

THE AMERICAN UNIVERSITY

GEOGRAPHIC INDICATIONS: TRANSLATING *TERROIR* INTO AGED
AMERICAN CHEESES

A CAPSTONE SUBMITTED TO
THE HONORS DEPARTMENT
THE POLITICAL ECOLOGY OF FOOD AND AGRICULTURE
SCHOOL OF INTERNATIONAL SERVICE

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WASHINGTON, D.C.

DECEMBER 2007

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Introduction

While living abroad in Europe for one fall semester, I experienced new tastes, sights, and smells in the weekend markets. Each canvas-covered stall displayed local produce: red tomatoes, voluptuous lettuce heads, colossal black olives, and more. The specialty items, such as almond pastries and berry jam, really drew crowds. The cheeses, however, caught my attention. From stark yellows to creamy whites and waxed wheels to raisin-dotted balls, the possibilities were endless. The names were unpronounceable for me, but none seemed to be the same. These stands represented cheese heaven.

Arriving back in the United States to the Washington, D.C. region, my cheese heaven could no longer be found. My Saturday trips to visit the neighborhood market and meet the cheese maker himself/herself were only memories. There are no cheese makers selling their products in my neighborhood any day of the week. The only places to buy groceries are at chain stores and a single weekend fruit and vegetable stand at a nearby gas station. Why are my experiences so different between Europe and the United States?

This research paper investigates this question of why many Americans are unable to find these high quality cheeses full of flavor and variety. The European Union (EU) protects many cheeses using Geographic Indications (GIs) to identify them as being made from a certain region. Would a development in the implementation of GIs on cheese products made by small creameries in the United States help to encourage growth in local cheese production and benefit consumers by promoting higher quality cheeses and cultural connections? This labeling method is a possible solution for educating consumers and increasing the supply of these cheeses for the population of the United States.

My preference for local cheese production and consumption arises from the concept of *terroir*. This French term means that many factors contribute to the flavor, texture, and quality of a food product rather than simply considering the ingredients. For cheese, these factors include the climate, soil, seasons, what the milk-producing animals eat, and the ways the cheeses are stored. In fact, many imitation cheeses produced in regions different from the region of the original cheese can vary significantly in taste, appearance, and texture.¹ Therefore, cheese making is a very cultural process. Cheese makers from different geographical areas, economic levels, and backgrounds will produce different cheeses corresponding to their own *terroir* elements.

The following sections of this research project discuss the necessary information needed to understand if GIs are a worthy solution. My investigation focuses on Parmigiano-Reggiano cheese from Italy and related cheeses in the United States that are also hard, aged cheeses from cow's milk. My research centers only on this type of cheese in order to provide a case study of Parmigiano-Reggiano's GI experience in the EU and implications for related cheeses in the United States. Further studies should investigate solutions for other types of cheeses produced in the United States. Since *terroir* is the foundation of my reasoning for cheese production, my findings will be based on a cultural approach to food production, although my analysis will discuss economic and social implications.

¹ Ivy Doster, "A Cheese by Any Other Name: A Palatable Compromise to the Conflict over Geographical Indications," *Vanderbilt Law Review* 59 (April 2006): 884.

The European Union and GIs

The EU clearly favors GIs, particularly in the case of protecting Parmigiano-Reggiano cheese. Not only does the EU wish to use GIs within its own borders, but the EU also advocates for a world registry created in the WTO for GIs. Tim Josling, a Professor Emeritus at the Food Research Institute in Stanford University, explores the different approaches taken by the United States and the EU towards GIs in his own article found in the *Journal of Agricultural Economics*. Although Josling writes about the advantages and disadvantages on both sides of the ocean for GIs on a worldwide scale, he concentrates more on the legal issues of intellectual property protection. His analysis is still very important in viewing GIs from multiple perspectives.

Josling believes that *terroir* can create information asymmetries. He defines *terroir* as “the concept of an essential link between location of production and a specific quality attribute.” This concept is misleading if the “specific quality attribute” either does not exist or is below acceptable consumer standards. In other words, quality and location are not always linked. This information asymmetry may deflect choice, provide marketing advantage for the producer, and limit competition.² Josling’s argument is true if he believes that GI labels identify products as having superior quality. However, it is important to understand that *terroir* does not mandate a product as having to be of a superior quality. For instance, cheeses from regions where the cows eat a lot of onion grass may have a repellent odor and taste to many cheese consumers. Other consumers may prefer this unique element in their cheese. GIs protect original cheeses from being

² Tim Josling, “The War on *Terroir*: Geographical Indications as a Transatlantic Trade Conflict,” *Journal of Agricultural Economics* 57, no. 3 (2006), 337-338.

replicated in ways that defy *terroir*, which thereby changes the makeup of the cheese. GIs will not create information asymmetries because they protect locales rather than quality.

Before providing GIs for a cheese maker who desires this label, Josling rightly argues that its significance must be tested. Since the government issues GIs, public policy makers must examine whether a correlation exists between a geographical name and cheese attributes before implementing the policy. The costs and benefits for consumers and producers for each cheese must be measured.³ If there are no significant geographical elements to the cheese, then GIs will only hamper competition and innovation while misinforming consumers. This caveat is particularly necessary to consider when cheese makers mix milk from different farms to produce their cheese or they feed their own cows with feed from unknown locations. *Terroir* is lost in these circumstances. Issuers of GIs must diligently determine which cheeses deserve GIs using strict guidelines.

The EU is an appropriate body to use in a case study of GIs because this body has the most highly developed system for GIs in the world. Parmigiano-Reggiano cheese is protected under Regulation (EEC) No. 2081/92 in the status of Protected Designations of Origin (PDO). There are two qualifications necessary to receive this protection:

quality or characteristics of a product must be essentially or exclusively due to the particular geographical environment (including natural and human factors such as climate, soil quality and local know-how) of the place of origin; and production and processing of the raw materials, up to the stage of the finished product, must take place in the defined geographical area.⁴

PDOs link products with *terroir*. EU policy makers are upholding the elements of *terroir* (i.e., soil, climate, traditional methods). They are also advocating for localization of the supply chain. Instead of using inputs from multiple regions or sending the product to

³ Tim Josling, "The War on *Terroir*: Geographical Indications as a Transatlantic Trade Conflict," *Journal of Agricultural Economics* 57, no. 3 (2006), 341.

⁴ *Ibid.*, 344.

multiple regions in the processing stages, the product must be created from and within a single area. This qualification encourages cheese makers to rely on their local economy if they desire PDO status. Parmigiano-Reggiano cheese therefore truly embodies *terroir* according to EU law.

The US views this EU device of GIs as too protectionist. Transatlantic trade may favor Parmigiano-Reggiano cheese over similar American cheeses because consumers are “over-protected.” American consumers will connect the name with quality and authenticity, which will increase demand for this imported cheese over American cheeses. Competition is consequently distorted because of this label. Josling agrees with the US view by arguing that demand is growing faster for quality, differentiated products. However, he also states that the US should be encouraged to act competitively with products marked with GIs; the US has enough regional differentiation and resources to develop new quality cheeses. In fact, the US should follow the EU’s new Common Agriculture Policy (CAP) of supporting the “consumer product” direction of the sector rather than “commodity” farming.⁵ This task is difficult in that many commodity farmers and large businesses will lose market share from the change, but consumers will benefit. PDOs are protectionist in that they are shifting government attitudes from prioritizing the consumer over the producer, as long as information asymmetry is averted.

GIs in the EU, such as PDOs, are actually lessening trade distortion. As a member of the WTO, the EU struggles among other countries to lower barriers to trade. Members constantly criticize the EU for its high export subsidies and tariffs. GIs will soften losses for certain EU farmers as EU policy shifts away from such price supports. Josling hands

⁵ Tim Josling, “The War on *Terroir*: Geographical Indications as a Transatlantic Trade Conflict,” *Journal of Agricultural Economics* 57, no. 3 (2006), 360.

over the decision to the US of whether or not to go along with these new policies that favor higher-value EU farm products in their own market.⁶ Rather than fighting against methods of the EU to support product differentiation and incentives for farmers to comply with consumer demand instead of relying on price supports, the US should accept GIs from the EU. Policy makers must follow the EU's lead and try similar methods to lower their own farming subsidies that distort trade.

Another benefit for farmers in the EU is the increase in agri-tourism. Farmers can have more pride in their products if all the inputs come from their own farm or region. With PDOs, these farmers can present the pride they have for their region directly on the label. Consumers who enjoy these foods may want to visit the regions where their food comes from and interact with the farmer. As a result, farmers will benefit more from these distant consumers because the producer is able to communicate with them from the label. *Terroir* becomes a valuable asset in promoting this exchange.⁷ Rural communities and consumers curious about cultural production methods become closer with the advent of PDOs or other GIs.

In an action against the Federal Republic of Germany on March 21, 2005 by the Commission of the European Communities before the Court of Justice of the European Communities, the Commission fought to protect the name "Parmesan" from being used by producers not located in the Parma region of Italy. As having PDO protection, the Commission argued that Germany failed to fulfill its obligation to keep other German cheese producers from using the "Parmesan" name, which is a translation borrowed from the French for Parmigiano-Reggiano. The argument asserts that Germany is "promoting

⁶ Tim Josling, "The War on *Terroir*: Geographical Indications as a Transatlantic Trade Conflict," *Journal of Agricultural Economics* 57, no. 3 (2006), 358.

⁷ *Ibid.*, 360.

the use of the reputation of the genuine, Community-wide protected product... [and must] protect this name from any misuse, imitation or evocation.”⁸ The Commission thereby assumes that the PDO protects the “reputation” of the cheese and wishes to strictly enforce EU Regulations on member states. This case study suggests that the Commission would also wish to block imports of imitation parmesan cheese. Although the EU seems to be checking the specifications for PDO protection among its cheeses, this protectionist argument should encourage German cheese makers to promote their own innovations and not rely on name familiarity to increase their sales. PDO status will hopefully remain strictly enforced so as to persuade cheese makers to create originally named cheeses using their own unique *terroir* attributes.

Former chairman of the House Agriculture Committee, Rep. Rob Goodlatte (R-VA), claims that parmesan has become a generic name in the United States. Generic names do not qualify for PDO status in the EU nor can they be trademarked in the United States. Goodlatte proposes that parmesan cheese is therefore not related to *terroir* because there is no longer any geographical significance to the name. Parmesan and other European names have passed “into common usage as cultural hand-me-downs from early European immigrants.” He continues to say that American dairy processors have spent a large sum of money “promoting this terminology so that the vast majority of Americans would put a can in their refrigerator.”⁹ In this view, Goodlatte favors American companies over American consumers. He is protecting the right of dairy processors to produce cheese based on the cheese making ways of earlier European immigrants. There is one major flaw in Goodlatte’s argument: “can.” Parmigiano-Reggiano cheese is only

⁸ Commission of the European Communities v. the Federal Republic of Germany, Case C-132/05, *Official Journal of the European Union* (March 28, 2005).

⁹ James Cox, “What’s in a name?,” *USA Today*, September 9, 2003, final edition.

produced in wheels and never sold in cans. American dairy processors must have changed the recipe so that the cheese can be grated and sold in a can, such as adding preservative enzymes and ultrapasteurization, which can change the taste. This parmesan cheese is different from the original Parmigiano-Reggiano from its chemical makeup to ultimate taste. The mainstream, generic parmesan cheese in the United States should therefore have a different name because it is a different cheese.

The United States and the EU disagree on the affects of GIs and if they should be implemented on a global scale. Goodlatte considers economic affects and the consequences for domestic companies, whereas EU officials want to save the livelihoods of European citizens who have created reputable products. Goodlatte's response: "I'd say 'baloney,' but you realize that's a name they want back, too." The EU proposes to protect these names worldwide by establishing a global registry within the World Trade Organization (WTO) to prohibit the use of names protected by GIs in the EU. A former EU farm commission said in 2003 that this registry will prevent EU producers from losing billions each year due to free-riding from non-EU producers, whereas companies in the United States would have to spend extra dollars on repackaging and rebranding their products in part to help consumers understand the change.¹⁰ This study will not discuss the worthiness or impacts of a global registry, but the different arguments prove that both countries have different priorities. The United States' elites care more about the affects on companies and eliminating protectionist measures. The EU, on the other hand, prioritizes *terroir* and keeping tradition in their economy rather than being triumphed by conventional, standardized products.

¹⁰ James Cox, "What's in a name?," *USA Today*, September 9, 2003, final edition.

Besides the Court case against Germany, the EU has already taken other measures to protect products with GIs. Feta, a sheep's milk cheese from Greece, was also involved in a Court case. Although Denmark makes more feta cheese than Greece and Bulgaria is said to make the best, the Court sided with Greece and will not allow producers outside of Greece to use the "feta" name. Another example involves Kraft, which sells 60 million pounds of grated parmesan cheese every year. Instead of using the name "parmesan," as Kraft does in the United States, the company was forced to use another name in the EU. Kraft now uses the name "pamesello."¹¹ Changes are already being made in the EU to protect names with GIs. These examples demonstrate that cheese made from outside the designated region of the GI cannot use the same name. These cheese makers still have the right to keep their recipe, but not to free-ride off of the name that is protected for the cheese makers of the indicated region.

The United States and *Terroir*

The Food and Drug Administration (FDA) defines the "Requirements for Specific Standardized Cheese and Related Products" for "Parmesan and reggiano cheese" under 21CFR133.165 of the Code of Federal Regulations. The cheese should be "characterized by a granular texture and a hard and brittle rind. It grates readily.... It is cured for not less than 10 months." The milk may be pasteurized or clarified or both. Enzymes from plants or animals may be added to help speed the curing process or enhance to flavor of the cheese as the cheese cools as long as the weight of the solids do not make up more than 0.1 percent of the weight of the milk used. The milk must originate from a cow. When

¹¹ James Cox, "What's in a name?," *USA Today*, September 9, 2003, final edition.

listing ingredients on the label of the end product, “enzymes” can include enzymes of plant, animal, or microbial origin.¹² Parmigiano-Reggiano cheese from Italy is very similar in that the milk comes from cows and it has a granular texture. Yet, there are many more differences. The cows are only of a local breed, the cheese is aged for at least 12 months so that the cheese achieves a fruitier and nuttier taste as sugars concentrate and caramelize, the milk is unpasteurized, and no chemical preservatives are added.¹³ There are obvious differences between the Italian and American definitions of what parmesan cheese is made of and the process that forms the cheese.

On February 21, 1973, the FDA reduced the minimum amount of aging (curing) time from 14 months to 10 months because this reduction “increased productivity, improved product consistency, and reduced production costs with no material disadvantage to consumers.” The FDA is again considering lowering the minimum curing time to six months due to Kraft Food’s demands based on the same reasons for the 1973 decision. Kraft states that the shorter curing time will allow their manufacturers to “devote some of the production resources [instead] to the manufacture of other cheese products, thereby maximizing the use of plant resources and increasing production efficiencies.” In April 1999, the FDA gave Kraft a Temporary Marketing Permit (TMP) to test its product, which they claim has the same physical and organoleptical properties as current parmesan cheese aged for 10 months.¹⁴ Unfortunately, only economic incentives are noted as a reason for this change. There is no commitment to reaching a higher quality cheese or catering to consumer taste trends. In fact, Kraft advocates for

¹² Food and Drug Administration, *Code of Federal Regulations*, title 21, Vol. 2, Department of Health and Human Services, U.S. Government Printing Office (April 1, 2007): 344-345.

¹³ Patricia Guy, “Parmeggiano-Reggiano,” <http://www.epicurean.com/articles/parmeggiano-reggiano.html> (accessed December 2, 2007).

¹⁴ Food and Drug Administration, “DOCID:fr27se05-31,” *Federal Register*, Department of Health and Human Services, 70, no. 186 (September 27, 2005): 56409-56417.

more consistency with their product. The process that creates differentiation within their cheese may be a natural occurrence that changes the composition of the cheese based on the properties of the ingredients and the atmosphere. Adding enzymes and quickening the curing time has economic advantages for the processors, but the *terroir* elements are being dimmed in favor of a more efficient and easy product to get on the shelves of grocery stores. Funds saved by Kraft will unfortunately be diverted to manufacturing other cheese products, furthering the lack of devotion in developing a reputable cheese that can identify with Parmigiano-Reggiano cheese.

Arthur Schuman, Inc. (“Arthur Schuman”), the leading importer and producer of Italian and Italian-style cheese for over 60 years in the United States and the largest hard cheese company in the United States, also believes that changing the composition of a cheese leads to the obligation of using a name other than that of the original cheese. This privately-owned company has provided technical support in the past for hard cheese production in emerging dairy-rich countries, such as Poland and Lithuania (both EU member states). In December 2005, these experts wrote to the FDA to cite the dangers of Kraft Food’s request to reduce the aging time of their parmesan cheese from 10 months to six months. Arthur Schuman asserts that “shortening the cure/aging period is likely to be detrimental to a product flavor and acceptability” and that Kraft’s testing is not consistent with dehydrated “dry” cheese, which is what Kraft intends on marketing.¹⁵ This argument favors the notion of *terroir* because the aging process defines qualities of parmesan cheese, in their opinion. The longer the cheese is aged, the more the cheese will

¹⁵ Arthur Schuman, Inc., “Comments: Docket No. 2000P-1491,” December 23, 2005 <http://www.arthurschuman.com> (accessed October 13, 2007).

absorb and conform to the environment where it rests. Kraft's cheese will lose its geographic identity.

Instead of using the Standard of Identity for Parmesan cheese, Arthur Schuman suggests that the FDA should have instructed Kraft to use the Standard of Identity for Hard Grating cheese because the quality of parmesan cheese in the United States is likely to suffer in the future. Kraft wanted to use the Standard of Identity for Parmesan cheese because the "parmesan" name "carries a greater cache in the marketplace." However, although Kraft may have the technology and enzymes available to make parmesan cheese with a six month aging period, other parmesan cheese makers may not be able to replicate the taste associated with the 20 month aged product.¹⁶ Consumers will be disadvantaged in the future as the quality of parmesan cheese falls to inferior levels because of low standards demanded by larger companies. With these changing standards, the definition of parmesan cheese in the United States will continue to change in order to appease the companies instead of prioritizing the quality of cheeses that consumers purchase.

There are two practices occurring with Kraft's new parmesan cheese that help them stray from incorporating *terroir* elements in their cheese. First, Kraft researched consumer acceptance of the product as a dehydrated (dry) cheese. Kraft did not submit research for fresh parmesan cheese, which is necessary to test flavor suitability.¹⁷ If consumers had been surveyed to compare Kraft's new product with fresh parmesan cheese, for instance, and participants commented on taste differences, then the FDA may be more reluctant to reduce the curing time for the Standard of Identity for Parmesan cheese. If participants particularly notice a lack of flavor derived from the natural process

¹⁶ Arthur Schuman, Inc., "Comments: Docket No. 2000P-1491," December 23, 2005 <http://www.arthurschuman.com> (accessed October 13, 2007).

¹⁷ Ibid.

of making the cheese, then there would be an indication that the new cheese lacks *terroir*. Secondly, consumer tastes are becoming more sophisticated because more Americans want to buy imported cheese as their income increases and traveling abroad becomes more frequent. These cheeses are selected for their unique composition or originality. The United States sets quotas and limits on how much of the cheeses can be imported,¹⁸ which decreases opportunities for demand for these cheeses to change domestic market practices or trends. The evolution of Kraft's cheese making is backward in relation to this trend. Their new parmesan cheese in particular is losing qualities desired by these consumers who demand high quality in order to maximize supply chain efficiency. Kraft's strategy clearly seems to neglect consumer interests.

For consumers who want to purchase a cheap parmesan cheese, then Kraft's cheese is a good option. However, lowering the curing time will not significantly benefit these consumers. In fact, the utility of consumers will likely fall because they are receiving a lower quality product for the same price of the parmesan cheese that was aged for 10 months. Arthur Schuman supports this argument since they calculated that Kraft's ability to shorten the curing time by four months will only reduce the cost of the product by as little as one percent of the retail price. They predict that the saving will fall upon Kraft's bottom line or the retailer.¹⁹ According to Arthur Schuman's assessment, loyal Kraft customers lose from the change. The economic benefits do not reach the consumer. As the price remains constant, the flavor and connection with natural ingredients and processes weakens. Kraft's consumers lose.

¹⁸ Arthur Schuman, Inc., "Comments: Docket No. 2000P-1491," December 23, 2005 <http://www.arthurschuman.com> (accessed October 13, 2007).

¹⁹ *Ibid.*

Jill Erber, a cheese connoisseur and owner of the popular Arlington, Virginia Cheesetique specialty cheese shop that has won “Alexandria's Retail Business of the Year,” believes that consumers will not demand domestically produced parmesan cheese “unless [they] are getting a great product at a significantly reduced price.” Americans do prefer the authenticity of Parmigiano-Reggiano cheese and will probably not switch to an imitation parmesan cheese of similar quality made in the United States because the prices are typically similar.²⁰ Upon visiting Cheesetique, I noticed that the cheeses were expensive. Their most similar regional cheese to Parmigiano-Reggiano, Vermont Ayr—another hard grating cheese from cow’s milk—was priced above \$20 per pound. They also sell an imported, extra aged (24 months as opposed to 12 months) Parmigiano-Reggiano at \$16.75 per pound because of high consumer demand. They do not sell Kraft cheese. This information verifies that American consumers want genuine Parmigiano-Reggiano cheese or will pay just as much for another flavorful, aromatic regional cheese. Although my first impression of the cheese prices was not positive, the price seems absolutely reasonable after learning about the cheese making process and tasting my own slice of the fully-cured Vermont Ayr cheese.

In a hearing on WTO’s potential global registry of GIs before the U.S. House of Representatives Committee on Agriculture in 2003, Kraft is adamantly against having to rename its parmesan cheese. Michael Pellegrino, Vice President of Marketing and Strategy for the Kraft Cheese Division of Kraft Foods North America claims that millions of dollars will have to be used in marketing to preserve sales and mitigate “alienating” effects from a new and unfamiliar name, which they have used for nearly 60 years. He also mentions the negative implications left on manufacturing facilities and dairy farms

²⁰ Jill Erber, e-mail message to author, November 1, 2007.

that will lose profit and jobs as sales decrease.²¹ This argument simply reiterates Kraft's economic stance. Pellegrino clearly does not respect the history of Parmigiano-Reggiano cheese, which dates its origin at least as far back as the Middle Ages. Producing an imitation parmesan cheese without replicating the high standards relating to *terroir* of the original cheese causes the Italian cheese makers and farmers lose sales if Kraft can chemically create a similar flavor at a fraction of the cost of producing Parmigiano-Reggiano cheese. Kraft's contracted dairy farms actually might make a greater profit if they produced and marketed their own type of cheese unique to their region, as the farmers in the Parma region do in Italy.

The U.S. Patent and Trademark Office currently considers the "parmesan" name as generic, complementing Rep. Goodlatte's view, which subsequently makes the name ineligible for trademark protection. Ironically, Pellegrino also stated at the hearing, "*Parmigiano-Reggiano* is a U.S. registered mark certifying that cheese carrying this mark is a product of the Parma-Reggio region of Italy."²² Pellegrino interestingly takes notice of the protection that is provided in the United States for cheese producers of an indicated region, within or outside of the country's borders, but does not connect the two cheeses as having the same origin. Even though parmesan cheese is generic in the United States, a Standard of Identity still exists and acknowledges that there is a "flavor of parmesan cheese."²³ There is no definition to explain what this "flavor" is, leaving parmesan cheese producers to assume that the "flavor" just might resemble Parmigiano-Reggiano cheese.

Elements of *terroir*, such as the type of feed for the cow, the climate where the cheese is

²¹ House Committee on Agriculture, *Testimony of Michael Pellegrino: Hearing on Geographic Indications*, July 2, 2003, 3.

²² House Committee on Agriculture, *Testimony of Michael Pellegrino: Hearing on Geographic Indications*, July 2, 2003, 5.

²³ Food and Drug Administration, *Code of Federal Regulations*, title 21, Vol. 2, Department of Health and Human Services, U.S. Government Printing Office (April 1, 2007): 344-345.

aged, and the traditional treatment of the milk, all contribute to their flavor. Thus, Kraft or any other cheese producers should not be creating cheeses that deviate further from the “flavor of parmesan cheese.” Otherwise, this different style of cheese ought to have a new name for the sake of consumers who believe that they are purchasing a product with a taste similar to Parmigiano-Reggiano cheese.

Kraft’s Business

I called Kraft General Foods, Inc.’s customer service number (1-800-323-0768), on Friday, November 2, 2007 to ask some questions relating Kraft’s cheese manufacturing to *terroir*. When I asked the agent where Kraft’s milk came from, he said that the information was proprietary. I then contacted a few Kraft employees who directed my questioning to a Senior Buyer for Kraft’s milk and organic dairy products to find out more about their production methods. This person will remain anonymous in this study and will have the surrogate name Jane. Our phone call during the afternoon of Thursday, November 8, 2007 lasted nearly an hour and was very pleasant. Jane grew up on a farm in the Midwest and feels very well qualified for her position. Her knowledge about the company and cheese production greatly contributes to my understanding of the business of the mass production of cheese.

She described as much as she could about Kraft’s cheese making process without releasing proprietary information. Kraft has contractual relationships with their farmers, although the cheese is typically packaged near urban centers. The farmers generally use 11 pounds of their milk for every pound of cheese, which Jane said is somewhat standard

for parmesan-like cheeses. The cheese is processed closer to the farm because shipping costs are lower for cheeses rather than the milk given the previous 11:1 ratio. Kraft owns only one parmesan plant, which resides in Tulare, California. Even though much of the contracted farmers reside in the Midwest region, California is the largest milk producing state in the United States.²⁴ Kraft probably placed their own plant in California because large farms of thousand of cows mark the landscape. These farmers can sell their milk for a cheaper price than the smaller farms because their productivity is greater. Having a plant so far from the other contracted farmers in the Midwest shows Kraft's allegiance to attaining lower costs of production rather than keeping to a particular region where the culture and *terroir* characteristics are similar.

The parmesan cheese then travels to the Underground in the Midwest (exact location cannot be disclosed in this study) where it ages for six months. This large warehouse stores all of Kraft's parmesan cheese for its domestic market. Consolidating all the cheese into one building rather than at multiple locations allows Kraft to cut costs because energy and fuel costs fall. Once the cheese finishes its six months of rest in the Underground, the wheel travels to one of Kraft's many processing plants, which are located closer to urban centers. The cheese gets sliced, wrapped, and labeled for distribution. In the case of my canned parmesan cheese, the plant also serves to grate the cheese.²⁵ Before consumers purchase their can of parmesan cheese, the cheese has already traveled around the country and seen at least three different towns in its lifetime. Compared to small-scale cheese production, most these cheeses have spent their entire lives on the same farm. The only time these cheeses may leave the farm is in the hand of

²⁴ Interview with a Senior Buyer for Kraft's milk and organic dairy products, November 8, 2007.

²⁵ Ibid.

the purchaser or to a market to be purchased. Using Kraft as an example, the supply chain differs drastically between small-scale and large-scale cheese production. Kraft bases their strategy on lowering costs whereas small-scale farmers may base their decisions on boosting *terroir* elements in their cheese.

During the interview, Jane repetitively mentioned through her answers that Kraft's priority was making decisions based on what is best for the company. For example, one reason why Kraft petitioned for a TMP from the FDA was to shorten the curing time from 10 to six months in order to save money. Cheese can be expensive to hold in inventory and slows down cash flow. Jane said that Kraft wants to use the saved money for other Kraft functions, which will "benefit the company." Consumers ought to be paying the same price. When asked why Kraft makes such decisions to cut costs without transferring the savings down to the consumer, Jane replied, "Kraft is in the business to make money."²⁶ Considering her focus on prioritizing profit-making for the company rather than on the interests on consumers, my view of corporate America is much worse. Although stockholders (NYSE: KFT), company elites, and employees benefit, consumers and the reputation of parmesan cheese falls as attention to quality is less important than satisfying the company's profitability.

My interview with Jane has changed my cheese purchasing decisions to only side with locally produced cheeses for *terroir* and social reasons, but Kraft Foods is not a terrible company. Kraft has a reputation for treating its employees well and they do make cheese available for low-income consumers who cannot afford high-quality, imported Parmigiano-Reggiano and cannot access local markets. However, Kraft's business strategy must emphasize satisfying consumer demand more. Kraft should pass savings to

²⁶ Interview with a Senior Buyer for Kraft's milk and organic dairy products, November 8, 2007.

the consumer by delivering a product with more taste and flavor, which occurs in aged cheeses as they age longer. Kraft has a responsibility to uphold the perceived quality of parmesan cheese and act towards incorporating *terroir* in their cheeses so as to allow consumers to enjoy their food and how their food is made.

The United States and Intellectual Property Laws for Food Products

Since the United States government does not recognize GIs, trademark law does provide an avenue of protection for food products. Certification marks specifically are advantages for cheese makers because they may be in terms of place or origin and/or production methods, thereby acting close to a GI. Table 1 compares certification marks and GIs. A certification mark is defined as “a word, name, symbol, or device used by someone other than the owner (usually a government body) but conforming to specifications laid down by the owner.”²⁷ Parmigiano-Reggiano makers benefit from this status in the United States so that consumers can identify the authenticity of this cheese when conflicted with imitation parmesan cheeses. The certification mark denotes quality, even though there is no requirement to inhibit *terroir* elements. If GIs were recognized in the United States, then *terroir* elements would appear in domestically produced cheeses. The GI would guarantee distinctive earthy flavors and aromas to promote the authenticity of recipes and names for regional cheeses.

Table 1 Comparison of GIs and Certification Marks²⁸

	Geographic Indications	Certification Marks
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²⁷ Tim Josling, “The War on *Terroir*: Geographical Indications as a Transatlantic Trade Conflict,” *Journal of Agricultural Economics* 57, no. 3 (2006), 347.

²⁸ Tim Josling, “The War on *Terroir*: Geographical Indications as a Transatlantic Trade Conflict,” *Journal of Agricultural Economics* 57, no. 3 (2006), 348.

	(GIs)	
Identifier	Place of origin	Quality possibly connected to a place of origin
Intention	Reflects <i>terroir</i> characteristics (i.e., soil, climate, etc.)	Reflects certification of product quality
Means of protection	Public agencies	Public agencies
Registration	By public authority (reputation necessary)	Request by producer groups must show quality
Extended protections	Modifiers and translations	Certification should be unambiguous
Duration	Continuous as long as conditions do not change	Often subject to renewal
Conflicts	Can coexist with certification marks	Can coexist with GIs

Although the EU does not allow its member states to sell “parmesan” cheese because this name is a translated version of the Parmigiano-Reggiano name, the United States does allow companies to market their products using the “parmesan” name. This phenomenon exemplifies the different views of protection by both governmental bodies. The GI used by the EU links “parm-” with the Parma region of Italy where the cheese is made, whereas the certification marks of the United States merely serve as intellectual property protection. The certification mark does not provide the same level of protection as a GI.²⁹ American companies can and do clearly neglect acknowledgement of Parma’s affect on the characteristics of its cheese. United States’ property rights for food products ignore the significance of *terroir*.

Trademarks are forcing companies to rename their cheese, but companies are still finding ways to retain connections with the renowned cheese making regions in Italy. A recent example is the change in name that Wisconsin’s Stravecchio Parmesan is

²⁹ Ivy Doster, “A Cheese by Any Other Name: A Palatable Compromise to the Conflict over Geographical Indications,” *Vanderbilt Law Review* 59 (April 2006): 890.

undertaking. By adding “Parmesan” to the end of the name, the consumer will compare the cheese to Parmigiano-Reggiano cheese from Italy. However, Janet Fletcher of the San Francisco Chronicle commented in her own review of the Stravecchio Parmesan cheese that it “doesn’t taste like [Parmigiano-Reggiano]; it doesn’t even look like it. I would never use it in Italian recipes, as it wouldn’t deliver the right flavor. But it is a really tasty aged cow’s milk cheese.” In 2006, Sartori Foods, a large Wisconsin cheese manufacturer, acquired the original creator of Stravecchio Parmesan cheese, Wisconsin’s Antigo Cheese, and plans to rename the cheese as Sarvecchio. Why does Sartori want to make this change: trademarks.³⁰ If Sartori keeps “Parmesan” at the end of the name, then Sartori cannot trademark their cheese because parmesan is a generic term. Instead of creating a new name that relates to the cheese making region in Wisconsin, Sartori only eliminated the “t” and switched the “r” and “a” to retain a name that consumers can still familiarize with Stravecchio, which means “extra-aged” in Italian. The trademark system protects the Italian Parmigiano-Reggiano cheese makers, but does not help the consumer if they continue to link the Italian-sounding name with Italian cheeses even though only Sarvecchio will only exhibit *terroir* factors related to Wisconsin cheese making.

If this renaming practice is part of a trend in the American cheese industry, then these producers must not believe in the merit of marketing based on their own geographic location. Ivy Doster, who was a J.D. Candidate at the Vanderbilt University Law School at the time of publishing her article, writes that American producers even seem to be “trying to mislead consumers about the true geographic origins of cheeses.... Such a focus on ‘sense of place’ could only improve the quality and variety of U.S. cheeses and

³⁰ Janet Fletcher, “Wisconsin Parmesan strays from Italian tradition,” *San Francisco Chronicle*, February 16, 2007.

other foods.”³¹ The cheese industry’s trend may lead to inferior or unoriginal cheeses if they only strive to resemble the repudiated cheeses of Europe. Yet, these cheeses are highly demanded because the makers emphasize blending traditional techniques with *terroir*. Parmigiano-Reggiano makers, for instance, primarily use Holstein Friesian cow milk for their cheese because they closely resemble the extinct local breeds in genetics.³² Consequently, the milk has regional significance; only this selected breed of cows is used to continue production of the specific taste stemming from the milk that Parma inhabitants are used to consuming. This “sense of place” is not prevalent in the United States because of the lack of attention given to aspects of *terroir*. American cheese producers instead prioritize mass manufacturing and economic efficiencies.

Pasteurization

In addition to the United State’s lack of “sense of place” and *terroir* in their intellectual property laws for food products, pasteurization practices are also in crisis. The process of pasteurization greatly reduces the presence of *terroir* characteristics from milk in cheese products because pasteurization eliminates some of the milk’s unique properties. Pasteurization is defined as “the act or process of heating a beverage or other food, such as milk or beer, to a specific temperature for a specific period of time in order to kill microorganisms that could cause disease, spoilage, or undesired fermentation.”³³ Although the Standard of Identity for Parmesan cheese allows for the milk to be

³¹ Ivy Doster, “A Cheese by Any Other Name: A Palatable Compromise to the Conflict over Geographical Indications,” *Vanderbilt Law Review* 59 (April 2006): 900.

³² Patricia Guy, “Parmeggiano-Reggiano,” <http://www.epicurean.com/articles/parmeggiano-reggiano.html> (accessed December 2, 2007).

³³ *The American Heritage College Dictionary*, 4th ed., s.v. “pasteurization.”

pasteurized or unpasteurized (raw), large parmesan cheese manufacturers pasteurize their cheese due to the higher risks of disease and spoilage that arise in their procedures for the mass production of the cheese.

These mass cheese producers chiefly use pasteurization in order to maintain a standardized milk ingredient for their parmesan cheese. Cheese makers contracted by mass producers can subsequently mix milk from different farms and different cow herds. Pasteurization assures these cheese makers that the “risk of fault-producing organisms” is reduced. These cheese makers can move their work into factories that can accommodate a larger quantity of their pasteurized milk.³⁴ The milk is more pure because the “disease” threat disappears from heating the milk. Unfortunately, microorganisms that deliver *terroir* to the milk from the cow also disappear. Therefore, mass production practices certainly may seem safer for consumers, but dull the personality of the milk.

This practice ironically can be less safe for consumers. If the cheese maker uses milk from cows that are raised by other individuals, then there can be greater risk of the milk being contaminated with disease-causing microorganisms. The main cause for this occurrence is lack of responsibility that arises when the milk arrives to the factory from multiple locations and gets mixed together. If the milk happens to bear disease-causing microorganisms, there is no way to blame a particular supplier. The cheese maker and the supplier both have less responsibility because the milk cannot be traced. Suppliers will possibly become more lax about the health of their cows or the way they transport their milk. If pasteurization does not eliminate all of the malicious microorganisms, then consumers are at risk.

³⁴ Ivy Doster, “A Cheese by Any Other Name: A Palatable Compromise to the Conflict over Geographical Indications,” *Vanderbilt Law Review* 59 (April 2006): 882.

Not only does pasteurization standardize cheese for mass production, the process downgrades the quality of the cheese. Arthur Schuman's argument that Kraft is lowering the quality norm of parmesan cheese has merit. Pasteurization, which Kraft performs on all of their parmesan cheeses in the United States, "inactivates the natural enzymes in milk which... normally help the final flavor of the cheese to develop." The cheese loses its individuality and elements of *terroir*. Doster even suggests that cheeses made from pasteurized milk rather than unpasteurized milk, which they traditionally were before pasteurization was invented in 1886, should ultimately be considered different types of cheese.³⁵ The loss of the milk's natural enzymes will affect the final taste, aroma, and color of the cheese. With such differences existing, these different cheeses should even have different names, particularly since flavorful natural qualities of the cheese disappear from pasteurization. Mass production of popular cheeses, especially parmesan, downgrades the common consumer definition of the cheese to an inferior quality than the authentic version. Imitators of Parmigiano-Reggiano cheese should rename their cheese in the interest of the consumer and their experience with the real *terroir* qualities of Parmigiano-Reggiano.

The cheese market in Great Britain has already met disaster as mass production of cheese has replaced most traditionally-made cheeses, such as farmstead cheeses. Pasteurization enables mass producers of cheese to sell their products at a cheaper price because they can achieve economies of scale; the cheese can be produced at larger quantities in a short amount of time. These substitutes have left the British cheese industry to have a terrible reputation: "at best mediocre and at worst simply bad."³⁶

³⁵ Ivy Doster, "A Cheese by Any Other Name: A Palatable Compromise to the Conflict over Geographical Indications," *Vanderbilt Law Review* 59 (April 2006): 882.

³⁶ Ivy Doster, "A Cheese by Any Other Name: A Palatable Compromise to the Conflict over Geographical Indications," *Vanderbilt Law Review* 59 (April 2006): 883.

American cheese makers must not resort to pasteurization for profit-making reasons. They must take consumer interest into consideration and promote farmstead production using raw milk so that consumers can enjoy the natural *terroir* elements of their cheese selections.

Slow Food USA, a non-profit organization that supports and advocates for North American food traditions through educational methods, also demotes pasteurization practices of mass cheese production. In “The Slow Food Companion,” a document describing the organization and some of their positions about taste and means of sustainable production, they assert that harmful microorganisms develop from “leaving [milk] at unsuitable temperatures or milking unhealthy animals. However, when cheese is made with care on a small scale, pasteurization is an unnecessary step that kills the beneficial microflora that contributes to its unique flavor.”³⁷ This statement proves that *terroir* tastes created from the microflora cannot be created in large cheese making factories. Americans must learn about and try farmstead cheeses so that they can relish the flavorful, natural tastes saturated in these *terroir* cheeses.

The United States and Farmstead Cheeses

Farmstead cheeses are locally produced *terroir* cheeses because they are “handcrafted in small batches from milk produced from a herd on the same farm as the

³⁷ Slow Food, “The Slow Food Companion,” http://www.slowfoodusa.org/COMPANION_ENG.PDF (accessed November 7, 2007).

cheese.”³⁸ After analyzing my research, farmstead cheeses must regain control of the cheese market and industry ahead of companies that mass produce standardized cheeses. In order to promote their availability and numbers in the market, these cheese makers need some type of protection similar to the GI that the Parmigiano-Reggiano cheese makers bear. Rather than relying on trademarks and certification marks to separate American farmstead cheeses from others, an indication that shows a place of origin must be established.

The Leopold Center for Sustainable Agriculture and the Iowa State University Business Analysis Laboratory conducted market research about whether or not ecolabels could help consumers separate regional products from geographically insignificant products, among other purposes. Their report, published in 2004, defines ecolabels: “a seal or logo indicating that a product has met a certain set of environmental and/or social standards or attributes. Ecolabels offer one important avenue to educate consumers about locally grown, sustainably-raised foods.” Their report signifies that consumers in fact desire these types of foods. For example, when viewing ecolabels with background pictures and two tag lines on strawberries, the most popular thought that first came to mind was “freshness” (See Figure 1).³⁹ Farmstead cheese is fresher than mass produced cheese because the milk often contains less added enzymes, has less distance to travel to undergo the cheese forming process, and has less distance to travel from its origin to the market shelf. Consumers’ utility would increase if they bought more farmstead cheese,

³⁸ Heather Paxson, “Artisanal Cheese and Economies of Sentiment in New England,” in *Fast Food/Slow Food: The Cultural Economy of the Global Food System*, ed. Richard Wilk (Lanham: Altamira Press, 2006), 203.

³⁹ Rich Pirog, “Ecolabel Value Assessment Phase II: Consumer Perceptions of Local Foods,” Leopold Center for Sustainable Agriculture, Iowa State University (2004): 22.

leaving price factors constant. Ecolabels have the ability to connect with consumers on a more environmental level than current labeling methods.

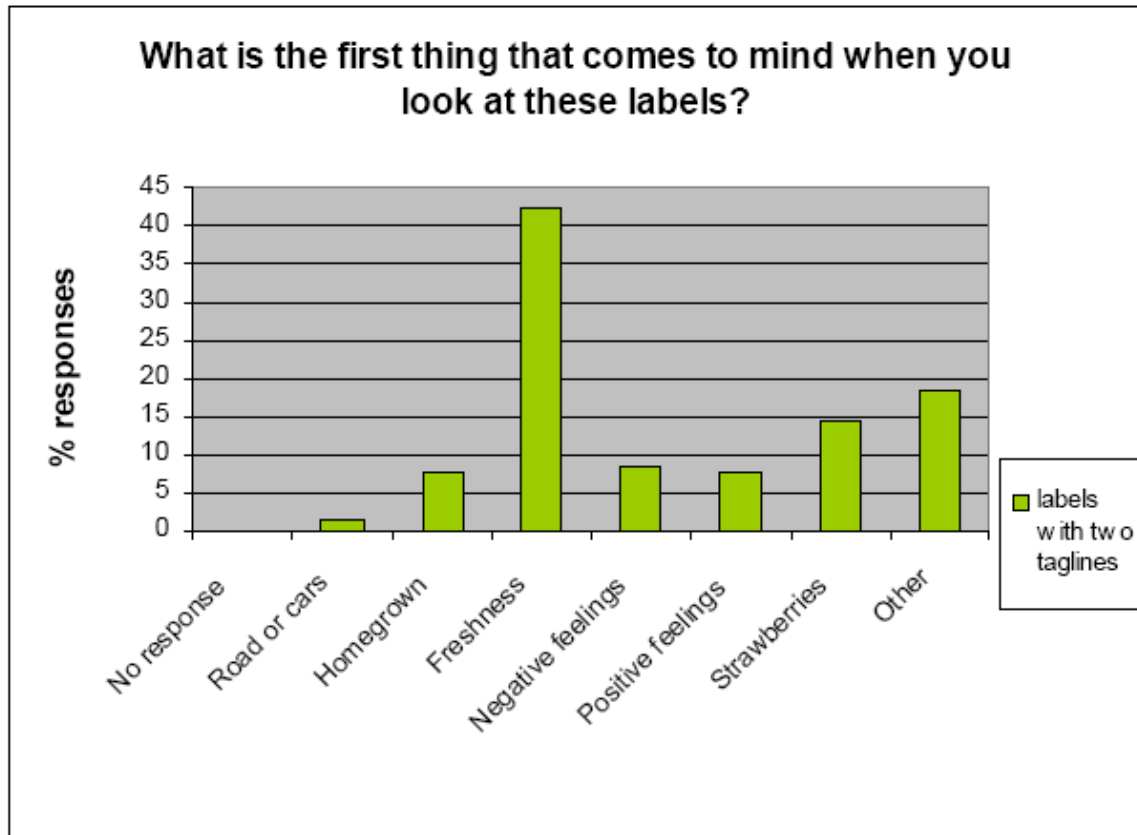


Figure 1 The first response from respondents seeing ecolabels⁴⁰

The respondents also explicitly preferred to purchase locally produced food, with or without the ecolabels placed on the surface or packaging of meat or produce. At least one out of every three respondents desired these food items that were “Grown Locally” or “Grown Locally-Pesticide Free” (See Figure 2). The responses for these categories surpass those for labels with “Organic” shown.⁴¹ Consumers are showing demand for food with a geographic significance—even more so than for organic choices. An

⁴⁰ Ibid., 23.

⁴¹ Rich Pirog, “Ecolabel Value Assessment Phase II: Consumer Perceptions of Local Foods,” Leopold Center for Sustainable Agriculture, Iowa State University (2004): 28.

opportunity for farmstead cheeses to take more market share seems very possible because of the demand for these local products.

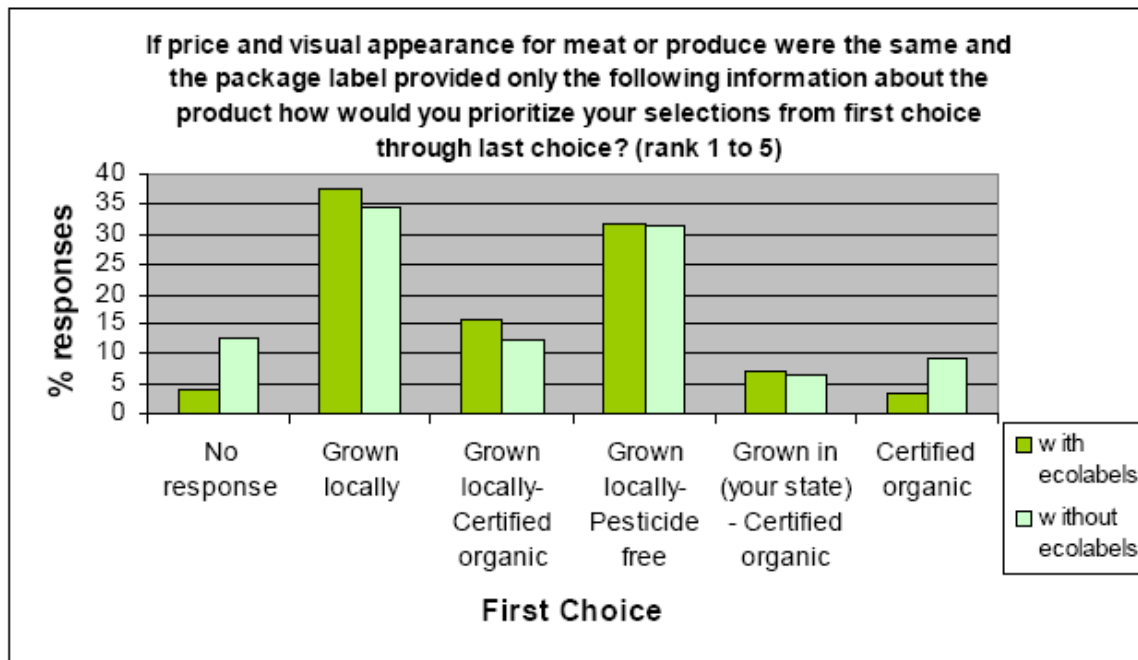


Figure 2 Survey responses: grown locally vs. certified organic⁴²

Both of these survey questions suggest that there is demand for regional foods. The use of ecolabels can assist in propelling the number of regional foods in supply because this strategy allows these small-scale producers to visibly market their goods toward these geographically conscience consumers who want to be able to easily identify foods that are “Grown Locally.” More small-scale producers will enter the market if they view ecolabels as an opportunity to lift their product above mass produced products. As for farmstead aged cheese, ecolabels, however, is not a preferred solution. Ecolabels do not spur the creation of new cheeses. Cheese makers can still rely on traditional European recipes and imitate popular cheese names. There is no motive to create different steps of production or new names that resonate from *terroir* characteristics, such as the soil

⁴² Ibid.

quality and type of cows used for milk. Furthermore, laws exist in some states that prohibit the use of raw milk in cheese. As a native of Washington, D.C., where cheese production does not exist, Maryland exacerbates the problem of finding raw milk cheeses because State Law requires the milk to be pasteurized before beginning the cheese making process. If Washingtonian consumers do not want Parmigiano-Reggiano cheese because, for any possible reason, they would rather have a local cheese, then finding a similar cheese (a hard grating cheese from cow's milk) will remain difficult. Washingtonians will rarely, if at all, see the ecolabel on this type of cheese product because supply will remain nonexistent or very rare, depending on the radius size given to what constitutes a regional cheese. Ecolabels are not a preferable solution for this study.

GIs passed by United States legislators are another possible labeling scheme that could help separate mass produced cheese from farmstead cheese. As seen in the EU, GIs are protecting Parmigiano-Reggiano cheese from other cheese producers who use their name as a marketing tool. GIs will probably never appear in the United States intellectual property schemes because officials view GIs as overly protectionist. Parmigiano-Reggiano cheese makers, for example, can now rely on the authenticity of their label more than relying on the authenticity of their cheeses. Demand is thereby distorted because consumers may base their purchasing patterns off of the GI more than off of the quality of the cheese. With a trend of Americans seeking higher quality cheeses, this issue would be avoided. Jill Erber of Cheesetique agrees that GIs are not a viable solution, particularly since American consumers may be ignorant of their actual meaning. She says that GIs will not improve market access because the production and distribution

of small-scale cheeses is limited.⁴³ Thus, GIs still are powerless in increasing the supply of farmstead cheeses to satisfy demand if consumers are unknowledgeable about the GI logo on labels. *Terroir* in cheese is protected by GIs, but *terroir* is still unable to flourish in the cheese deserts, such as Maryland, where law prohibits farmstead cheese makers to produce these *terroir* cheeses of unpasteurized milk and if consumers are ill-informed about the purpose or meaning of GIs.

Product labels are insufficient in the American economy because innovation and creativity spur the economy. The economy of the EU seems to follow loyalty to traditions and protecting them. Even though small-scale cheese makers are overshadowed by increasing health regulations and higher production and equipment costs, these entrepreneurs can capture market attention by exhibiting creative and flexible practices. Vermont inhabitants enjoy a variety of farmstead cheeses because of the blend of small state government, homestead individualism, and ecological awareness.⁴⁴ Americans throughout the country also proclaim these values. Farmstead cheeses can become more popular with less government intervention and the act of individualism in the cheese making process.

Who are the Americans willing to take on this challenge? Successful businessmen, of course, are answering the call. These wealthy, educated entrepreneurs are retiring early, buying land in rural areas, and making cheese. This transition seems to be more of a “sustainable retirement project” than an effort to attain the American dream—although they probably already achieved that dream in their past life. These entrepreneurs are therefore seeking presence in a new niche market of artisanal cheeses

⁴³ Jill Erber, e-mail message to author, November 1, 2007.

⁴⁴ Heather Paxson, “Artisanal Cheese and Economies of Sentiment in New England,” in *Fast Food/Slow Food: The Cultural Economy of the Global Food System*, ed. Richard Wilk (Lanham: Altamira Press, 2006), 203-204.

where demand is never satisfied. A new wave of cheese making is appearing. Educational grants for the cheese makers give them the opportunity to teach the skills that they learned to others so that other entrepreneurs can enter the market.⁴⁵ The new cheese makers do not fear that teaching their skills will dampen their profitability or release hidden secrets of their own cheese making. Passing knowledge to others will allow them to experiment with the resources given to them, such as the soil of their land, the climate where the cheese ages, and the diet of the cows. *Terroir* complements creativity and permits this cheese market to differentiate and discover unique recipes.

The cheese, a value-added product, contributes to the proliferation of another American characteristic: rural towns. The inputs needed to produce farmstead cheeses can come from other townsmen. The hay from neighboring farms to feed the cows during drought conditions, the wax for the rinds of aged cheese, and the construction of a storehouse to hold the aged cheese are all materials that can come from the same town. Cheese making is very important because simply producing milk requires less inputs from fellow townsmen, especially when dairy farms in California consisting of ninety thousand cows are dropping so much cheap milk into the market.⁴⁶ The local economy is thereby stimulated by the increased number of local transactions during cheese making, and has a niche market that is more able to compete for consumer preferences. The plight of rural America is changing as cheese makers rejuvenate the local economies by creating cheeses with inputs from their own nearby geographical surroundings. Adherence to *terroir* concepts improves conditions for towns where farmstead cheeses exist.

⁴⁵ Heather Paxson, "Artisanal Cheese and Economies of Sentiment in New England," in *Fast Food/Slow Food: The Cultural Economy of the Global Food System*, ed. Richard Wilk (Lanham: Altamira Press, 2006), 205-207.

⁴⁶ Heather Paxson, "Artisanal Cheese and Economies of Sentiment in New England," in *Fast Food/Slow Food: The Cultural Economy of the Global Food System*, ed. Richard Wilk (Lanham: Altamira Press, 2006), 209.

Movements across the country are already heralding the importance of maintaining traditional foods and recipes unique to a geographic region. A co-op of salmon fishermen on Lummi Island, which rests near Washington state, sells local sockeye salmon caught using a reef nets, a long-established method of Native Americans. The Muscatine melon of Mississippi, which is known for its juicy fragrance from being grown in sandy soil on the coast, also plans to be revived.⁴⁷ This trend owes its purpose to *terroir*, which advocates traditional methods and linkages to the earth, or “terrain.” Both foods display pride and loyalty to local culture and environmental conditions. Cheese making must take on the same pattern, diverting attention to farmstead cheeses rather than mass produced cheeses.

The supply of *terroir* products is supported by the clear demand for them despite the higher prices that arise since economies of scale cannot be achieved to the extent that large-scale producers enjoy. In the same survey discussed early by the Leopold Center for Sustainable Agriculture, “56 percent of respondents were willing to pay at least 10 percent more for a place-based food.... The survey also revealed that 65 percent of respondents preferred products that would give farmers a higher percentage of profits than processors, distributors and retailers.”⁴⁸ An absolute majority of the participants demand *terroir* products and are willing to pay the higher price because more profit falls into the hands of the farmer or product maker. The strategy of large-scale producers of hard cheeses, such as Kraft, is counterintuitive to the desires of these survey participants. As they search for economic efficiencies to cut costs at the risk of reducing cheese

⁴⁷ Jane Black, “Bringing a European Idea Down to Earth: Producers, Farmers Pin Hopes on the Appeal of ‘Terroir,’” *The Washington Post*, August 22, 2007, every edition.

⁴⁸ Jane Black, “Bringing a European Idea Down to Earth: Producers, Farmers Pin Hopes on the Appeal of ‘Terroir,’” *The Washington Post*, August 22, 2007, every edition.

quality, consumers will most likely avoid their cheese as the milk may come from cheaper sources and processors have a larger role in making the parmesan cheese. Farmstead cheese makers will hopefully become more successful as these consumer desires hold true into the future.

As consumers have more health concerns about their food, they will seek out *terroir* cheeses because learning about the cheese makers' production methods is easier than trying to research for such information about large-scale cheese production. Beef scares and spinach recalls in the United States leave consumers to question how companies produce their food. As consumers turn their attention towards locally produced foods, they can visit the farm and talk with the owners and cheese makers. Transparency is more apparent. This exchange will encourage agri-tourism as more urbanites and suburbanites travel to farms to discover how these dairy farmers produce their cheese. These consumers advance the *terroir* concept in their purchasing pattern back home as they are more likely to buy these cheeses at neighborhood markets or eat at restaurants that serve their cheese.⁴⁹ Three benefits arise from this phenomenon: the connection between the city and the rural hinterlands increases; more profit arrives in the farmer's accounts as middlemen leave the supply chain; and consumers receive fresh, flavorful, and safe *terroir* cheeses that they demand.

Limitations on small-scale cheese producers disrupt their ability to satisfy demand. Tony Brusco, the General Manager and Vice President of South Mountain Creamery, which is Maryland's only on-the-farm processing plant, cites two particular limitations: space and time.⁵⁰ Smaller farms restrict the amount of cows a farm can hold

⁴⁹ Ibid.

⁵⁰ Tony Brusco, e-mail message to author, October 3, 2007.

and smaller aging facilities restrict the amount of cheese wheels that can be stored for longer periods of time. Moreover, with labor consisting only of family and perhaps some interested neighbors, large quantities of cheese cannot be produced. Although these are limitations, they also retain quality. For instance, controlling disease in the cow herd is easier as the size decreases and maintaining a local identity is easier as only locals work the farm. These limitations are healthy because they help to secure *terroir* characteristics in their cheese.

Keswick Creamery, Carrock Farm, Newburg, Pennsylvania



Figure 3 Jersey cows and roosters on Carrock Farm

To learn more about farmstead cheeses, visiting a local creamery to talk with the cheese makers and view the farm is the best research tool. Since unpasteurized cheese making is illegal in Maryland, the state of my childhood and current state of residence, the farm would have to exist in another state. Visiting the Sunday Dupont Market in Washington, D.C. gave me some direction. Two stalls sold farmstead cheeses and had farm workers to answer some of my preliminary questions about my curiosity of aged cheeses: Keswick Creamery of Newburg, Pennsylvania and Blue Ridge Dairy, Co. of Leesburg, Virginia. Michael Clune, the Sales Manager for Blue Ridge Dairy, Co., informed me that his creamery does not make aged cheeses because customers already strongly demand their soft cheeses and yogurts, and aged cheeses slow cash flow—the same reason that Jane from Kraft gave for shortening the curing time of their parmesan

cheese. Since my research centers on aged cheese, I resorted to studying Keswick Creamery, which was a fulfilling and heart-warming experience.

Melanie Dietrich Cochran welcomed me to her farm on Tuesday, November 20, 2007 in the Cumberland Valley of central Pennsylvania. A variety of animals roamed her 100-acre farm: cats, a jumpy dog, a group of ducks, chickens, and 40 Jersey cows. Melanie treats her cows in particular with lots of care, especially the youngest cow, which is only two weeks old and has not even been named yet like the others. The cows are free to wander the farm and graze the Carrock Farm grass. Neither herbicides nor pesticides or chemical fertilizers have touched the grass for at least twenty years. Melanie also chooses not to use bST on the cows or dock their tails, which are common practices among large, commercial dairy farms.⁵¹ Melanie chose not to be certified organic because she felt that the paperwork and cost to become certified organic was too overwhelming, especially when she can simply talk to her customers at the market about her sustainable farming methods rather than relying on a label.⁵² Her humane treatment of her cows and sustainable practices prove that farmstead cheese makers care about the soil and the animals more so than large-scale operations.

Melanie embodies many traits of the new entrepreneurs making cheese. Although she grew up on the Carrock Farm, she earned her college degree from the Dairy Science program at Virginia Tech. After completing her education, she returned to the farm because of her love of raising and milking cows. In 2001, she went to a PASA (Pennsylvania Association for Sustainable Agriculture) conference and learned that selling value-added products will help provide enough income for the farm to stay in the

⁵¹ “Keswick Creamery: Melanie & Mark Dietrich Cochran, Farmers & Cheesemakers,” http://www.keswickcreamerycheese.com/about_us.htm (accessed November 19, 2007).

⁵² Melanie Dietrich Cochran, interview by author, Newburg, PA, November 20, 2007.

dairy business that milk alone often cannot do. She experimented making raw milk, hard cheeses in February that same year. Around May (allowing for the cheese to fully age for three months) she began selling her cheese at farmer's markets, which spread to the Dupont Market in November and then the Takoma Park Market (another Washington, D.C. metropolitan area market) the following August. The cheese is not grated, even though her customers do ask for grated versions. She would need additional equipment and labor, which are costly and limited on small-scale farms. Melanie embodies the American ethic of working hard, being educated, and having a passion for the family farm.

She is also passionate about connection with her neighbors. When the grass is not good to eat because of droughts or cold weather, the feed for the cows comes from regional farms. The feed is usually corn silage or alfalfa hay. She employs two workers from outside the farm, but who are from the area.⁵³ When Melanie pays for feed or pays her employees, money is deposited back into the local economy, helping to contribute revenue and purchasing power to the rural community.

Melanie views her farming techniques as a "lifestyle choice." Her favorite part of her job is milking the cows. She experiments with different flavors and aging periods according to market demand. One of her popular cheeses, Dragon's Breath, is aged with a mix of jalapeno, habanero, and birdseye peppers.⁵⁴ She has an entrepreneurial mind and a flexible recipe plan like other individuals in the trade of farmstead cheese making.

Melanie mostly uses standard recipes to make basic cheese products, but her cheeses have different properties because of the strong presence of *terroir*. All of the

⁵³ Melanie Dietrich Cochran, interview by author, Newburg, PA, November 20, 2007.

⁵⁴ Ibid.

cheese that she sells comes from the farm, from birth to packaging. Jersey cow milk has a sweeter taste compared to the milk of other types of cows. The cows rotate grazing areas among 28-35 paddocks, typically switching to a new one everyday. This movement allows the grass to maintain growth so that the cows can still have a diet with as much of the farm grass as possible. Although the legal minimum for aged cheeses is 60 days, she believes that a more pleasant flavor appears at around 90 days. Some of her cheeses are aged more so that they develop a sharper, fruitier flavor. The cheese is aged in a trailer kept at around 50-55 degrees Fahrenheit and high humidity. Some cheeses are aged in wax, but others build up their own rinds incorporating the state of the climate.⁵⁵ All of these conditions celebrate *terroir* in her cheese and makes the variety unique to her farm.



Figure 4 The Storage Facility where cheeses sleep through the curing stage

In the spring, onion grass sprouts up in the paddocks. The cows like to eat the onion grass, which gives their unpasteurized milk a garlicky flavor. Although Melanie

⁵⁵ Melanie Dietrich Cochran, interview by author, Newburg, PA, November 20, 2007.

finds that this makes milking the cows a little more difficult for her senses, consumers often favor this cheese above the rest. Consequently, Melanie feels obligated to allow the cows to eat the onion grass since the consumers are more pleased. In the spring and early summer when the grass is bountiful, the milk and cheeses have a yellow look because Jersey cows cannot break down the beta-carotene of the grass. When the cows eat more alfalfa hay during droughts and winter, the cheese is whiter because this hay lacks beta-carotene.⁵⁶ Consumers can therefore predict which season the milk of their cheese came from.

Melanie largely criticized the mass production of cheese in the United States, after agreeing to many of the problems with the industry state earlier in this study. Besides the way she treats her cows in a more humane manner, her milk is easier to control for quality. When the cows are milked in the milking parlor twice a day, the milk never touches human hands and gets pumped directly to a holding vat—only feet away—where milk stays at a safe temperature. All of her cows can trace their family tree back to the first 20 cows on the farm that Melanie’s parents first owned. Through the use of artificial insemination, she controls the breeding of the cows and can assure consumers that her cows have no diseases. Since the milk has such a short distance to travel, the milk remains very fresh. On the other hand, the milk used for the mass production of cheese might be pumped several times (pasteurization, transportation, etc.), which damages the milk and decreases freshness.⁵⁷ Moreover, disease is more difficult to control with farms of hundreds of cows. Quality control and freshness are two major advantages for Keswick Creamery’s farmstead cheeses.

⁵⁶ Melanie Dietrich Cochran, interview by author, Newburg, PA, November 20, 2007.

⁵⁷ Ibid.

In addition to those criticisms, Melanie has more questioning thoughts about mass produced cheese. She wonders how the large-scale producers use ultrapasteurized milk for cheese. Ultrapasteurization zaps milk in only a few seconds at an extremely high temperature. Melanie knows, from her Dairy Science degree, that this milk cannot really make cheeses. What do they do to the milk to transform it into cheese? Furthermore, she wonders if consumers really save money by buying cheap cheese from large-scale producers. Consumers only develop a “false sense of economy” because they are paying other costs indirectly through taxes for subsidies. For example, subsidies pay for transporting feed into California to use for the thousands of dairy cows. If farmers were small-scale and used local feed to abide by *terroir* tactics, then these costs would disappear. Lastly, Melanie suspects that once these large-scale producers enter the stock market, then the company must make decisions to please the stockholders. She cited Ben and Jerry’s ice cream as an example from which the company turns toward satisfying their stockholders more and more so than the consumers. The culture of the company can drastically change against the interests of the consumers as profit becomes more desirable as the company grows and becomes publicly traded. Melanie prices her cheese to cover all her costs and then “plus a little extra” so that her family can maintain a healthy standard of living on the farm.⁵⁸ These suspicions about cheese making, pricing, and loyalty to stockholders leads Melanie to further dislike large-scale cheese producers.

When I asked Melanie to talk about her thoughts on GIs and labeling, she generally did not believe that they are very useful for her small-scale endeavor. She uses original names for her products because she believes that these new names help market her own cheese. The name of her farm, Keswick, for instance, is Old English for

⁵⁸ Melanie Dietrich Cochran, interview by author, Newburg, PA, November 20, 2007.

“creamery.” One of her cheeses, Calverley, is also Old English for “meadow.” These names build off of *terroir* because regional inhabitants can trace their ancestry to England. She feels that creating new names is also more advantageous because she gains more pride and a sense of individuality. Copying names is not an option because her cheese is always different based on the unique *terroir* characteristics of her farm, despite using traditional recipes. Instead of GI marks on cheese products, Melanie believes that a more useful alternative could be logos for regions.⁵⁹ Consequently, consumers can easily identify if food products come from their region, another nearby region, or from many regions. The logo will encourage farmers to use materials and inputs that only come from their region, which improves the local economy and increases *terroir* elements in their products. Consumers, producers, and communities can all benefit from regional logos.

As we ended our interview session and began saying our goodbyes, she handed me a chunk of Calverley cheese. She clearly has great pride in her cheese and cares more about my experience with cheese rather than her monetary gain. I thanked her and told her that learning about my food by visiting the farm rather than surfing the internet from my city apartment is a very special, unforgettable, and educational event. In the future, I wish to visit more regional farms to discover where my food comes from and meet the hard working farmers.

Conclusion

⁵⁹ Ibid.

The implementation of GIs on cheese products made by small creameries in the United States is an insufficient solution for encouraging growth in farmstead cheeses. Consumers also do not benefit because GIs are unable to link quality with cheese, even though consumers can assume that the product most likely has *terroir* characteristics relating to regional conditions and cultural ways. Farmstead cheese makers and other interested groups must work together to create a logo that can define “place of origin” status in the United States to support these cheeses that are developed and born in a single region. The logo must be easily identifiable for consumers and a cheese of high quality. United States legislators must follow this trend in order to lower subsidies, and coerce farmers to innovate and to use local inputs if they want the logo to appear on their products. Consumer curiosity will lead to agri-tourism and the rise of rural economies. The new invention will allow the standard for cheese to rise above current perceptions, which large companies crippled due to their inferior, mass produced cheeses.

With the popularity of wine already high in the United States, Americans can relate the same *terroir* experience with farmstead aged cheeses. The *terroir* intricacies surrounding vineyards can easily translate to those on the farm and in creameries. Future studies should determine if small American wineries and their customers could benefit from GIs or other labeling schemes. Furthermore, researches should study the impact of global registries of GIs for trade and American producers. As for *terroir* in American diets, consumer trends must persist and farmstead producers, mass producers, and law makers must act in accordance to their demands.

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