

Raw Milk Cheese Discovery Session- Presentation Summary
July 14, 2009, 10:15am-3:00pm
Michael Fields Agriculture Institute
East Troy, WI

I. Tops 10 countries that import cheese into the U.S. (Gigi Cazaux)

- [See PowerPoint presentation and informational handout]
- Showed glimpse of the world cheese market and how a lot of cheese is being exported out of Europe- Italy was the leading importer to the US in 2008. Parmigiano Reggiano from Italy the most popular raw milk cheese in US.
- The Codex Alimentarius and the EU define raw milk as milk produced by secretion of the mammary glands of one or more cows, ewes, goats, or buffaloes, which has not been heated beyond 104 degrees F.
- US definition- cheese produced where milk has not been heated over the temperature of the cow- 104 degrees, prior to cooking the curd.
- Australia and New Zealand: They have just implemented new regulations that will take place in 2011 for raw milk cheese aged fewer than 60 days. The product must contain a label saying that it's made of unpasteurized milk as well as a warning label for pregnant women, the elderly, and children.
- July 2008, Quebec agreed to allow raw milk cheeses aged fewer than 60 days to be sold in retail.

II. Raw milk cheeses produced in Wisconsin (Kelly Sime)

- [See handout]
- Information gathered in the chart encompasses all of the Wisconsin cheese makers making raw milk cheese:
 - i. Temperature to which milk is heated, average age of cheese and source of milk (single or multiple.)
- Cheese makers have varying opinions on how the milk should be handled as to what temperature and what is determined as a raw milk cheese.
- Wisconsin's raw milk cheeses are not just made of cow's milk. All companies surveyed are Wisconsin-based companies. Their milk sources may not all be from Wisconsin, it may be from an adjoining state.
- The information was gathered from the cheese maker or the referred to person from an internal source.
- The primary varieties of raw milk cheese that are produced were mostly cheddar, gouda, Swiss, or original recipes.

III. Experience with raw milk cheese at Cedar Grove (Bob Wills)

- Has been making raw milk cheeses for about 10 years, has seen a huge increase of demand for product
- Pasteurized milk affects taste

- If you choose to produce raw milk cheese, you should plan on losing 10% of production so that you don't feel pressured to release product into the market place that shouldn't be there.
 - a. Raw milk cheeses are wonderful and there's a place for them, but you have to be serious about it and take precautions.
 - b. Even if you legally cover your bases, you won't want to be the one responsible for someone to get sick.
- Listeria, salmonella, staph aureus, E. Coli- major concerns of raw milk
- If you bring milk in from farms and you don't know what happens at every second, there can be things in the milk- it's different than if you milk the cows and see where they are on a day-to-day basis
- Currently struggling with space issues to hang on to cheese for at least 60 days. Have written agreements with customers that they will hang on to cheese for at least 60 days, then test it again then and send back results to the plant.
- There are alternatives to make milk cleaner. In Honduras they have other types of things to take care of pathogens in the process, such as adding a lot of salt to cheese or heating cheese to 180 degrees.

IV. **Advantages and risks of producing raw milk cheese** (Greg O'Neill and John Jaeggi)

- Greg O'Neill- I'm wearing the hat of a retailer and a consumer. We have two shops where the cheese is cut to order. Raw milk cheese is something that is very interesting and desired by our consumers for reasons such as the complexity of flavor and variability. (But variability can be good or bad.) Being able to speak to the consumer about the different seasons and how it affects the cheese is also a key point- pasteurization can sometimes take away from the things that people enjoy and look for in cheeses. The firmer side of our cheese cases is 70% raw milk cheeses, but there are still a lot of misconceptions at the counter. The biggest issue is what health care officials are telling patients. We need more education.
- Dean Sommer- I agree that there is more variability- that can be plus or minus, and can lead to more complex flavors. Bob made an excellent point- making raw milk cheese is risky. Even after 60 days there's no guarantee that there will be no pathogens in the cheese. I can make a judgment because of my experience, but the average consumer doesn't understand.
- Bob Wills- I have found pathogens in products of raw milk that I have never found on a heat-treated product.
- Mary Falk- The term 'dangerous' is being thrown out lightly. Are we only talking about comingled milk? In our plant, there is a single source milk, and we have bacterial plate count on each batch of milk. Our milk is four times cleaner than milk standards. Bob, what temperature are you aging at? Are they blocks? Are they vacuumed sealed? When pathogens were found after 60 days.
- Bob- We've done both blocks and wheels, all vacuumed sealed. They were not heat-treated; they were straight out of the vat. Non-vacuumed sealed- 54 degrees, vacuumed sealed- 38 degrees.

- Dean- Heating milk at 50 degrees is safer than 40 degrees because pathogens die off faster. With a single source you definitely have more control- the problem is, even if a good farm has 1000-2000 bacterial plate count, (which is really good), it only takes 2 organisms of E. Coli to get you sick.
- Greg- It's not what you expect, it's what you inspect. Everything is a calculated risk, and there are no guarantees. I believe that if you are going to permit on things that have a risk in them that you have a structure that is required. When I buy product, I like to see the cheese plant. I want to know where the product is coming from if I'm going to represent the cheese in my store. All of our raw milk cheeses are clearly labeled, and I believe that the consumer will take it on as long as you provide them sufficient information.
- Dean- The thermalization of milk preserves most of the flavor and provides the most safety.
- Bob- We all agree the food supply in the U.S. is very good. However, the consumers expect a 100% safe product.
- Greg- Flavor profile variation is appreciated. Variability in quality is not appreciated.
- Barry- Variability to a marketer is the seasonal aspect of the cheese. I want to preserve that early spring flavor; can I do that and heat-treat my milk? Parmigiano Reggiano isn't even raw milk cheese because they cook the curd.
- Greg- People have been consuming raw milk cheeses of any age in Europe for decades, and they're still alive and telling about it. I lived in Europe for years and raw milk never even gets discussed. I think it's possible to operate safely on a retail and consumer level.
- Dean- It's a very emotional issue but can't let our emotions get to us. We have to find a balance.