
Living Homegrown Podcast – Episode 105 Summer Canning Q&A

Show Notes are at: www.LivingHomegrown.com/105

Theresa: This is the Living Homegrown podcast, episode #105.

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, and that can mean preserving, fermenting, small space food growing, and just taking little steps towards living a more sustainable lifestyle, all of the different ways that we can live closer to our food even if we have little or no garden space at all. If you want to learn more about any of these topics that I cover on my podcast or if you want to learn about my online canning academy or my Living Homegrown membership site, just visit my website: livinghomegrown.com.

Well, at the time that I'm recording this, it's June, and this episode will be coming out the beginning of July, so we are in peak canning season. There are lots and lots of fruits coming in both in our gardens and at the farmers markets. If you have an opportunity to go to a farmers market right now, I cannot recommend it more highly because it will be bursting with incredible flavors. This is absolutely the time to go visit a farmers market. If you don't know of any farmers markets in your area, then go to my website, and, in the show notes for this episode, I will have links to where you can track down farmer markets in your area. To get to the show notes, you'll go to livinghomegrown.com/105.

But I wanted to do this episode, this canning Q&A episode, because of all those bursting flavors everywhere, and it's just such a fantastic time to be canning. Pretty much anyone who loves to can is just getting into their groove about now because of all of the different produce that's available.

Now, what's fun about going to a farmers market is that you'll get to taste and try new things. You'll get to try new-to-you vegetables, you'll get to try delicious heirloom fruits and tomatoes, all of the different things that are grown locally in your area that you will not find in a grocery store and that you might not have room to grow in your own backyard. But, when you try these things, you may

decide to next year grow them yourself. That's why I always recommend that you try out all of the farmer markets in your area and kind of get to know the farmers that are growing your food.

Also, if you do see something that you've never tried before, absolutely ask the farmer how to prepare it. Ask them what you can do with it. I love trying new fruits that might come in, things like pluots that are a combination of plums and apricots. Sometimes, my local farmer will be bringing in fruit that I've never, ever tasted before, and they usually have samples to try too. It's a lot of fun.

Because of that, because it's that time of year, I pulled together some questions that have been rolling in that all have to do with canning. I just thought I'd do a real simple episode of just some Q&A, questions and answers, that all revolve around canning and where people might be having trouble. I'm just going to dive right in.

The first question is from Deanne, and she wrote: "Am I able to can with coconut sugar versus refined cane sugar? I love your podcast and all of the information that you provide to the beginner canner."

Well, Deanne, thank you so much. I love that you are enjoying the podcast. Let me give you the answer on the coconut sugar. I am assuming that you are asking about using it in jam and jelly recipes, so that's how I'm going to answer this. The thing is you can't just swap out one sugar for another sugar in a standard jam or jelly recipe because, if you do that, the jam just won't gel, or you'll end up with a syrup instead of a jelly or a jam. However, if you want to just reduce the sugar or swap out a sugar, there is a way to do it, but you have to use a very special product, a very special type of pectin, that is a low or no sugar pectin. The one that I recommend is Pomona's pectin. Now, I have no affiliation with them. I just love them because it's the only low/no sugar pectin that is preservative-free, so I tend to reach for a box of Pomona's pectin when I want to do a low or no sugar recipe.

The reason it works is that, in a normal jam or jelly recipe, that sugar, the sugar that they call out, is needed in order to get the proper ratio and get the gel. Now, in the case of a Pomona's pectin or a low/no sugar pectin, the sugar is not what is required to get the proper ratio. Instead, they use calcium. The calcium is what causes the proper combination to the fruit acid to get the gel. This means that, when you use something like Pomona's, you can adjust the sugar, you can reduce the sugar, you can change out the sugar because sugar actually has nothing to do with the fact that the jam or jelly will gel. Does that make sense? Okay.

The only problem with going to a coconut sugar is that there are some tricks to getting a nice texture when you make the jam or jelly. Now, I'm going to put a link in the show notes for the episode that gives you all the details on that, but

the gist of it is that, when you substitute something like coconut sugar, you have to grind it up a little bit so that it will dissolve easily and blend well with the calcium-based pectin. The answer is, yes, you can use coconut sugar, but you have to use a product like Pomona's pectin or another low/no sugar pectin or follow one of their recipes in order to get the proper gel. Okay. I hope that answers your question. All right.

The next question is from Joyce, and she asks: "I just made a batch of strawberry preserves, and, when I opened up my water bath canner, one of the jars had shattered during processing. What did I do wrong?"

All right, Joyce. This can happen in any kind of canning, not just water bath but also pressure canning, and it can also happen with any product that you're doing. They're actually a ton of different reasons that you can have a jar break. Let me first go through what some of the most common ones are, and then I will tell you a little trick for how you might be able to determine what caused your particular break. First, here are some of the factors that can cause a break.

For one, you could have a hairline crack in that jar that you just didn't even notice. I should also say I'm assuming you're using standard canning jars and not like a mayonnaise jar or a reused spaghetti jar that you bought at the supermarket. I'm assuming that you are using canning jars. Another factor that can cause a break is having an invisible weak spot in the jar. This could be due to a manufacturer defect, or it could just be from the jars being jostled around in storage. Maybe it's gotten bashed around, you didn't realize it, and it actually had not just a hairline fracture but some kind of weak spot that you can't even see. Even though you might have inspected your jars, you didn't notice anything.

Another thing that happens that is usually the most common is thermal shock. That's when you're doing something where the jar is shifting from one temperature to another very rapidly, from very cold to very hot. This would be something like pouring boiling hot food into a cold or room temperature jar. That's why the canning recipes tell you to warm up your jars before you add hot jam, jelly, or preserves, things like that.

Another thing that can happen that I find very common when people are canning is they forget to add a canning rack at the bottom of their canner in the water bath canner. That means that the jars are sitting on the bottom of the pot, and they're in direct contact with the pot. It can get very, very hot, hotter than is intended for the jar, and there's not good water circulation to keep the temperature more regular. That is actually kind of a form of the thermal shock that the jars are in direct contact, and that can cause a break. There's a few other things too.

Let me first boil down that all of these fall under 1 of 3 types of jar breaks. You

either have a thermal shock break or you have a break from internal pressure or you have a break from impact. Those are the 3 different types of breaks you can give with your jar. Sometimes, when you look at the jar that broke, you can actually determine which type of break you had. I'm going to go through each one of these 3 types of breaks and describe what the break looks like and, maybe if you remember what the jar looked like, you'll be able to figure out once one of these you had. Okay?

The first is thermal shock. Now, this one's pretty easy to spot because the break is usually done by a crack around the base of the jar. In other words, the base of the jar kind of pops off the whole jar. Sometimes, it'll extend up the side a little bit, but most of the break is just around the base. That's usually a thermal shock break. The way you avoid that is you avoid sudden changes in temperatures.

These jars have been tempered. They have been tempered to withstand changes in temperature. They can go from freezing to boiling hot. But, when it happens instantly, the glass doesn't have a chance to adjust, and it will cause the break. Things like setting a really hot jar on an ice cold counter will do this. That's why a recipe will tell you to put a towel down or a board down or set your hot jars onto the board when they come out of the canner. Or, like I said before, if you put hot food into a cold jar, and then you put into the hot canner, sometimes you'll get a thermal break. That's kind of how you can avoid that.

The other type of break, the second one, was internal pressure. Now, the way this one looks like, when you look at the jar, the broken jar, it usually has a vertical crack on the side of the jar, and it forks out into two. Now, this happens because the pressure inside the jar got too strong, and it burst the jar. Now, you can avoid this by making sure that you don't overfill your jars. That's why a canning recipe will tell you to have proper headspace. Just try not to overfill your jars just follow the recipe and leave the headspace that it's calling for, and you usually don't have a problem with this.

Another thing that can cause it is if you are messing with the heat too much. This usually happens more in pressure canning, like, for instance, sometimes, people will be in a hurry after they've done their pressure canning, and so they've tried to bring down the pressure quickly, and they'll run cold water over the outside of the pressure canner, and it drops the temperature very rapidly, and it changes the pressure inside the jar. You not only have the thermal change, but the biggest thing is the pressure change inside the jar because you're talking about a much higher pressure. That will cause an internal pressure break. The thing to do is to, if you are pressure canning, is to always let your pressure canner cool down naturally and, if you're water bath canning, to make sure that you don't overfill your jars. All right.

The third one is an impact break. This is pretty self-explanatory. This is just a break that comes from a spot where either the jar hit or had hit and you didn't

know it and you had a little fracture there. Then, when you put it into the canner, it actually continued the fracture. The way it looks is that it will be a break that comes from one specific spot on the jar and then it radiates outwards, just like you would if you had hit it against the counter by accident and it shattered into a bunch of pieces. That's usually an impact break. It may be, if you have a break like that, that it wasn't that you slammed the jar against the side of the canner. It could have been a spot that had started in storage or even at the grocery store before you bought the jars or, if you bought the jars from a garage sale or a swap meet, that break could have been started as a tiny, tiny spot. Then, when you changed temperatures in and out of the canner, it just completed the break and fractured into a bunch of pieces.

The way to avoid this one, obviously, is to take care of your jars and try not to bang them around, avoid dropping them, obviously, but also, when you store them, try to store them in a way where they won't be jostled around or slammed against each other. I store all of my jars in containers, plastic bins, in my garage. Although I do stack jars on top of each other, I'm very careful when I'm moving those bins around so that the jars are not jostled against each other.

Hopefully, you remember what your break looked like and you can use these descriptions to kind of figure out which type of break you had. But the bottom line is: Breaks happen. It will happen to the best of canners, and it's probably not something that you necessarily did wrong. It's very likely that, if you had been doing everything properly with the proper headspace and you brought everything up to temperature and you had pre-warmed your jars, if you had done all of those things, it's very likely that the cause was something in the jar that you just didn't notice, a hairline fracture or a manufacturer defect. It's not always something that you did, so don't feel bad. It happens to everybody. Okay.

The next question is from Richard, and he asks: "What's the difference between citric acid and ascorbic acid? I see both in the grocery store, and I'm not sure which one I'm supposed to use for what."

Okay, Richard. This is really a very common problem or question that people have. It's a little confusing. Let me explain what these two products are and how they're used. Citric acid is used to acidify products that you're canning, things like tomatoes. That's where it's used the most. It is not vitamin C, and that's usually what people think it is because it has citric in its title, but citric acid is used to acidify. It's added to tomatoes when you're canning them to adjust the pH to make sure that it's in the safe zone. That's what it's for. It's for adjusting your pH.

Ascorbic acid, on the other hand, is used to prevent browning. It actually is vitamin C. Even though it doesn't have citric in its name, it is vitamin C, and it's mostly used on fruit. Where you would use ascorbic acid is when you're making

an acid wash or dip for things like apples. You might mix some up, and then you would dip your apples or your peaches into that and then move on with the recipe, and that will prevent browning. That's what ascorbic acid is, but it's very confusing because they look identical, their names are very, very similar.

If you're ever in doubt, just make sure, before you pull it off the shelf and use it in your recipe, that you make sure, if the recipe is calling for citric acid, that you pull citric acid off the shelf. If it's calling for ascorbic acid, you pull ascorbic acid off the shelf. Just double check that the jar in your hand is what's matching what it's calling out in the recipe, and you won't have a problem. Okay.

The next question is from Nicki, and she says: "I just made a batch of blackberry jam yesterday, and, this morning, I can see some bubbles inside the jar. Is this jar safe, and is it okay?"

Okay. This is another really common question, Nicki, so I'm glad you asked it because this can happen with any jam, preserve, pickle, anything. You go through the process, you follow the recipe, you're all finished, and the next day you go to check your jobs, and you notice some bubbles inside. First of all, just know it's only been 24 hours, so those jars are perfectly safe, and it's very common to have bubbles inside that really happened or were created during the canning process.

As you move those jars and set them on the shelf, you may see, inside the jam, you may see some little bubbles that were created in there, and then it solidified around those bubbles, but this can also happen in things like pickles. When you first pull them out of the canner, the bubbles have not finished being dislodged. That can take about 24 hours to 48 hours for any bubbles that happened during the processing to settle down.

Now, what you want to watch for or where you start to worry or you have a danger factor is if, later down the line, let's say a week, two weeks, or even a month or two from now, you notice bubbles in the jar, but they're moving. That is caused by fermentation. That means that something inside the jar, whether it's good or bad, is starting to ferment or have some kind of bacterial activity. Since we're not fermenting at this point, that's not a good thing.

If you ever go to pull a jar off the shelf and it's been sitting there for a while and you notice there are bubbles and they're rising, they're moving, chances are you've already lost the seal on that jar or you are about to, and you really need to just throw that contents away because it is fermenting on the self. However, if you just have pulled those jars out of the canner, you absolutely will see bubbles inside, and that's okay. Those bubbles are caused by the process itself, and they will settle out or, in the case of jam or jelly, those bubbles will either rise to the top or they will become encased inside the jam and jelly, and that's fine. They're not moving.

If you ever see a bubble and you haven't touched the jar, just stop and watch and see if any of those bubbles are moving. In a jam and jelly, they should not be moving at all. They are completely encased inside that product, and they are just a product of when you processed.

Now, this is also a good time for me to remind you that you should always store your jars with the rings off. You are probably using a two-piece canning lid when you're canning, and, once you have finished the process and your jars have completely cooled and it's been 24 hours, you should be taking that ring, the ring that holds the lid on, you should be taking that ring off the jar. This is exactly one of the reasons why because, if you have fermentation start in a jar that's sitting on the shelf, it will pop that lid off, and you will know immediately that that jar is no good. However, if you have the ring on and you have it on very tightly, that ring is holding the lid on, and, even if you have fermentation or any other issue with the jar, the lid won't pop. You actually have a false seal because you're holding it on with the threaded ring.

That's why, whenever you can food after the jars are completely cooled about 24 hours later, take those rings off, wipe down the jars if there's any stickiness or anything on the outside, and then put them on your pantry shelf. Later, when you go to pull that jar off the shelf, if that lid is not on, it's not sealed, you'll know right away, and you'll know not to consume the contents. It's a really simple way for you to stay safe and know that the jar has remained sealed the whole time it's been sitting on the shelf, but that's an excellent question, Nicki. I'm really glad you asked about the bubbles because it's okay right when they come out, but it's not okay like a month from now. Okay? All right.

One last question. This question comes from Jenny: "This may sound like a really silly question, but why are people no longer using wax to seal their jams and jellies when canning?"

Okay, Jenny. No, it's not a silly question at all. I get this question every year, and it's because, way back up until like the 1980s, people were using wax to seal their jams and jellies. What they would do is they would melt paraffin wax, and they would pour it over the tops of the jars to create a seal. However, this is no longer considered a safe method, and it's been phased out quite a long time ago, although, if you go to any canning section, you will still find paraffin wax sold there because that's where people usually go to find paraffin wax if they're looking for it in the supermarket. But you don't want to use paraffin wax when making jams and jellies, and here's the reason why.

One of the things that would happen when you would use paraffin to make the seal is that, as the jars sit in the pantry, there would be temperature fluctuations, and the paraffin would pull away from the sides of the jar a little bit. In other words, it was no longer sealed. Although jams and jellies would

typically be very, very high in sugar, and sugar is a preservative, eventually you would get mold growing around the edges or underneath the paraffin, and it would be in contact with the jam and jelly underneath.

Now, what they discovered is that the mold that would grow is actually a carcinogen. It's never really good to eat mold anyway unless you're making cheese. Otherwise, you want to avoid mold. But the particular mold that would grow in jams and jellies is considered a carcinogen. What we used to do when I was really young and my mom used to can this way, she used to use paraffin wax on her jams and jellies, is, if someone saw mold on top of a jar, they would just scoop off that part and throw it away, and you think, "Okay, well, I got rid of the mold." Well, actually, no. They now know that the way that mold would grow is it has long tentacles that goes down into the jam or jelly. When you were just scraping off the top, you actually were not getting rid of all the mold that was there. And it's just not a good idea to eat something that's already starting to spoil.

They removed paraffin as a proper method in the USDA guidelines here in the United States. I'm sure that in some other countries they still use paraffin wax, but it rarely will give you a long-lasting seal, and, if you do get mold, it can be a carcinogen. That's why no one uses the paraffin wax anymore. It's much better to get the two-piece canning lids that you see that come with the standard Ball or Kerr mason jars or one of the other more modern canning lids and can and preserve using those particular lids. You can regulate the seal better. You can tell immediately if there's been a problem with that seal, if it's been defective or compromised, and you have a much safer product in the end while it's sitting on your shelf.

That's it for this week. If you'd like more information about canning or you'd like the link for seeking out farmers markets in your area or if you're interested in the canning academy, you can go to the show notes for today's episode. To get that, you go to livinghomegrown.com/105.

I'd just like to say one thing about the canning academy. You can probably tell I'm pretty passionate about preserving the harvest and eating locally and seasonally, and the canning academy is going to be opening its doors again. I only open the doors a few times a year, and I'm going to be opening the doors again to this course. This course is a little different from most canning courses. If you listen to this podcast at all, you know that I was trained as a master food preserver, I went to a culinary, and I have a BS degree in engineering. What I do in my courses is I teach people the science behind the techniques because I find that people are very afraid of canning, but, if they understand the reasons behind the rules, then the fear goes away. If you're interested in the canning academy, be sure to go to livinghomegrown.com/courses, and I'll have information for you there as well.



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Thank you so much for joining me here today. I know how busy you are, and I really appreciate that you took the time out of your busy day to spend it here with me on this podcast. Until next time, just try to live a little more local, seasonal, and homegrown. Take care!

Announcer: That's all for this episode of the Living Homegrown podcast. Visit livinghomegrown.com to download Theresa's free canning resource guide and find more tips on how to live farm fresh without the farm. Be sure to join Theresa Loe next time on the Living Homegrown podcast.