



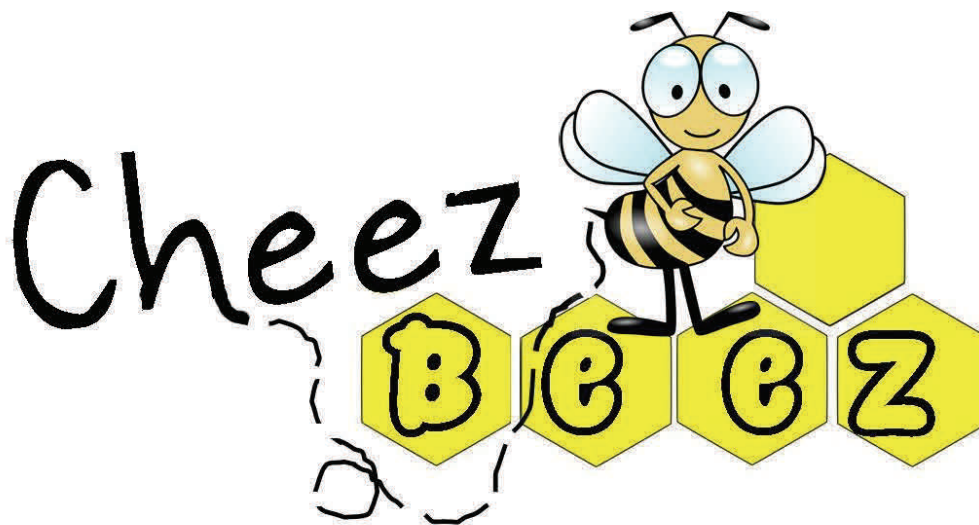
CheezBeez Product Proposal

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Development Contest

Prepared by: Walker County 4-H Foods Management Team



Put your mind at ease with CheezBeez, the dairy-free cheese cracker

Proposal Number: 1222-621621



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CheezBEEZ Introduction



Executive Summary

CheezBeez provides non-dairy, vegan cheese crackers without having to also go gluten-free for those customers with dairy intolerances. Within the last few years, there has been a significant increase in the demand for dairy free products. This is because more Americans are being formally diagnosed with food allergies. Over 50% of the population has a dairy intolerance and it is our goal to provide this market with a cheese flavored snack without the harmful consequences of real cheese made with dairy.

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CheezBEEZ Product Concept



Product Name and Description

Are you lactose intolerant, have IBS, or are you allergic to milk? If so, have you longed for the delightfully delicious taste of cheese but knew you really couldn't have it? Well, we have a solution for you, introducing **CheezBeez**! Our very own dairy free, vegan cheese cracker snack is perfect for those playful kids or busy adults who want a simple, scrumptious snack that doesn't contain the milk!

Why Dairy Free?

The CheezBeez management team got the idea for this product when we were talking with our fellow 4-H'er that was diagnosed with IBS, or Irritable Bowel Syndrome. She is unable to eat dairy products because it triggers her IBS causing it to flare and she gets very sick. It isn't just the lactose in milk, but also the high fat content and the proteins like whey and casein that cause dairy to not be friendly to her. We thought about all the yummy foods she cannot have and came up with our product. Including our friend, over 50% of the population has food sensitivity to dairy products. Our dairy free cheese cracker will let them all experience cheese tasting crackers without the harmful milk.

Research Analysis

After searching our local grocery stores, we found no dairy free cheese crackers and very few dairy free snack products on the shelves.

Our coach traveled an hour away to our nearest health food grocery store and took a photo of the cracker shelves for us. Only one dairy free cheese cracker was on the shelf. That one box was only dairy free because it was advertised as a vegan snack which contained no gluten and no dairy. The crackers came in a six ounce box and were square shaped crackers.

After researching the Internet for other available dairy free cheese crackers, we found that most dairy free crackers were plain, grain, herb or wheat in flavor. Although there is a variety of gluten free cheese crackers, there is only one that is dairy free. That one was the same brand of vegan cheese crackers that was found in the health food grocery store online. Again, this brand is vegan which does not contain gluten, or dairy.

We have looked on the market for similar products and although we found one, we wanted our product to taste better and have a fun kid-friendly look. Our product is dairy free but contains gluten. To make our product more appealing than the other



CheezBEEZ Product Concept



brand's orange square shape, we would make our product in a fun bee shape and be more yellow in color.

During our Internet research, we also found that many moms were discussing the want for a dairy free snack to send to daycares and schools with their children. The moms complained of many dairy free cheese cracker products no longer being available and having to make homemade alternatives that were inconvenient to make for busy moms. This began our search for a recipe for a dairy free cheese cracker.

Product Recipe Formulation

The original recipe we used for inspiration was a gluten-free vegan cheese it. We took this recipe and added the gluten back into the product to make it dairy free only. We substituted the special flour-blend for all-purpose flour and the xanthan gum for cornstarch. After experimenting with making the recipe with different toppings and colorings, we decided on the following recipe.





CheezBEEZ Recipe



Ingredients:

1 cup vegan "cheese" cheddar flavored (use block and finely shred)
¾ cup all-purpose flour
3 tablespoons non-dairy butter, softened
1 tablespoon ice water
½ teaspoon cornstarch
½ teaspoon sea salt
Olive Oil

Instructions:

Preheat the oven to 375 degrees.

Hand grate block vegan cheese finely.

In a mixing bowl, beat butter and cheese together until blended with hand mixer. You may have to smash the cheese with a fork to be sure everything is incorporated.

In a separate bowl, combine flour, cornstarch and sea salt in a separate bowl until fully mixed together.

Add half of the flour mixture into the butter/cheese until blended. Then add the remaining half and mix well. Add ice water and stir, making sure everything on the sides have been incorporated.

Place ball of dough on a piece of parchment paper and lightly knead until a smooth ball is made. Divide dough in half and place half into a bowl and put in the fridge.

Roll out the other half with a rolling pin between two pieces of parchment paper. Then roll the dough to approximately 3mm-4mm thickness in a pasta maker/roller. (or roll to 1/8" by hand)

With bee cutter (approximately 1" width), pattern out the bee shapes. Make a little hole in the center of each cracker with a toothpick.

Brush a very light coat of olive oil and lightly sprinkle the tops with a little dash of sea salt.

Transfer the parchment paper to a baking sheet and place in the freezer for 10 minutes while you repeat the same process (steps 6-9) for the other half.

Bake for 12 minutes or until lightly browned. Allow to cool completely on the baking sheet.

Store in an air-tight container. Will be fresh for a couple of days.

Yields about 70-90 crackers.





CheezBEEZ Product Concept



Ingredient Function

Vegan Cheddar Cheese

- Adds flavor, color
- Consolidates protein from various plant sources with lactic bacteria for acidity
- Non-dairy and plant-based
- Emulsifiers like tapioca starch and oils such as coconut and safflower for thickeners

All-purpose flour

- Provides structure to hold ingredients together (proteins interact with water and heat to form gluten)

Non-dairy butter

- Adds substance, flavor and crispy texture
- Non-dairy
- Uses a blend of fats, water, starches and gums to mimic real butter
- Has same amount of fat as dairy butter (78% fat)

Water

- Allows the flour protein to form gluten
- Creates soft consistency in dough
- Allows for a more pronounced flavor in end product
- Ice water creates a colder dough temperature

Cornstarch

- Used as a thickener and binder
- Adds structure
- Heat will cause the starch to bind with the water and as it absorbs the liquid it will expand in size.

Sea Salt

- Enhances the flavor
- Strengthens gluten strands for a strong structure
- Helps in browning

Olive Oil

- To hold the dusting of sea salt on top of crackers for flavor
- Adds flavor



CheezBEEZ Product Concept



Nutrition Facts

With the assistance of the UGA Extension Food Science Department, we were able to obtain the nutritional facts of our CheezBeez brand of dairy free cheese crackers. We were surprised that our calcium was at 6% when compared to regular name brand at 0% and the vegan competitor at 4%. A more in depth look at the nutrients per serving can be found in Appendix A.



Nutrition Facts

Serving Size - 14 crackers (30g)
Servings Per Container - about 11

Amount Per Serving

Calories 120 **Calories from Fat** 70

% Daily Value*

Total Fat 8g **12%**

Saturated Fat 2.5g **13%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 270mg **11%**

Total Carbohydrate 11g **4%**

Dietary Fiber 1g **4%**

Sugars 0g

Protein 1g

Vitamin A 0% • Vitamin C 0%

Calcium 6% • Iron 2%

*Percent Daily Values are based on a 2,000 calorie diet.



CheezBEEZ Product Concept



Cost Analysis

Our cost to make is \$3.02 however we hope that with a larger production the cost would decrease. We believe that purchasing in bulk and purchasing ingredients at a wholesale price would bring the price down to around \$1.50-2.00 for the recipe.

INGREDIENTS	CURRENT RETAIL	CURRENT RETAIL	AMOUNT USED	COST PER CHEEZBEEZ
CHEESE	8 oz.	\$4.99	4 oz.	\$2.495
FLOUR	5 lbs. (2,270 grams)	\$1.72	90 grams	\$0.068
BUTTER	15 oz.	\$3.39	1.5 oz.	\$0.339
ICE WATER	-----	-----	-----	-----
CORNSTARCH	6.5 oz. (184 grams)	\$0.88	0.167 gram	\$0.000
SEA SALT	17.6 oz. (500 grams)	\$2.18	3 grams	\$0.013
OLIVE OIL	8.5 oz.	\$1.74	0.5 oz.	\$0.102
TOTAL COST				\$3.02

We recommend retailers to sell CheezBeez at the affordable price of \$3.00 for a 10 ounce box.

This price will be in line with similar cheese crackers on store shelves with the regular name brand selling for \$2.88 for a 12.4 ounce box and the vegan brand selling for \$3.99 for a 6 ounce box.



CheezBEEZ Marketing Plan



Target Audience

CheezBeez has a primary focus on school-age kids (ages 5-14) with a secondary focus on teens and adults.

According to our informal Internet research, many moms were looking for a fun alternative to current snacks on the market that are more health conscious. Families are an important target market for dairy free products as well as adults that are looking to have a snack without dairy.

CheezBeez has determined its target audience consists of two groups:

The Medical Reason Group

According to Institute of Food Technologists in 2012, an estimated 70-75% of the world's population may be lactose intolerant. There are other dairy sensitive disorders like IBS that are also important as our target audience of those that need dairy free snacks due to medical reasons.

The Healthy Diet Group

New diet fads include taking wheat and/or dairy out of the food people decide to eat in order to "live more healthy." There are other people that may also wish to include a non-dairy diet to lower fat content due to dairy having a high fat content.





CheezBEEZ Marketing Plan



SWOT Analysis

	Helpful to achieving the objective	Harmful to achieving the objective
Internal origin (attributes of the organization)	<u>Strengths</u> • Our product is better for you because it is baked and not fried • CheezBeez has a homemade, light cheesy taste that adds to its uniqueness • Convenient as dairy-free persons do not have to bake their own snack	<u>Weaknesses</u> • Because it isn't a gluten free product, we will miss targeting a larger audience • Manufacturing on a large scale is not capable at this time, leading to larger cost without wholesale bulk prices
External origin (attributes of the environment)	<u>Opportunities</u> • CheezBeez is the only dairy free cheese cracker that will contain gluten • Lower cost than nearest vegan competitor • An <u>Advertising Age</u> article stated the cracker industry is \$3.5 billion with the cheese cracker segment being fertile ground for growth	<u>Threats</u> • Popular, already established cheese crackers (that are not dairy-free) have unprecedented advertising and promotional efforts • We are not a known brand at this point • Breaking into the mass retailer market will be more difficult than the health food market



CheezBEEZ Marketing Plan



Taste Test Panel

CheezBeez management team conducted a taste test with three variations of the product (plain, olive oil topping and honey topping). We chose to try out a honey flavor to go along with the “bee theme” of the cracker. The product was prepared and sampled by a taste test panel consisting of 58 people:

- 32 females, 26 males
- 35 kids, 23 adults

The group unanimously agreed the original recipe contained too much salt, so the final recipe adjust the amount of salt based on these results.

- 85% of participants said they liked the Olive Oil topping cracker
- 7% of participants said they liked the Plain cracker
- 64% of participants said they liked the Honey topping cracker



Based on these results, we chose to go with the original Olive Oil topping recipe to reflect this preference. However, we would not forget about the possibility of adding a honey flavor to our line once our brand was established.

One participant even said that the cracker tasted like a popular cheese-flavored, puffed cornmeal snack which went along with our desire to make a cheese tasting product for those going “dairy-free.”

Everyone agreed that they liked the taste of CheezBeez and would purchase if they were made available.





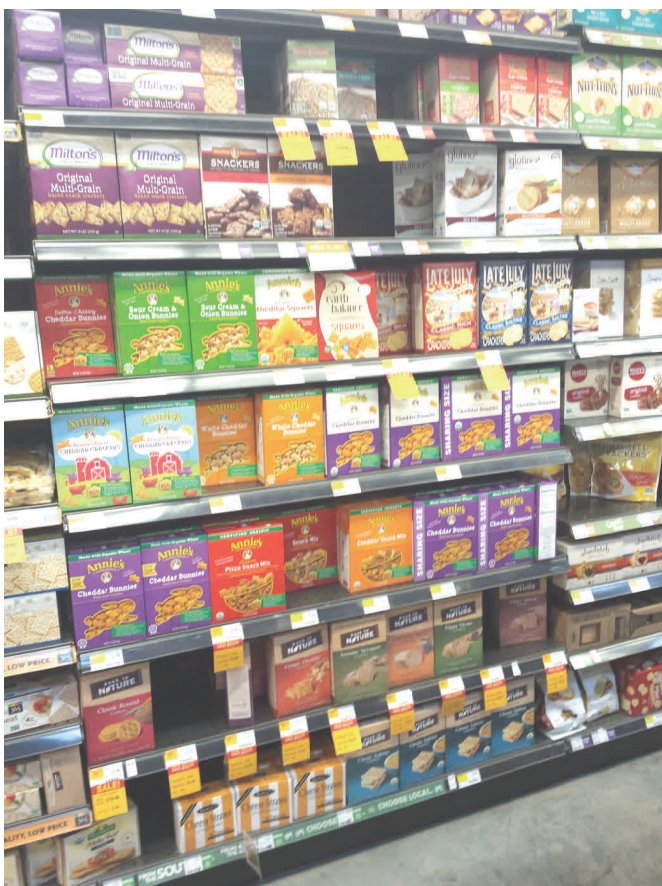
CheezBEEZ Marketing Plan



Marketing Strategy/ Origination

CheezBeez is a dairy-free boxed snack food for families that need an already packaged snack without the hassle of making it at home. We would aim to put our product along with the other snack crackers on a chest-level shelf that parents would be able to notice as well as kids that recognize our fun bee mascot.

We would begin selling at smaller, local health food stores to gain an audience and then rely on social media for more regional/national recognition among those looking for a dairy-free alternative.



Our main goal is for CheezBeez to be sold at mass retail stores such as Walmart and mass retail grocery stores such as Publix.

Overall, we plan to reach our target market by:

- Sample booths at health food stores
- Flyers with attached coupon at the offices of pediatricians, dietitians and gastroenterologists
- Facebook page
- YouTube advertisements
- Television commercials on kid stations like Disney
- Radio commercials including advertisements on Pandora radio stations geared toward tweens
- 1/4 -1/2 page ads in magazines such as One Green Planet, Bottom Line Health and Today's Dietitian

We will also have to contact a food manufacturer to produce our product in mass, package and ship out from there. We would like to consider McKee Foods which is a local manufacturer an hour away which would also help to create more local jobs for local families.



CheezBEEZ Marketing Plan



Advertising

Slogan – “Put your mind at ease with CheezBeez”

We hope that this slogan will remind those with dairy intolerances that they can put their mind at ease that this product will not create unwanted side effects as products with dairy would.

Logo and Mascot – “Hon E. Debee”



Advertising Jingle –

“Oh what a relief it is, to put your mind at ease

No pesky lactose or sugar please

All we want is Cheez Beez!”



CheezBEEZ Marketing Plan



Advertising

Television Commercial

Set: Kitchen of Home **Characters:** Mom and Son, Narrator voices over scene

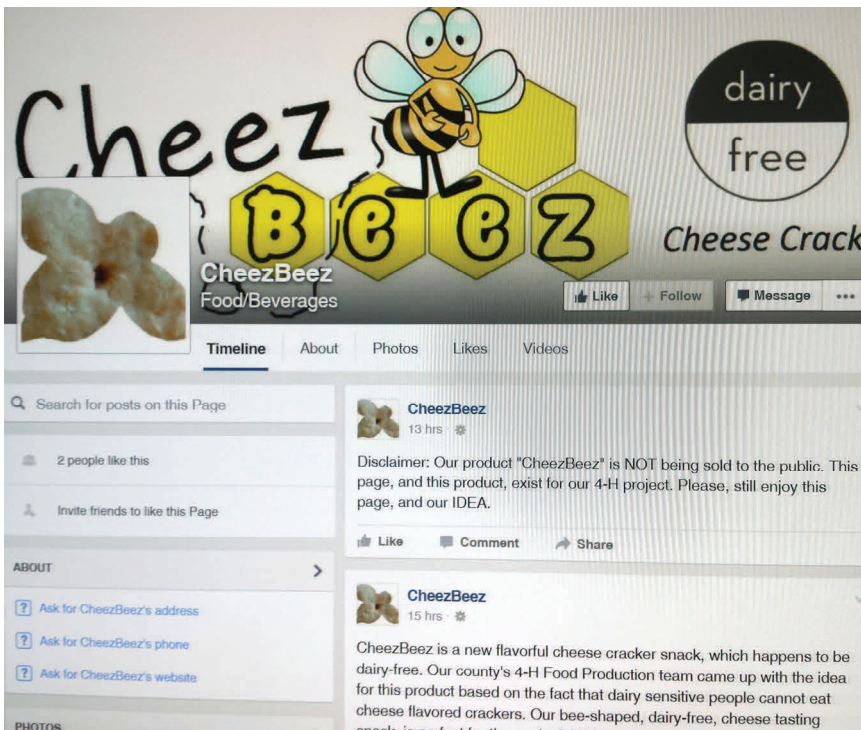
Scene:

"Little Timmy just got home from school (son runs in) He sees mom and wants a snack"
(Mom is in pantry and pulls out carrot and give to Timmy)

(Timmy looks sad and takes carrot)

Narrator: as the above is happening says: "Oh no, if only there was a dairy-free snack little Timmy's tummy could handle..." (mom pulls out a box of CheezBeez) "Oh look! Mom found a dairy-free cheese cracker for little Timmy!" (as Timmy is eating CheezBeez and camera pans to a mom looking like superman) "You go mom!"

Social Media—Facebook page



Social Media—Twitter page



www.facebook.com/CheezBeez-1036046863107986/



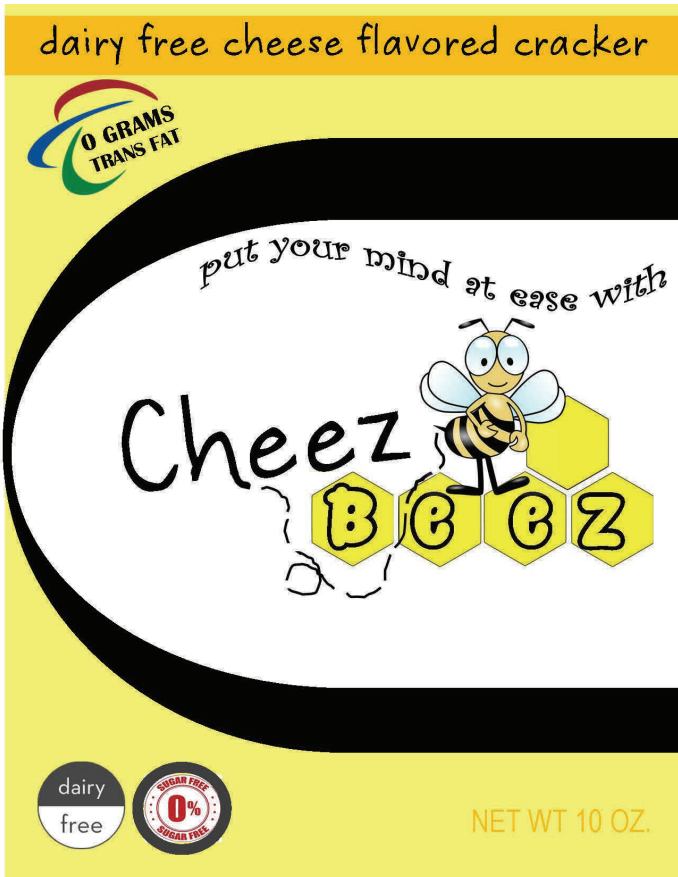
CheezBEEZ Marketing Plan



Package Design

To make our product eye-catching, it is conveniently packaged in a yellow box to sit on store shelves. Our product, given it is shaped like a bee, will also contain our logo containing a bee and bee colors of yellow and black.

We also plan to have a standard 10 ounce size box of CheezBeez as well as a smaller 2 ounce box for on the go that can be found in gas stations or near the checkout.



The standard 10 ounce package dimensions are approximately 2.5" (D) x 6" (W) x 9" (H).

The smaller 2 ounce package dimensions are approximately 2" (D) x 5" (W) x 2" (H).

See Appendix B for full layouts.

The crackers will be packaged in a high-density polyethylene plastic bag that will be inside the cardboard box so that the crackers are not crushed in shipping, remain airtight as to not have a stale product. This HDPE plastic is commonly recycled material. The cardboard box should also be made of recycled material.





CheezBEEZ Storage & Shelf Life



Storage and Shelf Life

CheezBeez dairy-free cheese crackers will be packaged in a high-density polyethylene (HDPE) plastic bag that will be inside the cardboard box. This is so the crackers are not crushed in shipping, remain airtight as to prevent the product from becoming stale. This will also prevent the food from being contaminated with dirt, dust and debris.

Due to the way our product is produced and packaged, we plan on it having a shelf-life of approximately 3 months from packaged date without becoming stale. If sales begin to increase, we do hope to work out more details on the use of safe preservatives in the future so we can have a longer shelf-life of closer to 12 months for mass production nationwide.

For product placement, we would aim to put our product along with the other snack crackers on an chest-level shelf that parents would be able to notice as well as kids that recognize our fun bee mascot.

We plan for our product to be able to withstand a range of temperatures, but CheezBeez should be kept at room temperature as most households will most likely store it in a pantry.





CheezBEEZ Safety



Safety

Safety concerns will be dealt with carefully through good manufacturing practices (GMPS) and sanitation standard operating procedures (SSOPS). We will strictly enforce a hazardous analysis and critical control point (HACCP) plan during production. After production, we will make sure that the product is safe through packaging and proper storage.

We plan to follow the FDA guidelines as outlined at:

<http://www.fda.gov/food/guidanceregulation/default.htm>

Employees must thoroughly wash hands before working and after using the restroom. All employees will wear proper clean garments including gloves, foot covers, hairnets, etc. All employees will refrain from wearing jewelry as they can be a source of bacteria and other foreign debris. All employees will also refrain from eating, chewing gum, etc. in the manufacturing area.

Our employees must take training courses on the importance of all FDA guidelines and on the importance of preventing cross-contamination.



We will ensure that all food products are cooked thoroughly and are packaged after cooling process in order to maintain freshness of product as well as to prevent any food safety concerns. Again, the crackers will be packaged in a high-density polyethylene plastic bag that will be inside the cardboard box so that the crackers remain airtight.



CheezBEEZ Conclusion



Concluding Remarks

In conclusion, we found that deciding on a new food product was one of the most challenging parts to this process. Figuring out what type of product that would be unique and something people would want to buy was difficult. This process was rewarding as we are able to give our fellow 4-H'er and friend another snack food that she can eat that is dairy-free. It was great to learn about how to write a business and marketing plan and how much work a Food Developer has to do. We have had a lot of laughs and fun times coming up with our product and our advertising mascot and figuring out who was good at which parts. We appreciate the opportunity to participate in this 4-H Food Product Development contest.



CheezBEEZ Appendix A



CheezBeez Nutrients

Nutrients	Per Serving	Per 100g	Nutrients	Per Serving	Per 100g
Basic Components			Vitamin B12 (mcg)	0	0
Gram Weight (g)	30.00	100.00	Biotin (mcg)	0.10	0.34
Calories (kcal)	120.62	402.08	Vitamin C (mg)	0	0
Calories from Fat (kcal)	68.31	227.69	Vitamin D - IU (IU)	0	0
Calories from SatFat (kcal)	21.13	70.43	Vitamin D - mcg (mcg)	0	0
Protein (g)	1.46	4.86	Vitamin E - Alpha-Toco (mg)	0.21	0.71
Carbohydrates (g)	10.84	36.14	Folate (mcg)	18.29	60.97
Dietary Fiber (g)	0.70	2.33	Folate, DFE (mcg)	29.08	96.95
Soluble Fiber (g)	0.10	0.34	Vitamin K (mcg)	0.90	2.99
Total Sugars (g)	0.03	0.09	Pantothenic Acid (mg)	0.04	0.15
Monosaccharides (g)	0	0	Minerals		
Disaccharides (g)	0	0	Calcium (mg)	65.63	218.76
Other Carbs (g)	10.12	33.73	Chromium (mcg)	—	—
Fat (g)	7.62	25.38	Copper (mg)	0.01	0.05
Saturated Fat (g)	2.35	7.83	Fluoride (mg)	0.00	0.00
Mono Fat (g)	2.50	8.33	Iodine (mcg)	—	—
Poly Fat (g)	0.99	3.31	Iron (mg)	0.47	1.58
Trans Fatty Acid (g)	0	0	Magnesium (mg)	2.68	8.94
Cholesterol (mg)	0	0	Manganese (mg)	0.07	0.23
Water (g)	2.79	9.28	Molybdenum (mcg)	—	—
Vitamins			Phosphorus (mg)	10.81	36.04
Vitamin A - IU (IU)	0	0	Potassium (mg)	10.73	35.76
Vitamin A - RE (RE)	0	0	Selenium (mcg)	3.39	11.31
Vitamin A - RAE (RAE)	0	0	Sodium (mg)	271.06	903.52
Carotenoid RE (RE)	0	0	Zinc (mg)	0.07	0.23
Retinol RE (RE)	0	0	Poly Fats		
Beta-Carotene (mcg)	0	0	Omega 3 Fatty Acid (g)	0.01	0.04
Vitamin B1 (mg)	0.08	0.26	Omega 6 Fatty Acid (g)	0.18	0.60
Vitamin B2 (mg)	0.05	0.16	Other Nutrients		
Vitamin B3 (mg)	0.59	1.97	Alcohol (g)	0	0
Vitamin B3 - Niacin Equiv (mg)	0.80	2.67	Caffeine (mg)	0	0
Vitamin B6 (mg)	0.00	0.01	Choline (mg)	1.04	3.48

**Thanks to the UGA Extension Food Science Department for this information*



CheezBEEZ Appendix B



CheezBeez Package Designs

dairy free cheese flavored cracker

 0 GRAMS TRANS FAT

put your mind at ease with



 dairy free

 SUGAR FREE 0% SUGAR FREE

NET WT 10 OZ.

Nutrition Facts

Serving Size - 14 crackers (30g)
Servings Per Container - about 11

Amount Per Serving	
Calories 120	Calories from Fat 70
% Daily Value*	
Total Fat 8g	12%
Saturated Fat 2.5g	13%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 270mg	11%
Total Carbohydrate 11g	4%
Dietary Fiber 1g	4%
Sugars 0g	
Protein 1g	
Vitamin A 0%	Vitamin C 0%
Calcium 6%	Iron 2%

*Percent Daily Values are based on a 2,000 calorie diet.

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CheezBEEZ Appendix B



CheezBeez Package Designs

dairy
free
cheese
flavored
cracker

dairy
free

put your mind at ease with

**0 GRAMS
TRANS FAT**

**SUGAR FREE
0%
SUGAR FREE**

CheezBEEZ

NET WT 2 OZ. (80G)

Nutrition Facts

Serving Size - 14 crackers (30g)
Servings Per Container - about 11

Amount Per Serving		Calories from Fat 70
		% Daily Value*
Total Fat 8g		12%
Saturated Fat 2.5g		13%
Trans Fat 0g		
Cholesterol 0mg		0%
Sodium 270mg		11%
Total Carbohydrate 11g		4%
Dietary Fiber 1g		4%
Sugars 0g		
Protein 1g		
Vitamin A 0% • Vitamin C 0%		
Calcium 6% • Iron 2%		

*Percent Daily Values are based on a 2,000 calorie diet.

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