



Fatal Conveniences™: Weedkillers

[00:00:00] Fatal Convenience: Weedkillers

Darin: A pesticide is defined as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. Herbicides or weedkillers fall under this umbrella, and the pest they target are unwanted plants and vegetation, but does the killing stop there? Who and what else can these killers harm? Next on this episode of Fatal Convenience: Weedkillers.

[00:00:44] Fatal Convenience Intro

Darin: Welcome to fatal conveniences where we address the things we may be doing in our daily lives that are actually harming us, and in some cases, slowly killing us. Tap water, Teflon, caffeine, blue light, food additives, you name it, we dive into it. We take a critical look at everyday products that really are affecting us and our bodies and the environment and how we can avoid them and find a solution. So, let's dive in.

[00:01:29] The very first versions of pesticides and weedkillers

Darin: The first versions of herbicides were around the 19th century in the form of inorganic salts such as sodium chloride, sodium chlorate, arsenic salts, and carbon disulfide as a fumigant. Various oils and inorganic substances and acids like sulfuric acid and solvents were also used as a burndown herbicide, which would completely decimate most of the weeds. Does this sound natural? I'm not even going to get into the incredible science around permaculture around regenerative farming where you can use plants to defend other plants. That's part of the solutions here. Research during World War Two brought the development of more herbicides and the era of "Miracle weedkillers" began. The year of 1945 saw the introduction of 2,4-D. 2,4-D is Dichlorophenoxyacetic acid. 2,4,5-T is 2,4,5-Trichlorophenoxyacetic Acid, an IPC, [00:02:47] Does that sound natural? Does that sound like a good thing? Come on people. I don't even need to continue here, do I? I'm going to get into glyphosate. I'm going to get into all this stuff. That's what they're spraying on your children's cereal in the crops and everything else. This is crazy. Let me just take a pause. Listen, you know this. This is common sense. This is absolutely insane. The new herbicides were revolutionary in their high toxicity for the effective control of weeds at doses of rates that were low, one to two pounds per acre. Just like we see with the use of antibiotics, they don't work because you have to create another strain, another strain, another strain, and then superbugs are created because evolution of our plants and our soils have not tried to combat those yet. Do you see something here? It's the same thing going on in the soil that's going on in the microbiome of the soil is going on the microbiome of your body. There is a correlation here.

[00:04:00] Ingredients in modern weedkillers



Darin: Effective herbicides have continued to be developed, and some such as glyphosate are the most widely used around the world. Glyphosate has been used more than any other agricultural chemical with an estimated 19 billion pounds of it sprayed since 1974 to help grow everything from peppers to oranges. Pesticides which seemed like a good freaking idea at the time, which included herbicides, now the industry is \$14 billion in the US, two-thirds of which are for agricultural use. The early versions of herbicides such as sodium chlorate were used as what we would consider an unbelievable amount today, 600 to 1000 pounds per acre of this toxic extremely hazardous, and even fire hazardous compound. Why would we do that? I don't understand the divorce that it would have to take for a common-sense Homosapien to go, listen, I'm gonna pour chemicals all over my food in the field to try to combat weeds. This only came by way of us trying to agriculturalize ourselves into monocropping. Crazy. Henry Martin, a Swiss chemist originally synthesized glyphosate while trying to develop new pharmaceuticals. That's right. Did you know that glyphosate, it was first going to be used in pharmaceuticals? Yes, that's right. It's going to be put in your body. But it turns out it still is in your body because this stuff is sprayed everywhere. In 1950, then the chemists didn't have any use for this "invention" in the pharmaceutical industry. Then 20 years later, John E. Franz, a chemist at the agrochemical company, Monsanto, give it up for that evil empire, independently synthesized glyphosate was founded and isolated, and then they realized, it's only slightly harmful for plants. So, Franz found that glyphosate was a highly efficient plant killer, Monsanto promptly patented this chemical in 1974. Side note, the city of Seattle has ended the use of glyphosate in their parks, and other green spaces due to the increased concern about the chemical's safety. Do you want to do a little research? I can stop now, and you can just do glyphosate human health problems. Go to Google Scholar, and you will be inundated. Well, what makes it convenient? I don't know, man, you just have to spray more and more of this stuff on, and then you become dependent on a chemical.

[00:07:02] Are pesticides even convenient??

Darin: You have divorced yourself from nature and nature's principles. The Aborigines have been growing food for some say 30,000 to 60,000 years, and we do have the ability to create all of our food without the use of chemicals. So if anyone says to you, it's because we need to grow food for the 8 billion people, they don't have the correct information. We are putting ourselves at extreme risk. Obviously, they're easy to apply, you don't have to multi-crop, you don't have to know anything about this crazy permaculture and regeneration but in fact, when you do it correctly, the ecosystem takes care of itself. That's the crazy thing. Did anyone realize that the thriving medicinal plant and food monumental, incredible aspect of our planet, the Amazon? Is anyone in there spraying glyphosate all over that? No, it's producing because it's in symbiosis. It's in alchemy. It's in the pushes and the pulls of nature. We follow nature's principles, we have no downside, only upside, no waste, and only abundance, but I digress. Why should we care? There's so much here and I'm going to try to keep it short.

[00:08:30] Herbicide-resistant crops

Darin: But since the 1980s, we've now started to understand that there's something called herbicide resistance crops, and have been genetically engineered for this resistance to specifically use chemical herbicides notably, glyphosate. These genetically modified



organisms enable effective chemical control of weeds. Since only the herbicide resistance crop plants can survive in the fields treated with corresponding herbicides. Most of that is not food for us, by the way. So if you think oh, they're growing this great sweet corn in the middle of Minnesota, sorry, 80% of that is feed, horrible feed for cows, pigs, whatever. It's not the correct food for them anyway. Then it's also subsidized by our tax dollars in the government. Don't get me started people. Why the hell are we doing this? However, because these crops encourage increased applications of chemicals to the soil rather than decreased applications, what a concept, they remained absolutely controversial on the food, in the environment, in the soil, not to mention absolutely annihilating the soil and also increasing topsoil to vanish. Our soil is gone, we're gone. I don't mean to be dramatic. That is the truth. Recent research has shown that the chemical may be harming the wrong plants in addition to the wildlife and people. We just experiment. That's what we do. We just throw ourselves in the middle of stuff, spray chemicals on everything and we like, maybe that's not a good idea. While herbicides such as glyphosate are targeted for specific plants, it is a nonselective herbicide. According to researcher, Ramdas Kanissery, a weed scientist at the University of Florida means that you can hurt any plant it reaches, even the native plant. And Kanissery goes on to say, you may be trying to target yours but wind, water runoff, all of that stuff gets permeated all throughout the environment and gets aerosolized in droplets and liquid herbicides and it's traveling through the air, through the clouds, through everything. It's water-soluble, do you know that? Glyphosate is water-soluble, so it literally is in our water. But then, of course, this is a process called drift according to the US Environmental Protection Agency. Well, Environmental Protection Agency, why don't you do your freaking job? Why don't you get rid of this crap? We don't need it, people. Yes, it's gonna take a while to transition. Well, let's transition right now. No more slowing down, no more lobbying, no more bullshit. No matter how careful someone sprays, a large portion of the liquid solution will wind up in the soil, in the air, non-targeted plants, and wildlife. Glyphosate can persist in the soil for months and months and months, and we are ingesting these herbicides in our food. The USDA consistently finds that nearly all food samples have this chemical residue. Do you hear me? The USDA consistently finds that nearly all food samples have this chemical residue. Does that not scare the shit out of you? Let's say the amounts are typically well below the tolerance levels. You don't know what the tolerance levels are because I'm going to point that out to you, are you not looking at the research? We're going to get into that. So here it is, why are weedkillers harmful?

[00:12:28] Why are weedkillers harmful?

Darin: Herbicides don't just kill weeds, people. Just like antibiotics in your own body, they wipe out and clear cut all of your good bacteria. They don't select. You take antibiotics every time you get a sniffle, you're destroying your forest of your microbiome inside your body. The same thing with herbicides, we're destroying the beneficial incredibly complex ecosystem, soil ecosystem biome, we're annihilating it. A 2018 study published in the proceedings for Natural Academy of Sciences Journal found that glyphosate can alter the microbial community in some bee's guts. So not only is it hurting your gut, it's hurting bees, making them more susceptible to infection, which could then have devastating consequences on the pollinators. Guess what happens if we have no pollinators? We have no food, 75% of our food goes away. Again, do you not see the uncommon sense of this thing, the fatal convenience of all of this stuff. We divorce nature, we don't follow her, and we have a really



bad problem. Another peer-reviewed study in PLUS showed smaller developmental delay larva from honeybees exposed to glyphosate. So it's destroying them. Good thing at Beekeepers Naturals, I love them, they're doing pesticide tests on all of their batches and they will not accept and have far-off locations, so there's no drift affecting their honeybees. So support Beekeepers naturals to get pure honey, propolis, royal jelly, etc. A study in nature showed how honey bees' sleep is negatively affected. Come on glyphosate, you're affecting the bees' sleep. Come on man.

[00:14:32] Does glyphosate cause cancer?

Darin: In 2015, the World Health Organization said glyphosate is probably carcinogenic to humans. Do you hear that? It's not like this stuff isn't known, which was based on animal studies, the EPA seems to think again, and maintain that it's not harmful to humans. We have to be our own advocates. A meta-analysis in 2019 review published by independent researchers in the Journal of Mutation Research/Reviews in mutation research would disagree wholeheartedly to the EPA. They examined data from several studies on the potential carcinogenic effects and found that workers certainly exposed to high amounts of herbicides at a 41% greater risk of developing non-Hodgkins lymphoma. So is that something you want to spray on your food, something you want to give your kids and your kids' cereal? I don't think so. The lead author, Luoping Zhang, a toxicologist at the University of California, Berkeley is convinced this number is still underestimated. Glyphosate use has increased since the data was analyzed in many years can pass between exposure and resulting cancer. That's the thing, the causation, you can't go, hey, this happened to me yesterday, and now what's going on today? It permeates over time, people. Cancers don't just show up. It's the environment that they're in, the exposure that's being exposed in the organism that caused this dysbiosis. In 2010 report by the President's Cancer Panel concluded that pesticides, which include herbicides, and glyphosate were associated with several types of cancers, including brain, pancreatic, myeloma, colon, testicular, and soft tissue sarcoma, tons of research about glyphosate in the gut. Have I told you enough? Another great study in the Journal of Biological Physics and Chemistry, glyphosate shows up as a synthetic amino acid, analogous to glycine, is the most widely used biocide on the planet and so we're getting exposed to this. And just very quickly, because glyphosate is acting as glycine, which is this incredible and very important amino acid in the body, it mistakingly incorporates into peptides during protein synthesis. Glycine is the smallest amino acid and has unique properties that support flexibility and the ability to anchor to plasma membranes in the cytoskeleton. All that to say, it can no longer do its job from taking this glycine and folding into other proteins explains the link now between diabetes, obesity, asthma, chronic obstructive pulmonary disease, pulmonary edema, adrenal inefficiency, hypothyroidism, Alzheimer's, Parkinson's, lupus, mitochondrial disease, Hodgkin's, hypertension, glaucoma, osteoporosis, it goes on and on and on. Do you see the mechanisms of action of this glyphosate? It's not only wiping out your microbiome, it's disrupting these incredible necessary RNA signalings and glycine folding compounds and mechanisms for your amino acids. And when you can't do those things, that's what happens, the wheels come off your metabolism, it can't do its job, it can't repair and things break down. Environmentally, this stuff is unbelievably ridiculous.

[00:18:29] The environmental impact of weedkillers



Darin: A 2014 study performing tests across 38 States found glyphosate in the majority of rivers, streams, ditches, wastewater treatment plants, as well as 70%, that's right, 70% of the rainfall sampled. While the levels found in the samples might not seem alarming, it's their low chronic exposure everywhere. We need to stop. At this point, freaking crimes against humanity for Bayer in Monsanto to produce this stuff and for the EPA, USDA, everyone who's not shutting this down now. Another study in nature notes, the loss of biodiversity caused by these herbicides, even at "safe levels," the environment is being massively and negatively impacted with up to 42% fewer species and highly contaminated streams. Insects are going away, birds are going away, amphibians are going away. That's it. Sit with that for a second, all of what I said. I didn't even bring up the rest of it. It's so freaking alarming.

[00:19:45] Support organic farming

Darin: So get organic, support your local farmer who doesn't use this stuff, encourage them to stop using these damn weedkillers. If you're not sure, always check for number nine on the sticker on your veggies or your fruits or know your farmer, permaculture, regenerative ag, support, support, support, pay a little more, or else you're going to be paying for it through the breakdown of your body. I'm just delivering the truth here. Always make sure to wash the produce. Use filtered water please because we know it's in everywhere. You can dilute a little vinegar. That's a great veggie wash and do that. The bottom line is there are no weeds. When you understand nature, when you understand the permaculture ways of protecting plants to protect other plants in a viable ecosystem. everything wins. If you have a lawn with grass on it, make it into a food forest, great friends at Food Forest Abundance. I'll have the link to that in the show notes can build your own food forest. No matter how much acreage you have, you can build this better. Avoid GMO foods at all costs. Avoid animals that have eaten GMO foods at all cost, and stop eating animals. The Dirty Dozen, if they're not organic, ones that have been sprayed like hell, strawberries, spinach, kale, nectarines, apples, grapes, cherries, peaches, pears, bell peppers, hot peppers, celery, tomatoes. Dirty Dozen by the Environmental Working Group, we give a shout out to them. Ewg.org, thank you for all your tireless work. I'm grateful for you. Support, support, support organic regenerative farmers, that's what you can do instead. Invest in your children's health. Grow your own food, grow some vertical gardens in your freaking balcony that's what you have. Do something. Microgreens, sprout, sprout, sprout, everyone can sprout. Don't buy conventional food anymore, please. If you're on a budget, then sprout. If you're on a budget, buy the most nutrient-dense foods you possibly can, and stay away from the chemicals because you're getting a lot more harmful things than you can bargain for. So we've got a lot of research in the show notes. Keep in mind, this is a big one. There's a lot more to it. Diving deeper, deeper, deeper into this in my book that will come out next year, Fatal Convenience Deep Dive. Keep in mind, pass this on to people, please. Like and subscribe and pass it on like your life and other people's lives depended on it. Pass the light, it's light, it's information. Meaning, it's from the heart, man. Why am I doing this? The only reason I'm doing this is because this isn't right, we can do better. Remember, everything is in your power to choose how you respond to your life. I love you.

[00:22:55] Podcast Outro

Darin: That's it for today's fatal conveniences. Thank you so much for tuning in. If you want this valuable information in email form, you can sign up for my fatal conveniences newsletter



at fatalconveniences.com. I send out an in-depth breakdown of what we covered in each episode every Monday after an episode airs. If you make any changes in your life or home from these episodes, I want to see them. Tag me in your Instagram posts and show me how you're avoiding these harmful products and making better choices. It's awesome to see the impacts these episodes have, and I love seeing how creative my audience is. Remember, small changes can have a big impact. Oh, and if you haven't had a chance to check out the interview I released earlier in the week, here's what you missed:

[00:23:57] Snippet - How to Have a Conversation That Matters

Celeste: And that is the one where I say not to equate your experience with others. In this case, we're basically talking about a situation when someone talks about something they've been through that's a struggle, some pain, something. I'm not talking about like, hey, I went to go see that new movie, so did I. You wanna add your experience to that, feel free. But if someone says to you, I just lost my job, you have to resist that impulse to say, that's awful, I'm so sorry. You know, I lost my job at the beginning of the pandemic and it was really horrible. If someone says, I got into a really bad car accident, you have to resist that temptation to say, are you alright, that's horrible, you know, I got into a horrible accident 5 years ago. This impulse that we have to relay our supposedly similar experience back that we think that we feel inside ourselves is us expressing empathy is not empathy.