

A Business Plan for the Production of Artisanal Cheese

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## ABSTRACT

The objective of this study was to determine how an artisan cheese producer could be successful in California's current economy. The significance of location, product type, and pro forma financials were examined in order to construct a complete business plan. A business plan was created using an outline of financial proposals, desired terms, use of funds and equity contributions. A company description was originated with a brief history, description of products, description of customers, business location, key strengths, mission statement, goals and objectives. Lastly, an analysis of the industry was made, focusing on main characteristics, the size of the market, competition, barriers to entry, and opportunities.

The results of this study showed that Santa Barbara County in California was a feasible location for an artisan cheese business, and the highest form of revenue would come from a locally made and aged artisan organic gouda, made from pasteurized cow's milk. Advertising for this specific product would be best through social media and by sampling it to the public.

It was determined that building an artisanal cheese producing business required \$63,000, which is including start-up costs and a summary of one year worth of expenses. Minimal debt could be accrued through strategic funding, and a low cost price paired with a premium market price. Furthermore, if the market price for the cheese was priced at \$11.99 per pound, the business could start making a profit after one year. With the minimal production of 2,400 pounds of cheese per year, the results indicated that an artisanal gouda cheese producer could survive in the current economy.

**Key Words:** artisan, cheesemaking, gouda cheese, business plan.

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## INTRODUCTION

Artisanal cheeses are produced by the hand of a skilled craftsman, and are often aged or ripened to create complex flavor and textural characteristics. They differ greatly from the mild flavored cheeses that get mass-produced in large-scale operations. A great advantage to artisanal cheese is that between varying climates, varieties of animal feeds, and possible combinations of animal milks, the same practices never occur (Scott et al., 1998).

The tradition of artisanal cheesemaking has become part of a larger cultural movement in the United States. This movement is an attempt to retain crucial cultural values, especially the ones that have been lost or damaged in the agricultural industry in the past century. Cheap food has caused farms to shut down, a surge in food-borne illness outbreaks, and a disturbing increase in cruelty to livestock (Paxson, 2013). Concern for preserving natural environments has fueled individuals and groups to start the “local food movement.” This notion is a collaborative effort to create more locally based, self-sufficient food economies. Producing, processing, distributing, and purchasing in your local area are ways to contribute to the success of your economy, and cut down on the carbon footprint. A carbon footprint is the amount of emissions being caused by an activity or organization. If an organization only sells and distributes locally, they are cutting down on fuel use and truck emissions that otherwise would have been created by transporting the goods.

The objective of this study was to determine how an artisan cheese producer could be successful in California’s current economy. The significance of location, product type, and pro forma financials were examined in order to construct a complete business plan.

## LITERATURE REVIEW

The artisanal cheese movement became widespread in the late 1970s, early 1980s. Before that there were few smaller operations, such as Maytag Dairy Farms in Iowa and Vella Cheese Company in California (Meier, 2013), because the majority of cheese came from corporations making processed cheeses in large factories. Aspiring cheesemakers went to France and Europe to learn the trades of other skilled cheesemakers. Around 1995, the amount of cheese shops in the United States started to increase due to the high demand for handmade cheese, even though the majority of cheeses sold were still being imported from Europe. American cheesemakers perfected their craft and were supplying to many restaurants that had interest in their ingredients and eventually to farmers' markets (Meier, 2013).

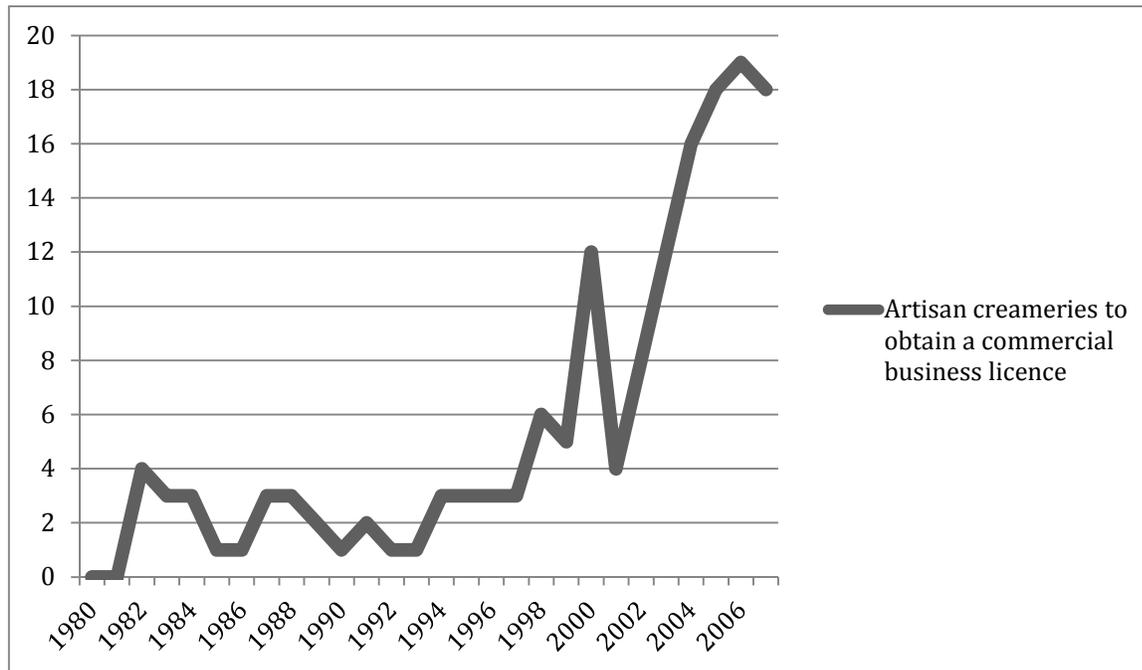


Figure 1. Years in which artisan creameries obtained a commercial business license 1980-2007 (redrawn from Paxson, 2013).

In order to encourage American-made cheese, the American Cheese Society was created

in 1983, and now has over 1,200 active cheese industry members. Currently there are hundreds of cheesemakers all over the United States, many of which were originally influenced and motivated by Europe and other countries (Meier, 2013).

Table 1. United States total cheese consumption vs. artisanal/specialty\* cheese consumption from 1994-2003

Types of Cheeses Being Consumed	1994	2003	Amount of Growth
Total Cheese Consumption (Million lbs)	7,000	8,800	1,800 (Up 26%)
Artisanal/Specialty Cheese Consumption (million lbs)	420 (6% of total)	815 (9% of total)	395 (Up 94%)
Total Cheese Consumption Per Capita (lbs)	26.6	30.6	4 (Up 15%)
Artisanal/Specialty Cheese Consumptions Per Capita (lbs)	1.6	2.8	1.2 (Up 75%)

(Reed et al., 2011)

\*For the purpose of this study: artisanal, hand crafted and specialty cheeses are high quality cheeses that require a price higher than commodity cheese because of the craftsmanship of ingredients, restricted production, and aging or ripening process.

### ***Marketing Analysis***

Consumer demand could be the most important market motivator for exploring new product development. The increase in specialty food markets can be accredited to a handful of

reasons, starting with consumers having conveyed their partiality to high quality foods, convenience and lower prices. Cheese is the fastest growing category of all dairy products (Sloan, 2004).

Because of the many ways to define a small specialty cheese producer, it is difficult to pinpoint the actual number of small cheesemakers in California, or in the market. The trend is still growing and California Artisan Cheese Guild (CACG), now with 63 members, was created in September 2005 to “support and encourage the Californian cheese making community” (Sloan, 2004). The National Association for the Specialty Food Trade’s (NASFT) most recent “State of the Specialty Food Industry” shows that during 2004 sales increased nearly 30% (Gloy and Stephenson, 2006). Resulting in 2005’s sales to reach \$905 million.

A high percentage of people in New York are interested in specialty cheeses. According to a study done at Cornell University (Gloy and Stephenson, 2006) (see Table 2), people surveyed responded very positively to being asked if they preferred having more locally produced specialty cheeses available to them. Consumer demand is difficult to perceive since the large retailers have a grasp on the market. However, positive responses to specialty cheese are a huge encouragement for a small-scale cheese producer. Wine-affiliated restaurants were also polled for their interest in the availability of specialty cheeses. The majority of responses came to be moderately interested.

Table 2. Specialty cheese interests

	Count	High Interest	Moderate Interest	Indifferent	Low Interest	No Interest
Receptivity to Local Specialty Cheeses Responses	45	57.8%	22.2%	13.3%	2.2%	4.4%
Winery-affiliated Restaurants	43	28.6	57.1	14.3	0	0

(Gloy and Stephenson, 2006)

A majority of small cheese producers start their businesses by selling to local farmer’s markets (Cooper, 2005) in order to build a customer base and public relationships. Farmer’s markets can also add extra time to an already busy lifestyle, and may also be a slow starting off point for making sales. Supplying directly to your consumer and retailers may provide a profit now but is not always a secure and guaranteed sale. That is where wholesalers can come in use, or even building a partnership with someone who has a trade that you do not possess or can contribute to other aspects of the business such as financing or property. In turn, a business partner also shares the profits and losses of the business (Cooper, 2005).

California became the leading milk producer in the United States in 1993 (Igourmet, 2013). The various climates, topography, and animals in California contributed to its success as a cheese state and allow for the diversity in cheese variety. Involved in every big cheese event, California’s main cheese producers such as Vella, Point Reyes, Cypress Grove, Bellwether Farms, and Fiscalini take home the awards. There are over 250 types of cheese made by the 50 cheese producers in California. This makes up nearly one fourth of the entire cheese production in the United States, requiring 47% of California’s milk supply just for production (Igourmet, 2013).

**Marketing.** One of the most efficient and cost-effective methods of advertising is using social media, such as Facebook, Twitter, Foursquare, and Google Ads. The going rate for advertising on Google is \$1 to \$2 per click. Using email services such as Constant Contact, Mad Mimi, or Campaigner, to send out newsletters regarding sales or special discounts can be effective in increasing sales, lowering marketing costs and advertising your small business. Constant Contact is an online marketing business that provides surveying, discount tools, and email marketing to over 500,000 customers, most of which are small businesses. Mad Mimi is another email service that makes it easier for over 32,000 businesses to create, send and track emails. Campaigner is an email marketing system that offers email marketing templates and tools. Spreading the word is easy through sampling treats or free goodies at fundraising events. Venissimo Cheese's get a lot of personal website traffic through Google AdWords (Schiff, 2011). Online food marketplaces such as Foodzie and Abe's Market are popular advertising spots for small businesses. Furthermore, Amazon.com has a large and quickly expanding Grocery and Gourmet Food section, giving a business access to national distribution and a very large market. "The foods that sell best [online] are ones that you can't get within driving distance of wherever you live, or they're something you can't make yourself," explained Venissimo Cheese's Frieze (Schiff, 2011).

Another successful tool for advertising your product is sampling and sales. Discounts encourage consumers to purchase new items or products they may have never considered buying before (see Table 3). Tasting and sampling products are the best ways to build a customer base. Customers get to see if they like the product before paying for it, and if it is a good product then handing out samples is all you need to do in order to make sales.

Table 3. Promotional activities at a retail level that could help improve sales

	Highly Liked	Moderately Liked	Infrequently Liked
Discount sales	0	2	2
Formal tastings	2	4	1
Informal, in-store tastings	7	1	1
Classes	0	0	3
In-store cheese maker visits	3	2	2
Other: Wine & Cheese Gatherings, Written flyers	2	0	0

(Reproduced from Gloy and Stephenson, 2006)

Between September 1984 and June 1987, advertising increased national cheese sales by 16 million pounds, and processed cheese by 98 million pounds (Blaylock and Blisard, 1988). A study done by Economic Research Service of the United States Department of Agriculture (USDA) showed that generic advertising did not influence homes that normally bought cheese to increase their purchases. However, the advertisements did influence homes that normally did not purchase cheese to purchase natural cheese (Blaylock and Blisard, 1988). Generic advertising increased the demand for natural cheese. Data collected by the USDA stated that per capita cheese consumption grew during the last twenty years (Blaylock and Blisard, 1988). The US government contributed approximately 2.5 pounds per capita in 1986, and even though these figures are accounted for in the total consumption, without the contributions the natural cheese still represents the largest portion of consumed cheese (Blaylock and Blisard, 1988).

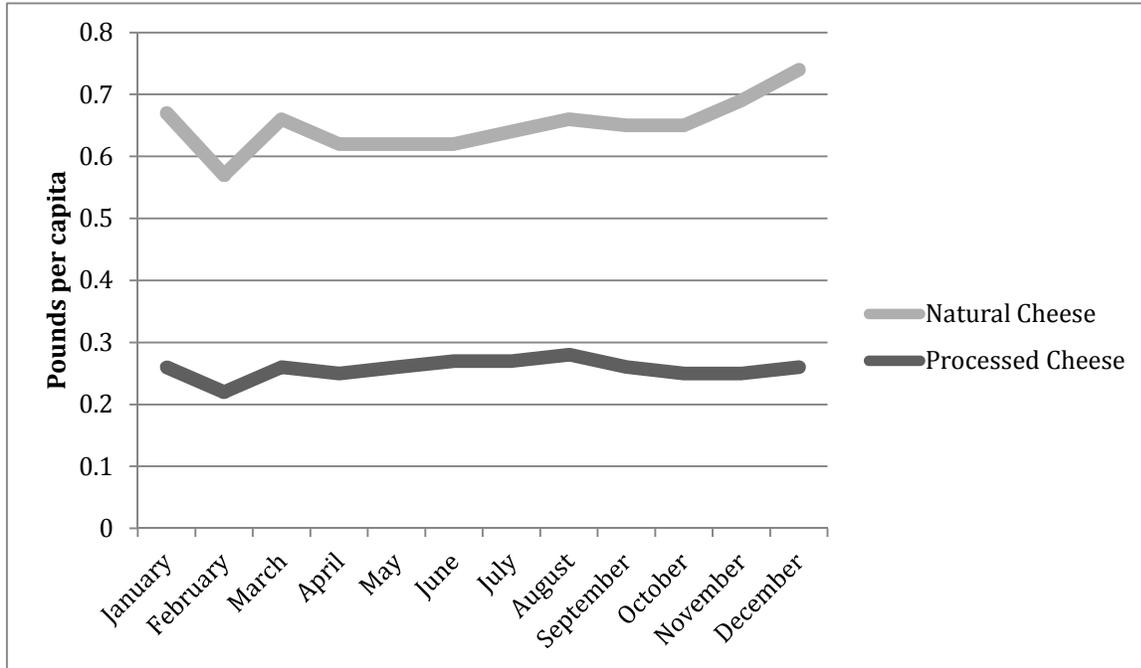


Figure 2. A bar graph of types of cheeses purchased monthly for consumption at home in 1986 (redrawn from Blaylock and Blisard, 1988).

The competition between artisan cheese producers in California is high. There are 50 cheese producers and a handful of them make some form of a gouda style cheese. There are varieties including organic, raw, pasteurized, cow’s milk, goat’s milk, smoked, and other styles with added flavors. Winchester Cheese Company makes a raw cow’s milk gouda. Central Coast Creamery makes gouda with goat’s milk. Oakdale Cheese and Specialty, Bravo Farms, and Joseph Farms all make a version of gouda style cheese. Not only is there competition in California for all varieties of gouda, but there is also competition against imported cheeses (see Table 4). Gouda was originated in the town of Gouda in the Netherlands, so there are a lot of gouda cheese makers in Europe that export their cheese to the US. Whether the cheese is imported or domestic, the price per pound of cheese averages about \$10-\$20 (Igourmet, 2013).

Table 4. Competitive Gouda Cheese Styles and Prices

Cheese Brand	Weight	Price
Beemster Classic Extra Aged Gouda	1 pound	\$13.99
Old Amsterdam Cheese	1 pound	\$18.00
Wisconsin Cheeseman Gouda	1 pound	\$16.66
HoneyBee Goat Gouda	1 pound	\$21.98
Dutch Gouda	1 pound	\$11.98
Smoked Gouda	1 pound	\$8.99
Roomkaas Double Cream Gouda	1 pound	\$13.98
Saxon Creamery Big Eds Farm-Style Gouda	1 pound	\$19.98

(Reproduced from Igourmet, 2013)

### ***Gouda Manufacturing Processes***

Gouda cheese production has been around since 1697 (Scott et al., 1998). The traditional recipe of gouda created and produced in the Netherlands, influenced the gouda cheese made in California. The older cheeses are aged 10 months to a couple of years, which creates a sweet sharp flavor that is distinctly intense, and a faint caramel color. The cheese also gets small tyrosine crystals, which add a slight crunch. The younger versions of gouda are aged around a couple of months, and have a softer creamy texture with a mild taste (Igourmet, 2013). Cheeses can form different types of rinds while aging. Younger cheeses, such as Brie, will grow a white mold from the penicillium, and aged dry cheeses can have a washed rind using a salt brine to clean the cheese when it starts to grow mold. Goudas are traditionally coated with a paraffin and microcrystalline wax, known as cheese wax. The wax preserves the cheese while aging, and prevents the cheese from drying out or growing mold. The colors of the wax rind depend on

tradition or preference of the cheesemaker. Red is traditional in the US, and yellow is more common in Holland. If the rind is black then it usually represents more aged gouda, and white wax is for goat milk gouda (Igourmet, 2013).

Gouda's production became increasingly popular in 2011-2012. The sales for 2011 were 11,612,000 pounds, and 34,007,000 pounds in 2012, which equates to a 192.9% increase in sales (Cheese Market News, 2012).

Artisanal gouda cheese is considered a natural cheese product. The process of natural cheese includes four key steps: coagulating, draining, salting, and aging or ripening. This can be compared to a less wholesome refined product known as processed cheese. Processed cheese is manufactured with extra steps that include cleaning, mixing, and melting.

Cheese is abundant in protein and calcium, and also contains phosphorus, vitamin B and fat-soluble vitamins. Vitamin B is proven to help defend the body from disease. Conjugated Linoleic Acid and Sphingolipids are also present in cheese and may aid in preventing cancer (Verma et al., 2013).

The basic ingredients of gouda cheese are pasteurized milk, salt, cheese cultures, rennet, and annatto food coloring is optional. Rennet, a liquid containing the rennin enzyme that curdles the milk in cheese making process, is most favorable at a concentration of 0.014%. When using a higher concentration of rennet, cheese becomes extremely bitter (Spangler et al., 1990). A study was completed using Ultra Filtered (UF) milk to make gouda cheese. The UF milk increased the moisture content, reduced hardness and decreased protein breakdown. The bitterness was increased with adding rennet and decreased with adding extra time to the coagulation process (Spangler et al., 1990).

Goat's milk does not have an advantage over cow's milk in regards to lower levels of saturated fat (Bruhn, 1996). The percent of unsaturated fatty acids in cow's milk is similar to the percentage in goat's milk. The standard sizes of fat globules, in goat's milk, however, are smaller than those in cow's milk (Bruhn, 1996). Fat globules are droplets of triglycerides, three fatty acids covalently bound to a glycerol, surrounded by a lipid bilayer membrane that help stabilize them in an emulsion of milk. Cow's milk has a higher concentration of Vitamin D, Panthotheine, Ascorbic Acid, thiamine, Folic Acid, Vitamin B12, and B6 than goat's milk (Bruhn, 1996). People are commonly deficient in Vitamin B12 (Sarah, 2011). Chromium is an essential trace mineral that helps the function of insulin and metabolizes glucose and found in cow's milk, but not in sheep or goat milk (Mertz, 1993). Furthermore, cow's milk is more readily available in most areas and is usually cheaper, especially in California with about 5 million cows and only 37,000 goats. For these reasons, Cow's milk is a better choice for a variety of cheesemaking.

The gouda cheese process requires a drying temperature of 50-61 degrees Fahrenheit, 80% relative humidity and a 6 to 7 day period for aging. The storage temperature is 50 degrees Fahrenheit, 80% relative humidity, and a range of 4 to 6 days of aging. Maturation occurs in a temperature 50 degree Fahrenheit, 80% relative humidity, and a 6 to 12 month range of aging (Reed et al., 2011).

A practical building must be acquired that meets all environmental health standards and codes of regulation. The equipment needed for producing gouda cheese is a large jacketed vat, bulk milk tank for storage, a cheese wheel press, large and small cheese-wheel molds, refrigerator thermostat, and an aging refrigerator. The more disposable utensils and ingredients are pasteurized whole milk, animal rennet, mesophilic direct set starter culture, food grade wax, and cheese salt for brining solution.

There is a vast difference between the processing of hard and soft cheeses. They require distinct recipes, handling, and even packaging. Mold ripened or blue cheeses require breathable packing, so they are loosely wrapped in paper, or else they build a slimy film. Hard cheeses, like gouda, are wrapped in airtight vacuum-sealed packaging to extend shelf life. Soft cheeses, such as Brie need to be in a water resistant package because they have high moisture content (Cooper, 2005). Not only is packaging important to the life and quality of the cheese, but it has to make your product look good. An independent marketing consultant John Taylerson says, "You have got to differentiate your product. It has got to look the part if you are aiming for a premium market, but that does not necessarily mean the packaging has to cost the earth" (Cooper, 2005).

By-product must also be thought about and handled. For every 1,000 liters of milk that is processed into a cheese product, there is on average 860 liters of whey that is released from the curd (Cooper, 2005). This whey can be disposed of by feeding it to hogs, drained into a slurry structure, or removed from the farm with a charge.

Distribution of the final product from the cheese plant to the online or distant consumers can be delivered by packaging the cheese in dry ice and shipping through FedEx or any package shipping company. Sales and direct pick up from consumers can be made from the cheese producing plant. Product transportation for short distances to local farmers markets, restaurants, and grocery stores can be made with a refrigerated truck or van.

### ***Pro Forma Financials***

A cheesemaking facility can be purchased already equipped, and you can avoid the initial start-up costs of building a cheese plant and purchasing all the equipment, but that is hard to find.

Purchasing used equipment is a smart way to save money, however, since the cheesemaking industry is growing, used equipment is hard to come by. Holland is a common place to purchase second-hand cheese equipment. A Pasteurizer can be an expensive machine to purchase, ranging from \$1,000 for a small used one to \$20,000 for a new one (Cooper 2005). This cost can be avoided by purchasing already pasteurized milk. Start-up costs vary immensely, depending on many variables, and can range from \$25,000 to \$250,000 (Cooper, 2005).

***Financing.*** There are multiple ways to obtain financial support. Researching local development agencies and seeking advice from consultants are good ways to start (Cooper, 2005). When obtaining a small-scale farm loan, you can increase your chances of success by budgeting your cash flow, knowing your collateral value, having a plan in writing, preparing financial statements in advance, and make informed decisions using your records. Lending services from commercial banks are available to small business in the form of short-term operating loans, intermediate-term loans, and long-term loans (Agricultural Alternatives, 2005). According to Ethan Pendleton, there are 5 major steps to obtain grant money in order to start a farm. First you must decide what type of farm you would like and how it is going to function. Second, create a business plan, and then search for available grants through the USDA National Institute of Food and Agriculture. Fourth, fill out a grant application, and lastly, submit the request and be ready to submit other grant requests (Pendleton, 2013).

Many scholarships are available through different groups, such as the National FFA Organization, [scholarshipsforwomen.net](http://scholarshipsforwomen.net), and California Farm Bureau Federation. Agricultural funding resources are found at the USDA Rural Information Center, such as National Sustainable Agriculture (NSA), Farm Service Agency (FSA), and Sustainable Agriculture Research and Education (SARE). NSA offers a wide variety of financial support, including USDA microloans,

investment funding, grant programs for up to \$15,000, and sustainable development scholarships. FSA loans money directly to family-size farms who cannot obtain credit to help operate or obtain ownership of the farm. Additionally, FSA assists beginning farmers in getting financed (Grants and Loans for Farmers, 2013). SARE offers grants for farms doing research or educational programs about renewable energy, marketing, sustainable communities, and nutrient management. Some funding is only available to specific groups, such as farmers, women, or beginning business owners. These funds can add up to millions of dollars and are available to anyone that meets the requirements (Table 5).

Table 5. Available Funding for Women Farmers Starting an Agricultural Business

Organization and Title of Award	Type Of Funding	Amount Available
National FFA Organization	Scholarship	\$2,000
Friends of the California State Fair	Scholarship	\$1,500
Alpha Gamma Rho Dairy Scholarship	Scholarship	\$500
Monterey County Farm Bureau	Scholarship	\$750
National Holstein Women's Association	Scholarship	\$1,100
Daughters of American Agriculture	Scholarship	\$500
National Corn Growers Association, BASF	Scholarship	\$1,000
Farmers Market Promotion Program	Grant	\$5,000
Organic Farming Research Foundation	Grant	\$15,000
Beginning Farmers and Ranchers Development Program (BFRDP)	Grant	N/A
USDA's Environmental Quality Incentives Program	Grant	\$20,000
National Sustainable Agriculture (NSA)	Grant	\$15,000
Kinderhook State Bank Loans for Beginning Farmers	Loan	\$52,000
USDA's Farm Service Agency (FSA)	Loan	\$19,000
Farm Service Agency Minority and Women Farmers and Ranchers	Loan	\$25,000

**Regulations.** Santa Barbara county regulations permit food product manufacturing in the commercial manufacturing zone, given there are no “obnoxious or offensive by reason of emission of odor, dust, gas, fumes, smoke, liquids, wastes, noise, vibrations, disturbances or other causes which may impose hazard to life or property.” This code is stated in the Uses Permitted section 28.69.030, as #15 Food Product Manufacturing (Zoning Ordinance, 2012).

In order for a small business in Santa Barbara to sell food products, a health permit must be obtained by receiving a health inspection, and a business license application must be completed. The information required by the business license application is ownership type,

specification of a home or commercial business, name and contact information, name of business, date your business opened, mailing address, description of business activities, gross sales receipts, federal and state tax ID. The California Department of Food and Agriculture (CDFA) also has a required inspection service and will provide an inspector to visit your business to ensure proper food handling, safe practices, and quality packaging and labeling.

## MATERIALS AND METHODS

### *Business Model*

I started by asked myself the 7 questions to build a business model: How do I plan to engage the market? How do I plan on making money? Am I selling product directly or through channels? Do I plan to provide services or manufacture a product? How do I fit in? Am I disruptive? And am I creating a new way of doing business? (Abrams, 2010).

My business plan (see Appendix 1) outline consisted of: a financial proposal and my desired terms, use of funds, collateral, and my equity or cash contribution (Reed et al., 2011). A company description is included with a brief history, description of products and services, description of my customers, business location and facilities, key strengths, mission statement, owners and legal structure, planned changes, goals and objectives. I analyzed the industry focusing on main characteristics, the size of the market, the share of the market, my competition, any barriers to entry, the strengths, weaknesses, opportunities, and existing threats. Next I laid out a list of my products and services, possible distribution channels, competitive advantages, and pricing structures. I also analyzed the current market demographics; my product description, the location and characteristics of my customers; size, location, and reputation of my competition; requirements and accessibility of my location; my market strategy regarding promotions, prices, and product placement; and market projections. I then set an operational plan with methods of production, delivery, quality control, inventory control, credit policy, personnel, regulations and legal arrangements, exit strategy, equipment, technology, and inventory. Lastly, financial plans

and projections regarding history, plans, projections of production, sales, profit and loss, cash flow, projected balance sheets, and all supporting documents were included (Reed et al., 2011).

### ***Market Analysis***

First, I identified my customers. My ideal customers' ages, gender, education, income, food preferences, hobbies and interests were recognized (Reed et al., 2011). Then I studied my competition in Santa Barbara and near by regions. I determined if I was the only local food producer in the area, and if not, at least if my product had something special to offer. Along with competitors, I also viewed my collaborators, such as vineyards, restaurants, and other gourmet or specialty markets (Reed et al., 2011).

I visited local grocery stores, cheese shops, restaurants, farmer's markets, and specialty foods sold online to analyze the existing market. I specified all cheese varieties, average sales, weights, packaging style, and retail prices. I then establish where my product falls into the existing market.

Knowing what products already exist, I had to determine what my product's niche was. I created my mission statement, including my personal philosophy, purpose and business values (Reed et al., 2011). Then I created a company name that fit my business's goals, personality and product image.

Once I had value proposition in place, I knew that my product offered something different than my competitors. So then I chose how to distribute. I started looking at the ways to market my product: handing out brochures and newsletters, sending emails, looking for any media coverage, creating a website, and the social media such as Facebook and Twitter (Caldwell 2010).

### ***Pro Forma Financial Statements***

The financial section of my business plan consisted of two main parts: a complete list of start-up capital needed, and a budget plan for one year. Different types of funding were explored in the forms of grants and loans. Spreadsheets of projected revenues and expected expenses were drawn up.

### ***Logistics***

The location was decided and a building suitable for food production was selected. Zoning codes, along with permits required for small business production and food sales were determined. An inspector was contacted to schedule an inspection of the production plant. The prices and location of items for one-time purchasing, such as cheese making equipment and delivery trucks were specified. Monthly or reoccurring expenses such as waste, water, and rent were researched for Santa Barbara County. The packaging techniques were established and labeling designs were generated to be original and eye catching.

## RESULTS AND DISCUSSION

Market analysis revealed that artisanal gouda is one of the higher priced cheeses on the market today. Prices range from \$8.99 to \$21.98 per pound (Table 4). The market allows for an even higher sale price if the product is locally made (Table 2), organic, or made in small batches, which is how an artisan cheesemaker would do it. Results indicate that pasteurized cow's milk was better accepted in the marketplace than raw goat or sheep's milk. With this information, I can conclude that the highest form of revenue will come from a locally made and aged artisan organic gouda, made from pasteurized cow's milk. Advertising for such a product is inexpensive through social media, and a webpage can be made for \$300 and maintained for less than \$30 a month. In a study by Gloy and Stephenson (2006), the best promotional technique was shown to be sampling cheeses at farmer's markets or in grocery stores (Table 3). In conclusion, my cheese will be best sold by advertising it on Facebook, Twitter, a business webpage, and by sampling it to the public.

Building an artisanal cheese producing business requires \$63,000. Of that cost, \$38,000 is for the initial start-up and includes purchasing of the equipment. The other \$25,000 is a summary of one year worth of expenses, including rent, utilities, ingredients and supplies (Appendix 1).

The production of 2,400 pounds of cheese in a one-year period requires roughly 2,400 pounds of milk, which costs \$3,984 according to California Department of Food and Agriculture (CDFA) pricing milk for cheese at \$1.66 per pound. Liquid rennet for \$86, starter culture for \$1,428, and cheese salt for \$288 is also needed. The necessary equipment for 2,400 pounds of cheese production is one cheese vat for \$10,575, one bulk tank for \$2,000, a cheese press for \$11,000, 10 small and 10 large cheese molds for \$440. In addition, a refrigerator thermostat for \$75, refrigerator for \$2,547, and a thermometer, cheese cutter and cheese cloth are obligatory,

adding up to \$378. The essential packaging materials for 2,400 pounds of cheese were clear cheese wrap for \$36, tape for \$40, and product labels for \$180. The mandatory utilities to run a cheesemaking facility for one year was around 240 hundred cubic feet (hcf) of water for \$1,260, 85 hcf of sewage cleanup for \$240, 16,900 kilowatt hours of electricity for \$2,546, and the rent of a commercial building for \$14,400 (Appendix 1).

Funding for a woman farmer who was starting an agricultural business was obtainable in the form of loans, grants, and scholarships. Loans available to a perfect credit history and minimal available capital equate to \$96,000. There was \$55,000 available in grants funded by the USDA's Environmental Quality Incentives Program, Farmers Market Promotion Program, Organic Farming Research Foundation, BFRDP, and NSA (Table 5). Available scholarships were offering \$7,350 all together and that added up to a total of \$2,258,350 in available funds (Table 5). I found that the total amount of funds procurable is well over the amount needed to start an artisan cheese business.

The requirements for the location of an artisan cheesemaking facility include middle to upper class incomes, a large and concentrated population of people, affordable rental space, and attainable permits for food product manufacturing in the commercial manufacturing zone. Also, there must be access to a milk supplier and admittance to multiple distribution avenues such as local restaurants, wineries, cheese shops, and farmers markets. A health permit given by a health inspector at CDFA and a business license must be obtained before operations begin. Research for the possible location showed that Santa Barbara, California would be a prime spot for such a luxury item.

In the end, the total required expenses for the first year of business is \$63,000. After the first year, each following year's expenses will add up to be \$25,000, to maintain the business. In

order for my business to break even after paying off any outstanding debt, I need to sell my cheese at \$11.99 per pound and have a turn over rate of approximately 50 pounds a week or 200 pounds per month, equating to 2,400 pounds per year. Producing 200 pounds of cheese per month is feasible because of the amount of milk delivered and the size of the milk holding tank and cheese vat. Selling a yearly amount 2,400 pounds at \$10.83 per pound will leave my business in the black, but in order to start making a profit I must sell at a price higher than \$10.83 per pound. Since the price range of gouda sold in California is \$8.99 to \$21.98 per pound, I could charge more than \$10.83 per pound and still offer a comparable price.

Table 6. Number of years required to make a profit, assuming 2,400 pounds of cheese were sold per year

Price Per Pound	First Year Revenue	Second Year Revenue	Third Year Revenue	Forth Year Revenue	Fifth Year Revenue
\$8.99	21,576	43,152	64,728	86,304	107,880
\$9.99	23,976	47,952	71,928	95,904	119,880
\$10.99	26,376	52,752	79,128	105,504	131,880
\$11.99	28,776	57,552	86,328	115,104	143,880
Expenses	26,000	51,000	76,000	101,000	126,000
Start-Up Costs minus Capital =1,000	38,000-37,000				

Table 7. Statement of Operations

Cheese Rumors Statement of Operations For the Year Ending December 31, 2014 and 2015		
	2014	2015
<b>Revenues</b>		
Operating Revenue	\$28,776	\$28,776
Total Revenues from Operations	\$28,776	\$28,776
<b>Cost of Goods Sold</b>		
1 Pound Paraffin and Microcrystalline Black Food Grade Wax	\$198	\$198
Mesophilic Starter Direct Set	\$1,428	\$1,428
Liquid Animal Rennet	\$86	\$86
Citric Acid	\$36	\$36
Gallon Pasteurized Whole Milk	\$3,984	\$3,985
8oz. Non-iodized Cheese Salt for Brine	\$288	\$288
<b>Operating Expenses</b>		
240 gallon Solar Milk Minder Bulk Tank	\$2,000	-
250 Gallon Kleen-Flo Cheese Vat with Auto Stirring and 2" Outlet	\$10,575	-
2006 Chevrolet Express 3500 Refrigerated Van	\$10,900	-
Ramsal Import 10 Column Capacity 50 Pound Cheese Mould Press	\$11,000	-
Turbo Air (M3R47-2) 52" Reach-In Solid Door Refrigerator	\$2,547	-
7.9"x6" Food Grade Polypropylene Cheese Mold	\$280	-
4.5"x5" Food Grade Polypropylene Cheese Mold	\$160	-
Refrigerator Thermostat	\$75	-
Water Service	\$1,260	\$1,260
Sewage Service	\$240	\$240
Electricity Service	\$2,546	\$2,546
Store Front Retail Space-875 Square Feet	\$14,400	\$14,400
Advertising	\$1,000	\$1,000
Business Liability Insurance	\$700	\$700
Other Expenses	\$635	\$635
Total Expenses from Operations	\$64,338	\$26,801
Excess of Revenues Over Expenses	-\$35,562	\$1,975
Start-Up Capital	\$30,000	-
Unrestricted Contributions	\$5,000	-
Increase/(Decrease) in Unrestricted Net Assets	-\$562	\$1,413

## CONCLUSIONS

In conclusion, results indicate that an artisanal gouda cheese producer located in the central coast of California could survive in the current economy. Minimal debt can be accrued through strategic funding, and a low cost price paired with a premium market price. Greater profit margins could be obtained by marketing the product in Santa Barbara and production occurring in a nearby town, such as Los Alamos. Furthermore, assuming no financial aid other than loans and capital funds, the initial start-up costs and expenses for an entire year could be paid off and the business could start making a profit in one year if the cheese market price was \$11.99 per pound.

## APPENDIX

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### BUSINESS PLAN

# CHEESE RUMORS

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## CHEESE, ANYWAY YOU SLICE IT

*This business plan is intended solely for informational purposes to assist in determining if you with a due-diligence investigation of this project. The information contained herein is believed to be reliable, but the management team makes no representations or warranties with respect to this information. The financial projections that are part of this plan represent estimates based on extensive research and on assumptions considered reasonable, but they are of course not guaranteed. The contents of this plan are confidential and are not to be reproduced with express written consent.*

## ***Vision/Mission Statement and Goals***

### ***A. Vision Statement***

*To produce unique, fine quality artisan cheese, and be a source for educating the public on local farming.*

### ***B. Goals, Objectives, and the Key to Success***

*Minimal debt will be accrued through strategic funding, and a low cost price paired with a premium market price. Greater profit margins will be obtained by marketing the product in Santa Barbara and production occurring in the nearby town of Los Alamos. Furthermore, assuming no financial aid other than loans and capital funds, the initial start-up costs and expenses for an entire year could be paid off and the business could start making a profit in one year if the cheese market price was \$11.99 per pound.*

## **Company Summary**

### **A. Company Background**

*The purpose of this business will be to produce a product that will give cheese lovers a new favorite artisan cheese to add to their collection. Caitlin Curren founded Cheese Rumors in 2013, after graduating from California Polytechnic University, San Luis Obispo.*

### **B. Resources, Facilities and Equipment**

*A small facility located in Los Alamos is stocked with a full line of cheese making equipment, suitable for making 200-gallon batches of cheese at a time (Table 1). There is a cheesemaker onsite, and financial funding is provided through loans and existing capital funds.*

### **C. Marketing Methods**

*There are 2,400 pounds of cheese made each year that are sold for \$11.99 per pound, equating to \$28,776 in annual sales. In order to improve returns, I sell as much product directly to the consumer. The yearly cost maintenance of the business including production runs at \$25,000 per year.*

### **D. Management and Organization**

*The management team consists of Caitlin Curren, B.S. in Dairy, as president and master cheese producer, and Jonathon Anderson as public relations representative.*

### **E. Ownership Structure**

*Caitlin Curren is the primary stakeholder of the business as a sole proprietorship. The business is located in a commercial manufacturing zone, so food manufacturing is permitted. This code is stated in the Uses Permitted section 28.69.030, as #15 Food Product Manufacturing. A health permit was obtained by receiving a health inspection, and a business license application was filed. The California Department of Food and Agriculture (CDFA) also had a required inspection service and provided an inspector to visit the business to ensure proper food handling, safe practices, and quality packaging and labeling.*

## **Products**

*My product is a locally made and aged artisan organic gouda, made from pasteurized cow's milk. This artisanal cheese production provides directly to its community, and contributes to the local food movement. Only wholesome cheeses with quality ingredients are produced. This product is set at a reasonably low price for an artisanal cheese, and is sold in an upscale community.*

## **Market Assessment**

### **A. Examining the General Market**

*The market is categorized as a luxury item. There are opportunities to expand production and provide to larger corporations. The threats my business faces are economic struggles where the usual consumers would not have the funds to purchase luxury items. The wine industry trend is relevant to my business, because it creates a market for luxury foods being paired together, such as cheese and wine.*

### **B. Customer Analysis**

*My direct customers are farmers' markets, wineries, restaurants, and local grocery stores. I sell bulk cheese wheels or half wheels to my direct customers. My indirect costumers are middle to upper class people who appreciate gourmet style foods, and people that support the local food movement.*

### **C. Industry Analysis**

*There are currently over 250 types of cheese made by the 50 cheese producers in California. Only a few of those producers supply a gouda style cheese. Gouda prices range from \$8.99 to \$21.98 per pound.*

## **Strategic Implementation**

### **A. Production**

*Milk is purchased in bulk from a local supplier; rennet, starter culture, and cheese salt are purchased online. The equipment used is a cheese vat, cheese press, bulk tank, cheese molds, refrigeration unit, thermometer, cheese cutter, and packaging materials. The process of cheese production from milk receiving to storing in the aging unit takes 6 hours. Wheels are aged for 3-10 months with weekly washings.*

### **B. Resource Needs**

#### **a) Human**

*A master cheesemaker, public relations representative, accountant and bookkeeper are the human resources.*

#### **b) Financial**

*\$63,000 is required for initial start-up costs and one year of production.*

#### **c) Physical**

*Cheese making equipment and a supply of milk are required.*

### **C. Marketing Strategy**

*Open market strategy is used with indirect customers and some direct customers have the option of being on a contract. Products will be sold at farmers' markets, restaurants, wineries, and local grocery stores. The product will also be available online for purchasing directly. The product will be priced per pound and a discount is offered for bulk purchases of entire wheels.*

*Advertising is held through social media such as Facebook, Twitter, and Foursquare. Email services such as Constant Contact, Mad Mimi, and Campaigner are used to send out newsletters regarding sales or special discounts. Advertising and sales are also located on online food marketplaces such as Foodzie and Abe's Market.*

## **Financial Plan**

### **A. Financial Projections**

*Scholarships available through groups such as the National FFA Organization, scholarshipsforwomen.net, and California Farm Bureau Federation are used. Agricultural funding is acquired through National Sustainable Agriculture (NSA), Farm Service Agency (FSA), and Sustainable Agriculture Research and Education (SARE). Loans are attainable through banks that lend to small businesses. My desired debt position is to be out of debt and making a profit by the second year of business. I will use my own personal capital funds, equating to \$30,000. Accumulated revenues will be \$28,776 for the first year, \$57,552 for the second year, and \$86,328 for the third year. \$38,000 is needed for the initial start-up cost and \$25,000 for one year of accumulated expenses.*

### **B. Contingency Plan**

*There will be a second income coming from an outside source that will act as a back up plan if the business does not follow through.*

*Table 1. Gouda cheesemaking equipment expenses*

<i>Equipment</i>	<i>Price</i>
<i>240 gallon Solar Milk Minder Bulk Tank</i>	<i>\$2,000</i>
<i>250 Gallon Square Kleen-Flo Cheese Vat with Auto Stirring and 2" Outlet</i>	<i>\$10,575</i>
<i>Ramsal Import 10 Column Capacity 50 Pound Cheese Mould Press</i>	<i>\$11,000</i>
<i>1 Pound Paraffin and Microcrystalline Black Food Grade Wax</i>	<i>\$6.00/pound</i>
<i>8 ounce Non-iodized Cheese Salt for Brine</i>	<i>\$2.95/8 ounces</i>
<i>7.9"x6" Food Grade Polypropylene Cheese Mold</i>	<i>\$28.00/each</i>
<i>4.5"x5" Food Grade Polypropylene Cheese Mold</i>	<i>\$15.95/each</i>
<i>Refrigerator Thermostat</i>	<i>\$75.00</i>
<i>Turbo Air (M3R47-2) 52" Reach-In Solid Door Refrigerator</i>	<i>\$2,547</i>
<i>Gallon Pasteurized Whole Milk</i>	<i>\$1.66/gallon</i>
<i>5 gallons Liquid Animal Rennet</i>	<i>\$550/5 gallons</i>
<i>8 ounce Citric Acid</i>	<i>\$5.95/8 ounces</i>
<i>Mesophilic Starter Direct Set</i>	<i>\$0.60/gallon</i>
<i>2006 Chevrolet Express 3500 Refrigerated Van</i>	<i>\$10,900</i>
<i>Installation costs</i>	<i>Varies</i>

*Table 2. Monthly expenses for Los Alamos, California*

<i>Service</i>	<i>Price per Unit</i>
<i>Water Service Rate</i>	<i>\$5.25 per hcf</i>
<i>Sewage Service Rate</i>	<i>\$2.82 per hcf</i>
<i>Store Front Retail Space-875 Square Feet</i>	<i>\$1,200 per month</i>

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