The Role of Permaculture in the Journey to Regeneration | David Blume

[00:00:00] Guest Intro – David Blume

Darin: Everybody welcome to show. This is Darin Olien, this is the Darin Olien Show. What's happening? Have you checked out Down to Earth season two yet? Well, you should, it's good and we get into regenerative ag quite a bit. We get into inoculating seeds with beneficial bacteria, increasing the ability for the resilient seeds of soil and plants from a natural perspective. We get into that, we have great conversations with aboriginals. We have great conversations with Bruce Pasco. So, you want to check out Down to Earth season two. And that is a good segue into my great friend David Blume. David, he's got an amazing farm up in Northern California. Five acres of indoor greenhouses, also some three plus acres outside. He does a lot of experimenting. He's got superfood galore and one where he just experiments. David is a bio systemist, that's right. It's a thing, it's like permaculture, right? So permaculture is looking at everything through a system, through the theology, through the biology and how things work and how there is, David says this, I've heard him say it so many times. There is no waste ever. It's just a matter of people being lazy. We can clean up this world. All of the pollution can be converted to beneficial things. I swear I've seen this stuff. He is a pioneer in regenerative ag before they were even using the term. He's one of the top permaculturist on the planet. He is a biofuel pioneer way before anyone was talking about this. A global food waste optimizing consultant. That's right, he looks at stuff and going, you have waste, cool. You have energy. So he looks at this thing. He's a critically acclaimed author. He has done many experiments with NASA, with Mother Earth News. He works closely with my good buddy, Chris Patton.

Darin: They do a lot of incredible stuff. He still consults with the United States Department of Agriculture. He is globally renowned in the renewable energy space and regenerative ag consultant who works directly with all of these government agencies, commercial farm operations, community groups. He is very active and always seeking a better way to do it. He wrote an amazing book called Alcohol Can Be a Gas, literally creates and can create carbohydrate economies by what he Knows. We get into that we are permacultures at his farm. So, if you want to check out the video on YouTube, you certainly can do that because we are in one of his greenhouses and it was such a delight for me to hang out at his farm, in his farm and run around with him and see his distillation units and see how he is taking waste from local communities and thrown away candy. And he makes fuel out of it, clean fuel. He has plans where we could be independent in this country if we actually followed some sensible growing practices and also not being dependent on outside fuel sources. That's right, it can be a reality. So this is a very special episode for me. I love David Blume. He is first in class when it comes to regenerative ag, real groundbreaking stuff and he's been one of the great educators of our time in this space. So please a warm welcome, take some notes. This guy is full of powerful, important information.

[00:04:10] Podcast Intro

Darin: You are listening to The Darin Olien Show. I am Darin, and it is my life's mission to find and share healthy and sustainable ways of living. In this podcast, I talk to inspiring people and professionals from around the world to uncover ways that we, as humans can improve our lifestyles, strengthen our mindsets and take better care of this beautiful planet we call home. If you are looking for motivation to take the next steps towards a happier, healthier life then you are in the right place. And I am stoked that you are here. So, let's do this. This is my show, The Darin Olien Show.

[00:04:52] Interview Commences

Darin: Thanks for having me here in Watsonville, one of your greenhouses. Every time I come here, I am always blown away at how you go about growing food, how you use energy systems, what you are growing, the purpose of growing those things. It always brings home the idea that there's no waste, there's always potential and you are the epitome of demonstrating in the ground, on the ground and in a farm how to actually do that. So thanks for having me here again. It's always so invigorating to be here.

David: It's always a pleasure to have you around Darin.

Darin: So, dude you've been doing this for decades.

David: Quite a while, you betcha.

Darin: So, let's go all the way back. I want to hear the origin story, like how you got into being one of the greatest permaculturist biologists, ecologists in the So, world. Where did that start? How did it come to be?

[00:06:00] David's Permaculture origin story

David: Oh gosh, Darin, I mean it goes back to necessity. I grew up a subsistence farmer in San Francisco. My family didn't have any money to have good food. We had to grow it in our city backyard. So what was my first permaculture act? Other than the natural stuff because my father knew a lot about ecology and I did nothing but devour ecology books when I was a kid. But I think the most clear thing I did is to show that that economy and ecology are the same thing. And I think the way I first did that was I went to my neighbor who was an elderly German fellow, great carpenter. And I said to him, Mr. Shaney, can I use your background to grow food too? And you can eat all you want and we will eat the rest.

Darin: So, you used his backyard to grow and experiment and take all this ecological knowledge from your dad and the books you've read and experiment on the neighbor's yard?

David: And our own yard because we had three kids and it wasn't quite big enough to feed us all. So I combined economy and ecology by making economic activity with my neighbor

for an ecological reason. So we had a wonderful time growing lots and lots of food. And then the neighbor on the other side said, you guys are having too much fun and I want in on the action you can use my yard. And all of a sudden now we had not only enough food for all of us and of course the two neighbors to eat all they wanted, but now we had extra food. So we made things like pickles. You know, we had the best kosher pickles to grow all the old herbs and stuff and we were kids. We sold them in the neighborhood door to door. And so necessity is the mother of invention. We've often heard that, but it's also inspirational. In other words, when you are a kid not having a lot of money isn't accompanied by the terror of running out of money, right? It's just like, oh, I have to make due with what I've got and still be happy. Which is a natural thing for kids. And so I was very happy being an economic unit that was growing in my backyard and that was the start of my feelings of abundance and there was so much potential everywhere you were including my neighbor's backyard.

Darin: Wow. Yeah. It's like you didn't have much, but you saw the power and nature right in front of you, show abundance, put one seed in the ground and proliferate fruit and edible plants and food and everything else and you could produce that.

David: Well, what I think is I started thinking in terms of, even before I got involved in the sixties and the stuff, we all got involved in, I didn't have my perspective completely opened up until then, but I understood the difference between shortages and surpluses. So we had a shortage of food and my neighbor had a surplus of Land he wasn't using. Well, it seemed just logical that you make those shortages and surpluses go together. So you will never ever really hear me say something's bad or good. It's like yeah, there's a little bit of a shortage there and over here's a little bit of a surplus that balances that out. There's some things that are really bad like nuclear waste. Okay, there's no stuff, real good use for nuclear waste and you need to put it far away where no one will touch it. So there's a few things that don't fit that rule, but almost everything else you can look at it as it's a surplus, it's the shortage. What is the ecology or economy or the world need to bring that into balance. So there's a person on my corner who's talking to herself and is homeless. I have a surplus of tomatoes and she's got kind of a shortage of joy at the very moment. Well it just makes sense to me to take that bag of tomatoes to her and change her day because I am bringing surplus to shortage, shortage of joy. I have globes of joy that I could share with somebody. It's the simplest thing. You know, and so once you start looking at the world that way, you are always looking to balance the world With yourself.

Darin: Yeah, and you are such a powerhouse that way. It's like even today when we were talking with some companies and people learning about what you did and the tour, I literally learn every time I hear you talk and even a bridge diversions from your perspective. Right? So talk to us about how you set up, because this is a perfect example of how you look at systems and their breakdown or what you can do to circulate the efficiencies of them all and have them all win.

David: A lot of people laugh at me because whenever they bring me a problem, I say, you are so lucky. Okay. So what we are talking about today is when I moved in here, this place

was an ecological disaster. It had been chemically farmed for ages and ages and you know the anything you'd grow here was, you know, going to have a tough time to start with until the soil got approved. So anyway, I grow my first crop and there's just gobs of bugs everywhere. So I had a surplus bugs. So I thought about it for a little bit. I said, well I do know because I am an ecologist that 20 tons of bug meat moves through my greenhouse every year. So I thought about it and said, well I need someone else to do the work of dealing with the bugs. So how do I get those helpers in here? Well it was really simple. I had a light bulb go off in my head. So I hung up a lantern, a real light bulb, and I opened the doors to my greenhouse wide open to the bugs and everything. And at night that light was shining and that light shined out the door. And who knows how far away insects saw it. And anybody's ever been in the tropics, knows that the bugs come to lights and they whirl around in a big vortex. But other things know that too not just me; frogs know that. So the frogs came hopping over here too. And where I had put this light up in the air, I had already built a little one and a half foot wide by 10 foot long pond in the ground and a pile of rocks next to it. So the frogs got there and wow, there's all these bugs to eat and wow there's a jacuzzi and there's a condominium and I can move in.

David: And so, the frogs did tens of thousands over and over again of frogs, had little babies and eggs and tadpoles and hatched and went off into the greenhouse until at night. You come in here in the spring and you had to put in earplugs because the frog singing was so loud it would deafen you. You know what happened? The 20 tons of bugs? Well they were frog food and the frogs pooped them out all over the greenhouse. Wow. I didn't have to bring 20 tons of compost into the greenhouse with the wheelbarrow, the frogs did it for me. You see? So I have a surplus of frogs, I have a reduction in work. So it's going to war with the bugs. That's more work and it never goes well.

Darin: We could talk a lot about going to war against the bugs and we've created chemicals and pesticides and herbicides and all of that stuff. Do you spent your life looking at this through systems approach?

[00:13:15] Looking at the world through a permaculture lens

David: I would say that I built on the shoulders of giants. I mean I taught with Bill Mollison. I like to say that the other four bears of mine, you know, were really very influential in my way of looking at things in a permaculture lens, which is its own peculiar way of looking at the world. And it has great techniques for helping to figure out, observing and figuring out what to do with your land. But combined with ecology and bio systematics, well now it's a monstrously fruitful way to look at things.

Darin: Yeah. So describe for everyone listening here from your perspective, what does permanent culture mean? What does permaculture mean?

David: Well, I hesitate to try to come up with a brief way of saying it, but it's understanding that you are standing in the middle of multiple intersecting systems with every step you take.

And so what you need to ask yourself is where am I? Well that's kind of simple. I am standing here in this greenhouse, when am I? Like what time of day is it? Or is it a hundred years ago now? Or is it now? Like, what was it like a hundred years ago at this place? You start looking at many different axes, not just the flat ground as a map. You have time, you have seasons like the bugs moving through the land and when are the frogs reproducing And there's all these disparate events happening around and you have to sit there and say, how does it all relate to each other? You can never actually get it because there are too many variables. But big pieces inform whatever activity you are going to do and help guide you with information that isn't in any book but is picked up by your senses, your observations, listening, smelling, seeing, and integrating all that stuff in your brain to say, what should I do today? It's a wonderful way to live to be looking at all these patterns and find yourself at the nexus point of all these intersected patterns and ask yourself, what do I do today? What do I do now? What do I do at the end of the week to make this stuff all work?

Darin: It's almost a map of living and it's almost spiritual in its nature and it's almost, when I hear you talk about it, it is the precipice or the best example of that we are not separate from, we are a part of nature. We are nature and you are fully saying, hey man, I am going to observe it. I am going to follow the inputs and the outputs because it's like you are here and you've experimented on a thousand million things throughout, you are here. And through that refining, you figure out what works from an agricultural mass perspective, the differences of what you are saying and doing as opposed to now 90% of the people in the early 19 hundreds were farmers, right? And so it's bigger and less people having it and chemically created. And so where do we even start and what do you think about what the hell we are doing and why we did it?

David: Okay, so don't sell yourself short, Darin and anyone listening should not feel like, oh my God, we are lost, I am not a farmer. It's like you wouldn't be here today if your great grandparents didn't grow food and were successful at it because they had your grandparents had enough to eat, your parents had enough to eat and you have enough to eat and you are not that far divorced from farming. And you will find deep in your DNA are things that you were good at five, six generations ago before you were born that made you an adaptive farmer. Almost none of us are a hundred gatherers like we were millions of years ago. And the last 10,000 years, only good farmers survived. And the fact that your siting here today means everybody who came before you was a good farmer. I teach kids a bit about farming in permaculture and it's amazing to watch that ancient knowledge come right through a kid's perspective into their fingers and their hands. Knowing somehow what to do with planting seeds like we did the other day at our local elementary school with some kids. It's like you look at that going, how did they know to do that? And the answer is, it's laid down in the genes and in codes we don't even understand that make us who we are today. And we are very, very briefly divorced from being farmers and it takes almost no effort to regain that skill again.

Darin: We went from mostly living outside, being very connected, mostly inside. I think it's about 93% of our lives are inside now. But what you are saying is, Hey man, that's okay because in the grand scheme of humanism we just did this little blip that we can easily go back to and it's really accessible. And so we have to actually start doing it.

David: Well, more and more people are doing it during the pandemic. It's amazing how many people found themselves just like I did in my family when I was a kid, not quite having enough food, you know, nobody was working during the pandemic. Unemployment was through the roof, try to buy seeds during the pandemic. It was nearly impossible because everybody's inner farmer said grow food. And they all started doing it and I was so pleased. Now I wasn't too affected because I saved my seeds from year to year and select the very best plants of my farming, save those seeds, hoping that next year I have even better plants. But watching all the seed companies just racing to keep up with this immense desire to grow a little food for themselves. Americans just surprised me once again, as much as they may not want to think of themselves as influenced by the environment and the world and animals and the sky and weather, all of a sudden they're out in their yards planting vegetables because it was time.

Darin: Well, you get squeezed a little bit from the use this term fatal convenience, right? We've got so convenient; we can order something and even your food's going to show up at your door and all of that stuff. And then the world goes through a wobble and all of a sudden what you thought was secure isn't so secure. So then that goes to your point, which makes total sense. Go, oh, things aren't as secure as we think and then you go all the way back to the essentials. Go, it makes sense to grow some food right now.

David; Yeah. What makes a person who's never started a garden before, go online and buy seeds. I mean, it's got to be somewhere deep inside. We all are farmers.

Darin: Yeah, It's amazing I love that perspective because it's true. It's really true and there's so many things here because I want to talk about the carbohydrate economy and the work that you've been doing around what, when, how, where, what kind of crops, all of that stuff. So let's break this down in terms of the carbohydrate economy and how we can create independence not only in food, but also power and utilization of land.

[00:20:40] Carbohydrate economy

David: Well, people act as if the carbohydrate economy is like a new idea, but it's only about 10,000 years old. And we had a brief excursion from it with the petrochemical economy, but now it's really clear that carbohydrate economy never went away. So carbohydrates are really simple. Darin carbo is carbon dioxide, hydrate is water, right? You hydrate with water. And what glues water and carbon dioxide together is sunlight, but only in a plant, so-called photosynthesis, uses sunlight as the power to stick together carbon dioxide and water. And now you've got sugar.

Darin: It's the best solar power ever.

David: Absolutely. And it's done universally by plants everywhere. And so then plants can get fancy. They can link a bunch of sugars together and call it starch, or they can link a bunch of sugars together and call it inulin, another carbohydrate, which you will find in cactuses, et cetera. But all these things are more easily preserved forms of sugar. Everything likes to eat sugar not too much likes to eat starch, right? So plants store their energy as starch until they need them again, need that energy later, like in the heart of a seed. And then when it's time to grow, well tiny, tiny little enzymes are released when the seed gets wet and the starch is turned back into sugar. Just like any brewer will take grain and dissolve the grain to make beer. So instead of feeding yeast to make beer, that sugar in this case powers the plant to send up a stalk open, its solar collectors and now it can make its own sugar from sunlight and water and carbon dioxide. So we have stored energy in the seed, in the form of starch, a carbohydrate which then sends up parasol to then be, you know, self-sufficient. So seeds store their energy, so do cattails. In the bottom of a cattail plant in a marsh, there's a very waterproof fibrous layer. And in the middle of it is this juicy, like syrupy, liquid starch in the middle where all the energy is stored and when it gets to be winter and the tops of the cattails, you know, die off and ice goes over the marsh, those rises just sit down there with all that food energy and then the spring comes, it starts to melt and the starch turns back to sugar and up comes the cattails out of the marsh. So plants store energy in the form of carbohydrates. In fact, once a plant is three or four inches above the ground, it's making more carbohydrate than it's using to grow and starting to store it right away.

[00:23:26] Try Bite Toothpaste AD

Darin: You know, I am a big fan of habits and I am a big fan of those habits that are leading me towards success and for happier life if clean life, and we all know now more than ever, most products just don't have us in mind. And something that's really helped me to achieve this routines and that is using bite toothpaste. It's not a tube, you bite down on it, you get all of the same things. I've been using it for the past two years now. It's clean, it's fresh, no harmful ingredients. So, making the switch to bite was so easy. It's totally integrated into my life. It's just what I do and I love it. Knowing that I've replaced that tube of plastic toothpaste, replaced all the chemicals that are harmful to my body and the environment, these toothpaste bites, clean, vegan friendly, and still leave my mouth feeling great because again, it has to work, which is why I love them. And now I just use the same glass container that I got two years ago and it just comes in these compostable pouches to refill it in a way we go. Clean healthy product with mindful clean packaging. But keep in mind Bite also sells a range of sustainable clean hygiene products. I love the deodorant comes in the refillable, cool little applicator device. So, if you haven't already tried their products and you are ready to invest and integrate yourself with great quality product as well as sustainable integration into your life, then this is the time. Bite is offering you my listeners, 20% off your first order. So go to try bite.com/darin20 or just use the promo code Darin20 at the checkout to claim your discount deal man, that's try bite. T R Y B I T E.com/darin20.

[00:25:50] Interview continued

Darin: we are cruising down trying to electrify the world. Solar panels built in China with coal factories and yet we are staring at perfectly created nature, created solar panels. So, you have already just described the perfect nature of that conversion, but then you take it to another place in terms of distillation for us to actually use some of those resources for fuel. So, isn't that the genesis of real solar power?

[00:26:23] Real solar power

David: Well, real solar power is the sun. And as long as we have sun, we will have chlorophyll, we'll have the ability to metabolize everything into carbohydrates. So, then some of the carbohydrates become fibrous and they become stiff and they can become trees with some resins they get from the soil, et cetera. But the key thing is, it always goes back to the sun because that's our free input of energy. Our planet is not a closed system of energy where if you use something, well then that's the end of it, there's no more. We have this enormous income of sun every day, which is we only touch a little bit of it. And instead, we use these buried old plants like oil or coal when it's just silly with the hundreds of millions of times energy we need every day coming to us from the sun. Now at some point the sun will burn out and then we have real problems. Luckily, that's not for four and a half billion years. So, until then we have an open system, not a closed system. We have more energy coming in each day and it's not like you use the energy, it degrades and goes away into nothingness, which is the way physicists describe energy. But in our case, it's just constantly renewed every day, every time we wake up, there's a new brilliant day of energy input. So, we shouldn't be so worried about will we run out of energy? The only thing we need to worry about is will our environment be destroyed? And pursuing forms of energy which do run out like coal, like natural gas, like oil, which were a one-time event in history produced in the ground. And once those are all burned up, well they're gone. Well, why are we using them anyway when we have wonderful plants and climate-based energies that can run everything.

David: Now, solar panels, ah, you know they're a neat trick, but we have many other ways, many other things in the world that we can use to make all the power we need. People think powers electricity, but power is anything that moves something. So, I am going to use the gift solar gives me, in other words, the solar energy trap, just sugars for a minute distilled and now I've got fuel to run my lawn mower, my chainsaw, my tractor, et cetera. And I am not going to issue modern intelligent devices that reduce the amount of time it takes me to get something done because it allows me to get more done because I want surplus, right? So, if I have some alcohol and use tools like my tractor, I can make a surplus and I can feed a lot of other people. My farm could easily feed four or 500 people and I am only 15 acres. So, the idea is not to get caught up in dogma, to understand systems, to understand that fuel isn't bad, but some fuels are negative in the environment and some like alcohol are neutral or better. And we can still have our machines, we can still be efficient, we can still produce wonderful surpluses for our neighbors and friends and even the market if we need to sell stuff, right? And so, we don't need to destroy the planet just to make the surplus. We can work with the planet, grow our fuel, and do the same thing.

Darin: People aren't seeing that part of this is you have an amazing distillation and fermentation and alcohol process, right? You have molasses, you have waste streams, you have candy that you have converted into alcohol. What's the differences?

David: Well, alcohol is made from, as I said earlier, it's made from carbon dioxide, water and sunlight. It's a carbohydrate that's been fermented by yeast and made into alcohol. So, it's a fermented carbohydrate. So, when you burn that, what goes out the tailpipe, well what was it made of? Carbon dioxide and water goes out the tailpipe and some solar heat goes out the tailpipe, which is waste. Your engine didn't use all the solar energy that was trapped in the alcohol. But all that goes back into the atmosphere and well that carbon dioxide and water go to be absorbed by the next crop; making alcohol is sugars, then starches and then alcohol and goes out the tailpipe again. So, it's a circle. So as a circle exhaust is not bad, it's just oh, surplus water and carbon dioxide for next year's crop. But when you put old, old oil into your car and you burn it, it puts new carbon dioxide in water. And now we get a surplus of carbon dioxide and water in the atmosphere and that causes problems with our climate. So, recycling the carbon dioxide water via solar energy, which powers our vehicles or our tractors or our chainsaws, is a harmless activity.

Darin: plus, you said you can see it when the flame too, all of the other chemicals and processes that are there to make what was once heavy petroleum into gasoline. Talk to us a little bit about that because it's also, yeah, you are putting the atmosphere as trapped by the earth, but it's also full of other crap that we don't want interact.

David: Well, in kind of a way, Rockefeller had a little permaculture thinking. He said, well, when I make kerosene or I make heating oil, I have all this surplus liquid leftover. And then Rockefeller was smart enough to figure how to take alcohol powered engines in cars from the early 19 hundreds and get them to run on this toxic stew of a mess called gasoline. And it didn't run so well and it was low octane compared to alcohol's 106 octane. And gasoline was like 50 Octane. So, it ran terribly but you know, it was cheaper. And there's a consciousness of, well if it's cheaper, that's what I have to buy. And it's like, you know, you better figure out the total impact of your costs, right? And so do I really want to give my money to Rockefeller or would I rather give it to Bob down the road who's got surplus potatoes this year and made alcohol to run tractors and give him the money. That's a matter of is it cheaper to give it to someone other than Bob because Bob's going to spend it in the store in town and the guy in the store who takes his 10 cents from Bob is not going to use it to hire your kid to sweep the floor in the store. And so, all of a sudden you start to realize that the exchange of energy, which is what money is, you want to make sure you give it to a place that it will be re spent, re-deployed multiple times as close to home as possible. you have seen this dear you And I'll be in a room and I'll ask people, name the country that is already largely off of gasoline and no longer needs it and tell me what fuel they're running on. First of all, people don't even know what I am talking about. You see 99 people out there doing through wing guy puts his hand up, oh that country is Brazil.

David: And I go, correct, where are you from? Oh, Brazil. Because here we are in America, the most well-informed population anywhere in the world. And how is it that we don't know a country almost as large as ours, no longer uses straight gasoline. They use 95% alcohol for all new vehicles and ones that don't even have fuel injection. Well, that's 25% alcohol, the Brazilians get rid of all their waste on the market. They don't burn it in their cars. So, here's one of the biggest countries in the world running on alcohol right now. And there are 50 other countries currently converting away from oil. India was the latest to announce it and they expect within about five to six years to be on 40% alcohol and heading for a hundred percent as fast as they can get there and get off of oil altogether. Why don't we hear about that in America?

Darin: So, some of the math around this, right? On a napkin of course. So, to become independent like Brazil growing carbohydrate distillation for ethanol, what could we do? Give me some examples of how that could work for us to be energy independent, at least from the fuel source.

[00:34:39] How can we become energy-independent?

David: Well, rather than say what could be here, I'll use an actual example. Pre-World War II Germany, before World War ii, when Germany got into a war with the rest of the world. So, Germany didn't have any oil, heck coal, but heck can't run a car on coal, right? So, they made alcohol mostly from potatoes and then from beets and alcohol is what ran the few engines that needed to be run before the World War ii. And basically, farmers brought their load of potatoes or beets into a local distillery. They got back the alcohol. One third of it, the distiller sold the other two thirds to city people for fuel. And the farmer got back, all the pulp left over everything that wasn't sugar that was made into alcohol. So, the farmer took that back and fed it to the pigs or put it right on the land and used it for fertilizer. Because it had everything that was in the plant, just not the sugar. So how effective was that system? I mean, what did it give Germany? It gave Germany a way that it almost beat the United States in World War ii. And that's why Germany was able to withstand so that at the end of the war in the Nuremberg Accords, Germany had to agree to not restart its alcohol economy as part of the Nuremberg Accords because they were so terrifying when they were supplied with their own fuel and could not be cut off of it. So, if you want to know what's powerful in a country controlling its own fuel, think of a peaceful version, not of World War ii, but of running your entire country on your own fuel and not caring if another country invades someone else because you are dependent on their oil.

Darin: What are some of the things that you would do and crops you would grow and ways that you would go about doing that?

David: Well, I've actually done some thinking about this, Darin. I recently, since the Ukraine War, put together a 14-point plan for America to follow to free itself of addiction to oil and make itself economically secure and to help the world be secure in a post climate change world that can't afford fossil fuels anymore. That's the 14-point plans on my web suit, that

alcohol can be a gas. And legislators in Washington today are taking it seriously and are discussing it amongst themselves to possibly put forth legislation to adopt that plant. So, the plant basically says, we openly decide not to use oil anymore as our main fuel, and we start producing alcohol from, well, food processing waste. When they make all that orange juice, where does the orange peels and pulp go? it goes the landfill, right? Oh, then they throw dirt over it and there's no air. It starts fermenting and it gives off methane.

Darin: Right

David: That's 60 to 70 to a hundred times more potent climate change gas than carbon dioxide. So, what if we took all that pulp and all that waste and made alcohol with it instead? What if we opened up some of the literally billions of gallons; billions of acres, of farmland to growing energy crops, sweet sorghum, sugar beets, it goes on and on in the southwest prickly per cactus, mesquite. You don't realize, unless you are into agriculture, just how much land we have. We have 5.4 billion acres of land that could grow one kind of crop or another. we are only using 70 million, right? 5.4 billion compared to this tiny number of 70 million acres to grow corn. And we use most of that to make alcohol first for fuel. And then the byproduct, all the solids left over, we feed to cows. Why is anyone really talking about building new nuclear power plants When we got the biggest nuclear power plant there is, it's the dang sun. And just using that glow from 90 million miles away, is it up to power the earth, let's just use it. Employ plants to go ahead and make us all free of dependence for food or for energy on anyone.

Darin: And it's like, it's not one or the other, right?

David: No.

Darin: It can be fuel and food and we have a surplus of land to do all of that. We could literally be energy independent and food independent

David: And have a stable growing soil that gets better every year with amazing rotation of crops, some energy, some food, so that the soil is constantly a constellation, a mosaic of changing chemistries based on different plants growing and different bacteria and organisms growing with the plants and funguses. The soil would build up year after year with that kind of rotation. So, we have everything we need. And you will often hear me say this, there is no requirement to do things stupidly. We could choose to do things the right way,

Darin: Right, we have certainly seen a lot of stupid choices.

David: That's right

Darin: And common sense seems to be punted a long time ago.

David: It's common sense, the least common thing there is, right? I mean, common sense is something you think everybody would know better. Like he knew better and he did it anyway, right? So, you know, you look at using pesticides was always a bad idea. It was always a band aid. It would take a whole show for me to talk about how bad and stupid that decision was. And yet we are still doing it, right? Even though organic farmers make a lot more money and we keep taking more and more of the total market every year. All these guys are out there and you go, are they stupid? No, they're caught in a system that forces them to stay the way things are. If they don't, they can't get financed to farm. Through the economic system where farmers become addicted to using those chemicals not because they want to, but because they would have to give up farming because the bank wouldn't lend them money if they don't do it that way.

Darin: Yeah. So, there's invisible handcuffs there.

David: That's right.

Darin: From your perspective, what is the hope here that you can share with people as they're hearing this stuff? What can they do? What can we do to help move this needle in more of a regenerative, circular way? What do you think is the most powerful thing that we can do?

David: Well, the first that we have to do is forget doing anything for sustainability. Sustainability, I don't believe in it at all. Well, what does sustainability mean? I taught a permaculture course on the Blackfoot Indian Nation and standing beside me was the medicine elder who invited me. And he asked that question, what is sustainability? He said, I've heard a lot about it. What is it? And someone gave that answer and then Wilbur said in some salty language, which I won't exactly quote here, so, it’s when are you going to fix all this stuff you screwed up because you are just saying you are not going to make it any worse. you are going to leave it the way it is now. So, what is regenerative? Regenerative means with every act, with every season, with every plan, you are repairing the damage under what you are control of. And you are repairing the mistakes of the past, you are improving the soil. It's your job to not just stop damaging, but now you can actually go the next step. And the more you improve the soil, the more food you get, the less bugs you have. In other words, you get rewarded for doing the right thing in all kinds of indirect ways. So, I don't believe in sustainability. I believe in regeneration, and that we have to keep repairing the planet we now have because you know it's a good planet and its good planets are hard to find.

Darin: As they say there's no planet B, this weird system that is dependent and not circular and complete. And I just go back to the seed, and I love your definition of regenerative because that's what nature is.

David: It's a huge strong force in nature which cannot be rubbed out and will continue to resist all efforts of humans to negate it and it will happen. The only question is whether we'll be around to enjoy it. And that's the reason why we as humans should do regeneration. Because as a species, we'd like to continue to be here for the next 4.5 billion years. And we may not be welcome soon in the own stew of toxic mess we make for ourselves. So, there's no reason to go there. Let's just not go there.

Darin: Amen. Thank you, dude, that was awesome.

[00:43:31] Podcast Outro

Darin: Thanks for tuning in to this episode of the Darin Olien Show. I hope you took something valuable away from this conversation that will help improve your life in some way. If you would like to learn more about my incredible guest, you can find all of their information in the show notes on my website. If you enjoyed this episode or even you didn't like it, please rate this podcast, the team and I value your feedback so we can continue to give you the most value possible. We want you to get the most out of every podcast. So please rate, subscribe, share - anything you feel called to do. I truly appreciate it and I love and value your support. So, thank you and I will meet you in the next episode.