Transcript — Episode 36: As the Cheese Melts: Trader Joe's "Professor" Matt Tells Us About That

Tara: You know, Matt, it seems like no matter what food we talk about on this podcast, you managed to provide us with a wealth of interesting information.

Matt: Aw shucks. Thank you.

Tara: That's why we call you Professor Matt.

[Classical music begins.]

Matt: Among other things.

Tara: We should give you a whole episode to educate us. We could call it, "Professor Matt, Tell Us About That."

Matt: Okay, I'll take it. But it does sound a little cheesy.

Tara: Exactly. That's the topic...cheese.

Matt: Well, okay then let's go Inside Trader Joe's.

[Classical music ends. Theme music begins and two bells ring at a neighborhood Trader Joe's]

Tara: I'm Tara Miller, director of words and phrases and clauses.

Matt: And I'm Matt Sloan, the marketing product guy. All right class, listen up.

[Ruler tapping on lectern - 3 taps.]

Matt: Today's lesson is cheese. Milk's leap toward immortality.

Tara: Why cheese?

[Theme music ends. Upbeat music begins.]

Matt: Well, it makes me think of *Treasure Island* as so many things do. And when young Jim Hawkins meets Ben Gunn on the island, I mean, Ben Gunn has been marooned for something like three years. And the first thing he wants to talk about is cheese. "Many the long night I've dreamed of cheese toasted mostly," and I think Ben meant the cheese being toasted,

not that Ben was toasted. But Ben was probably pretty toasted being out in the sun all day. I think he was talking about a cheese toasty, which is of course the British version of a grilled cheese.

Tara: So melted cheese.

Matt: Melt, melting, to melt. It's really to become liquified, to become soft by warmth and heat. Cheese's melt-ability has to do with the fat content, how the proteins are curdled together and how much moisture is in the cheese. So the curdling process of cheese is generally done with a couple of chemical mechanisms, either enzymatic with enzymes like Rennet or through acid, acidifying with like a plant-based fissile sap, or plant thistle juice even. And the acid helps draw the proteins together. That's what forms curds. You can see it in a cheese-making process. You see these clumps come out of solution, the cheese curds kind of like cottage cheese. That's the early stage of it. What's happening on the microscopic or cellular level is just a little tiny version of that. So those proteins are coming together in a way that ultimately might make a really stringy, melty, social media, cheese pull, kind of string cheese, cheese, or something like fresh goat cheese that doesn't really melt at all. It just kind of bakes.

Tara: Okay, so then what happens next?

Matt: A few things are playing out at a relatively low temperature. Maybe say like 90°F, the milk fat starts to become soft. It starts to maybe even pool on the surface of the cheese, but it's liquefying and it's moving around and at a little higher temperature, let's call that somewhere north of a 100°F, maybe 135, the chemical bonds that are holding those proteins together, they start to change. Now, if it's a cheese that has been made with an enzyme, a Rennet, those protein bonds are a little more elastic and a little more spread out. So at the higher temperature, they are more malleable, stretchy, stringy. Now those cheeses that are made with acid, I'm thinking of like a fresh goat cheese or like Paneer or Halloumi. Those bonds are more fragile. They're closer together.

Tara: Obviously as someone who likes to cook, I've always noticed those things like goat cheese if you put it on a pizza, it doesn't really melt. It softens the same with feta.

Matt: Whether it's a grill, whether it's a griddle, like a flat top grill, a panini press and then the time factor, how long you heat it is, what sort of, you know, takes you from stretchy, gooey cheese to crispy, crunchy cheese. I think of those oven baked cheese bites. And those have just been baked to the point where most of the moisture is gone and what's left behind are the protein structures and the fats. And that's why they're so tasty.

Tara: If I can interrupt you again.

Matt: If you have to.

Tara: I thought this was going to be like a cooking class and it really sounds like it's a science class, it's all chemistry.

Matt: Absolutely. Where was I? Cheese. If you go way, way, way, way back. I mean, one of the first cookbooks was written on a clay tablet in cuneiform and it mentions using cheese in a recipe. I mean, there are thousands of years of cheese making recipes, and it starts with cultures that have a dairy component. And after milking season, what do you do with all this milk? How do you make it last? You probably made cheese by accident. I pity the people who tasted those first batches. Now you do it on purpose. You make extra milk to make cheese.

Tara: I am so grateful that people do it on purpose. That's one of the joys in my life is cheese. When you melt the cheese, it not only changes the texture of the cheese, but the flavor of the cheese just amplifies. Why is that?

Matt: There's a little bit of chemical reaction. The Maillard reaction really has more to do with proteins, amino acids and how those change with heat. And that's where the flavor changes. I think anything probably tastes more of itself in the full expression at a warmer temperature than it does at a colder temperature. I think of our painter, the Instructor Bob Ross, who taught us how to paint little happy trees. And I love when he said, "We don't have any mistakes, we just have happy little accidents." And when you're making a grilled cheese and a little bit of cheese kind of comes out of the bread and starts to kind of crispy, crunchy, that's my favorite part of a grilled cheese sandwich. But that's a great example of what's happening to cheese with temperature, with regard to texture and flavor, because the texture certainly changes. It gets crunchy. Most of the moisture has gone away, but those solids, the proteins, the salt, the fat remains in a very concentrated state. So you're getting more flavor in a smaller package if you will. And that's why it tastes different.

[Music ends.]

Tara: Is this classroom discussion time now? I have never had a bad grilled cheese sandwich.

Matt: Ever?

[Upbeat music begins.]

Tara: Never. I've made grilled cheese sandwiches with Gouda and with Cheddar and with Swiss and with Brie and with other soft ripened cheeses. I've never had one that I would consider bad. They weren't all my favorite, but they were all sandwiches I would eat again, if somebody decided to make them for me.

Matt: I love what you just said because it makes me think that love is a four-letter word spelled T-I-M-E. And that someone taking the time to make you a sandwich is what makes that sandwich so good.

Tara: Grilled cheese sandwiches are on the agenda right now for us at Trader Joe's. We actually are doing an entire contest on our Instagram starting April 12th, which just so happens to be National Grilled Cheese Day.

Matt: Of course it is. April 12th, mark your calendars, get ready. However you griddle them up, panini press, stove top.

Tara: With dairy cheese or non-dairy cheese. I have to say one of the things that I look most forward to in the month of April is being part of the judging panel for the grilled cheese sandwich contest.

Matt: And when you think of grilled cheese and you think of different chemical reactions, caramelization, Maillard reaction, things like that, you got to start with the bread. I like fermented dough bread, so things like sourdough. I think the tanginess of a sourdough is a good counterpoint to the richness of the cheese, but also the fermented dough. It creates this open crumb. The crumb is what you call the inside of the bread. And an open crumb means that there are holes in it and those holes and the grilled cheese caused those happy little accidents of the cheese coming in contact with the heat source and turning into something really magical all on their own. Then it's the cheese itself, probably something not too aged, probably something on the younger side. I think a nice Cheddar and then you're going to need an additional source of fat, whether it's butter, whether it's mayonnaise, whether it's a bit of olive oil and the bread and the heat, and you start making fried bread basically. And that's what I find so interesting about the whole idea of grilled cheese because it's really griddled. It's not cooked on a barbecue grill. It's a flat top grill. You want that even surface and you don't want the fats to go away from the bread. You want them to stay there and sort of cook into the bread. I highly recommend using a panini press because I sometimes can't make the straightest line when I'm cutting bread. And if you have an uneven slice, you're going to have an uneven exposure to the heat source. You're going to have weird less than crunchy spots, and that will get you a failing grade on that grilled cheese sandwich. I love panini press cause you have heat source on the top and the bottom, and you're driving heat into the interior, the inside of the grilled cheese sandwich. Then like, you know, the cheese melts faster, it starts to come out. You hear that sounds dangerous. The cheese is popping, you know, it's ready. You pull it out, you get a little stringy bit, that's some fun stuff.

[Music ends.]

Tara: Okay. if you won't take offense at this Professor Matt, I would like for us to bring in a guest lecturer. How would you feel about that?

Matt: I could use all the help here. I would very much appreciate that actually.

[Online meeting begins… computer noise.]

Tara: Kim is Trader Joe's category manager for cheese and she is our resident expert on the melting of cheese. Kim, you there?

[Light upbeat music begins.]

Kim: I'm here. Hi Tara. Hi Matt. Thanks for having me.

Matt: Absolutely, Kim. You know, I'd stop the world and melt with you.

Tara: (chuckles) Oh, Matt, Matt, Matt, Matt, Matt. Kim, we have some questions for you. What are the best kinds of cheese for melting?

Kim: When you think of melting, it really means going from a solid to a liquid. So in some capacity, all cheese melts. It really depends on the eating experience that you're looking for, right? Some people want something ooey and gooey. Other people are looking for something smoother or more liquidy. Younger cheeses in general, just tend to melt better. So sticking with cheeses that have aged under 12 months is probably a good guideline. So with that, like our Mild Cheddar would melt better than something like our Unexpected Cheddar, which is aged somewhere between 10 and 12 months typically. Cheese with more moisture, like a mozzarella, cream cheese, even our Monterey Jack will melt better than a drier cheese or firmer cheese, like a Parmesan or Pecorino Romano. Cheeses with higher fat content tend to melt better than something like a light cheese with a lower fat content. And then there's also cheeses that are curded with acid and that's something like our seasonal Halloumi and our feta cheese that typically don't melt well. Our feta cheese is on fire. There's a feta tomato recipe that has gone completely viral. That is really just taking a block of feta and putting it with some olive oil, cherry tomatoes and some spices and heating it in the oven. So it doesn't melt in a typical way, but it does crumble and liquefies a bit, then to be mixed with pasta.

Tara: I went ahead and I made that feta and tomato concoction and it never would have occurred to me to try to use feta in that way. And yet it really worked in that recipe. And it really was delicious. Is a slice cheese better than a shredded cheese?

Kim: A slice would cover more ground, right? So if you put a slice of cheese, you can get an equal kind of an equal position on whatever you're melting. Shreds, however, tend to melt a little more evenly because of the heat distribution.

Tara: When you buy cheese that's already shredded, right, instead of buying a block of cheese and shredding it at home, that cheese has an anti-clumping substance in it because otherwise it literally would just form back into a clump of cheese in a bag.

Kim: The ingredient that you're talking about is called cellulose. It's actually a natural ingredient. It's the fiber cell wall of a plant.

Matt: People in their quest to find shocking, bad news will say things like it's a by-product of the lumberyard, or, you know, it's an additive or a filler. And it really is to make the shredded cheese do what we want it to do. People buy shredded cheese because it's easy to use and the shreds are separate from one another. So it keeps things from sticking. It's, as often from not, derived from cotton as it is from wood. Wood trees are plants too.

Tara: Kim, does it impact the melt ability of the cheese?

Kim: You know, it doesn't. And at least at Trader Joe's, I could only speak to our product, but we work with our suppliers to ensure that the minimal amount possible is used of cellulose.

Tara: Let's talk about plant-based cheese, which seems an oxymoron.

Kim: Well, this is really actually a huge growth area of the cheese business right now. I say cheese alternative because there are still soy-based cheeses. Soy-based cheeses often do have casein in them, which does contain dairy. And I think a lot of customers who eat soy are acquainted with that and understand that's an ingredient that is almost always in soy-based cheeses. We have four new vegan, truly vegan cheeses coming this year that we're really excited about.

Matt: Once upon a time non-dairy cheese was as much about avoiding lactose...

Kim: Right.

Matt: ...as it was about being plant-based. We've really seen that change. So that now what most people interested in plant-based cheeses they’re after is a vegan product with no animal byproducts whatsoever.

Kim: The new items we have coming in this year are coconut oil based. Which really the meltability factor on coconut based is very strong. We have a Vegan Parmesan Style Shred coming in and also a Vegan Feta Style cheese. We're looking hopefully for this summer for both of those items and in eating both of them, you really wouldn't even know the difference. You can use them in recipes that you would use traditional dairy based items in without changing the recipe at all. We have an updated cream cheese coming in that is a new recipe that is just very similar to our traditional cream cheese. And then the fourth is a American Style Coconut-based Slice that melts in a grilled cheese sandwich the way a typical slice of our Organic American would melt.

Tara: What is your favorite melting cheese?

Kim: It's like you're asking me to pick the favorite of my children.

Tara: (laughs)

Kin: This is a tough one. I'm going to give two because I think they're both unsung heroes of the cheese case. First would be Fontina.

Matt: That's old school.

Kim: But when you're talking melting cheese, it makes a heck of a grilled cheese sandwich. And then Gruyère is the other one that I would say first and foremost, as a cheese lover and the designated cheese expert, I'd say Gruyère is probably tops when you think ooey gooey and the meltability factor.

Matt: (laughs) I'm gonna name my next child Gruyère. Come here, Gruyère!

Tara: (laughs) It's a good thing you're not going to have any more children.

Matt: I don't know about that.

Tara: (laughs) Okay, I have to stop crying now.

Matt: This is usually how it ends, Kim, in tears.

Tara: (laughing)

Matt: If not exasperation.

Tara: This is what we do. I get paid for this.

Matt: Don't jinx it.

Tara: I couldn't be happier, let me tell you. Anything else you want to say about cheese before I have a nervous breakdown?

Kim: I think we covered it unless there's something else you think of, I'm here.

Tara: Thank you so much for doing this. It was fun.

Kim: Definitely.

[Music ends. School bell rings.]

Tara: Okay, Professor Matt class is over.

[Closing theme music begins.]

Matt: But you still need to take the final exam. It's an essay question. Just leave us a review on your podcast app.

Tara: And while you're at it, hit that free subscribe button too.

Matt: It *is* free and worth every penny.

Tara: Until next time, thanks for listening.

Matt: And thanks for listening. Class dismissed.