along with CDS.

This internship sees to it that that university campus actually commits to purchasing a substantial percentage of real food. The challenge, as a whole, strives to push university spending to food that is more equitable and sustainable. Being such a large university, UNC can influence the food system with their purchases. RFC is student-driven as students are increasingly becoming more aware of what they are eating and are demanding that dining halls serve more real food.

IV. Calculator Methodology

Our research this semester took place beginning from the last week of August up until November of 2019. CDS provided us with all the information of food purchases from

February 2019. They gave us redacted invoices of every purchase made during the month of February via digital files and physical receipts.

To begin our research, we uploaded all of the purchases into one spreadsheet. Each food was described into one row while each row contained headers for the following categories: item name, category, product code, product code type, label/brand, vendor, calculator rating version, along with columns that indicate whether or not they were local, ecologically sound, humane, fair or automatically disqualified. Once we had all of our data into one spreadsheet, we began going through each product to see if it met any of the real food categories as to constitute as real food, it needed to meet one of the four categories. For some purchases, we could immediately tell that some food items were not real because they would be ultra-processed so those purchases could be disqualified. Some purchases were not so easy to determine. Information for many of the purchases were hard to find. Foods that had no label/brand were especially hard to research as we had to personally reach out to the vendors to see if they could provide us with the information we needed.

To determine if the product qualified as real food, we had to research each of the real food categories (local, ecologically sound, humane and fair). We looked at ingredient lists and vendor and company websites. Understanding the origin of some products proved to be very difficult as vendors had to research their own supply chain.

One of the major parts of our methodology included a computer program that Katelyn Cline, a previous RFC intern, coded that helped us calculate our percentage of real food. The program was especially useful because it broke down the percentage by categories and showed us which areas that CDS could focus on increasing.

V. Final Results

Figure 1

Type of Food	Amount Spent	Percentage of Total Food Purchased
Conventional	\$ 511,648.41	78.35%
Real Food A	\$ 31,866.17	4.88%
Real Food B	\$ 109,746.17	16.81%
Total	\$ 653,036.95	100%

Figure 1. Total amount spent and percentage of the total for each type of food (conventional, Real Food A, and Real Food B).

Figure 2

Food Type	Total Spent	% of Total	\$ Spent on RF	% of RF Total
Eggs	\$ 31,790.37	4.87%	\$ 31,059.00	21.97%
Baked	\$ 16,366.91	2.51%	\$ -	0%
Dairy	\$ 76,500.44	11.71%	\$ -	0%
Meat	\$ 101,512.65	15.54%	\$ 16,563.77	11.72
Poultry	\$ 54,689.70	8.37%	\$ 27,205.78	19.24%
Fish	\$ 48,395.49	7.41%	\$ 35,509.53	25.11%
Produce	\$ 130,874.35	20.04%	\$ 21,779.13	15.40%
Tea and Coffee	\$ 3,917.56	0.60%	\$ 368,994.00	2.61%
Grocery	\$ 184,201.69	28.21%	\$ 5,581.14	3.95%
Beverages	\$ 22,813.67	3.49%	\$ -	0.00%

Figure 2. Total amount of food type purchased compared to amount of real food purchased per food type.

Figure 3

Type of Food	Percentage of Total Real Food
Eggs	21.97%
Baked	0%
Dairy	0%
Meat	11.72%
Poultry	19.24%
Fish	25.11%
Produce	15.40%
Tea Coffee	2.61%
Grocery	3.95%
beverages	0%

Figure 3. The percentage of each type of real food that was purchased (no conventional food purchases included). The percentage is calculated from the total amount of real food purchased.

Figure 4

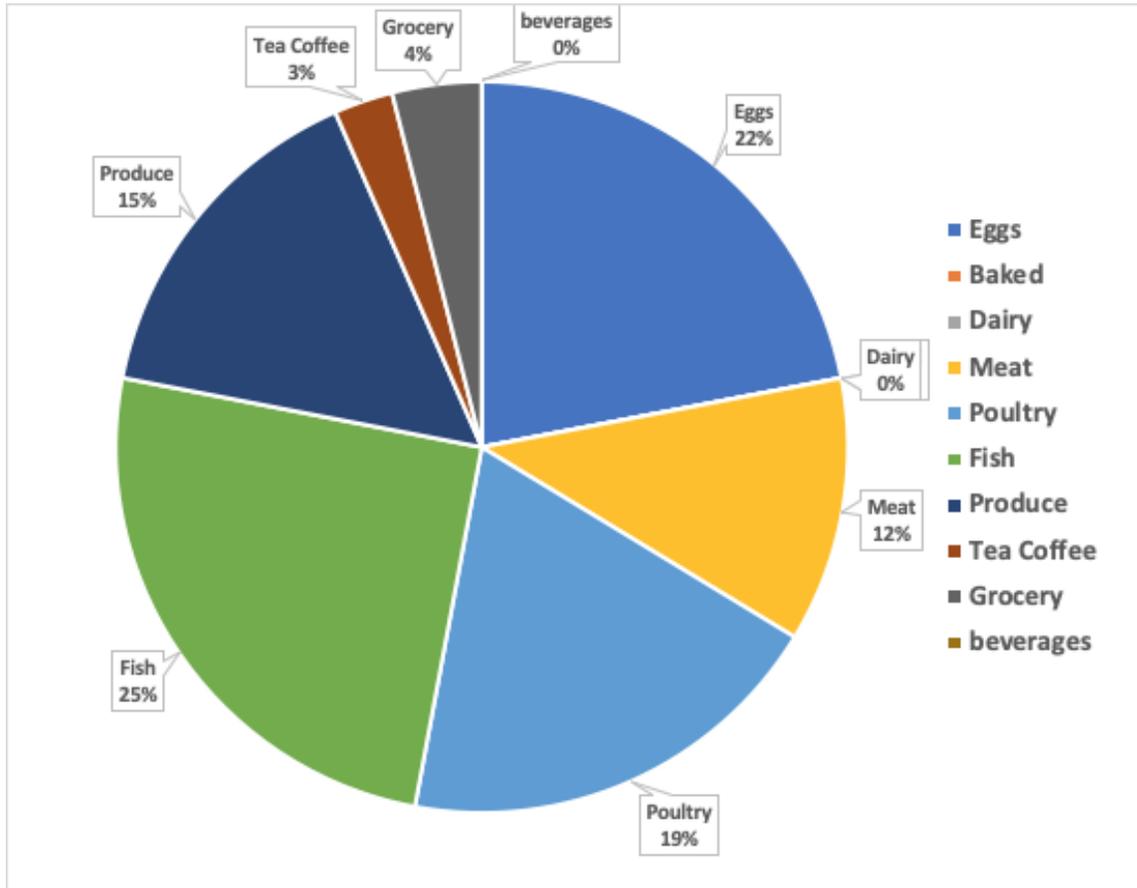


Figure 4. Graphical representation of real food purchases. The percentage of each type of food is based on the total amount of real food purchased, no conventional food is included.

VI. Comparison to Previous Years

Figure 5

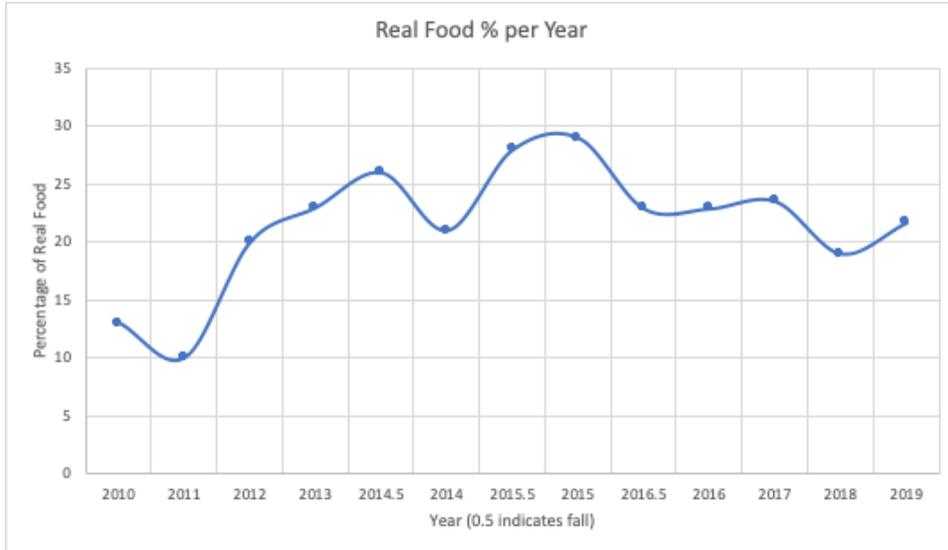


Figure 5. Percentage of Real Food purchased by Carolina Dining Services. A year with “0.5” indicates the fall audit, a year without “0.5” indicates the spring audit.

The percentage of Real Food purchased by Carolina Dining Services has fluctuated throughout the years. A large reason for this fluctuation, particularly the decrease after 2015, is a result of the change in RFC Standards from 1.0 to 2.1/2. In changing the criteria for “local” food to include a gross revenue of less than \$50 million, several large previously real food suppliers were disqualified.

VII. What Changed?

Within the past year CDS has saw significant changes in dollars spent on real food; including in egg purchases, tea/ coffee, cheese/ diary, and pork. The audit that took place in the spring showed CDS purchasing eggs from Sysco's Abbotsford Farms, EGGAMEP, Eggs America, and Wholesome Farms totaling about \$34,379. Of that amount, about \$15,780 of it was counted as real food. Thus, roughly 46% of all egg purchases were real food. Similarly, CDS purchased eggs from Sysco's Abbotsford Farms, Davidson, Eggs America, PAPETTI, Wholesome Farms, and Cheney totaling about \$31,791. Of that amount, about \$30,039 of it was counted as real food. Thus, roughly 95% of all egg purchases count as real food. This exemplifies a significant area of growth for CDS, in which they increased by 49 percentage points. Egg purchases demonstrate a critical area for CDS, and they should continue trying to increase this to 100%. Continuing to increase real food for eggs should be easy for CDS because most of the items that were not considered real are similar products that were counted as real when purchased by other Sysco brands i.e. liquid egg. One thing that should be noted is that Cheney was recommended by last year's RFC group, but the current group did not consider it as real— due to the researchers' inability to obtain information from appropriate Cheney staff.

In comparison to this audit and the previous audit, tea/coffee purchases saw a significant decrease. Specifically, for the Fall 2018, CDS purchased tea/coffee from Larry's Beans and Sysco's Folgers and Lipton totaling about \$14, 546. Of that amount, about \$2, 297 of it counting as real food, which generated about 18% of tea/coffee to the real food calculation. Again, in the spring of 2019 CDS purchased tea/coffee from Larry's and Sysco's Bigelow and Lipton totaling about \$4,380, with \$3,690 of it counting as real food. Thus, tea/ coffee purchased dropped by 70%. If CDS would have purchased the same amount of tea/ coffee as they did in the fall, they would have seen a greater real food percentage.

Additionally, CDS saw major declines in the real food for meat. In Fall 2018, CDS purchased \$22,275 in pork products, and of that amount about \$1,942, relatively 9%, was considered real food. This spring, \$13,646 was spent on pork products and of that amount, about \$463, relative 3.4% was real food. This was a significant decrease in amount purchased, however the data shows that all pork classified as real food comes from Lady Edison Pork. CDS uses Cheney's Lady Edison for their sausage patties needs, while also buying sausage patties

from Aramark. In efforts to increase real food percentages, CDS should purchase all of their sausage patties from Lady Edison Pork.

VIII. Sources of Error

There were only a few sources of errors that we encountered. The first and main one was having to count some farms/vendors as “no” because they never responded to our questions and we couldn’t find a lot of information on the company or its products. Although this does not mean they aren’t Real Food, we just didn’t have enough data to be 100 percent sure, so we thought the best answer in this situation was labeling them as no. Going off of that, we did have a lot of difficulty finding some brand/vendors of certain products. Many of the companies weren’t very transparent with their products, certifications, size or amount of capital, etc. Aside from that, we found out that several “small farms” were actually outsourced from other farms. This led to a lot of ambiguity and again made it difficult to be 100 percent sure that this farms meet the Real Food Standard.

IX. Challenges

In addition to the sources of error, we also had some challenges concerning communication, lack of transparency, and checking our work. There was some miscommunication between all parties involved in this process. For instance, we all communicated through email and sometimes it would take a bit longer than expected for everyone to get back to us. Aside from that, we would have a lot of detail/questions in our emails and only a few of those questions would get answered and the rest would be ignored or missed, some emails would even be ignored altogether. As a result, we had to send multiple emails with the same information, until finally we got an answer, or we would have to try to talk to that individual in person. Another issue was the lack of information on multiple companies/farms websites. A lot of them did not list their certifications, or how much money they made, etc. We had to do a lot of research and sometimes we came up empty, so we also tried sending emails, but those would be ignored as well. Lastly, was the dilemma of not knowing how to fully check our work. However, we did use prior semesters’ work to compare numbers and make estimates. We also checked to see who was considered Real Food or not in prior years, which helped tremendously.

X. Recommendations

In efforts to provide a holistic recommendation we prepared 3 sets of recommendations including for RFC, CDS, and future interns.

Real Food Calculator

- **Define categories:** To eliminate potential confusion and error, RFC should define what constitutes a product to fall under the different categories. Defining each category will assist researchers in categorizing products and this task is significant because it determines the analyzations and recommendations. For example, the researchers' ability to identify positive changes in egg purchases and key changes in dairy allows them to see where improvements can be made, and where attention should be focused. However, if the researchers were unsure if liquid eggs belong in dairy or egg category and they wrongly inputted that data, the recommendations and analyzations would be false.
- **Reevaluate criteria for "local" food:** To encourage institutions and organizations to pursue the real food challenge, RFC should reevaluate their current criteria for "local" food. Currently, the revenue cap excludes and victimizes companies that are large, successful, and sustainable companies.
- **Grant researchers more liberty in researching different certifications:** Today, several companies/ farmers are pursuing practices that would allow them to qualify as real food. For some of these farmers, they cannot afford USDA Organic certifications, or they do not meet the particular qualifications. However, they do have the \$1000 for Global GAP (Good Agricultural Practices), FARM (Farmers Assuring Responsible Management), or B Corp Certification. A great example of a company doing great things and not being real food is Manhattan Bakery. Last year's group researched Manhattan Bakery as a potential vendor, but it did not count as real because it purchases its flour from King Arthur Flour, which was not local. Yet, King Arthur Flour is a certified B Corporation and they practice fair labor practices. Thus, to expand and become more inclusive, RFC should increase the liberty in researching different certifications that can count for real food.
 - GAP (Good Agricultural Practices) is a voluntary audit that farmers and producers can pay for to verify that fruits and vegetables are produced,

packed, handled, and stored as safely as possible to minimize risks of microbial food safety hazards. The audits are done by the USDA and is often more affordable for farmers who can not afford other certifications. The GAP certifications will further empower farmers and producers who produce locally, but do not meet local parameters (Good). For example, if CDS needed a product out of season that was being produced in another country and the producer was GAP certified; the product would still be considered as real food.

- FARM (Farmers Assuring Responsible Management) is a program that works with dairy farmers, their communities, and industry partners, in the United States, to show customers and consumers that the dairy industry is taking the very best care of cows and the environment, producing safe, wholesome milk and adhering to the highest standards of workforce development. FARM is open to all U.S. dairy farmers, co-ops, and processors (What). FARM is a great opportunity for RFC to empower small and large dairy producers who are doing great that (What).
- B Corp Certification evaluates a products an services, assesses the overall positive impact of the company that stands behind it (About). “Certified B Corporations achieve a minimum verified score on the B Impact Assessment—a rigorous assessment of a company’s impact on its workers, customers, community, and environment—and make their B Impact Report transparent on bcorporation.net” (About). Additionally, includes a combination of third-party validation, public transparency, and legal accountability help Certified B Corps build trust and value (About). Examples of companies who are B Corp Certified are Ben & Jerrys, Patagonia, and Manhattan Bakery.

Carolina Dining Services

- **Purchase more USDA Organic:** CDS should purchase more products that are USDA organic certified because it is an easily certifiable Real Food approved benchmark that is well advertised and well known.

-
- Fair Trade Spices: Currently we purchase most spices from the generic Sysco brand, purchasing Fair Trade spices would be easy to do and increase our real food percentage by almost 1%
 - **CIW Tomatoes:** Coalition of Immokalee Workers certified tomatoes are the gold standard. The setback in purchasing them is they are often seasonal, and last year hurricanes in Florida destroyed most of the crop. However, purchasing more when available could greatly increase the produce percentage.
 - **Purchase from Homeland Creamery:** Homeland Creamery is based out of Julian, NC and has been confirmed this semester to meet the “local” criteria for real food. CDS currently does not purchase any “real” dairy after Maola was disqualified, this would help increase the dairy percentage and get more real dairy in the dining hall while supporting North Carolinians.

Future Interns

- **Maintain database:** There are two separate spreadsheets being operated on currently, one with brand/code abbreviated and one with updates on the common vendor state. Maintaining this database will help future interns and keep up to date on “real” vendors.
- **Social Media Campaign:** Few students around campus are aware of RFC in the dining halls. A social media campaign could help inform students and encourage involvement in what food they are eating and supporting.

XI. Conclusions and Take Away

Since UNC is such a large campus, it along with RFC has the potential to create a significant market demand for “real” food and transform the food system. The Real Food Challenge is effective in increasing universities accessibility by providing great tools. With the tools that RFC provides, through the challenge, food workers on college campuses can continue to work toward a more just and sustainable source. Although most of our food on campus comes from large corporations like Sysco, CDS continues to pursue healthy alternatives to highly processed foods. CDS is looking for more local based produce. Through this audit process, we have learned that if we want to have a better system that promotes better food and nutrition in our schools, we need a major shift in food sources. Often times, it can be difficult to convince big operations to provide “real food” but the commitment to RFC is

promoting local businesses by creating an awareness and a movement on campuses across the nation.

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"Good Agricultural Practices (GAP) & Good Handling Practices (GHP)." *Good Agricultural Practices (GAP) & Good Handling Practices (GHP) | Agricultural Marketing Service*,
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XII. Appendix

Version 2.1 | Fall 2018



The Real Food Guide			
Local & Community Based	Fair	Ecologically Sound	Humane
<p>These foods can be traced to nearby farms, ranches, boats, and businesses that are locally owned and operated. Supporting small and mid-size food businesses challenges trends towards consolidation in the food industry and supports local economies.</p>	<p>Individuals involved in food production work in safe and fair conditions, receive fair compensation, are ensured the right to organize and the right to a grievance process, and have equal opportunity for employment.</p>	<p>Farms, ranches, boats, and other operations involved with food production practice environmental stewardship that conserves biodiversity and ecosystem resilience and preserves natural resources, including energy, wildlife, water, air, and soil. Production practices minimize toxic substances, greenhouse gas emissions, natural resource depletion, and environmental degradation.</p>	<p>Animals have their mental, physical, and behavioral needs met in a low-stress environment and throughout their life are only administered drugs for treatment of diagnosed illness or disease.</p>
GREEN LIGHT: Products meeting these criteria or certifications qualify as Real Food and best represent the standard			
<p>Single-ingredient products: A product must meet ALL the following criteria:</p> <p>A. Ownership: Producer must be a privately or cooperatively owned enterprise. <i>Wild-caught seafood must come from owner-operated boats.</i></p> <p>B. Size:</p> <ul style="list-style-type: none"> • Produce: Individual farms must gross \$5 million/year or less • Baked goods, beverages, dairy, eggs, grocery, meat, poultry, seafood: Company or cooperative must gross \$50 million/year or less <p>C. Distance: All production, processing, and distribution facilities must be within a 250 mile radius of the institution. <i>This radius is extended to 500 miles for Meat, Poultry, and Seafood.</i></p> <p>Single-ingredient products (aggregated): 100% of the products must meet the criteria for Ownership, Size, and Distance</p> <p>Multi-ingredient product: The company and at least 95% of the ingredients by volume must meet the criteria for Ownership, Size, and Distance</p>	<p>A single-ingredient product must be certified by ONE of the following approved certifications or criteria:</p> <p>International products:</p> <ul style="list-style-type: none"> • Ecocert Fair Trade Certified • Fair for Life Certified by Institute for Marketecology (IMO) • Fairtrade America (Fairtrade International FLO) • FairWild • Hand in Hand • Small Producer Symbol <p>Domestic products:</p> <ul style="list-style-type: none"> • Equitable Food Initiative (EFI) • Food Justice Certified by Agricultural Justice Project • Farms unionized through FLOC (AFL-CIO), FUJ, PCUN, UFW <p>Worker-driven Social Responsibility programs*:</p> <ul style="list-style-type: none"> • Fair Food Program by the Coalition of Immokalee Workers • Milk with Dignity by Migrant Justice 	<p>A product must be certified by ONE of the following approved certifications:</p> <p>Single-ingredient products:</p> <ul style="list-style-type: none"> • Biodynamic Certified by Demeter • FairWild • Food Alliance Certified (produce and grocery only) • Rainforest Alliance Certified • Regenerative Organic Certified • Salmon Safe • USDA Organic and approved certifiers <p>Coffee only:</p> <ul style="list-style-type: none"> • Bird Friendly by Smithsonian <p>Produce only: Produce grown in a farm or garden at the institution, in which the researcher can confirm the use of organic practices</p>	<p>A product must be certified by ONE of the following approved certifications**:</p> <p>All products:</p> <ul style="list-style-type: none"> • Animal Welfare Approved/Certified (AWA) by A Greener World • AWA Grassfed by A Greener World • Biodynamic Certified by Demeter • Global Animal Partnership Steps 4-5+



YELLOW LIGHT: Products meeting these criteria or certifications qualify as Real Food but do not represent the <i>fullest</i> expression of the standard			
<p>Multi-ingredient products: Company must meet ALL the following criteria:</p> <p>A. Ownership: Company must be a privately or cooperatively owned enterprise</p> <p>B. Size: Company or cooperative must gross \$50 million/year or less</p> <p>C. Distance: All processing and distribution facilities must be within a 250 mile radius of the institution.</p> <p style="text-align: center;">-AND-</p> <p>At least half (50%) of the ingredients by volume must come from farms meeting ALL the following criteria:</p> <p>A. Ownership: Company must be a privately or cooperatively owned enterprise</p> <p>B. Size:</p> <ul style="list-style-type: none"> • <u>Produce:</u> Individual farms must gross \$5 million/year or less • <u>Baked goods, beverages, dairy, eggs, grocery, meat, poultry, seafood:</u> Company or cooperative must gross \$50 million/year or less <p>C. Distance: All production facilities must be within a 250 mile radius of the institution</p> <p>Single-ingredient products (aggregated): At least three-quarters (75%) of the product (by volume) must meet the criteria for Ownership, Size, and Distance</p>	<p>A product must meet ONE of the following criteria:</p> <p>All products:</p> <ul style="list-style-type: none"> • <i>Fair Trade USA</i> <p>Multi-ingredient products:</p> <ul style="list-style-type: none"> • At least one of the primary ingredients (20% by volume) meets the Green Light criteria 	<p>A product must meet ONE of the following criteria:</p> <p>Single-ingredient products: Be certified by one of the following approved certifications:</p> <ul style="list-style-type: none"> • <i>ANSI/LEO-4000</i> (gold- or platinum-certified) by Leonardo Academy • <i>Bee Better Certified</i> • <i>Certified Sustainably Grown</i> • <i>Fair Trade USA</i> • <i>LEAF Marque</i> (Linking Environment and Farming) • <i>USDA Transitional Organic</i> <p>Multi-ingredient products:</p> <ul style="list-style-type: none"> • At least half (50% by volume) of the ingredients meet the Green Light criteria <p>Seafood (wild-caught only):</p> <ul style="list-style-type: none"> • <i>Marine Stewardship Council (MSC)</i>: Blue Eco Label paired with the <i>MSC Chain of Custody Certification</i> • <i>Monterey Bay Aquarium Seafood Watch Guide</i> "Best Choices" and "Good Alternatives" 	<p>A product must be certified by ONE of the following approved certifications:</p> <p>Broiler chickens:</p> <ul style="list-style-type: none"> • <i>Certified Humane Free Range/Pasture Raised</i> • <i>Global Animal Partnership Step 3</i> <p>Laying hens:</p> <ul style="list-style-type: none"> • <i>American Humane Certified Free Range / Pasture Raised</i> • <i>Certified Humane Free Range / Pasture Raised</i> • <i>Global Animal Partnership Step 3</i> <p>Swine:</p> <ul style="list-style-type: none"> • <i>Global Animal Partnership Step 3</i>
DISQUALIFICATIONS: Products containing disqualifying characteristics cannot count as Real Food in any category.			
<ul style="list-style-type: none"> • Egregious human rights violations <ul style="list-style-type: none"> ◦ Forced labor (including Prison labor): Producers have been found guilty of criminal charges of forced labor within the previous 10 years OR products that have been produced in prisons or using prison labor (through state or county correctional industries or through lease to, or partnership with, private agricultural or food processing companies). • Labor violations: Producer has been found guilty of or has been cited for three or more cases relating to serious, repeat, or willful Occupational Safety and Health Administration (OSHA), National Labor Relations Board (NLRB), or Fair Labor Standards Act (FLSA) violations within the last three years. • Concentrated Animal Feeding Operations (CAFOs): Producer is a Concentrated Animal Feeding Operation (CAFO) <ul style="list-style-type: none"> <i>Except for dairy that has been aggregated from multiple farms if the average farm size is less than 200 cows</i> • Genetically Modified Organisms (GMOs): Products made with genetically engineered ingredients (including corn, soy, rapeseed, beet sugar, papayas and summer squash) and their derivatives <ul style="list-style-type: none"> <i>Unless these ingredients are used in trace amounts or the product carries a certification that precludes the presence of GMOs (Non-GMO Project Verified or any of the certifications that qualify as Ecologically Sound)</i> • Ultra-processed foods: Products made with the following ingredients: Aspartame; Butylated hydroxyanisole (BHA); Butylated hydroxytoluene (BHT); Caramel coloring; Partially hydrogenated oil (trans-fats); Potassium bromate; Propyl gallate; rBGH/rBST; Saccharine; Sodium nitrate added; Sodium nitrite added; Dyes: Red #3, Red #40, Yellow #5, Yellow #6. <p><i>*Worker-Driven Social Responsibility Programs are exempt from Disqualifiers and can count as Real Food even if they have a disqualifying characteristic.</i></p> <p><i>**Animal products that meet the certifications in the "Green Light" Humane category are exempt from the CAFO disqualifier. All other animal products should be researched for the CAFO disqualifier.</i></p>			