
Living Homegrown Podcast – Episode 109 Fiery & Spicy Ferments

Show Notes are at: www.LivingHomegrown.com/109

Theresa: This is the Living Homegrown Podcast, episode number 109.

Announcer: Welcome to the Living Homegrown Podcast, where it's all about how to live farm fresh without the farm. To help guide the way to a more flavorful and sustainable lifestyle is your host, national PBS TV producer and canning expert, Theresa Loe.

Theresa: Hey there, everybody. Welcome to the Living Homegrown Podcast. I'm your host, Theresa Loe, and this podcast is where we talk about living farm fresh without the farm. That can mean preserving, fermenting, small space food growing, chicken keeping, and just making small steps towards living a more sustainable lifestyle, all the different ways that we can live closer to our food, even if we have little or no garden space at all.

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Okay, so today's episode is all about fermenting, and we've talked fermenting before on a couple different episodes, which I will link to in the show notes for this episode, but today is a little bit different because this particular episode will appeal to someone who has never ever fermented before as well as someone who is more advanced, and that's because I brought on the author, one of the co-authors, of the new book *Fiery Ferments: 70 Stimulating Recipes for Hot Sauces, Spicy Chutneys, and Kimchis with a Kick, and Other Blazing Fermented Condiments*. Now, the author is Kirsten Shockey, and I'll talk about her in a minute, but before I dive in, I don't want you to be turned off if you're thinking, "Well, I don't really like spicy things."

Listen, she and her husband Chris cover a lot of other options. It doesn't have to burn your mouth. It can be spicy but without going too hot, and she tells you in each recipe how you can adjust the heat so that you get more of the unusual flavors without getting too hot, but if you're someone who really likes to turn up the heat, she tells you how to do that too. It's kind of a fun experimentation

type of fermenting and I think you'll really enjoy it because she gives a lot of tips and hints in this particular episode that I think even an advanced fermenter will enjoy.

Let me tell you a little about Kirsten Shockey. Now she and her husband, Chris, own the company FermentWorks, and she's a mother, and a homesteader, and they live in southern Oregon. She says that she finds herself with increasingly fewer children at home and significantly less livestock in the fields, but way too much fruit in the orchard. She's a writer and an educator who's passionate about helping people take responsibility for their food, and she's the co-author of two books, *Fermented Vegetables*, which came out a couple years ago, it's an excellent book all about fermenting, and this new book that just came out called *Fiery Ferments*. We're going to talk more about the *Fiery Ferments* book in today's episode.

Now, both of those books came from her desire to teach people how to ferment and push this culinary art into new flavors. She travels across the country helping people to make, enjoy, and connect with their food. As always, I will have all the information about Kirsten and everything that she talks about, including her books and her website, in the show notes for today's episode. To get to the show notes, you'll just go to livinghomegrown.com/109, and I'll have everything there for you. She even talks about some workshops that she has coming up where they do live in-person teaching for several days in a row all about fermenting, so I think you're going to really enjoy this. All right, so without further ado, here's my interview with Kirsten Shockey of FermentWorks.

Hey, Kirsten. Thank you so much for coming on the show today.

Kirsten: Yeah. Thank you, Theresa. Thanks for having me. I'm excited to be here.

Theresa: Oh, good. Well, I'm excited to have you, because you've never been on the show before, but I do know about your website and your books, and so when your new book came out I thought, "Perfect timing. This is a great time to have you come on." Before we dive in to your new book and all about fermentation, why don't you tell everybody a little bit about your company FermentWorks.

Kirsten: Yeah. FermentWorks is mostly just online right now, but what we do is we teach fermentation. We want everybody to feel like it works, you know? They've got this, and there's just so much misunderstanding around fermentation and people thinking that they can kill themselves with it, so that was sort of the genesis for the idea of FermentWorks. We've got a little free seven-day online class, and we're slowly building up a small video library of recipes, and yeah. It's just all about what it sounds like, ferments working.

Theresa: Ah, that's great. Yeah, you guys are really doing a great service, because you are

dispelling a lot of people's fears, and you're really showing the step-by-step, which is what people are afraid of. They're like, "What if I miss a step? What's going to happen," and you definitely dispel all of that, so I love what you're doing. You guys teach online, but then you do travel around a lot, and you teach a lot of in-person workshops as well, don't you?

Kirsten: Yeah, I think at some point we hope to have an online course, but at this point we don't. Well, it's all in-person, and then we have three to four intensives here on our farm. We used to have a small fermentation company, so we've got this great space that was our commercial kitchen on our farm, and that is now the experiment lab and the teaching space, and so folks can come out for two and a half days and just do all things fermentation, which for some people is just the best idea of a vacation they can think of.

Theresa: Oh, it sounds like a great vacation to me. I didn't even realize that you had a commercial kitchen, so that's pretty exciting. You guys are in Oregon, right? Southern Oregon?

Kirsten: We are, yeah, the mountains of southern Oregon.

Theresa: Fantastic. We'll be sure to have in the show notes information for your website so people can go and learn all about your in-person workshops as well as your books and everything, so I'm sure people will be really excited about that, but what a fun vacation that would be. I would just love that.

Kirsten: Yeah, we let folks camp on the farm if they want to, or they get to stay in some of the nice lodges around here, but yeah. It's fun.

Theresa: Ah, that's great. About how many people do you have in each class?

Kirsten: We cap it at eight. We feed everybody foods that are all based off of fermented foods, and that way it stays really personal. Everybody gets a full feeling of ...

Theresa: Oh, yeah.

Kirsten: ... And eight's a really nice number for the group, too. There's a lot of bonding that goes on. It's really fun to see not just what we have to offer, but what folks offer each other in each class.

Theresa: Yeah. You're almost getting like one-to-one tutoring hands-on.

Kirsten: Mm-hmm (affirmative).

Theresa: So that's really fantastic. Well, so tell me how did you guys get into fermentation in the first place, because you've been doing this for a while.

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- Kirsten: Way, way back my mother gave us a crock for Christmas with the kraut already bubbling in it.
- Theresa: Oh, how fun.
- Kirsten: It was. It was pretty cute, though. The kids were small, and they were just quite concerned about what was emitting smell-wise from this box that we weren't supposed to shake very much. Yeah, it was my mom, and that was about 1999, and I would say for the next 10 years we just pretty much fermented sauerkraut, even though we have huge gardens and all of that, I still was canning my low-acid vegetables. It didn't occur to me that everything can be fermented, and then in 2009 we built the commercial kitchen. We really wanted a farmstead business, and Christopher's a cider maker, and we have a lot of wonderful heirloom apple trees, and we planted more varieties that I grafted. While we were waiting for the cider trees to grow, we thought, "Well, we've got the kitchen. Let's do something in the interim to use it," and so we started doing custom ferments for some of the local farmers so that they could sell them, and it's such a wonderful way for them to work with overages ...
- Theresa: Oh, yeah.
- Kirsten: ... and seconds, and things like that. The business actually started that way, and then we ended up just having our own brand, but that's when I learned, because I was working with these organic farmers, and I would get calls like parsnips, can I ferment a parsnip? Believe it or not, back then, it wasn't all over the internet, and I would read parsnips, or squash, or any of these things, and it was nothing, nothing. Will it kill me? I didn't find that, so I figured, well, I guess we'll try. That's when I started really understanding the science, and okay, none of it's going to kill you. Whether it tastes good or not, that's a whole different, you know.
- Theresa: Yeah, you have to experiment.
- Kirsten: A different question.
- Theresa: Yeah.
- Kirsten: But yeah, death by ferment is not a thing.
- Theresa: No. No, it's not. I'm so glad you brought that up, because it is such a safe process, and it's actually really ancient, so what we're doing is something that's been done for a very, very long time.
- Kirsten: Absolutely.
- Theresa: Yeah. Okay, well that's fantastic. Then you wrote your book *Fermented*

Vegetables, which was your first book a couple years ago, and what made you decide to write the second book Fiery Ferments?

Kirsten: You know, a lot of it was that we had a huge pepper crop, and we were wondering what our next book was going to be, and I realized I could make ... just really start exploring what other things I could make so that we weren't eating just pepper mash, although we seem to be just fine with eating just pepper mash too. That was sort of where the idea came from, but then we had a lot of fun exploring what spice means to humans throughout history and how really we've pursued spice as humans. I mean, all the Age of Discovery, I mean, Columbus was pursuing black peppercorn when he came here. Until he brought the chili, which was from the Americas, back around to Spain and Portugal, which eventually made it to Asia, these foods that we think of as crazy hot foods didn't even have the chili.

I think just part of my development as somebody that likes to experiment with flavor, the second book was just really taking the idea of sauerkraut and fermented foods to that next level of wow, all of our condiments, all of these flavors, this fringe on the plate can actually be probiotic, and fermented, and last a long time, harvest from your own garden and be just amazing, amazing part of your ... So I think that was sort of how that moved about. For me, that second book is just so much more fun because I was completely free with understanding the process.

Theresa: Yeah. Well, that makes sense. Your first book, Fermented Vegetables, really covered the basics and all kinds of ferments, but this one, I mean, this one felt to me almost like a foodie ferment book, like you could really experiment with different flavors, so that's why I was like, "Wow, this is such a different fermentation book." I love both your books. They're both excellent, and your instruction is spot-on and very easy to follow, so you've done a really great job with that.

Kirsten: Thank you.

Theresa: Sure. One thing that I loved that you say in the book is that you know there's people who love stimulating flavor but who don't want to singe their mouths.

Kirsten: Right.

Theresa: That is totally me. I love experimenting with flavor, but I don't want to burn my tongue off. You definitely cover that in the book, and you talk about that, so there's other things besides peppers in the book that you use for fiery spice. What sort of things do you get heat from in your ferments?

Kirsten: Ginger is wonderful, black peppercorns, green peppercorns, also ancient in their use to get our spice on, and then there were a lot of different types of peppers,

and so we didn't go deep into those, but we did explore things like long pepper and Szechuan pepper, which Szechuan pepper is really interesting in that it opens your taste buds and that sort of opens up to all the other flavors, so it's got this heat to it, but it's more the same kind of heat as carbonation, when you get that tingly from a really carbonated bubbly water or something, that tingle in your tongue, and that Szechuan pepper works in that way, so there's a lot of ways to play with the flavor.

Even if you want some of the flavors of the really hotter peppers, what you can do is make a basic pepper mash with all red peppers if you'd like, and then throw in one habanero and you'll get that interesting sweetness that a habanero has, and just a little bit of that heat, but it'll be a mild habanero sauce. I really wanted people to understand that even using the hottest peppers you can with fermentation get some really neat mild flavors, even though the title's Fiery.

Theresa: Yeah. Yes, and that's why I wanted to bring that up, because when I saw fiery originally I was like, "Oh, I really want to do this, but I don't want to burn my tongue off," and it was so funny because then you said that inside the book, like, "You don't have to burn your tongue off to enjoy the spices." As I read through the recipes, I could see how you give us options for adjusting and how we can make it as hot as we want or not hot at all. It can be more of a spicy hot, not a burn your tongue off hot, so I wanted to definitely bring that up so we don't turn off anyone who maybe isn't into the heat part. It's more than that. It's more of the different depths of flavor.

Kirsten: Yeah, and that is actually as I've been on book tour sort of the most interesting part that I've encountered. People will come up at the bookstore and say, "But I don't like hot," and I just always feel like I'm backpedaling, "Well, actually."

Theresa: Yeah. Yeah, exactly.

Kirsten: Yeah, it's been an interesting thing, but the title rang so well that nobody occurred to them, us or editors, that fiery is for some people a really great word and for other people it's like, "I'm not even going to look."

Theresa: Right. Right. It sounds too scary. Okay. Well, I guess we're ready to start talking about fermentation then now that we've got everybody salivating over the spicy flavors. I have covered fermentation on the podcast before, but for anyone who's not familiar with fermenting, could you just give a real brief explanation of how fermentation works?

Kirsten: Sure. It's really quite simple. You have your vegetables. They're fully loaded with all kinds of microbes, good ones, bad ones, and what you're doing is you are creating the ideal environment for the lactobacillus family to thrive. As they thrive, what they do is they do a number of wonderful things, but the first thing

they do is create this acidic environment, and as soon as that ... They're eating the carbs. They're eating the sugars and converting that to acids, and as soon as they do that, nothing else can live in that environment, and that's where the safety comes in, is even a fresh vegetable, it happens sometimes that folks get sick from spinach or whatever, a fresh raw vegetable. Well, with the microbes acidifying everything for you, nothing can live on there, so that's the first step.

As they're also eating the starches, they are creating some CO2. That's the zing. They're also upping the vitamins, which I think is just incredibly cool, so your vitamin C goes up. You've now got vitamin K2 on board. You've got a little bit of B12, and with all of that, the vegetable is becoming more bioavailable, and so the microbes, they're processing it for you. That's what fermentation is, is it's setting a system up where your microbes basically process your vegetables for you.

Theresa: Yeah. Well, and that's the thing. It's kind of hard for people to wrap their head around if they've never done it before, but what you're doing when you're fermenting is you're making the food even more nutritious, and at the same time, you don't have to worry about things like botulism, because as you said, it's a high-acid environment where botulism and some of the other scary awful bacteria just cannot live in that environment. The whole fermentation thing, although it looks like this mad crazy science experiment, is actually incredibly safe to do.

Kirsten: Yeah. I tell folks when they're just looking at me kind of cockeyed, like, "I don't know." It's because of the way we've grown up, I guess, or even our parents have grown up in the last 7,500 years, which is with refrigeration and there's nothing in the way we've grown up that says you can leave something on your counter for a couple of weeks and then stick your fork in it. There's nothing intuitive about that for folks that have heard their entire life, "Keep it in the fridge."

Theresa: Right. Right.

Kirsten: Put it back in the fridge.

Theresa: Yep.

Kirsten: It's breaking that barrier for folks.

Theresa: Yeah, absolutely. Well, okay. Let's talk about some of the tools that people need, because what's fun about fermentation is that you really don't have to have any special equipment. It's nice if you want to go that route, but people can use things that they have in their own kitchen. What are some of the things that people need in order to ferment?

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- Kirsten: Well, really the only thing you actually need is a vessel, and if you think about how ancient it is, that makes sense, right? That's all we had.
- Theresa: Yep.
- Kirsten: Especially if you're teaching yourself to ferment, a jar is wonderful. You can see what's going on. Everybody has one, and you can do it a couple of ways. You can do it with just a jar and a tight lid, which you would fill your jar to about an inch or so from the top with your ferment, tighten that lid, and then every day as that lid gets bulgy a little bit, everything you don't want to see in canning is okay in fermentation, right?
- Theresa: Right. Yes. I'm glad you said that, too. Exactly.
- Kirsten: You just slightly open that lid, and you'll hear this wonderful little air release. Some folks just love that. They love checking in with their ferment. It's a little live thing going on in their kitchen every morning, and listening to it. It's like, "Oh, wow. Look, you're doing your thing." If you don't think you're that person that you want to check it or that you'll even remember to check it, a really nice trick is to take that same jar and a Ziploc bag and what you would do is fill the jar to maybe about the shoulder, three quarters of the way up, and then you take the Ziploc and you open it up, stick it in, open it up on the inside of your ferment, kind of patting it down on the top of your kraut or whatever you're making, peppers.
- Then you pour some water in there, and what this does is this gives it some weight, which allows that CO2 to get out on its own. It seals the top, because fermentation takes place in an anaerobic environment, and so part of that perfect environment you're setting up is to keep everything anaerobic. That allows the CO2 to escape without letting any oxygen back in. That method just works super well. It's just a wonderful, wonderful technique when you're first teaching yourself, and I even use it all the time now because it works.
- Theresa: Yeah. It works and it's easy. I really like that. Now, just so people know, make sure that they understand. You're definitely sealing, when you put the bag inside, you're definitely sealing it off, but as the gases, as it outgases, which it does, you want it to do that, it'll find its way out and bubble past the sides, but then kind of reseal itself. It's such an easy thing, plus it keeps little critters out, like little flies that might be attracted to the odor, and so it is a definitely super easy way to do it where you don't have to remember the jar with the lid, because with the jar with the lid you absolutely have to every day release that gas, or if you go off on vacation, you'll come back and the jar might've popped the lid or broken. It's definitely, you want to pick which way works best for you, but I think those are both great methods for testing this out if you've never done it before.

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- Kirsten: Definitely. Yeah. If you are a gardener and you get to the point where you are making gallons of fermented green chilies or whatever, then the water seal crocks and some of the other stuff is nice, but that's definitely not necessary. If you want to ferment, don't feel like you need to run out and buy a crock or a special lid for your jar. Just grab your jar and go.
- Theresa: Yeah, go. Just grab your jar and go. That's excellent. Okay. Now, when we talk about the recipe today, we always use salt in fermenting, and I know you have your favorite salts. Could you talk a little bit about the salt, because I know that's an important element.
- Kirsten: Yeah. What the salt does is it does a few things. It hardens the pectins in the cell walls of the vegetable, and so for something like sauerkraut, or pickles, cucumber pickles, that's important, because you really do want to keep your crisp. We're talking about peppers a little bit today, which they don't have a crisp to keep, so that portion of the salt is a little less important, but the other thing the salt does is the lactobacillus, the guys we're trying to encourage, don't mind the saline environment, whereas some of the other bacteria do, and so it gives them an upper hand to just get started. They get in there and they're like, "Woo," you know? Party. Here's the carbs. Let's go.
- Theresa: Right. It buys you some time.
- Kirsten: It buys you some time that way, and then the other thing it does is it actually slows down the fermentation process just a little bit, which is really important when you're fermenting in the summertime or if you live in Florida, or somewhere where you just are dealing with more heat, because fermentation is sensitive to the heat. Not sensitive as in it's a very narrow margin, more that heat plays a role in it, so the ideal heat is 55 to 75, and we can come back to that. I know we're talking about salt.
- Theresa: Yeah. Oh no, that's okay.
- Kirsten: But that is the other piece that is important about salt, is if you know that and you're fermenting and you know you don't have a place that's really cool in your house, say in August, then you might just add just a tiny bit more salt to help slow it down. What slowing down does is it gives you a better flavor. It just keeps the process. It's a succession of members of that lactobacillus family. They're not all the same bacteria doing the same thing. It's not one variety. It's a succession of different ones, and they sort of have a different role.
- If it slows down enough that everybody can play their role, you get this really complex wonderful flavor, and tasty ferment. If it goes too quickly sometimes it just is just a really flat, really sour ferment, and so it's just a nice thing to know. Salt isn't what does the preserving. That's I think an important thing for folks to know who are a little bit leery of the whole fermentation thing is if you're

thinking, "Okay, well I'm just going to add a little more salt to make sure that I don't kill my family," you don't need to do that.

Theresa: No. Don't do that.

Kirsten: You're just going to get a salty kraut that you don't want to eat.

Theresa: Yes, exactly, or that'll go really, really slow.

Kirsten: Right. Right. The salt is just a piece of the whole picture. It's the acidification that does the preservation, and so if you remember that. What's nice to know is it's not super salty. Our recipes are about 1.5%. We actually use mineralized salts that are higher in trace minerals and lower in sodium chloride, so again, you're not just throwing the salt on for those that don't want to use a lot of salt. Actually, fermentation is a great place to get good salts in your diet, and you don't use as much as you think. A good way to know, let's say you're just experimenting, is you should taste the salt. It should be like a salty chip, a comfortable like, "Oh, yeah I could eat this all day" salt, not briny, not I just swallowed a bunch of ocean water.

Theresa: Yes. Good. That's a good-

Kirsten: That's another thing that's just nice to remember, is the salt is just a piece of the whole picture, but it's not the ...

Theresa: Yeah, it's not the whole-

Kirsten: ... [crosstalk 00:28:14] thing.

Theresa: Right. It's not the whole thing. Right. You want to use salt without any ... You don't want any anticaking agents in it. I like to use Celtic Sea Salt, but I know you also have a ... You use that one, and you also use another one. What's the other salt that you like to use?

Kirsten: I like the Redmond Real Salt. It's a pink rock salt out of Utah.

Theresa: Okay.

Kirsten: Very similar to like a Himalayan salt, just got a nice sweetness because of the trace minerals, again, like a Himalayan. It just is Utah's closer.

Theresa: Yeah.

Kirsten: It feels more local.

Theresa: Yeah.

- Kirsten: But yeah, I like these salts. I love the gray sea salts as well. The other one is an added iodine. The iodine that are in these mineralized natural salts is fine. It's not going to affect your ferment, and it'll be good for you. Iodine that might be in a little bit of seaweed is also not going to be a problem, but if you buy an iodized table salt, that actually can be a bit of an issue in your ferment.
- Theresa: Okay.
- Kirsten: I've had it where it hasn't been, but I've also had it where it discolors it and kind of interrupts the process.
- Theresa: Okay. Good. All right. Then the other piece that we're going to need is water, and I know a question that people ask a lot is, "Well, what if we have tap water that we know has chlorine or even ammonia in it? What should we do? Should we just use bottled water? What should we do?"
- Kirsten: Yeah. The chlorine and the newer versions, the chloramine with the ammonia, it does make it trickier. If you know it's just chlorine, you can leave it out overnight and the chlorine will dissipate, but if it's the chloramine with the ammonia in it, that's not going to work, so it needs to go through reverse osmosis system, or something like that, or just use bottled water.
- Theresa: Okay.
- Kirsten: Because again, you just don't want to interrupt your little guys.
- Theresa: Right. Right. It can be a little bit more ... If you have the ammonia, it's a little more complicated process, so then you'd go to bottled water. That makes sense.
- Kirsten: Mm-hmm (affirmative).
- Theresa: Okay.
- Kirsten: Yeah.
- Theresa: All right. Great. Well, I think we're going to walk through a recipe, so I'm really excited about this, because you had in the book these gorgeous photographs of this particular pepper mash, and I thought that's a fantastic recipe to go over, so I'm excited you're going to talk about it. What is the basic pepper mash, and how do we use it?
- Kirsten: Okay. Basic pepper mash can be made with any pepper, like I said, red peppers, bell peppers if you don't want any heat. It still makes this fantastic almost salsa-like fermented mash. It's sort of the plain sauerkraut of peppers. You can use

that like we talked about a little before. Even if you have this pepper that is a chili powder or something that you love the flavor of and you'd like it to be in a sauce that you can scoop on tacos or whatever, again this pepper mash is what you would do and then you'd add your chili powder.

Theresa: So it's great if you're a gardener and you have a whole bunch of peppers come on. You could kind of mix it up.

Kirsten: It is wonderful.

Theresa: Yeah.

Kirsten: Yeah. In fact, we do a variation of the pepper mash in the book, and we'll use all those wonderful green peppers. You know, there's such a trio of those southwestern flavors with the jalapeno, the poblano, and a green chili, and we'll do this same technique of mashing the peppers with salt. In this case, I do add a little bit of onion, and garlic, and some coriander, and cumin, and then I have this wonderful way to preserve that fresh flavor from my garden in the summer.

Theresa: Oh, man. That sounds so good.

Kirsten: Yeah. I'll talk about what you do.

Theresa: Okay.

Kirsten: You couldn't be more simple. I mean, for anybody that's spent all day canning jars and jars of salsa, which I know that girl very well, this is just so much simpler. You take your peppers, like I said, it's a 1.5% salt per ratio of pound, so a small pint jar is about a teaspoon, but if you're doing-

Theresa: So we would add about a teaspoon of salt to a small pint jar of peppers?

Kirsten: Well, yeah, which is going to be about a pound of peppers.

Theresa: Okay. Got it.

Kirsten: So you can take about a pound of peppers. You're going to add about three quarters to a teaspoon. I tend to add a little more salt to the peppers just because it ends up being a condiment, and with condiments we tend to like to have a little more salt in them.

Theresa: Sure.

Kirsten: You just take the pepper, whatever pepper it is, from scotch bonnet, to habanero, to whatever, and you're going to cut it up, put it in a food processor, add your salt, zip it. You're looking for consistency in your mash, so if you want

it chunkier, that's fine, or if you want it to be almost pureed that's fine too. You just want that consistency.

Theresa: Okay.

Kirsten: Then that you're going to put in your jar, or if you're making a gallon's worth, you're going to put that in your crock or your gallon jar, and like we talked about before, you're just going to create this environment where either the CO2 can escape on its own via a baggie on the top, or with the closed lid where you're allowing it to burp, or you're burping it every morning. That's it. In about a week, you'll definitely have these wonderful acidic flavors you'll be able to smell as they're developing. What you're aiming for with acidity is 4.6 or lower, and I know that sound scary, but it's not. Ferments go way below 4.6 pretty quickly, so you'll know when it smells and tastes acidic, but if you want to be comfortable with that, get pH strips. They're available lots of places, and you'll just dip that in there and it will show you where your ferment's at on the pH scale.

Theresa: Okay. That's a really good tip, so I want to stop on that for a second. So if you're doing this for the very first time, and you're like, "But I don't know if I've reached a high enough acidity," then you can get these pH strips which you can get online. I've even seen them on Amazon, so you can get them online and you can test it to see where you're at, and that will give you a little bit of confidence that you know you're okay, but at the same time, if we wanted to ferment it a little longer, we could go a little longer, right, and just get it a little more tangy, a little bit more acidic?

Kirsten: Oh, absolutely.

Theresa: Okay.

Kirsten: Yeah, so in that first week you're just going to ferment it and that first week will be that testing phase of okay, it's just now done. Let's see what that tastes like. Especially if you're teaching yourself, it's really fun to keep those on the counter longer. Peppers are interesting because unlike a lot of the vegetables where at some point it's just too long, you know, all the carbs have been eaten and while it's not bad in the it'll make you sick bad, it just doesn't have that vibrancy and flavor anymore that you might have had earlier on in the fermentation cycle. But peppers, and I think it's because of the alkaloids in them, I'm actually not completely sure why, but they just get more interesting. You can end up fermenting peppers for two and three years, and get some really interesting flavors. Now, you really don't need to do that.

Theresa: Yeah.

Kirsten: But it's nice to know that if you're somebody who really wants to play with your

food, make a pepper mash and put some of it in a pint jar for now. Put some of it in a pint jar for two months from now. Put some of it in a pint jar for six months from now, and just see the changes. It's kind of fun to know that peppers have that capability. Tabasco sauce is a two to three-year oak barrel ferment before it becomes what we know of as Tabasco sauce.

Theresa: Oh, I didn't even know it was fermented in an oak barrel.

Kirsten: Mm-hmm (affirmative).

Theresa: That very cool. Yeah, that's really interesting. That's so good, because you can kind of, as you ferment, get a feel for what you like, and you are playing with your food, and that's what's fun about it. If you do it in a glass jar and you have kids, it's kind of a fascinating thing to watch, so I definitely encourage people to do this if they have children and let them kind of be part of the mad science experiment as well.

Kirsten: Oh, yeah. We love fermenting with kids. We will go in, and we, Christopher and I, will dress up as Fermento and Brine, and go to libraries and make kraut with kids.

Theresa: I love it.

Kirsten: Yeah. The superheroes of the vegetable underground, but kids love it. I mean, they love to squish their food with their hands and get that brine going with the salt, and it's just this wonderful way to engage them in the garden and in the kitchen without even having to deal with heat. Yeah, it's perfect for kids.

Theresa: Ah, that's great. Okay. On this pepper mash, when we ferment it and we get it to where we love it, is the next step just to store it in the refrigerator so it kind of slows it down and we get a chance to use it at that stage?

Kirsten: Yes, exactly.

Theresa: Okay.

Kirsten: When you're, whatever, if it's pepper mash or any ferment, when you're at that point where you've said, "I love it. It's perfect," that's when you put it into your fridge, and it's exactly what you said, Theresa, it slows it down. It puts those bacteria to sleep. They realize the party's over for a little while, and they quit eating the carbs, and they just sort of hang out in there and it stabilizes your ferment for months, and months, and months. Peppers, again, in the refrigerator, they will stay for years.

Theresa: Wow.

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- Kirsten: As long as you don't ... You want to minimize that air space, so you don't want to have two inches of pepper mash and a large air space in the jar, so as you're using it, go ahead and put it in smaller more appropriate size jars, especially if you're using it slowly.
- Theresa: Yeah. That's a good point, especially some of these that might be condiments that we wouldn't be using every day, but I have a feeling that once you make it, you'll start thinking of new ways to use and new places to put it. I mean, it can go on ... You could put it on burgers. You can put a dollop of sour cream with your tacos and burritos, and oh my gosh. There's so much you could do with it.
- Kirsten: Well, yeah. It's actually, these ferments become ... That's the thing that I think is actually the most exciting, because these all become convenience foods. They're actually not just as a condiment, but these pepper mashes or that one that I explained a little bit earlier that I make every year with the green chilies, that also becomes a basis to build a meal, because I can use that as a chili starter or something like that, where I'm using my fresh chilies from the garden, but in February, to build a tortilla soup, or a chili, or something where that actually becomes a component of the meal, like grabbing a can of Campbell's soup or something that would've been used in the '50s to build a meal.
- Theresa: Right.
- Kirsten: And that's another thing to really understand and think about with the fermentation, is it becomes these conveniences foods, and yeah, pepper mash can go anywhere.
- Theresa: Yeah. You can use it to build these layers of flavor in just about anything. Use a lot or a little, it's such a versatile recipe, so thank you for sharing it. Kirsten, I just can't thank you enough for coming on the show, because this was really a new twist to fermenting, going with more heat and spice, but you don't have to burn your mouth, and that's what's so exciting about it. It does give a whole new dimension to fermentation, and I can't thank you enough for coming on the show today.
- Kirsten: Oh, absolutely. Thanks for having me. I love to share that, especially with folks that are gardening. It's like, "Oh, yeah. I wish I'd started fermenting my peppers earlier."
- Theresa: Yes, that's probably what everyone's going to be saying right now. They're going to be kicking themselves. Great. Well, thanks again.
- Kirsten: Thank you.
- Theresa: Well, I hope you enjoyed that interview with Kirsten Shockey of FermentWorks. I think she gave some really interesting tips, and I will have the recipe that she



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went over in the show notes for today's episode as well as links to her website, her books, her workshops, everything. To get to the show notes, just go to livinghomegrown.com/109 and I'll have everything there for you. Thank you so much to everyone who sponsors the show, because it allows me to bring these stories to you. If you're interested in becoming a sponsor of this show and getting access to behind the scenes and other exclusive bonus content, then just visit livinghomegrown.com/sponsor. That's it for today. Until next time, just try to live a little more local, seasonal, and homegrown. Take care.

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