
Living Homegrown Podcast – Episode 116 Don't Do Fall Garden Cleanup!

Show Notes are at: www.LivingHomegrown.com/116

Theresa: This is the Living Homegrown Podcast, episode 116.

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, everybody. How's it going? Welcome to the Living Homegrown Podcast. This is your host, Theresa Loe, and this podcast is where we talk about living farm fresh without the farm, and that can be preserving or small space food growing or just taking 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. If you'd like to learn more about any of these topics or my online courses or my membership, just visit livinghomegrown.com.

Today's episode is all about why we should not be doing a fall garden cleanup. That might sound kind of counterintuitive to some of you if you've never heard that concept before, but we're actually not doing a service to our garden when we do a massive cleanup. I'm talking about where we're ripping out every little thing and we're spreading down mulch and we're making it look like a pristine, clean area where it'll be all set for when spring time comes.

The thing is, we really shouldn't be doing that if we want to keep our garden in a balanced fashion for organic gardening where we really keep the ecosystem running smoothly. Since a lot of people don't know this or they don't understand the real reasoning behind being told not to do a fall cleanup, I wanted to bring on Jessica Walliser. Jessica has been on the show before. She was on episode 88 where we talked about attracting beneficial insects to the garden, and she is a super knowledgeable organic gardener and she knows a lot about the insects, bugs, birds, bees, everything that we have in our backyards, so she's always fun to talk to.

I was having a conversation with her the other day and I said, "I want to have you back on to talk about something for the fall. What would be a good topic," and she suggested this. I was like, "Yes, this would be so interesting."

Let me tell you a little bit about Jessica in case you didn't hear her when she was

on episode 88. Jessica is the cohost of the Organic Gardeners, an award winning program on KDKA Radio in Pittsburgh, Pennsylvania. She's a former contributing editor for Organic Gardening Magazine and a regular contributor to Fine Gardening, Urban Farm, and Hobby Farms magazines. Jessica also serves on the editorial advisory board of the American Horticultural Society, and her two weekly gardening columns for the Pittsburgh Tribune Review have been enjoyed by readers for over 10 years.

Jessica's fourth book, *Attracting Beneficial Bugs to the Garden: A Natural Approach to Pest Control*, was awarded the American Horticultural Society's 2014 book award, but she's also the author of Amazon's bestseller, *Good Bug, Bad Bug*, and *Container Gardening Complete: Creative Projects for Growing Vegetables and Flowers in small spaces*. That *Container Gardening* book, that one is brand new and it's going to be coming out in just a couple of months, so I'm going to have Jessica come back to talk to us about that one.

If you'd like to read more of Jessica, she also blogs weekly for both savvygardening.com and hobbyfarms.com, so she has a lot of knowledge to share, and I know you're going to find this topic really, really interesting. Also, what's kind of fun is that I do get a lot of listener questions. A lot of what I cover on the podcast is directly related to your requests. A listener wrote in, Alicia, and had a question about trap cropping, and I knew that Jessica would be the perfect person to discuss this, so at the end of the podcast, we do talk about that, as well.

Jessica wrote a really fantastic related article that's completely related to today's topic, and I'm going to be linking to that in the show notes as well as information about where to find Jessica's books and several other of her articles that are related to today's topic. To get to the show notes where all these links will be waiting for you, just go to livinghomegrown.com/116, and I'll have everything there for you, right at your fingertips.

All right. With that, let me share with you the conversation I had with Jessica Walliser, the author of *Attracting Beneficial Bugs to the Garden: A Natural Approach to Pest Control*.

Hey there, Jessica. Thanks so much for coming back on the show.

Jessica: Thank you so much for inviting me.

Theresa: This is a really great topic so I'm excited to have you back and it's just something that I think people don't realize the reasoning behind this philosophy, so it's going to be a really good topic to dive into. Before we do, I know you were on episode 88 where we talked about attracting beneficial insects, but a lot of people may have missed that episode and not know your background, so I'd love for you to give everyone a little bit of information about your background

and what you do.

Jessica: Great. I guess, the first thing to start with is that, by trade, I am a horticulturist. That's what my degree is in and I've spent my life literally surrounded by plants, and it wasn't until I was well into an established career as a horticulturist that I really came to appreciate and love the insect world, so maybe I missed my calling by not becoming an entomologist, I'm not sure, but I think the two marry together very well. My mission, lately, has been all about the insects and really promoting the important and value role that they play in our gardens and our landscapes and our lives, and the different ways that we can nurture them, as well.

When I'm on my radio show or writing for the web or going out and giving lectures to the gardening public, I'm about the plants, but just as much as plants, I'm also about the insects and promoting them and helping people learn some facts that maybe they didn't know before about insects, and I'm sure that we'll get some of those across in today's podcast, too.

Theresa: I know we will, and that was what was so fun when you came on episode 88, was because you were telling me things that, even with all the reading I've done, there were things I had no idea about insects. It's really a fascinating world and you always have so much science behind what you talk about, and it just really is a fascinating topic. If you tell someone, "Oh, I'm reading this article about insects," they might not think it sounds very exciting, but it really is truly fascinating, the way they live, the way they work, the way they work in the garden, and everything is just this big, cohesive world that we don't even take notice of. This is going to be really interesting.

I guess, I would love to dive into this topic. When we were trying to decide ... You and I were talking and we were trying to decide what would be a good topic for fall, and you mentioned this, of, we should not be cleaning up our garden in the fall time, and everyone is doing that, that's a very common thing. A lot of organic gardeners know that you're not supposed to clean it up and make it spic and span and perfect, but a lot of people don't, and they don't understand why they shouldn't, so why don't we dive into that? What is the reasoning or what is the philosophy behind not cleaning up our garden in the fall?

Jessica: Yeah, it's funny that you put it the way you put it, because the way you almost stated that was that, as if everybody already knows that they're not supposed to clean up their gardens in the fall, but the sad reality is that the vast majority of the gardening public that I come across in my daily life here in the eastern region of the US, is still putting their gardens to bed, quote, unquote, clean for the winter.

They're still raking up every last leaf, cutting down every perennial, completely cleaning out their beds and cutting down roses and cutting down ornamental

grasses, all because they think putting the garden to bed clean is better. I understand why people still do that, frankly, because that's how, for many years, when I taught at the botanic garden here in Pittsburgh, that's what I taught people. I taught them to put their garden to bed clean, but there's been so much research on why we don't want to do that and I wish that everybody would get to the point where they would cut it out and they would stop cleaning up their gardens in the fall, but as you and I are going to dive into next, there's tons of reasons why we want to skip that fall cleanup and instead save the cleanup of the garden. If we're going to do one, we want to save it until the spring.

I just want to make sure that people are clear that even though you may still be doing this, you're not necessarily a terrible, horrible, rotten person, you just haven't caught up with the rest of yet, and to really understand the reasons why we need to make this shift.

Theresa: You're absolutely right, and I sometimes forget, because it's something that I'm reading all the time or I'm in discussions all the time, that it's not a common practice. For the most part, we're talking about perennial gardens, maybe not specifically food gardens, although there is some things we should be leaving or can leave behind in our food gardens, and then there are some things that maybe we shouldn't. We'll dive into that as we're talking, but, definitely, I think, you're right. On the average, most people don't realize that this is a thing.

It just has become kind of a topic in the organic gardening world, so more and more people are starting to discuss it, which is fantastic. I guess we should start, maybe, you diving into a couple of the reasons why we would not want to do that.

Jessica: Yeah, well, me behind the bug nerd that I am, I think, first, of course, about all of the insects that are overwintering in our gardens. A lot of times, we give press to our native bees who are obviously very valuable to the ecosystem, and, yes, they need a place to spend the winter, and I know that you've had guests on your podcast before that have talked about that. I think, for me, the one that tends to get most people interested in skipping that fall garden cleanup are the butterflies.

This has become a personal mission for me and I don't mean to sound anti-Monarch at all, because, obviously, I love bugs. I love Monarch butterflies. Their epic journey is unlike anything else that occurs in the insect world, and they deserve to be protected and preserved, and they deserve the press that they're getting, but there are hundreds of other species of butterflies that reside in our gardens all year round.

They don't fly south for the winter like the Monarchs do. They don't do a migration, so instead, they're overwintering in my Pennsylvania garden, your

California garden, my friend Amy's garden in Minnesota. They're spending the winter there, and when we cut down our gardens to the ground and we rake out all those leaves, we're getting rid of their overwintering habitats and, actually, we might be getting rid of the butterflies, themselves.

Usually, that conversation with people leads to the next question for them which is, if they're overwintering in our gardens, why don't we ever see them? Why don't I ever seem in the winter? How are they overwintering? Are they little tiny eggs, or are they in their pupa, or how are they overwintering?

The answer is, all of those. Some of them overwinter as adults. Here in the east, that would be like the morning cloak, the Milbert's tortoiseshell butterfly which is my favorite butterfly of all, and I only ever see one a year in my yard, the comma butterfly. They overwinter as an adult. They're go into underneath the bark of tree or in a rock fissure or under the leaf litter and they just sit there. They go into a state of, like, hibernation, for all winter long.

Others overwinter as a chrysalis, so that would be like the swallow tail family which, as you know, is a very big family of butterflies. The swallow tails, the sulphurs, they spend their entire winter, their last generation stays in chrysalis at the end of the year, and that chrysalis could be hanging to an aster stem or a milkweed stem or some other type of perennial, or a tree in the garden somewhere. When we cut that stem down and we throw it onto the compost pile and don't see, these chrysalis look just like the stem. We don't even see they're there, you're getting rid of that butterfly.

Also, some overwinter as a caterpillar. Butterflies like the red spotted purple, which is probably my second favorite butterfly, the viceroy, which is a mimic. It looks a lot like the monarch butterfly, and then also, many of our fritillaries, they overwinter as caterpillars. A lot of times they roll themselves up into a fallen leaf or they go inside of a seed pod and they hunker down for the winter there. Again, we clean up the garden and we get rid of ... We could actually end up killing these insects, or, at the very least, we get rid of the places where they will spend the winter.

For me, that's probably the biggest connection for gardeners. A lot of them, it sort of sets off alarm bells, because we have such an affinity for butterflies, we adore and love them so much. That's the one that gets a lot of people to stop cleaning up their gardens in the fall, because we want to encourage them.

Theresa: You bring up a really, really good point, and that is that they're camouflaged. They're so well blended in, we have never seen them or even notice them. I didn't realize that they would be overwintering in different stages. I assumed that they would all be either adults or that they would be in their chrysalis, so that's really fascinating to me that they are actually in different stages, depending upon where you are and what type of butterfly you have, but, yes,

absolutely.

We don't even know that they're there, so instead, we should be doing what with our garden when we get to the end of the season?

Jessica: Let it go. I want to sing that song from Frozen, right? "Let it go," or whatever that song is. Is that the song? Are that the words?

Theresa: I don't know, I never saw the movie.

Jessica: Yeah, anyway, anyway, she's basically just like, "Chill out, relax," and stop being such a perfectionist about your garden in the winter. Especially, as you mentioned earlier, in our perennial beds, our ornamental flower beds, let everything stand. The exception to this is if you have a plant that had a definite disease or pest infestation. I'm not talking about, you just see a few Japanese beetles on a plant. I'm talking about if it was major, powdery mildew on your bee balm, or major on your peonies.

If you had a pest or disease outbreak, then, that particular plant, you want to cut down and get that foliage and debris from that area out of the garden, because you don't want to harbor those pathogens or those pests. Even that's not a guarantee, of course. Powdery mildew almost always comes back anyway, regardless of whether or not you clean up that debris.

In my own garden, whether it was diseased or pest-infested or not, I leave it go. I leave everything stand through the winter. If it's something that's going to drop a lot of seed, that I don't want to seed like crazy all over the garden, those plants I will deadhead. I will just take off all the spent flowers so that they don't throw a lot of seed, but I'll leave all those stems standing through the garden in the winter.

It's really important to do so. It's not only just for the butterflies, but obviously there's lots of other insects that take shelter in those stalks and stems, as well. If you want to, we can dive into some of those other insects, as well.

Theresa: Yes, absolutely, we will, but I love that you said about the deadheading, because that was actually my next question, was, what if you have something that if you leave it there, you're going to be infested with all these weeds and we're always trying to make our job a little bit easier, so, just deadheading, but leaving the stem is super important.

Jessica: Yeah, and you say the phrase, "Making our jobs easier." A lot of people, they get into this state of mind where they, "We have to clean up the garden in the fall because I'm so busy in the spring and I have so many other things to do, and it's so much work when you do it in the spring." The fact is that once you're a year or two into this, you actually come to realize that it's less work in the spring, and

I'll tell you why. The moisture content in all of those dead plant stems, all of those fallen leaves and all that debris, the moisture content dramatically reduces. The decay process already begins. The moisture has now left all of those old plant stems, and they are, probably, I would guess, about a third, or to a quarter, of the weight that they were the fall before.

By saving your cleanup until later in the spring, all that debris is so much lighter to carry and haul out of there. A lot of times, depending on the habitat of your garden, so much of it will already be ... The litter on the ground, the leaf litter and things, will already be on the route to almost fully decomposed, so you don't even have to clean that over the garden a lot of times. You can just let it sit.

Don't keep thinking that it's going to be more work in the spring, because the fact is, it isn't. It's more work when you do it in the fall when everything is fresh and still green, and heavy. It's so heavy to haul all that stuff out in the fall.

Theresa: I actually like letting everything sit in the fall for the very reason that I'm really busy in the fall. The holidays are coming up, the kids are back in school, I've got a lot of stuff going on, so it's kind of freeing to not have to do anything.

Jessica: I agree. The big reason people often would say for leaving the garden stand or even leaving particular plants stand through the winter is for the birds. They'll say, "Oh, the birds. We love to see the snow on the sedum heads and I love to see the gold finches on the cone flower." That is an excellent, excellent reason to leave those plants stand, but again, here we go with an extended reason off of that. That is, again, for the bugs. Most of those birds that eat those seed heads will also eat insects. They need protein rich food during the winter months to stay warm, and, guess what, bugs are full of protein.

As those bugs are overwintering in the leaf litter and on those plant stems, the birds have an extra food source all winter long. Don't just think about it in terms of the berries and the seeds that you're leaving behind, but also the protein source that you're leaving behind, as well.

Theresa: That's an excellent point and something that I wouldn't even have really thought about except when we've talked before about migrating birds. They need that protein to be able to migrate, so it's super important. You, one time, were telling me about how some of the berries actually ... The reason that some of the berries are left and the birds wait to eat them. Can you tell that story?

Jessica: Yeah, and you may have noticed this in your own garden, but sometimes, like crab apples, the little apples, or pyracantha berries or some of the viburnums, when they first are produced on the plant, they're really hard, super hard, especially the crab apples. The birds actually can't eat them when they're really hard like that, or they're really difficult to eat and digest when they're really

hard like that. In many cases, the birds will actually let the fruits hang on the plants as long as possible. At the very least, they'll let them on there through one or two frost cycles, and through that freezing and thawing cycle, the tissue starts to soften in that fruit, and it actually starts to ferment.

As you know, fermented fruit produces what? Alcohol.

Theresa: Alcohol.

Jessica: Exactly, and so the birds ... There's actually a lot of documentation out there and evidence about this phenomenon of drunk birds, of dizzy birds with weird flight patterns, misbehaving flocks of cedar wax wings, because they get these fermented berries. There's even some instances where the birds have died because of alcohol poisoning because they ate so many fermented berries. Even underneath our spare bedroom window we have a winter berry bush there, and it gets a ton of berries on it, and the berries are beautiful and I use them Christmas decorations and things, but then they sit on the plant and they start to get a little darker in color. They start to get softer texture. If you squeeze them, you'll feel that they're softer, and just when they're at the right point, we'll start to see flocks of birds come in and glean those berries off.

The birds know exactly when they're at the right point that they can digest them the best and that they'll get a nice little buzz off of eating those berries. It's kind of a fun thing to watch.

Theresa: Oh, my gosh, so they're mixing little martinis and playing music. That is so funny, yeah.

Jessica: Exactly, it's like a bird cocktail party out there.

Theresa: I guess so. Well, I guess it makes sense. They know how to have a good time.

Jessica: It's true.

Theresa: What are some of the other things that might be overwintering in our garden, besides the butterflies and caterpillars. Oh, and before we dive into that, I wanted to mention, as I mentioned it in the open, but you have this fantastic article all about this and I'm going to be linking to it in the show notes, but one of the things that you also even link to in this article is about caterpillar gardens. I want to make sure that everyone knows that when they go to read this article that you wrote about the six reasons not to clean up your garden this fall, you also have links to other related articles in there, and one of them is all about caterpillar gardening, so I want to make sure that everyone knows ... It's going to take you down this rabbit hole and it's really fascinating. There's a lot more information that you have, which is fantastic.

Jessica: Thanks, I think so, too. Going back to those butterflies real quickly here, because you mentioned the caterpillar point. If you go online and you read all these articles about butterfly gardening, they almost always focus on the adults and maybe a little bit about milkweed for the monarchs, but if you did jump down the rabbit hole and read that article about how butterfly gardening is actually not about the grownups, it's about the caterpillars, you came across a list of different host plants and how so many butterflies beyond the monarch have very specific host plant needs. That Milbert tortoiseshell butterfly that I mentioned earlier is my most favorite butterfly, the only host plant that it can eat is stinging nettles. If you want to see that butterfly, you have to have stinging nettles around for their caterpillars.

Is that a plant most gardeners are going to put in their garden? Probably not, but maybe if you have somewhere at the back of your property where they would grow, that would be an excellent place to put them. Violets, for the fritillaries, violets are the only host plant here. People kill violets in their lawn all the time. Imagine how up in arms everybody would be if we did that with milkweed and we just killed it indiscriminately. We're doing that to violets, and violets are the only larval food source for many species of fritillary butterflies.

It goes back to true butterfly gardening is about gardening for the caterpillars, not necessarily gardening for the adults.

Theresa: You bring up a good point. It's all about balance, too. We don't need to wipe out every little thing if we don't like it. You even suggest that we have a little section that we just grow things that would be good for caterpillars. I think that's a really good suggestion.

Jessica: Yeah, I like it, too. Maybe they're not the prettiest plant in the world, maybe they're not going to make it onto the cover of Fine Gardening Magazine, but it really doesn't matter because the fact is that they are playing a role in the ecosystem of the garden, and one that will lead to the beauty, because without the caterpillars and their potentially unattractive host plants, we won't have those absolutely gorgeous butterflies calling our garden home. It's one of those things where you got to take the less beautiful if you want the real beautiful down the line.

Theresa: Yep, you're absolutely right. I know there's some other things that are overwintering in the garden that we really could be harming by cleaning up. What other things are we doing by leaving the garden intact through the winter.

Jessica: Yeah, obviously, there's way more insects in our garden beyond the butterflies that we talked about earlier, and the bees, of course. There's also lots of other beneficial insects that need a place to hunker down for the winter. Many of them are predatory or parasitic. These are the insects that help the gardener, because they eat pests in the landscape. Even something like a ladybug, people

think all the time, "Lady bugs come into our house in the winter," because sometimes they'll collect on your window sills, but the species of ladybug that comes inside of your house to overwinter is actually the Asian multicolored lady beetle. It's a non-native species, and it's the only species of ladybugs here in North America that overwinter inside of our homes, but there's over 400 species of native ladybugs that do need a place to spend the winter that doesn't involve our living room window.

Instead, all of those native species of ladybugs will overwinter in leaf litter or around the base of a plant or under the cracks of tree bark. Again, giving them an overwintering site. We all know how beneficial ladybugs are for the garden, because they eat a huge amount of pests, but they're not the only beneficial insect that help us control pests that overwinter in the garden. Everything from ground beets and parasitic wasps, lace wings, my new pirate bugs, there's just, literally, thousands of species of beneficial insects spend the winter in our gardens.

The only way they can do that, however, is if we leave debris there for them to take shelter in. They're not going to just lay down on the ground and go to sleep for the winter. They selectively pick a sheltered site to hunker down for the winter, because they need to feel safe. They need to be safe from predators. Again, it all goes back to reasons why we don't want to clean up the garden in the winter.

Theresa: Yeah, you're so, so right, and I think people will understand that a lot better now. You even have talked in the past about how it can really be quite beautiful to leave things. We always think of, "Oh, beautiful color," and in the winter we have the silhouettes of some of these plants, and we have the dried stalks and the snow can fall on that and be quite beautiful. It's not just ... We kind of have to enjoy our garden through all the seasons and not try and make it look picture perfect all the time.

Jessica: We do, and it was interesting, because a few years ago at the Philadelphia Flower Show, there was an exhibit there. I don't know if you've ever been, Theresa.

Theresa: No.

Jessica: It's lovely, and they are usually full of carnations and mums and very dramatic displays of color and fragrance and very bold, but one of my favorite displays that they did there was of decay, and it was the beauty in decay. It was dead plant stems, dead grasses, dead golden rods, with a stone path and I believe there was a stone bench at the back of the path. It was basically a display showing you what the beauty is in a garden in the dead of winter when we let it be, when we leave it stand, and we let it be the way nature intended it to be.

It was really quite a thought-provoking display for a flower show that's usually about bold colors and fragrance and flowers, flowers, flowers, and here we are with dead plants. It stimulated a lot of conversation. They had great educational materials there, as well. Maybe that's something for your listeners. If you leave your garden stand for the winter and you're worried about what the neighbors will think or, "Oh, they're going to think my garden's a mess and I don't tend to my garden."

Maybe join a wildlife habitat association where you can file to have your garden become pollinator habitat, certified pollinator habitat. They will provide you with a sign or you buy a little sign and you put that up, that lets people know that there's a real reason, and it's a legitimate, good, great reason for leaving that garden stand in the winter and it sort of validates it. Maybe you'll get your neighbors on board. Maybe you'll have your whole neighborhood leaving the garden stand through the winter, and as a result you'll see an increase in numbers of native bees and butterflies and all these other wonderful insects and birds that live in our landscapes and should be living in suburbia. Suburbia can be a part of the ecosystem if we let it be. Leaving these gardens stand through the winter is one way that we can do that.

Theresa: That such a great idea, about putting up a sign, because then you're educating everybody at the same time. They always have the website on the sign, so then people who are maybe just out walking their dog, will get curious and want to check that out. I think that's a fabulous idea, and then people won't think you're crazy.

Jessica: Right. I think, we're on the cusp of a major change with all this. As we both talked about really early in this conversation, in our circles, the people that we run with, the organic gardening world, a lot of people are leaving their gardens stand and they're not thinking twice about it, so I think that this sea change is really starting to happen. Hopefully, with programs like this, with the education that I do, the education that you do, we can reach out to more and more people to let them know how important this matter is. If signage is the way to do it, great, but, it's happening, and it's going to continue to move forward and I would just really like to stress to our listeners today that they jump on that bandwagon and really help this wave roll along, because it's such an important one.

Theresa: I agree a hundred per cent, and I'm so appreciative of you coming on to talk about this, but the show's not over yet. Even though we're closing out this topic, I did want to ask you another question. It was from a listener who wrote to me about a bug question, and I thought, "I'm going to save this for you for when you come on," because I think it's the perfect thing for you to answer. Would it be okay if I read her question and you answered it?

Jessica: Sure. Yeah, I'm a little nervous now, but go ahead.

Theresa: No, no, I know. I'm putting you on the spot, but I know you know this answer. Okay, this is from Alicia and she said, "I recently learned about the concept of trap cropping or planting decoy plants around the garden to distract pests from destroying the plants you actually want for food or flower production. This seems like a perfect solution for organic gardeners and especially perma-culture inspired gardeners." She wanted to know if we could talk about that on here, so I thought, you're the perfect person to explain what trap cropping is and the philosophy behind it and if it works.

Jessica: Yeah, trap cropping is really interesting. There's a lot of research going on in the past five to 10 years, where, at universities, they're looking at ... I love that word, decoy, these decoy crops that can be planted that are sacrificial. They lure the pests away from the desired crop and they go to the trap crop instead. In some cases, what they do is they use that trap crop to host the pest and then they spot-apply the pesticide to the trap crop so that they're still killing the pests but they're not getting any pesticide on the part of the crop ... The real crop, the crop that we're going to eat, so it's limited pesticide use on the actual crop itself.

Sometimes, they also use trap crops where they're not going to spray for that pest, but they're just using it to reduce the pest pressure on the desired crop. The research here in Pennsylvania that was going on in the past few years that really interested me was around the invasive insect called the brown marmorated stink bug, and for anybody ... I think it's close to being in all 50 states, now. It spread pretty much across the whole country, and it's extremely detrimental to orchardists, especially apple orchards, peach orchards, because the brown marmorated stink bug has a needle-like mouth part and it will suck out plant juices and cause this corking in the apples and things.

What researchers, especially at my alma mater which is Penn State University, there are some graduate students and professors there looking at using sunflowers as a trap crop in the orchard, so they're inter-planting orchard rows with rows of sunflowers because it seems that the brown marmorated stink bug are very attracted to the back of the sunflower heads. I've seen it in my own garden, where they collect around the back of the sunflower heads and they piece the tissue there to suck out the juices.

They're looking at that, is that a viable way to reduce the pressure of stink bugs in an orchard crop. In my own home garden, Japanese beetles are a thing here in the summer time. I don't know if they are in your garden, but they sure are here. One of the trap crops that I use in my blueberry patch, of all things, I can't even believe it, but it's a plant called kiss me over the garden gate.

Theresa: Oh, I know that one, yes.

Jessica: It's a beautiful plant. It gets to be about 10 foot tall, eight, 10 feet tall, gorgeous panicles of little, pink flowers. It's a gorgeous, gorgeous plant, but what I noticed was that the Japanese beetles absolutely love this plant, so I grow it as a trap crop. I grow it in between my blueberry bushes because all the Japanese beetles completely ignore my blueberry bushes and they go to the kiss me over the garden gate instead, so I'm using it to trap them, to lure them away from those good blueberries. I have no intention of spraying the kiss me over the garden gate to kill those Japanese beetles. I don't care.

I don't spray anything in my garden, but it's a good way to keep them off of those blueberry bushes. There's lots of other trap cropping techniques out there. Some of them are well researched, some of them are not. If your listeners are interested in doing it for perma-culture or for their own home garden, I would recommend that they just Google "trap cropping techniques" and then do the old site:edu which will take them to any, usually, educational or university-based websites that have research posted about trap cropping. That's a great little tip for anybody. If you don't want the, sort of, old wives tale knowledge that's out all over the internet, and you only want to go with science, facts, studies, what you want to do is search for whatever topic that you're looking for and then follow that by site:edu and it will come up with only university-backed materials that are out on the web, and it's kind of a cool way to do a little filtering.

Theresa: That is such a good tip. That is really, really good. Thank you for that, and thank you for that answer. See, I knew you knew this.

Jessica: Well, I happen to have done a little bit of research on it myself, just in my own garden, obviously, but research on the research for my previous book, *Attracting Beneficial Bugs to the Garden*, because, obviously, trap cropping is something that gardeners can do to reduce pest pressure and also to increase the number of beneficial insects in the garden, so I had done a little research on the research to find out some interesting and unique techniques that are out there, that actually are science-backed.

Theresa: I really like the part about that you aren't spraying, because when you started out with it, "Then they spray those crops," I was like, "Oh, no," because that's not what I would want to do, but yeah. I'm glad you explained how we could do it in our own garden but not spray. We're kind of just giving up that plant, like, "Okay, here's your meal. Just don't touch my blueberries."

Jessica: Exactly, it's a sacrificial plant, and when it works, it works like a charm. Like I said, lots of farmers do it without using sprays where they just plant the kale next to the red cabbage, because they like the kale ... They have the cabbage worms, imported cabbage worms ... Like the green kale better than they like the red cabbage so they can reduce the damage on the red cabbage by planting the sacrificial kale. Lots of other little things like that, and again, that listener can do

a little bit of research and come up with some different ways to do it and do her own experiments in her own yard, too, because what works in one part of the country might not work as well in another. It's all one of those things about gardening, is the more you do it the more you learn and the more knowledge you can glean from your own experience.

Theresa: Yeah, that's the fun part.

Jessica: It's true.

Theresa: Yeah. That's really, really perfect. Thank you. I did want to ask you one last question before we wrap up, and that is that, a lot of what we were talking about today about not cleaning up was really to do with perennial gardens. I know that with vegetables, and you did touch on this, but with vegetables, sometimes there are things we wouldn't want to leave behind, so I just wanted you to touch on that one more time, because a lot of my listeners are vegetable gardeners, and there might be things in the vegetable garden, like you were talking about before, with disease and pests, that they wouldn't want to leave. I just wanted to hit that home one last time in case they're thinking, "Oh, I'll just leave all my squash plants that are covered with powdery mildew in the garden." That's not the thing to do.

Jessica: Right, right, and the vegetable garden really is a whole different beast. I approach it in the same way, in that I approach my vegetable garden as not, "Okay, I have to rip everything out and clean it all up," but, "What do I need? What do I really need to get out of here?" In many cases, I leave all my herbs stand through the winter. Again, unless they were pest or disease-infested, if I had basil downy mildew on my basil plants, yes, those basil plants go out to the garbage, but if I didn't ... My oregano plants were lovely this year, my parsley, my fennel, everything that was healthy and lush, I do leave those plants stand all winter long. They are a great habitat for predatory, beneficial insects.

If something was diseased, if you had blight on your tomatoes, if you had anthracnose on your peppers, if you had septoria leaf spot on those tomatoes, yes, you need to clean that debris up out of the garden in regards to that. If you had squash bugs all over your squash plants this year, they do overwinter as adults, they will overwinter under leaf litter and under mulch, so, in that case, yeah, you need to get those squash vines out of there.

Again, that's pretty much the same as what I said for ornamental gardens, which is, look at each plant on its own. Examine each plant and say, "Will I get a benefit?" Was there enough bad that happened with this plant that I'll benefit by removing it in the fall?" If that's the case, then yeah, you need to make sure that you get out of there in the autumn. It's just about being smart and thinking about those decisions before you make them, before jumping in and just doing something that doesn't necessarily need to be done.

Theresa: Perfect, perfect. Thank you so, so much, Jessica. I just can't thank you enough for coming on and talking about this. It's a great topic and I think it's going to be an eye-opener for a lot of people. I'm really excited to send them over your way, to your website and to this article, so that they can really dive down the rabbit hole of insects, beneficial and otherwise, so thank you so much for coming on today.

Jessica: Thank you so much. It's always a pleasure to talk to you, Theresa. I appreciate the invitation and I hope we can chat again, soon.

Theresa: Absolutely.

I hope you found that topic helpful. I know I always learn something really interesting whenever I talk to Jessica. She is like a walking encyclopedia, so I hope you enjoyed that. Remember, everything that she talked about and all of the links that we discussed will be in the show notes for today's episode. To get to the show notes, you just go to livinghomegrown.com/116, and that is also where I will link to some of the other articles that Jessica's written that are directly related to this topic, including a great article about caterpillar gardening which I thought was really fascinating.

That's it for today's episode. I really appreciate that you took time out of your busy day to listen to this podcast, and I hope you enjoyed this topic. 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 and join Theresa Loe next time on the Living Homegrown Podcast.