Kenn Zimmerman, Narrator

Anneliese Abbott, Interviewer

July 5, 2021

Location: Kenn Zimmerman's house, Craigville, IN

KZ=Kenn Zimmerman **AA**=Anneliese Abbott

AA: All right! This is July 5, 2021, and this is Anneliese Abbott interviewing Kenn Zimmerman!

KZ: Good morning.

AA: So Kenn, thank you very much for taking the time to interview today. Would you like to start with telling us a little about your background in organic or sustainable agriculture and your relationship or connection to organic and sustainable agriculture?

KZ: I started into the seed industry in the fall of 1980. And as a forage and turf expert—well, I became an expert later on—and in the process of selling forage and turf seeds, I got connected with selling forage seeds for cover crops to organic and sustainable farmers. And the more I got involved with them, the more I realized that at some point there's a whole lot more people that vote and don't farm than people that farm and vote, and at some point the people that don't farm and do vote could tell you exactly how you were going to farm. So I thought, I had better at least start to learn about low input or sustainable agriculture before it got shoved down our throats. And the more I got involved and got drawn into it, I started seeing people that were doing it. Because I came from the conventional aspect of it, that yeah, this is a nice idea, it will work in your garden but it'll never work commercially. But the more I got drawn into it, the more I saw people that were doing it on a commercial scale, were doing a very good job of it. And so I just kept getting drawn further and further into it.

And eventually at some point I was running a seed corn company, which I originally went for work for them to run their forage and turf division, but they had suffered a catastrophic chemical fire, and in the process of that I wanted to start a sustainable seed division for them, and they had no interest in it, so I asked them if they minded if I did this on the side. They said, no, knock yourself out, and that's how I started in the production of, originally, organic or sustainably produced seeds, strictly for the organic industry, farm, seeds type things. Because there was really no supply infrastructure for them at that time.

So that's how I got originally involved.

AA: That's great. And so what kinds of seeds were that? You want to tell us a little bit more about your seed business?

KZ: The first crop that we planted was spelt, because it was so hard to find at the time. And Willy Kaznafel, the guy that at that time owned Purity Foods, I had contact with him, and he said, "We need people to grow this stuff for us, but we don't have a seed supply, and the ones

that we have are not the varieties that we need." So we originally planted, I think we planted about 20 acres, and it was actually on ground that was certifiable organic, but we did not certify it, wasn't planning on certifying it until the following year. And then in 1987 or 88, because we harvested the crop in '88, there was a meeting of a few farmers in Indianapolis to form the first organic certification chapter in Indiana. And that was OCIA, Organic Crop Improvement Association. And they needed five people with certifiable acreage, I think the minimum was 5 acres that you had to have to be able to put your acreage into there to have enough to be a legitimate grower. And they had four, and they didn't have anybody with another five acres to make a fifth so they could actually start the chapter. So I started, I threw mine in with them, and was a charter member at that point. And that's how the first Organic Crop Improvement Association chapter started. And it was a year early for me, but I figured, what the heck, they need one more plot, so that was me! (4:46)

AA: Great! You want to say a little more about your farming methods and how you developed them, and kind of what you were influenced by?

KZ: I had contact early on from OEFFA, Ohio Ecological Food and Farm Association. I had been going to their conferences since probably the third, maybe the fourth year that they were in existence, as an exhibitor. Well, I went originally the first year just to check them out. The second year I went as an exhibitor, as a forage seed, cover crop seed supplier. And I think I went continuously for quite a few years after that. I used to tell people that they became my psychotic support group because everything that you know—and this is what I would tell people that were interested in going into organic agriculture from conventional agriculture—is the biggest impediment to entering organic agriculture is everything you already know. Because 85 percent of what you already know is going to be a detriment or an impairment to being successful at organic agriculture. Because you're told that what you're about to do is never going to work and has no chance. So you have to literally forget 85 percent of what you know about farming to start this. And then you're dead even. You're not ahead of the game. You're just dead even. And that's a very, very, very hard thing for conventional producers to do, because they've been drilled into their heads with all these ideas and there are a lot of them that just can't get past that.

So we started producing Vinton 81 soybeans for seed because at that point in time they were the food grade soybeans. And since organic livestock was not yet at that time certifiable, everything was food grade. And it was all the food grade beans, Vinton 81 was a large, clearhilum soybean. And that was kind of the bean. And so we had a contact with Demeter over in the far side of Indiana. And they were—Henry Cooklum was the guy, they had a branch of Demeter. It's not the Demeter you're thinking of, but it was Goodland Grain I think. He had contacts with Mitsubishi Food Group. And so we supplied seed for them for a handful of growers to grow for the contracts that he had placed for Mitsubishi Food Group. Well, eventually Mitsubishi Food Group came back to me and said, "Hey, you clean these for seed, can you clean them for food grade?" We're like, well, we'll give it a try. So we started cleaning food grade grain for Mitsubishi, and I realized that at that point, instead of running your cleaning equipment for two or three months out of the year, that you could run your equipment twelve months out of the year cleaning food grade. And we eventually drifted into more of the food grade cleaning. And the seed production became a sideline. Because at that point we were producing everything from dark red kidney beans, black turtle beans, small red dry beans, pinto beans, a black soybean, which we still have, and Vinton 81 soybeans, spelt, wheat.

And we actually started in the production of open-pollinated corn, and ended up working on breeding colored corns. And primarily for the tortilla chip industry. And we, I ended up developing a particular shade of blue corn for tortilla chips. Eventually I sold it to another company and they took it on and further developed it. Because at that time, all of the blue chips were kind of a steel gray, they weren't the pretty blue that you have now. After I sold that variety and the breeder that I sold it to did some work with it, now you have all these beautiful blue tortilla chips. And I smile every time I see those. I know where they came from, or at least the base material for it. At that time we had to, that was like '93 was the last crop that I planted at that point. Because we were doing so much food grade cleaning that we had to pick a direction to go, the cleaning operation or the production, the seed production operation, because they were two very time-sensitive operations and you couldn't do both of them at the same time. So we had to pick one or the other, and I picked the seed cleaning or the grain cleaning operation. And we pretty much rented out the rest of the farm, and it went back to conventional agriculture. And so for many years after that I was just involved in the grain cleaning aspect of it, for food grade mainly. (10:57)

AA: All right. That's really cool about the blue corn; I did not know that.

KZ: Well, I always said, if I could get, I worked on different colors. John Deere green was the holy grail. Still is. And I tell people, because we had a particular shade of red corn that made this really red chip. I always said, if I could get this John Deere green corn, and even if you could only produce enough of it to introduce it into the market to just do a holiday, like a Christmas tortilla chip, red and green chips, you would have just been able to forward my royalty checks to Tahiti, or later on the rodeo circuit. Anyhow, that was kind of the holy grail, and probably still is, is that green chip.

AA: Yeah, I'm not sure if I've ever seen a green corn variety.

KZ: There are a few, and what you did, and this takes somebody with not very much smarts, because you're sitting there pulling, we harvested all the corn at that point on the ear because we had to examine, throw out the ears that weren't what we were looking for for seed. But in those ears, they would have a multitude of colors in them. And you would sit there literally with a pair of forceps pulling out a particular color corn. We were looking at a light lavender and a purple, orange and a brown, again for holiday, the orange and brown for Halloween, the purples for Easter, that type of thing. The whole thing, the idea was holiday-based marketing. So you would literally sit there and pull these things off a cob and put them into a coffee can. Then the next year you would plant those, and you would self them back, which again, it doesn't take a rocket scientist, you've just got to be stupid enough to do it because at 11:00 in the morning your eyes are about swollen shut from pollen and you're laying on the couch with a cold compress on your head. And then you do it, and you try to get them stabilized. It's a very long process which we're never able to complete to any satisfaction. So it's still out there. (13:36)

AA: Well, that's great. So is there anything you want to share about your philosophies of organic/sustainable agriculture, like how they've developed and changed over time?

KZ: Philosophies. I am not a huge fan of buy-it-out-of-the-bag solutions. Conventional agriculture buys inputs by the train car load, semi load. Everything you need comes from somewhere else. I was influenced heavily by Rodale. *New Farm Magazine*, and I actually appeared on the *New Farm Magazine* cover with Joel Salatin, and there were a couple other people on the cover, but I was one of the primary magazine articles at that time. And I did a lot with them and was influenced by them. And the whole point was that conservation agriculture really wasn't good enough. It was regenerative agriculture that you were seeking, because you were not just seeking to conserve, you wanted to rebuild. Conservation you were just slowly depleting, at some point you had to regenerate. And so I always figured, and this worked well with my cover crop seed background, because you would plant, a lot of the solutions were from the cover crop seeds. Buckwheat is a phosphorus pump.

You can plant—there are very few things that you can't get, probably potash is about the only thing that you really can't get, from growing something. But if you have a high content of organic matter, as it breaks down, it dissolves, and the acids in those dissolving plants release phosphorus in the soil. And that's where you gain your extra phosphorus from that you need. So if you have truly good organic matter soil and you tend to what you're doing and you're not looking to produce extraordinary crops, volume crops, you're looking for nutritious crops, you can do those in a long-term scheme without the purchase of a lot of inputs other than the seeds to grow as cover crops and incorporate in your soil.

I am not a huge fan of no-till. I kept hearing this, that was when I was in the seed industry, it was kind of new, and they always kept telling me that, "Oh, you have all these worm holes and taproots and everything that goes directly into the water table, and that's where your runoff water goes to rather than just running off the top," because people are like, "well, if you don't till your soil, doesn't the water just run off?" Well, no, they've got all these wonderful magic holes directly to the water table. Well I'm going, "Excuse me, you only do this with chemicals. So you've got a high dose of chemicals on the surface that now have direct access to the water table. How are you not going to pollute your water table?" And their answer is, "Well, that would never happen." Well, you just told me that you had direct access to the water table, and you're only using chemicals as your means of control for anything up above!" "Well, it would just never happen." It's like, "Uh, okay, that doesn't sound reasonable to me."

But then that became, there were a lot of things as GMO agriculture progressed. And I asked a lot of questions that nobody wanted to answer. And got further and further along, and I eventually left the seed industry. And I had started my grain production business. Then it was going to the point where it's just like, "Okay, you people are nuts, you go your way, I'll go mine." And by that time all the pharmaceutical companies have bought up a lot of the major seed companies, the entire industry had changed completely. And it was not an industry that I recognized any longer or had loved from the day I started. And I just decided to leave, and never looked back. And in retrospect, that was a good decision. Because it is nothing like it was, and I don't think that was a good step for the seed industry. That was a sad day. (18:47)

AA: Thank you. So, is there anything else you want to share about your personal perspectives or views on the connection of organic or sustainable agriculture to the broader context and other movements?

KZ: I am shy to connect politics to organics. And I have been called a Judas-goat from both sides. Because when I was in the corporate industry, I was involved with the organic industry.

And those people that knew I was connected to the organic industry would call me a Judas-goat from their perspective, and the people in the organic side knew I was involved in the corporate seed industry, and they also called me a Judas-goat because they thought I was some kind of traitor from the other side. So that was always an interesting perspective for me. I remember one time that I was at the OEFFA conference, and I was there. I'm a corporate guy, wearing a suit and tie, you know. And there was some lady that came up and read me the Riot Act about, "You're just here for the money, ripping the farmers off," and all that, and I'm like, "Lady, I have risked everything, my entire fortune, everything my family and wife and kids owns, to start this business to serve this industry. What have you done?" And she just got very red in the face and never said a word, turned around, walked away. And I thought, "Yeah, you can talk all you want, but..." You know, the old, "Money talks, B.S. walks" type thing.

And I have seen a lot of political things that should never have been connected to it. Probably one of the things that really irritated me the most was, and still does, is the protection of farmland from development. And my questions at an open forum on that subject one time, say, okay, I have two brothers that come home from World War II. They both bought adjoining farms, they were several miles from the city. At this point, 20 or 30 years later, the city has developed out, and Brother 1, closest to the city, is now getting the opportunity to sell his farm to plant houses. Brother B, just one farm over, has now been designated a non- or a heritage site that no houses can be planted here, can't be developed and all that. Now the first brother that's closer to town, he's now a multi-millionaire. The brother right next to him, that they both did the same thing at the same time, is stuck. His land will never be worth near what the other brother's was just because somebody said, "You can't do this." Where does he go for compensation of what he could have had had you not restricted him from obtaining that? And nobody's ever really been able to answer that one for me, either.

So I am not a fan of entering politics, into policy, although I know it happens all the time, I am just not a huge fan of it. From either side. (22:35)

AA: Yeah. So, you already mentioned something about your involvement in organic organizations. Is there anything else you want to say?

KZ: I served on a convention committee for OEFFA for several years and helped them at that point with their trade share of the conventions. And then at one point I got involved with Indiana Sustainable Agriculture. And after, probably the third, fourth, fifth year, somewhere in there, that it was in existence, I was sentenced to a two-year term as the president. And I told people that jokingly, but half-serious, because at that point the people that were on the board members basically rotated through and everybody basically had to serve their, you know, a year or two, we had a two-year rotation, so you would see what everybody else did, and then you could move into that slot. And we were always trying to recruit, but you know, as we moved up the ladder there were fewer and fewer people willing to take those responsibilities. So I did that. I think '92 and '93 was the years for those. And then after I was no longer the president, they had some internal conflicts and it pretty much fell apart. But it was Indiana's kind of fleeting answer, or at least response to, needing an OEFFA-type organization. And we did have some very good input at the time, but we just were never able to gain traction and maintain like OEFFA did. And my hat's off to OEFFA, they are wonderful organization.

There have been some others, but they just never have done what OEFFA has done. But I have lobbied—when I was in the seed industry, I served on the board of the Indiana Seed Trade

Association. And part of my job there was to lobby at the state house in Indianapolis. And I spent three years doing that. And so I was somewhat accomplished because my educational background was criminal justice, pre-law. And so my job became as a liaison to the legislature and also to translate proposed legislation into English for the members, and also to assist the legislature into writing proposed legislation from the membership and translating it from English to legalese. So at some point later on in my career, I ended up being drawn into several things where I had to testify. I've testified at the state house of Michigan multiple times. I think I've testified in Ohio twice and Illinois once. And Indiana more times than I can count. That was always one of those fun things.

When I became involved with the political aspect of it, I tell people, you can't view politics at that level, inside the state house, as either moral or immoral. It is amoral. It is strictly a game of horse-trading. You support my goody-list, I'll support yours. If you give me this, I'll give you that. And as much as we think those people are really smart, they have no clue whatsoever what they are voting on. All they have is information from people they trust telling them what their view of that proposed legislation actually is. And it always amazed me that whenever you would be proposing legislation, the first question anybody asked was, "Is this bill controversial?" "No." "Okay, well then I'll support it." Why is it good, you know, and you give them the elevator speech. And they're like, "Okay, I can get on board with that." It's like, I could be lying to you. Do you not think about that? Or I could have a different agenda than anybody else and just making this like this. But that's what always in a way terrified me about the political aspect of the way laws are proposed and all that.

The other thing I learned was, never put regulations into the bill. Set up the law as a shell structure, and then you put the regulations inside that. The regulations can be changed with the stroke of a pen; the law cannot. And that, you see that a lot now, because that's come back to bite us as a society in the behind. Which is both good and bad. I don't know that there's a better way to do it. But it's just one of those things a lot of people don't recognize that nuance. But for having been on the inside, it's something I look at. (28:38)

AA: So do you want to, you said a little bit in our introductory call about the specific challenges that sustainable agriculture has faced in Indiana. Do you want to say a little more about that?

KZ: [Laughter] Well, originally in the corporate world I worked for Agway, out East. They were a Fortune 100 company at the time. And when I was with sustainable agriculture later on, Bob Thompson, Robert S. Thompson, was the dean of agriculture at Purdue. And Bob was from upstate New York. And Agway was based in upstate New York. And so Bob and I actually knew a lot of the same people from out there, because you were either from Cornell or Penn State out there. And so there was a guy named Vick Lechtenberg, who later became the dean of agriculture at Purdue. And Vick at that time ran the Throckmorton Experiment Farm just south of Lafayette. And they would have some really good information because they would be running experiments on sustainable, sometimes organic agriculture. And it was hard to get the information from him. I mean, he would not give them to anybody else. And so it used to really irritate Vick that I would be able to call up Bob Thompson, his boss, and say, "Hey Bob, Vick's got some really good information here, but he won't give it to me. Can you go roll up a newspaper and smack him on the side of the head and tell him to send it to us?" He says, "Well, you want me to use the Sunday paper this time?" "Yes, Bob, that would be a really good idea."

And so I would be grudgingly get this information that Vick did not want anybody on the outside to ever see.

And Vick and I did not get along. And when we were at conference, then it was a very public dispute. And when we would be at conferences, there would be a small army of people that would follow both of us around because they knew that inevitably sometime at that conference that the sparks were going to fly, and they just wanted to be there to watch. And rarely were they ever disappointed. Very few times Vick ever got the better of me. It was always fun. But then Vick later became the dean of the School of Agriculture, and that is really when Indiana became a wasteland for organic agriculture, because he hated organic agriculture. He thought it was a waste of time, we would all starve, there was just no point in it. And he was not going to support it. With his dying breath he was not going to support it. And it really killed probably 2/3 of the organic agriculture in Indiana at that time. And it was only after he left that Purdue had a somewhat change of heart. And their attitude really was, "We don't really make a philosophical judgment on it, but it's a legitimate way for a farmer to make a living, and we're going to support them."

And that has always been my point of organic or sustainable agriculture with conventional farmers, like "You would not denigrate a guy that grows apples as an orchardist because he doesn't raise corn and soybeans. It's just a different way to make a buck and live on your farm. Why would you denigrate people that want to grow something that other people are willing to pay for and make a buck at it? Why are you denigrating them?" And I've always tried not to, I tell people, I don't want to win with conventional agriculture on the basis of "if you eat their stuff you're going to die because it's all full of poisons." I want to win because our stuff tastes better. It's more nutritious. It's—whatever. A positive aspect of it. I don't want to win on the negative, because that's a very poor way to win a war to me.

So it has always been, you fight on the positive, and promote my aspect. There have been times, I was at a convention in Chicago one time, a conference. And it was about GMO beans, and at that point—it was about soybeans, but there was a lot of talk about labeling GMO beans on the labels. And at the lunch table, you know, you're sitting with a bunch of people you don't know, there's probably 8 or 10 people at this table, and there was a guy there, and he was from some processing company, I don't really remember what one. But he was blowing off about how wonderful GMO beans were, and they were vastly superior to non-GMO beans, or especially organically-produced soybeans. And I said, "Well, then I'm gathering that you're a proponent of mandatory labeling of GMOs." And he says, "NO, no, no, no, no, no!" And I said, "Why wouldn't you be?" And he said, "Well, they've just poisoned that label! And if you put it on there, you're going to be, it's just a killer in the market." I looked at him and says, "That would make you a lying sack of shit!" And it was like at a poker table in the Old West where one guy called the other guy the cheat, everybody's like backing away from the table. And this guy looks at me and I said, "If you really believed that GMO beans were far superior, if I believed that, I'd be shouting it from the rooftops, I'd put it on my label in bold print, I'd be beating your brains out in the marketplace with it, you couldn't stop me from telling about it! Therefore, if you're trying to hide it, that makes you a lying sack of shit." And this guy just got red, beet red in the face, he stood up, his chair fell over backwards, and he walked out. And all the rest of the guys at the table are going like, "I think you're right!" I said, "Well yeah!"

So yeah, I've never been shy about some of that stuff. So yeah, that was probably one of my finer moments. Anything else that you would like to ask about me? (36:01)

AA: Yeah, so I'd like to hear your perspective on organic certification. There's different opinions about whether national certification has been good, or bad, or whether it's sufficient. I'd just be curious to hear if you have anything you want to say about your perspective on it.

KZ: I probably have a unique perspective because one of my growers when the USDA got involved was one of the original board members of the NOP. His name was Dean Appley, over from Wabash, Indiana here. And Dean would go to these meetings, and we would talk, and he would tell me things, so I had a ringside seat to the inner workings of the establishment of all of those rules. My thoughts were, up until that point, was, "Why do you need the federal government to get involved? They've rarely done anything correctly. These certification agencies are working, why do we need the federal government?" I would still stand by that, but it is involved. My attitude is, I don't always agree with the standards. Some of them are capricious and arbitrary. But you're got to have standards, somebody has to write them. And the only thing that you have in this industry is your integrity. Whether you agree with it or not, you damn well better play by the rules, because if you don't, then we have nothing to offer as, "This is who we are." And I have a very low tolerance of cheats, just because of that. I may not agree with what you did, with what the standard is, but you better stay with it because if you don't you will kill us all.

And that kind of has happened with the spelt market. Four or five years ago, there was a large amount of conventional spelt coming from the former Soviet states that would somehow pass through the port of Turkey and once it left the port of Turkey on a ship it would somehow get the holy water of blessing and magically become certified organic. And eventually there were enough loads that got caught because somebody didn't pull out the papers where they had treated it with phostoxin or some other toxic chemical to take care of the insects or whatever, and they realized that this was not organic, when you're dosing it with phostoxin. And it has almost killed the domestic spelt market. And we're still not recovered from that. Because before that happened, we used to do regularly a million clean pounds of spelt a year through here, in a good year maybe a million and a quarter, maybe a million and a half pounds through a facility like this. That is very good money for an operation like this. Right now if we do 200,000 pounds of clean spelt a year, it's been a good year.

And we have drifted into the farmers' market, strictly as a side aspect from the grain cleaning operation, because when it was going very well we had a lot of clean-out from the grain cleaning operation, that was actually a waste product. And it was a pain in the behind to get rid of because it would build up, and then the bugs would be attracted to it, and it's like, "Oh, man, I've got to get rid of this, give it to somebody, something or other." So at one point we decided to build another building and put some livestock in it. And we would feed out livestock with it. And as happenstance we got involved with the Fort Wayne farmers' market that started up that year and took the feed that we had left over from the grain and from the cleaning operation, fed the pigs with it, and started marketing that. Well, we got, that went well, so we added, we had people asking for eggs. Because we had chickens that were our cleanup crew for the organic part of it, because we couldn't use pesticides.

And that's one of those things I've fought with a lot of inspectors over. It's like, "Why do you have chickens running around here?" It's like, "They're the cleanup crew. That's what eats the bugs from here, since we're not allowed to use pesticides. They take care of that. And if you don't have a concrete floor in your barn, you'd better have some chickens scratching through there to take care of all that larvae." And some of them just couldn't conceive of it, some of them

are going like, "That's kind of smart." And they were okay with that. But because we had those, then we would have eggs. And people said, "Do you have eggs?" So we start bringing eggs, and then it's like more eggs, and crap, now we've got to have chickens, and then it was like, "Can you raise meat chickens?" And then it was meat chickens, and then it was beef, and so we had a cow, and then that has grown, and recently we've gone into lamb, and it's all—we don't certify the meat because we market it locally. And I tell people that if we did that, it would just make it twice as expensive for them and one more giant paperwork headache for me to do that. And it wouldn't change what it is. If you want to come out and see what we do, come out and see what we do. I will very happily show you.

And to me the certified organic seal is the guarantee that somebody has come out and put an eyeball on. If you can't because you're a half a world or a half a continent away, somebody else has. But if you're marketing locally, you can come out and put an eyeball on it. And that's where I view the organic certification law, what the use is, somebody has put an eyeball on it and said, "Okay, he's doing this the right way." And yeah, I don't agree with all the standards, and I could probably tell you a couple of thousand ways to cheat, but that's not the point. And I tolerate cheaters very poorly, because the integrity, that is all we have got! And if you surrender that, we're all screwed. So I guard that very carefully. But that's my attitude there. (43:30)

AA: Yeah, thank you. Is there anything—and you already said a lot about Purdue—anything else you want to say about the relationship between the agricultural, especially the land grant universities, and organic and sustainable agriculture and how that's changed over the years?

KZ: Ohio State early on was a very good adopter. I'm not a huge fan of Ohio State from a sports teams, but yeah, Ohio State as an agricultural college was a very good early adopter into organic and sustainable agriculture. They have always supported OEFFA. At least from my involvement with OEFFA, they have always been more than supportive, because coming from Indiana and being involved with Purdue, especially once Bob Thompson left, yeah, it was terrible. Michigan State was also very supportive. They weren't as early as Ohio State, but they were nevertheless there fairly quickly. I had a lot of involvement with the University of Kentucky. While they weren't, let me say, enthusiastic supporters, they were not detractors, and they were quite willing supporters. Ohio State almost seemed to be a cheerleader for it. University of Illinois, and Illinois State, I had connections with them. They had been kind of like University of Kentucky. They were not cheerleaders, but they were supportive if they had people who could figure out a way to make a buck at it. They weren't going to buck it, they would do what they needed to do to support those people. And that's all I need from them. Don't hem us in, don't stand on our feet, but at least give us some help here. And they would do that. And Wisconsin always seemed to be kind of helpful in that aspect also.

One of the things that, when I was involved over at Purdue, and I was at Indiana Sustainable Agriculture, I became friends with one of the guys, an ag econ professor over there. And one day we were going to lunch, and he was visibly perturbed. And I asked him what was wrong, and he said, "Research has changed." He says, "I have been at this for"—however many years, a long time—and he says, "We are now"—and this was at the age of right when Roundup Ready materials were starting to come in—he says, "We are now doing research where these companies come in, they write you a check and say, 'We want you to do this experiment, and these are the results we want you to come up with, how much is it going to cost to make that happen?" And he said, "We have sold our souls for the almighty dollar. We are no longer a

research university." And I'm like, "How is that science?" And he says, "It's not." And so to this day, when I look at science from any aspect, I have a very, very jaded opinion of science from any aspect because from my experience it has been bought and paid for by the highest bidder. And they are quite willing, because they have no other means of income, other than research, and people that want the results are more than willing to pay for them. Whoever that may be, upon any side of the political spectrum. So I have a very jaded opinion of science at this point, because it is not what science used to be. (47:54)

AA: So, is there anything else you want to share your perspective on the past and current trends in organic/sustainable agriculture, anything you want to say about why it might be controversial? I know there's a lot of debates going on right now about certain things, like the hydroponics and Real Organic and stuff like that. And I don't want to get too into politics, but anything you want to share about, from the long-term historical perspective on that would be interesting.

KZ: The hydroponics issue. I really don't know how to take that. I can kind of see both sides. I can probably make an argument for both ways, and against both ways. I just don't know how to quite take that. And I do have a measure of suspicion—not suspicion, but a jaded view—of the hydroponics if you're trying to pass it off as organic agriculture. I understand, but it does lose that connection with the soil. And that's really, it's not whether it's clean food or whether it's sustainable or anything else, but if you're going to market yourself on a connection to the soil from that aspect, the marketing aspect, I think they use a little bit weak argument there.

No-tillage, I have never figured out how no-till magically somehow reaches up and grabs all this wonderful organic matter and pulls it down through the soil. How does that work? "Oh, millions of earthworms," and all that stuff. Really? Earthworms? You want to see them? Come out here. And nobody's ever been able to tell me that, especially the never-tillers. And okay, I'm not saying you have to till every year. But at some point you have to incorporate that organic matter into the soil for it to break down. And they're like, "Well, you're just going to lose your topsoil." No, you're really not, because if you have good organic matter, you're creating long chain lignins, which essentially act like glue, which is what glue is, and your soil particles stick together, they're not going to wash away. It's when you don't have the high organic matter content.

Which interestingly to me, farmers don't like organic matter because then it takes higher rates of chemicals. If you have high organic matter, instead of whatever, ounces per acre, you have to use ounces per acre x plus. And so they view organic matter as a bad thing. I'm like, "What? How does that happen? Do you just like—we're not thinking on the same wavelength here." So yeah, it is interesting to me that farmers view organic matter, so they go to no-till where they are forced to use strictly chemicals. And when I was in the corporate world, and again, when it was just coming up to all the GMO stuff, I would be at the university field days and stuff, and they would be testifying and telling about all the wonderful things that are going to happen when we go to Roundup Ready soybeans, initially.

And then there would be Roundup Ready corn, and I'm like, "Hey, what's going to happen when you get volunteer Roundup-resistant corn in your Roundup-resistant soybeans, how are you going to take care of them the next year, because the only thing you're telling us we ever need to spray ever again is going to be Roundup?" "Well, that would never happen." "Well, you just told me you're going to have Roundup Ready corn." Everybody knows you're going to have

volunteer corn in your bean fields. How are you going to get rid of that? "Well, it just wouldn't happen." And then they would never call on me again.

And then the same kind of thing when they were telling me how wonderful it was going to be, we were going to be able to spray less and less and less of this. And I'm like, "What are you going to do whenever the weeds become resistant to Roundup?" "Well, that could never happen in a thousand years!" That was always their standard answer. "Could never happen in a thousand years." "Why not?" "Well, because of the modes of action of Roundup, there is no way that weeds could ever become resistant to Roundup in a thousand years." And now I look back, and I'm like, "Damn, that was the fastest thousand years I ever lived through!" I was like, "That millennium went really quick!" So I'm just like, "Yeah, every time you tell me"—again, it's the jaded science thing, because when you tell me that Mother Nature is not—and I get this from the other side, from the environmental people who tell me how weak and frail and dainty Mother Nature is—No, Mother Nature is pretty much a hard-ass bitch. And she always bats last. And there is no way you are ever going to beat her. The best you can do is hope to work with her.

To me it is the vanity of all vanities of humans to think that we are so important and so powerful as that we can change weather patterns from human interference. And I get called a science denier. It's like, is science in there? The only thing you have are computer models. I am sorry, but those very same computer models that you're telling me you know what the weather's going to be in 50 or 100 or 500 years are the very same weather models that they use to predict the weather two weeks from now. And if you want to check that, print out a two-week forecast today for what it's supposed to be two weeks from now, and you watch that. And it will change 15 times in 14 days. And it *still* won't be right when you get there! And I tell people, "I wish I had a job where I could be that wrong that often, still get paid, and have people believe me." And once you get to the point where you're consistently getting two weeks out right dependably, maybe I'll actually start to think maybe you know what you're doing 50 or 100 or 500 years out. But until then, you have not convinced me because Mother Nature has the ability to change things in ways that you can't understand or enter into your computer models. She is not going to let this place go out of balance. Not from anything that we do. Never has happened. Weather patterns change, climate changes, always has, always will, has nothing to do with us. And we know the weather change from the 1830s when we entered the cold snap, and then it got warmer, but you know, people are humans, and they think anything that was ever important happened in their lifetime. And as a student of history, you have to understand everything that went before and what led up to that, and what precipitated that from long before. And not everything that was important happened in your lifetime. So that is my perspective on that, and somewhat controversial I'm sure, because I've been called a climate denier. But I just smile and say, "We'll see what happens." (56:06)

AA: Yep. That's a great perspective on it.

KZ: Anything else I'm missing?

AA: I think we're pretty much there. I think you touched on everything that you talked about when we talked on the phone. I guess if there's just anything else you want to add about the most important aspects of this history to preserve and teach the younger generations.

KZ: Again, as a student of history, it is important to know what went before. Because everything that happened before led us to the point where we're at now. And if you're going to change something, or if you think you're going to have an influence, you have to understand why we are where we are up to this point. From the political aspect, I have been—I probably shouldn't say this—I was really not a supporter of President Obama. Not because of anything else, but the guy had never run anything even as much as a Kool-Aid or a lemonade stand. The guy had never done anything in business, and yet he's going to run our country. But I thought, at least when he got elected president, maybe we can get some of these environmental laws pertaining to agriculture, like the mandatory GMO labeling, like better support of organic agriculture. Didn't happen. He sold out. And there has been this incredible revolving door between big pharma and the USDA. And you go from one industry into government, and then you write all these wonderful papers supporting why the government needs to do this, and then because you write that, then when your term is up you go back to a giant salary boost in the corporate world again, and then whenever the new administration comes along and says, "Hey, I remember this guy, let's bring him in, because he's an expert," and it's just this giant revolving door. And I have very little tolerance of that. From both sides. So I have no use for either one when it comes to that. Again, money talks.

I am agnostic when it comes to that. I am pro-business, but with some limitations. Because a lot of what we see now I don't consider to be true capitalism. It is crony capitalism, your friends, you buy influence, those who have more money, and take more money by buying the influence of the government, which is not the way it's supposed to be. The government's supposed to stay out of the way. I get in trouble with that a lot too. Anything else? (59:24)

AA: Only if there's anything else that you want to say, so this is anything you want to say to wrap up.

KZ: To me, the whole idea of organics is not necessarily, it's not a crusade to me. It is barely just a means of production, of producing clean food, that I want my family to eat, that I want my friends and my neighbors to eat. Because it just amazes me that these big pharmaceutical companies that have bought the seed companies now, having been in the farmers' market for— I'm in our ninth year now—I am always amazed at the number of people I run into that I hear horror stories that they can't eat food they buy at the grocery store because it makes them sick. And I hear all my wonderful neighbors that grow conventional food, and they say, "Oh, that's just all in their head, that's stupid, this is the safest food there is, there's no difference." And I'm like, "You know, you need to come up with me for two weeks to the farmers' market to listen to these things, because these are gut-wrenching stories of people who have been literally in some cases at death's door. And they change the way they eat, and they can't buy stuff at the grocery store that you produce—and by the way, you don't produce food! You couldn't grow food if your life depended on it! You grow livestock feed. You don't grow food." And that's really kind of an insult to them. But I meant it as that. And they can get as offended as they want. But they don't. They don't grow food. They couldn't if their lives depended on it. And that's not what people eat.

And one of my growers one time—I always notice that whenever Roundup Ready corn didn't decay in the soil, like conventional corn used to. Because you know, there were times when you'd be digging through the soil out in the fields, whatever our conventional farmers that rents the rest of the farm, you can find cornstalks from two or three or four years ago. And that

would never have happened in the past. One time one of my growers for the grain cleaning business had been to the University of Alabama for a conference. And one of the University of Alabama professors had the chemical structure written on the wall. But long story short, he was explaining how when they inserted the Roundup Ready gene into the corn that it changed the physiological nature of the plant and it now combines with calcium in the soil and it forms formaldehyde in the plant. And that's why they don't decay. That's why you see animals that have had non-GMO stuff, and they have had GMO stuff, and they will always pick the non-GMO stuff because their sense of smell is hundreds of times better than ours and they could tell the difference. And you have to wonder what eating embalming fluid, even at low levels, does to you at some level. And I just don't want to do that.

I remember one of my friends that fought in Vietnam, he always told me that it was very interesting to them and very readily apparent that whenever the Vietnamese would get killed, say they were in a two or three-day battle and it was hot, the Vietnamese would start to decay almost immediately. He said, "Dead Americans were laying there for two or three days, they never started to stink for a week." And he says, "We have that much preservatives in our food." And that was a huge difference between them and the Vietnamese. And that always stuck with me. I thought, "Man, if a guy like that can notice that at that point in time whenever we didn't have all these things, what is it like now?"

So I just try to produce clean food. I think that is what our real goal should be. Because it becomes very expensive to try to regain your health once you lose it. And a lot of people don't figure that out until it's too late. I see that many, many times, a lot of people have at least been able to restore some measure of health, but that sticks with me, and now I cannot tell you how many times I have heard cases of people who just cannot eat grocery store food because it will kill them. And I don't like to win on that basis, as I said before, but you can't ignore that. You just can't ignore that when you see it time after time after time from disparate people. It's not like they're all coming from the same family or something. These are people who have absolutely nothing in common, don't know each other, and the stories are all the same. And they have to be careful.

We had, additionally we had people who eat our eggs, and I kept hearing that, "Oh, my mother" or whoever "can eat your eggs, but they can't eat other people's eggs, not even organic ones." And I'm thinking like, "That's crazy, what would be the difference?" So having an egg board permit, I went to the egg board people from Purdue, call in twice a year, check in on you, make sure everything's going all right, ask if you have any questions. So one day, after I'd had this question for the umpteenth time, or comment, I asked the guy that, as long as I had him on the phone. And he said, "Well," he says, "What do you use for your protein supplement?" I said, "Pretty much I don't, because these are free range chickens, and their job is to clean out the spilled grain from the trucks coming and going, and to eat the bugs." And he says, "Well, right there is your answer." I'm like, "What are you talking about?" He says, "I wouldn't know this," but he says, "We have been talking about this for two weeks over here at Purdue." He said, "We have noticed"—and he used the word "epidemic." He said, "We have had an epidemic of negative reactions to soy-based proteins in eggs and poultry." I said, "You're kidding me." He says, "No." He says, "Even organic." He says, "It's not tied directly to GMO soy protein." I said, "What do you do?" And he said, "Well, that's why you're not seeing that negative reaction." I said, "Even with organic?" And he says, "Yeah, the only way that we're not seeing it is when people use dry beans." And he said that that's why a lot of the organic process egg people are switching to dry bean culls as their source of protein, or fish meal. Because that's what we went

to, was fish meal, as our protein source for the poultry. So that was news to me. That was just kind of one of those things that should never have happened, but okay, I'll buy that.

But okay. Clean food is the whole thing. We should not be making ourselves sick for cheap food. And as far as people telling me, especially my conventional neighbors that tell me, "Well, your stuff is so much more expensive," and I'm going like, "No, you just choose to sell your stuff at a discount because it's crap, and people don't want it, and so they are only willing to pay this amount of a price. They're willing to pay our price for it, and that's what food actually should cost." And I said, "If you took out all the government subsidies, if you included them in the price of your products, there would be no difference between the price of our food and what your food should be. We're just paying it in a different way." And most of them never made that connection. But if you truly added up all the costs, the societal costs of subsidies and what we have to do as far as cleaning up the environment from the rivers being phosphorized and nitrogen fertilizer, excessive nitrogen fertilizer—yeah, their food is not any less expensive than ours, it's just being paid for in a different fashion.

So clean food. And overproduction of it, because we produce more food than we can consume, we ship it to other countries that can't pay for it, so we have to give it to them. What a wonderful deal for our guys. And again, that's one of those things, they don't make that connection that they're killing themselves with overproduction. I'm not very popular on that segment either, but I've never been shy of my opinions on some of these things. I stay in my own little place, and when somebody asks, I ask, "Are you really sure you want me to answer that question? Because you might not like it, but I will answer." So yeah. Clean food. That's the whole thing. And that's always been my bottom line. Just as clean as you can get it. Sometimes you make compromises because of just the nature of what you're doing, but just as clean as you can get it is where you need to be.

AA: All right, yeah, thank you so much. That's really great. Thank you for sharing all of that.

KZ: I don't quite know what to say about some of that, but like I said, I have some very controversial opinions about things, and I've not been too shy about sharing some of them. And I understand they're controversial, but so what? Get over it. This still is America, you're allowed to have even wrong opinions.

AA: Yep, yep, definitely. If that's all, I can wrap this up. Thank you very much.

KZ: Thank you very much.