

Brian Caldwell, Narrator

Anneliese Abbott, Interviewer

November 8, 2022

BC = Brian Caldwell

AA = Anneliese Abbott

AA: This is Anneliese Abbott doing an oral history interview with

BC: Brian Caldwell.

AA: And this is Tuesday, November 8, 2022. And we're doing this interview over the phone. So Brian, why don't we just start. Introduce yourself, let me know a little bit about when and where you were born, anything about your childhood, if you had any connection with agriculture when you were a kid.

BC: Yeah. I was born in 1952, and I grew up in the suburbs of Buffalo, New York. And I really had no connection whatsoever with agriculture at all. But, I've thought about this, because I've wondered how I went in the direction I went. And when I was a kid, we used to go camping in Letchworth Park and Allegheny Park, near Buffalo. And I remember always feeling like that was really the place that I should be. That was where people were meant to live, not in the city or the suburbs, but in the woods. I had that real feeling of desire to be in a more, in a more forested and rural kind of situation rather than urban and suburban. I went to the University of Michigan after high school, and there—I started there in 1970. And definitely it was really at the height of the hippie back-to-the-land movement. And I think that's really what kind of totally pulled me even more in this direction. (2:06)

AA: Do you want to give a little more details on that, how that was at the University of Michigan in 1970?

BC: Basically, it wasn't so much that the curriculum or anything like that at the University of Michigan, but it was the friends I was with. It was with sort of an independent, it was sort of a school within a school at the U of M, called the residential college. And it was sort of a hotbed for radical people. And like me, many of them dropped out before they finished their degrees. And so that was really the group of people I got together with. We all wanted to buy land and live in basically a homesteading kind of situation somewhere. And we all tried to start learning something about gardening and plants. I was definitely very much a novice. And I got involved with a group called ENACT, which meant Environmental Action, there at U of M. And I don't think it was affiliated with U of M, but it was in Ann Arbor. And we somehow had about a two acre community garden that was sort of a demonstration garden almost, near the U of M hospital. And so I got involved with that. And that was really the first experience I had with actually planting vegetable crops and growing them and that sort of thing. So I guess those are kind of the big influences.

After about a year and a half, I left U of M, and I was a conscientious objector to the Vietnam War. And so I was able to get an alternative service job first working at the People's Food Co-op in Ann Arbor. And after that there was a student-run bookstore that I was able to use as my alternative service. I'm not sure how this all worked in terms of scheduling stuff like that, but at that time I was really, along with these other folks, looking to buy land and settle down somewhere in a rural place. And I did a lot of hitchhiking at that time, and we were looking all over, everywhere from the Ozarks in Arkansas up to Quebec, just traveling around looking for suitable communities and places to have this communal group, a sort of back-to-the-land kind of thing.

That was for several years. And then basically by '74, '75 that group had split up, and I had come to the Ithaca area. And I thought that this was really an ideal place because it was a mixture of forestland and farmland, which I really liked. And the community, the alternative community was really strong in Ithaca. At that time I was finishing, I got my undergraduate degree from Empire State College, which was an independent study school as part of the SUNY [State University of New York] system. It still is in existence. And I sort of created a major for myself called Economic Botany. And that was really cool because I studied everything from indigenous agriculture in the Minnesota area all the way to I did an experiment where I tried to grow rice in central New York. And that was really good. And I also was able to take classes at Cornell. Because I was sort of an extramural student, but I was part of the SUNY system. And the Cornell ag school is a state school. So at that time they had a reciprocal arrangement so that I could actually take classes at Cornell. That's really important. So I learned plant taxonomy and plant anatomy, soil science, I took some of the basic soil science classes, plant physiology.

So I learned a lot there, and by that time I had gardens and was able to grow nice vegetable crops and that sort of thing. So in '77 a friend of mine, Dave Christie and I, bought the piece of land where I still live now, which is about ten miles south of Ithaca. And we had a bunch of people living here. And in '78 we started growing vegetables for sale at the Ithaca Farmers Market as sort of an income generator for a homesteading situation. And over the years basically people went off in their own directions, and I was here on the farm, and my wife Twinkle Griggs and I got together, and we started really ramping up the whole vegetable thing. It was always organic. I didn't really know any other way, I didn't have any agricultural background, so I didn't know any non-organic way, and I had come up through that whole mindset. And it was not even a question whether we would use any chemicals.

By the mid-'80s, we had a sheep flock, which supplied manure for our vegetables. We had about four or five acres of vegetables. And in '88 we had added a one-acre leased apple orchard, which is about five miles away from the home farm. And that's a good site, so it did a nice job producing apples. So that's definitely a thumbnail sketch of the early years. In '84 to '86 I went back to Cornell and got a master's degree in horticulture. And I was studying chestnut propagation, because I was very interested in what we called at the time "tree crops," which is sort of agroforestry and any kind of woody plants that can, maybe not the conventional fruit so much, which was well understood and kind of went in a very intensive direction, but more extensive crops. Chestnuts I was very interested in at the time. English walnuts. And also maybe some of the minor fruits, like pawpaws and persimmons, that kind of thing. So that brings you up to the mid- to late '80s or so. Is there anything that I skipped over there? (10:39)

AA: Well, you covered it all. If there's anything you want to say more details about your production methods. As you were talking about that hippie back-to-the-land community in Ann

Arbor, do you know what the major sources, where did you guys get your information about organic farming? What were your main influences?

BC: Right. So here's a funny thing to get in with that group at the Environmental Action gardens. I remember us sort of sitting around, and I was a very minor new person, but the guy who was kind of in charge of the whole thing said, "Yeah, we're in touch with the Rodailies." And that was the source of information. And of course he meant Rodale. It just shows how new this all was, that we didn't even know how to pronounce the name. But definitely that was, pretty much written information from Rodale was the source of that knowledge that I came up with there. (11:50)

AA: So that would be like *Organic Gardening* magazine, and then the other books that Rodale Press published?

BC: Yeah, yeah, like I think I still have, *How to Grow Vegetables and Fruits by the Organic Method*. I still have that book. Yeah, it was really a lot of book learning and trial by doing. And there must have been some people there who knew, had a clue about how to seed vegetables and stuff, but I don't remember that part. (12:32)

AA: So we'll probably get into this a little more later, but I'm just curious how philosophically at that time organic farming fit into the rest of the alternative worldview lifestyle, why it was a good fit and why everyone was so interested in it.

BC: I think I mentioned I worked at the People's Food Co-op. And the idea really at that time was that we were going to try to create basically an alternative culture. With an alternative economic system based on different principles. And definitely a lot of strong environmental focus against the synthetics of almost any kind that were just becoming more and more common at that point. In 1970 was the first Earth Day, and the Cuyahoga River caught on fire, and I think it was before Love Canal, but it was definitely very clear that there were serious problems coming from chemical pollution and stuff. And I remember hitchhiking along the Ohio River and just being appalled at the smell from the factories along there. And it was really clear that they were just using the Ohio River as a dump. And that kind of really gross pollution has been cleaned up to a great degree now, but it was really apparent then.

So the combination of environmental, and then social, it was definitely a very strong women's movement in Ann Arbor. The economics were, we really thought we could kind of recreate a cooperative-based economic system. We were all trying to do that. So those things fit together really well. And the farming was sort of a rejection of the suburban and urban lifestyle that so many of us came from, and that sort of implied rural. And I had that kind of predilection anyways, so it was really a great fit for me. And other people, there were a lot of people who moved to community living situations and realized that the rural life was not for them. But then a fair number of people stayed. And really the next step from the '70s was really intensive learning and sharing of information that really kind of bootstrapped the small scale organic, and organic grain production as well, up into commercial success. Or at least commercial viability. (16:28)

AA: So at the time, in the 1970s, how did you feel about the technological society and perceiving scientists as experts? Did that have any relation in your experience to the decision to farm organically, or was that a different issue?

BC: I would say it was a bit of a different issue. But it was sort of very implicit, we people were really reading a lot of Wendell Berry and Gary Snyder, who are still a couple of my favorites. And really, not so explicit, but in their work is a very much rejection of a modernist frame of mind. It's a liberal modern idea that things are always getting better and that technology is the way forward. And I think that was underlying, it was kind of rejected all along. And it was really interesting with the organic farming. In my personal life after we started farming in '78 trying to sell stuff, we were learning from basically others, our neighbors and other organic farmers. That was a huge learning curve. And learning about equipment and how to use it, manure spreaders and old International A tractors.

It was really interesting, because that technology, like an old Farmall A sounds so old now, but at that time it was really only twenty years old, which is not really old for farm equipment at all. It was just small-scale standard stuff. So we kind of put together equipment based on that sort of a tractor. We had an Oliver Super 55, which was a nice 30-horsepower tractor from the '60s or late '50s or something like that. And it had live power and you could do a lot with that. And then we had a cultivator tractor that was a Farmall Super A. And so just kind of putting together all that 1940s and '50s and '60s technology, farming technology, and just overlaying that with organic. And then learning all about seeders and seeding rates. We built a small greenhouse onto our house and were raising thousands of transplants. Just kind of learning it all, I guess, at that time.

And one thing I should say is that in 1980 I made my first planting of chestnut trees. And even at that time I did what would now be called intercropping, where I had rows of chestnut trees, and there were raspberries between the chestnuts in the row, and there were vegetables between the rows of chestnut trees that were 25 feet apart or so. So that was kind of obvious, when you're growing vegetables, if you want to plant chestnuts, that was sort of an obvious way to do it so you could continue to grow vegetables and just have these trees being established over time. By 1980 that was a little ahead of its time compared to most agriculture at that time.

I don't know if that really answers your question, I kind of went off to the side on that one, but yeah, the technology was, I felt anyways, I was fine with that '40s, '50s, '60s style tractor-based technology, farm and tillage equipment and that sort of thing. But certainly not with all the chemicals. Like Roundup was a new thing in the early '70s, and it was considered to be totally safe. But we of course rejected that at the start. I worked at a nursery and did cultivating for them, and so again I learned tractor skills with other people's equipment, which was nice. And basically at that time I was doing a lot of landscaping, so I was just sort of becoming more and more familiar with plant materials and stuff like that. (21:44)

AA: So I'm curious, when you were going around to all those communes in the early 1970s, I've read some books and things about the communes, but very few of them say hardly anything about farming methods or organic farming. So I'm kind of curious if you have any insights on that, like how well they were farming at some of these communes, if they were really following organic principles, if they really knew what they were doing with the farming. Any observations you have on that would be really interesting.

BC: Oh, yeah, yeah. Definitely. One of the farms that friends from that original Ann Arbor group lived in for a few years and really made a deep impression on me was called Armstead Mountain, and it was in the Ozarks in Arkansas near Russellville. And I'm pretty sure that people from that farm are still farming today, and I think they're growing organic blueberries. I lost touch, but I actually saw some blueberries in the store that actually seemed to be coming from there not too long ago. Anyways, they were doing a great job. And they were using horses, they were using draft animals, and basically in that situation they were cultivating a very big subsistence garden. And doing an excellent job. They had a lot of hand labor, I'm thinking there were eight to ten people there plus constant visitors like me who would come and spend a week or two there and learn a lot. So yeah, they were all using organic methods. I remember they were growing a lot of unusual crops, like chickpeas were down there, and of course they had a lot of peanuts, but then all the other regular vegetables. So that was a big influence.

Another one was really good friends from West Virginia, and I cannot remember the name what they called their farm. But in that case they had a really fantastic garden. And Gene Shepker was, he was ten years older than the rest of us, and he had come from a very radical economic kind of mindset. And I wish I knew some of the sources of that and the connections, but I don't. But he was also an excellent gardener and farmer. And they raised goats. And so I learned a lot, a little bit about livestock from them. And just again, another layer of knowledge about vegetables. And this would be in the time period of maybe around '73, '74, something like that. It was before we bought our farm. (25:02)

AA: Thank you, that's really interesting. So then, when you started growing your vegetable operation on your own farm, is there anything you want to share about your methods, what your biggest influences were, how you decided to do what you did?

BC: One of the first things that came up was whether you would buy a tractor or whether you'd use a rototiller for your farming. And Troy-bilt—that was another source of information, was Troy-bilt had a lot of great manuals, basically, for how to grow vegetables with rototillers. And they were really good.

AA: So what was Troy-bilt? Was that an equipment company?

BC: Yeah, Troy-bilt made all the rototillers, hundreds of thousands probably of hippie homesteaders bought Troy-bilt rototillers during that time. But the thing was that very early on, in '75 and '76, somehow, I don't really know how this happened, but I was a teaching assistant for a course at Cornell that David Pimentel was the sponsor for, which was called "Agriculture, Society, and the Environment." And it was called "hippie ag" by all the students. And it was set up in a very alternative way, like so many things at that point, where Pimentel maybe gave one or two guest lectures, but it was run by a sort of a collaborative of like four teaching assistants, which was totally amazing, including me, who was not even a Cornell student at that time. But I was taking some classes as an extramural student. We created the curriculum and the readings and taught the classes and stuff. So amazing.

But one of the people who took that class was John Myer. And John is really a very important figure in field crop production, organic field crop production in New York State. He grew up on a family farm about twenty miles north of Ithaca, and his mother and father had like six or eight kids and sent them all to college. Most of them went to Cornell. And they had thirty

cows and two hundred acres. They were really good managers. But they were conventional. But John was definitely, he had this orientation, he was interested in organic. And there was one point where his dad just said, "Look, you're not going to make it. I don't want you to farm if you're not going to do it conventionally, because you're going to fail." With all the best intentions in the world. And that's something, there was some kind of [transformative event], I can't remember what happened, but somehow John said, "No, I want to take over the farm, and I'm going to convert it all to organic." And then eventually his father came around. It may have taken five or ten years, something like that, but the father actually at one point was selling organic produce too—not produce, grain, field crops. They got rid of their cows.

Anyways, that was, John, I was friends with John basically from that class. And also there was an alternative ag scene at Cornell, stuff like that, so I knew him kind of that way as well. And he just basically made it clear to me that you could get used farm equipment cheap that would do so much more than that rototiller could do, and that's the direction you should go. So that was sort of a key decision right at the start. And until, I think we got our sheep flock in '84, and the whole purpose of that was to provide manure for the vegetable garden and the vegetable fields. And we were increasing as we went along from those early years, from '81, '82 up to '84, '85. And we were getting a lot of manure from our neighbor, who had beef cows. And I remember getting horse manure that didn't do very well and stuff like that. And then once we got the sheep flock up to about twenty ewes plus their lambs, we would have them in a pen on top of a dense pack or whatever they call it, the manure, which it would just be the hay that they didn't eat, and then the manure would just be a pack that we would clean out in the spring. And that was fantastic for growing vegetables.

So that was kind of our basic fertility thing. We had backpack sprayers and did a nice job with using Bt against caterpillars in the brassicas and just grew some really nice stuff. We definitely did a lot of experimentation with cover crops and rotations and green manuring, but never really implemented the kind of really rigorous cover crop system that I would do if I was doing it now. (32:05)

AA: And so then, you were telling me a little about the sheep, and you got those for the manure. Did you also, were those meat sheep, or were they fiber sheep, or both, and then did you keep them in the barn all year, did you pasture them in the summer? Tell me a bit about that.

BC: Yeah. So we had a flock of sheep. They were polled Dorset crosses. Some were purebred, but most were crosses. And yeah, they were out on pasture from May to late November, December. And then they would come in the barn, and that's where we would get the manure from. And we would make hay, and make hay with our neighbors, and also just bought a bunch of hay from John Myer and some other organic farmers to feed them in the winter. There was no organic meat market at that time at all. So we never really made any money at all on selling the products. We sheared the sheep and sold the wool to the wool pool, which is just a USDA thing, at low price. And we would just take the lambs to the commercial auction houses. And we sold a fair amount, we could sell them to a Greek community in Ithaca where they would actually go out to the farm and slaughter a lamb or two. That was a little better money. But there was no organic market at that time. So it was basically, they were a meat breed of sheep. And we had about five acres [in each paddock, 10+ total] or so in two fenced areas, paddocks basically, about five acres. And we would alternate them in alternate years. And at least for a few years we would get our neighbors, and they would hay these parts where they had pastured the year before. That

was in order to try to reduce parasites. That worked pretty well. See what I'm saying? They were on one paddock one year, they would be grazing, and then that other one would be used for hay, and then they would switch the next year.

AA: So you switched them year by year, rather than dividing them up, doing the management intensive grazing?

BC: Yeah. This was before the intensive grazing was well understood, at least by us. We would also graze especially the cucurbits, a field of winter squash. After we harvested it we would graze the sheep in there. And they, supposedly the seeds of pumpkins and squashes are good against some of the worms that sheep get. And they certainly benefited from, they just ate the culled squash and stuff in the fields, got a lot of energy from that. So yeah, we did have temporary fencing and everything, but we didn't do a rigorous management intensive grazing at all. (36:15)

AA: Do you want to tell me a little more about your apple orchard and your production practices, and who influenced you, how you developed those?

BC: Yeah, that's a really good story. I was always interested, you can see that since I planted the chestnuts in 1980, I was always interested in various types of woody-based perennial crops. And I was interested in apples. So I worked at, while we were farming, basically in the wintertime I would always do different kinds of jobs. And one of the things I did was I pruned apples at the Cornell orchard. And I did that for several years, and so I learned how to prune there. And we had friends who had and still have a conventional orchard, and I learned a lot from them as well. But in the early '80s there started to be a sort of a small group of growers who were very interested in organic apple production who were basically young hippie types. And several women were really important in that group. Amy Hepworth and Elizabeth Ryan were really important. And—her name was something Bennett, and I can't believe I can't remember her name. But anyway, she married Trauger Groh, who pretty much had the first CSA in the US. Alice Bennett. She was really a pioneer in organic and biodynamic apple growing, along with Hugh Williams was the other one.

That group of people plus a few more, I think the first meeting was in 1980 in Spring Valley, which was the center of the Biodynamic Association at that point. It still sort of is. They had sort of workshop meetings about organic and biodynamic apple growing. And even at that point I clearly remember Hugh Williams saying, "Yes, we can do this." And everybody said it was totally impossible. But Hugh said, "No, no, we're going to do this, it's going to work. And Alice was really one of the first people who, she had a Jeep, and she put a sprayer in the back of it, and she had all these remnants of old apple orchards—this was in the Amherst, Massachusetts area, somewhere in western Mass. And she would have an acre here with a house right next to it, or half an acre there with another development right next to it. And so they were kind of just orchards that had been developed into housing developments, but there were still remnants of the orchards there. And she would drive around with this Jeep and spray them with the organic and biodynamic preparations and stuff. And she did a great job.

So that was one of the starts. And Hugh had an orchard, Hugh Williams had an orchard on the south fork of Long Island, I think it was Sag Harbor, I think that's the name of the place. He was also being successful. And then Ann Hepworth of the Hudson Valley and Elizabeth

Ryan, who was also in the Hudson Valley and had gotten a master's in pomology at Cornell were doing it. And there started to be these sporadic meetings where people shared information. So I learned a lot there. And then Cornell had something which I actually have the tapes of the presentations which they had, I don't know if they still are functional. But they had a low-spray and organic symposium in probably the early '80s that Lew Ward and Tracy Frisch organized. And that was interesting because it drew in some of the Cornell folks for their, kind of like dipping their toes into giving advice to organic growers, which was at that time, people thought it was just totally impossible. A few of them were sympathetic. Most of them were not. But they had, Hugh Williams spoke at that. I remember Alvan Filsinger who was kind of a pioneer organic orchardist from Ontario came down, and he spoke. And so again, it was just like starting to put the pieces together for organic orcharding.

And so we started leasing this very young organic apple planting in '88. It was planted in '85. And the people who did it had a lot of biodynamic compost that they had made. So they fertilized the orchard with that, and the trees grew really well for several years from that. And so I was using the knowledge that I gained from those meetings I had talked about, that Cornell meeting and stuff. But really sort of learning as I went. But then something really important happened in I believe '92 or '93, and that was that SARE funded a project where Margaret Christie organized meetings of four commodity groups where it was thought that organic knowledge was very lacking. And one was sweet corn, one was strawberries, one was apples, and I don't remember what the fourth one was. Some of those same people that I had mentioned, Alice Bennett was no longer doing it, but Elizabeth Ryan and Ann Hepworth and Hugh Williams certainly. And then a sort of a new group including Alan Suprenant from western Mass., and other folks went to this meeting and shared this information, and it was really good. And then Margaret did it the next year. And then it just took on a life of its own. Even though the funding was gone, that meeting has happened every year since except the last couple years because of the pandemic.

But that was a really important group, and really important information sharing that happened. John Bemis and Don MacLean were really important in that group and have organic orchards now that are successful. And again, we sort of bootstrapped ourselves up and shared information and figured out how to manage the orchard floor, and figured out how to prune the trees, and just made all this progress together. It was really super helpful. And in about '93 or '94 Michael Phillips joined the group. And Michael wrote a book called *The Apple Grower*, which I think came out in '97. And that's really the bible for organic apple production in the East. And it's been updated since the first edition. But I remember there was a meeting in Pennsylvania of this group. And at this time it was maybe only ten or twelve people. But we all were casting around and thinking, "Who's here who could try to write up information that we're sharing here and share it with people?" And it was Michael. He either volunteered, or people just said, "Why don't you do this, Michael?" because he was a good writer. And so that was a very important moment as well.

But that group has continued, except for the pandemic this year and last year we didn't meet. But we met all the years up till then, from I think '92 or '93. Now there's like forty or fifty people in the group, and it's a big circle, and people just share information. Michael Phillips had been running the meetings until he died sadly last winter. But there was always a lot of everybody equally sharing information amongst the group, a really valuable farmer sharing.
(47:22)

AA: Thank you. That's really interesting. So you mentioned when we talked before that you worked for Cornell University. Can you tell me a little more about that, first of all what you did, how you got connected with them?

BC: So I was a grad student there from '84 to '86, and definitely there was a group of students called the Ecological Agriculture Research Collective, or EARC. And part of the idea of that name, EARC, was that we were kind of irking the establishment there a little bit. But yeah, we put on an organic symposium every year. And then I lived only ten miles away from Cornell. So even after I got my degree, there would be meetings where the Cornell administrators and professors would meet with NOFA-New York and the organic folks, and I was always at those. I was kind of like this sort of organic person that the faculty, the ag faculty at Cornell, this was a very small group that this applies to, but I was a known organic zealot I guess there. And so in '95 we had a year with the vegetables—or '94, it was '94—that was not a bad year, but it was not a good year. And we had two kids at that time. I was working half-time at a library at Cornell to supply health insurance and stuff. And so it became clear that we couldn't continue what we were doing. So I had my master's degree, and one of the reasons I had gotten it was for this very purpose, that maybe at some point I'll need to get a more remunerative job.

So, to make a long story short, we looked for land, because our land is really hilly and it's surrounded by woods, and the deer really were the biggest problem that we could not solve. Too bad, now I have an eight-foot high deer fence, and I wish I'd had it then. It would have changed everything. But we didn't. And so basically in '95 we were looking for land and couldn't really find anything that would fit. But then there was a cooperative extension job that came up in the county just south of us. And I took that. So that's when we started to phase out the vegetables. And so by the year 2000 we stopped. We were doing some vegetable sales at the farmers market, even when I was working full time off the farm and my wife Twinkle was also, she was working at the post office full time. And we were raising our kids. But we basically phased all that out in 2000, we sold our sheep flock, the remnants that we had left, and just stopped selling the vegetables. But we did continue in partnership with another farm, we continued to do the orchard.

So I was working for Cornell Cooperative Extension, I was an ag person. And we had a five-county team, and I was the vegetable and fruits specialist for this five-county team. Not an intensive fruit and vegetable area at all. But a lot of small-scale, a lot of organic producers. So that was a really good fit for me. And with the nonorganic ones I really emphasized IPM, because that was sort of a meeting place where I could meet them halfway. Then in 2001 I started to get really worried about GMOs. And I really did not want to be recommending GMO plants in my role as an extension person. So I got a job with NOFA-New York, and I was the first education coordinator for NOFA-New York in 2001. But then 9/11 hit, which really impacted the fundraising for NOFA in a bad way. And so Sarah Johnston, who was the executive director of NOFA-New York at that time, and I had really big plans. But we couldn't do it. And my hours were cut back and cut back.

And so in 2005 a Cornell researcher who I was good friends with and we had worked together on what was called the Neon Project, which was a really important project that happened in 2003-2004, somewhere in that range, where Anu Rangarajan at Cornell got us again a SARE funded grant and just did a fantastic job at linking up researchers and farmers who were doing organic all through the Northeast. It was really just an amazing project. And one of the things that grew out of it was an organic systems trial at Cornell that Chuck Mohler, who was the

Cornell researcher that I knew, he was behind that. And it was an outgrowth of the SARE-funded Neon Project. And so the idea was to establish and maintain a long-term organic research trial. And we had four different organic systems, a high-input, low-input, intensive weed management, and reduced tillage organic systems that we were comparing over time. And I actually helped Chuck kind of write it and get the grant proposal. And then they hired me as the field manager for that project. Then I worked at Cornell on that project and other organic research projects until I retired like three years ago. (54:53)

AA: So did you encounter many anti-organic attitudes at Cornell? What was your experience with that?

BC: Yeah, definitely. The one real stunning one that happened early on in the '80s was that the Kellogg Foundation had approached Cornell about being a center for sustainable and organic agriculture. And he offered Cornell six million dollars or something, I don't know how much it was. But Cornell's dean [of the ag school, David] Call, turned them down, said, "Well, everything we do is sustainable, so we're not interested in that." That was really kind of amazing to everybody, that the Cornell dean turned money down, but he did. So that was indicative, I think, of the attitude at that time, which was very dismissive. I definitely remember people saying—I can't remember who—that the research that showed that pesticides had serious health impacts was dismissed as "junk science." I remember that very clearly in the '80s. By Cornell faculty.

But there were definitely some faculty that were much more open to that, to organic. Marvin Pritts and Steve Reiners, and there were a few other ones. And then I think in like '96 or '97, Anu Rangarajan was added, she was hired as the horticulture professor. And she made a huge difference. She is just a marvelous personality and just a force for good, is the way I think of her. But when she was hired, and she initiated that Neon Project a few years later. And she did a great job, and that really changed a lot, certainly within the horticulture department. Sort of went over into agronomy, which I think is called Soil and Crop Science now. Her sort of attitude really kind of worked toward openness and the encouragement of organic and went beyond just the horticulture department.

But still, and into the recent years, animal science and the dairy folks are totally dismissive of organic. Which is amazing, because there's 600 organic dairy farms in New York, or there were, until recent years. And the pomology department, the apple and fruit people, have really been very, I would say we have to kind of drag them kicking and screaming. They won't say anything nice about organic, but they will give recommendations and stuff like that. They think it's just kind of consumer stupidity to pay extra money for organic. So yeah, there's been definitely a lot of negativity. But some really good positivity as well. (59:04)

AA: Well, that's good to hear. Do you want to share anything about your perspective on the general relationship between organic farmers and the land grant universities? How typical do you think Cornell is compared to other land grants in the Northeast and Midwest?

BC: One thing I think that is an important insight, and that is that the organic farming community has been really always known for sharing information freely. And a big part of that I think is because we didn't have any alternatives. We really couldn't get good information from the extension system. And so we had to share it amongst ourselves, and we did. And then also, so

many of us came from that hippie background, that that was also, openness was a big part of that. So I think that's important. In terms of how Cornell would compare to other land grants, probably—well, certainly the University of Maine and the University of Massachusetts had a lot of farmers that do direct marketing and are very closely in touch with the consumers. And so because of that connection they have been in general more open to organic over the years than Cornell. And UVM is the same thing. And Connecticut, same thing, except they have very few farms in Connecticut anymore, so they're weaker on that side of things. I don't know. I don't think they're too different, but there are definitely shadings of difference that UVM and UMass and Maine have been more open maybe to organic than Cornell was.

AA: Now you mentioned something earlier about working with David Pimentel. Do you want to share anything? I know he's done some research on energy and all that, but what is his connection with organic farming?

BC: Yeah, so David Pimentel. Yes. He was an insect ecologist at Cornell. And just an absolutely, I don't even know what the words are for him. His research was very broad-reaching and created a lot of controversy, and just incredibly valuable. Kind of like, shake the foundations a little bit of the conventional thought about agriculture in the '70s and '80s. I really can't say enough about David Pimentel. And he died maybe ten years ago. But his insect work sort of broadened into just studying important aspects of pesticide use in agriculture in general. And then that then broadened into energy use, and he just kept on building on things. And he was the first person of stature to point out that energy efficiency of American agriculture had been declining for many years precipitously, since like the '30s and '40s. Obviously because it became much more industrialized and mechanized. So at that time, the conventional mindset was, "Well, everything is great about American agriculture, there's no downsides to it at all." And he just said, "Well, hey, we're using a hell of a lot more energy than we used to to produce every kilogram of corn." And people just got really upset with that. And so that was, he was a very contentious guy, but very courageous guy, and just stuck with his work and stuck with the data and just said it. He was amazing. (1:04:38)

AA: So you mentioned that you were a cofounder of NOFA-New York. Can you tell me a little more about that?

BC: I was, but I was not one of the prime people. I helped to sign the incorporation papers and all that sort of stuff, but the way I remember it was that a woman named Nancy Grudens-Shuck I think was the first director of NOFA-New York. Or she might have even just been the president of the board, because maybe there was no executive director then. And Craig Cramer, who also later on wrote for, he might have even edited the *New Farm* that Rodale did, was a really important figure in the beginning of NOFA-New York. So to me, the most important thing about NOFA-New York in the early days was there was a quarterly newsletter, which I actually still have all those newsletters. And then the annual meeting, which was again a lot of information sharing from farmers all over the state. So I wasn't on the governing council or anything like that, but I just helped, added my voice to getting it started. And the other person who was really important in the early days was David Yarrow. And he was really an important figure, he was basically a community activist, not a farmer. But very interested in food activism. He was based in Syracuse. And so in about 1986 Liz Henderson moved from Massachusetts to New York, and

she was extremely important in NOFA and really in organic agriculture almost worldwide. She's a really important figure. (1:06:57)

AA: You mentioned a little bit about this earlier, but is there anything else you want to say about the importance of NOFA and similar organizations in networking farmers and helping them get information when extension or more traditional sources of agricultural information weren't really available?

BC: I think that the newsletters and meetings and stuff like that were absolutely crucial in everybody, what is it, the rising tide floats all the boats. Increasing the knowledge that was available. Early on also, besides NOFA-New York, there was the summer NOFA conference that was done by the interstate NOFA group, and that was also really important as a place to share information, even though it was really hard to go there because it was always in early August, right in the growing season. But we went quite a bit and learned a lot from that as well. So yeah, I think all those things are really important. And then the other thing that I definitely should talk about a little bit is the Finger Lakes Organic Growers. And that was a vegetable marketing co-op that was started in '85 or '86. And Dave Stern was an important person at the beginning of that marketing co-op. And David Yarrow wrote the grant proposal that basically got us a few thousand dollars for labels and stuff like that, and also kick-started it to get going. So that co-op lasted probably until about 2014 or '13, something like that. And it just was really important for information sharing and helped us all learn about business skills, and also gave markets to the really small scale producers. (1:09:37)

AA: You also mentioned you were involved in the Ithaca Farmers Market. Do you want to say anything about that?

BC: Yeah. So I was on, we started selling in '78 in the farmers market. And I was on the board of directors starting in the early '80s until maybe 1990 or something like that. I guess maybe into '93, somewhere in there. And again, that is a farmer cooperative, and so it just provides a location and a venue for all these local farmers within thirty miles of Ithaca to sell produce. And that was super critical for us. If we didn't have that, we wouldn't have been able to farm at all. And the market is definitely still going and seems successful. Still provides that same function. (1:10:55)

AA: So you also mentioned you were involved in writing the organic standards for New York. Do you want to share anything about that? What time period was that?

BC: Yeah, so there was a standards committee that was probably, I'm going to guess, probably set up in '83 or '84. And I remember Drew Piescheck was, I believe, the president of NOFA-New York at that time. There was no executive director, he was the president of the board. And he challenged the farmers, said, "Organic certification is around the corner, and I challenge you, New York State farmers, to make standards that we can use in New York State." And so Dave Stern, who I mentioned, at Rose Valley Farm, one of the founders of Finger Lakes Organics, he really rose to that challenge and organized a committee within NOFA. Included John Myer, and Tony Potenza was another really important early grain grower, field crops grower north of Ithaca. And Beth Rose, she had a good-size sheep and chicken operation. Basically this group of

maybe five, six people met pretty intensively for a while and just hashed through whatever, there were some Rodale standards at that time, and I can't remember if CCOF had standards or not, I can't remember. Hashed through those standards and tried to make our own coherent set of standards, which we did. And I think the first farms were certified by NOFA-New York in either '85 or '86. I think '85, but I'm not sure. There were only like six the first year, of which we were one. (1:13:25)

AA: Thank you. So is there anything else you want to share about the historical involvement before we move on to talking about your philosophies about organic farming?

BC: It seems to me like we've covered a lot. And I really think, to me some of the most important pieces are the whole information sharing, like the apple farmer-to-farmer meetings were really fantastic. And then all the early NOFA stuff was great. That's what I see as enabling the success of the farmers in New York State and in the Northeast. And certainly Jean-Paul Courtens was another fabulous source of knowledge, and just a great example to the other vegetable growers. He was in Hudson Valley. They were just a bunch of really wonderful people who really were very open with their information and just helped everybody else do better. (1:15:02)

AA: So if you were to summarize your philosophy of organic farming, what would that be?

BC: You mean of organic in particular?

AA: Or agriculture in general, organic, sustainable, whatever you want to call it.

BC: It's interesting, I think a lot of people really emphasize that organic is not just the negative thing, prohibition of synthetic fertilizers and pesticides. But it includes a lot of positive practices as well. And I understand where that's coming from. But because organic was so adamant in refusal, it changed the whole, it slowly but surely is pushing conventional agriculture away from those things, which is really positive in my mind. I remember very clearly in the early days people said, "Well, a little chemical N is okay." And Louie Bromfield, who was a great influence on me, I consider him just a tremendous cheerleader for sustainable agriculture, because his writing is so inspiring. And I started reading him, definitely in the early '80s and maybe in the '70s, I can't remember. I have quite a few of his books. So I was really glad that you did all that work with him.

But people would say, "Well, a little chemical N is all right." "Well, shoot, if you can't control the pests naturally, maybe a little bit of malathion wouldn't be a bad thing." "Yeah, Roundup has its place, you can just use it judiciously." Well, that was rejected by organic. And it's really important that it was. Because now we actually know how to totally not have to use those things. And we wouldn't if there hadn't been this really clear mandate. And I think that the original pioneers of organic had, including Rudolf Steiner, certainly was one of the sources of the organic philosophy. And J. I. Rodale, even though I think he was pretty crazy politically. And some of these other folks. At the time there was a lot of British people, whose names I don't even know [of course Albert Howard, Lady Eve Balfour, the Soil Association, etc.]. But they had such a profound distrust of chemical fertilizers, I think was the first thing that they felt like was clearly diminishing the quality of the soil. And they could just see it. They were pretty sensitive

people, pretty observant people. And then the pesticides were also riding that same train of thought.

So I think it's really important how adamant and clear they were, right from the start. And certainly there's a lot of soil building practices and crop rotation and biodiversity and all that stuff. That stuff was all in the popular farm press in the late 1800s and early 1900s. It was there. But then it all got swept away pretty much in the '40s with chemical fertilizers and pesticides really came into their own. So anyways, the point I'm trying to make, probably harping on it too much, but it's really important that organic kept firm to those early sort of rules of no chemical pesticides, no chemical fertilizers.

And beyond that, in the early days there was a lot of archconservative aspects to organic. And that whole thing, like in Dr. Strangelove where the crazy general is talking about "our precious bodily fluids" and all that stuff. That was totally in there with organic in the maybe '50s. Very anti-communist, again, J. I. Rodale was pretty rabid. He thought that sugar was a communist plot to weaken America. Pretty out there. But I think what happened was when it got overlaid in the '60s and '70s with the hippie philosophy, that made it more—that was what really made it a positive force. (1:21:37)

AA: How would you define the hippie philosophy?

BC: Very strong egalitarian views, where people are equal. Certainly women are equal to men. Just openness to other ideas, other ways of doing things. A rejection of rigid adherence to capitalist hierarchical mindset. That's kind of what I, the way I think of it. So what happened is the concern over health and bad results from that whole mindset of "better living through chemistry" had some really negative fallout. When you layer that on top with egalitarian ideas and the openness and honesty, all these really seemingly idealistic, but I think that's really where a lot of the hippie ideas were coming from. That makes the whole project much more positive than just negativity. Like my grandfather was a John Bircher, and they were really into that whole purity of essence thing, but in a really negative way. So I'm glad there was a more positive way for some of those same concerns to come out. Does that make sense to you? (1:24:00)

AA: Yeah, that makes a lot of sense.

BC: It wasn't necessarily just sex and drugs and rock 'n' roll. That was part of it, but there was definitely a lot more to it than that.

AA: That's good to hear, because I've been trying to research the hippies, and all the books are just about sex and drugs and rock 'n' roll, and I've been trying to figure out the connection between that and organic farming. So what you're saying is very helpful.

BC: Right. So there's actually a really cool book. I think I'm going to have to look for this and email it to you, because I can't remember what it's called, because I don't remember where I have it. But it's about a commune in Vermont that did a lot of agriculture back in the '60s, one of the early ones. And I think it will help you see some of those connections. And another one I can think of offhand is called *Total Loss Farm*, by Raymond Mungo. That's a really good one. So

yeah, there's definitely some resources out there that that definitely will make that connection clearer, I think. (1:25:14)

AA: All right, thank you. So do you feel like your religious or spiritual beliefs have any connection to your philosophies about farming, or not?

BC: Yeah, I mean, I don't have any regular established religious beliefs. But I do believe in incredible beauty and power and generosity of the natural world, which I consider to be God, basically. So yeah, I think that whenever we get a little too smart, there's that whole idea of hubris, that humans think we really have things figured out. And the lack of humility is a really dangerous thing. So those are my deep beliefs, but they're not really religious in the normal sense. (1:26:38)

AA: Thank you. So we already really talked a little about, thank you for defining the hippies, that makes a lot more sense with organic farming. Is there anything else you want to say about that connection, or between the environmental movement and organic farming, or between any other social or political movements you've been involved in?

BC: I think just to reiterate Wendell Berry and Gary Snyder as being really important points of view. They are exponents of a philosophy that I think really contributed to all of this, and it's deeply enmeshed in the environmental movement and everything else we just talked about. I think that's really important. (1:27:48)

AA: Is there anything you'd like to share about your thoughts on current trends or controversies in organic agriculture?

BC: Yeah. I'm just looking at my bookshelf here. The other really important connection with organic and the environmental movement is the *Limits to Growth*. You familiar with that?

AA: Yes.

BC: Book that came out in the early '70s. That really tied things together in a very deep way. I think that was really important. It's kind of hard to tie that directly to agriculture, but it was clear that agriculture was part of the problem that *Limits to Growth* was bringing to the surface. But I guess those are the main influences. Certainly E. F. Schumacher, *Small Is Beautiful*, that was really changed a lot of thinking.

So now in terms of the current controversies. I'm involved in a bunch of those, because I'm on the National Organic Standards Board. So I've been seeing a lot of that stuff pretty close hand. It's definitely very, it's sort of an obvious outcome that as organic farming became more successful, that there would be influences to try to weaken the standards or dilute them so that more and more farms could be part of that organic label. So I think we're in the midst of a bunch of that, and certainly with the government structure in America in 2022, it's really heavily influenced by monied interests. And so it's just going to be really hard to resist some of the pressure from those interests. But I don't know. The strength and personal sort of motivation and stick-to-it-ness of the organic community, both the consumers and the farmers. Kind of holding the line, or trying to hold the line, or whatever. I'm actually feeling fairly positive about it. And I

think, the more that the organic sort of establishment can adhere to pretty strict organic standards, I think that the stronger the consumer support will be. I think that's pretty important. And I think what we're seeing as the real stresses on organic right now are all of the attempts at weakening the standards and because of that losing consumer support.

And a really clear example of that is the whole controversy about hydroponics and container growing in organics. And for certain crops, those methods are really taking over. We're just going to have to see how it plays out with where the consumers are going to go with that and where the USDA NOP program is going to go with that. I'm sure that you've read a lot about that issue. (1:33:56)

AA: Yeah. So what's your perspective on, what's your opinion about the Real Organic and regenerative moves to have an additional certification that's better than organic? Are you in favor of that, or strengthening the original standards.

BC: Yeah, we're in the Real Organic program. We're certified by them. NOFA-New York, our certifier, what Real Organic says that it's nothing really in addition to the standards, it's just an accurate enforcement of the standards or interpretation of the standards that they're promoting. And NOFA-New York, they consider any farm that's certified by NOFA-New York to also be certified by Real Organic, because NOFA-New York is also holding the exact same interpretations. NOFA-New York doesn't certify hydroponics and they don't certify any CAFOs. Those are the two big ones. So I think that the Real Organic is a really important voice within the organic community. And so I totally support that.

The regenerative organic is a little more confusing. I mean, it's great, but the way I understand it is that the standards are pretty hard to comply with due to record keeping. And also I think there is, at least there was, I think it's changed, but there was a requirement toward working toward zero tillage, which most of our vegetable growers aren't going to do. They're both really, they're good voices that are pushing on the larger organic community to keep things in line and not loosen up the standards too much. (1:36:27)

AA: Thank you. So earlier when you were talking about the organic apple growing group, you mentioned Michael Phillips. Is there anything else you want to add about your work with him and how he's influenced organic apple growing in the United States?

BC: So Michael, he took things beyond where I've gone with organic apple growing in terms of not using some of the fungicides like sulfur that I still use. And I have tried to follow his more extreme version that was in his second book, called *The Holistic Orchard*. And I was not able to be successful with trying to follow his program there. I did have disease control failures. But Michael seemed to be able to do it. And I don't know why. And some other people seem to be able to follow his program and make it work. So he really took things to the next level in a lot of ways. Before he died, he was starting to work on a new book. He actually shared in email and conversations, some of the directions he was going with that. It's really interesting. And one of the things that he started to get interested in was sap analysis. I don't know how much you know about that whole deal.

AA: A little bit.

BC: Yeah, well, the way I consider sap analysis is that it's a little bit of a marketing tool. It makes it easy for some companies to sell both the analysis service, the testing service, and also the products that then can be used to correct some of the identified deficiencies. But Michael was, as usual, going in a real deep and a really biologically based way. What he was aiming at was using sap analysis to identify key points in the season with the tree when it needed certain boosts. And then instead of giving it boosts—these are going to be micronutrient boosts. And instead of doing it by buying a product, he was all about making farm-based fermentations that would give the trees these boosts, but it would be an on-farm resource rather than something you have to buy. So that was going to be the basic story of this new book. But he hadn't written any of it. And he was still trying to do his own research to try to make it work.

So a few of us that were in our yearly meeting of organic and holistic apple growers, I guess [holistic] is the best way to put it, it included some IPM folks too who had some really valuable contributions but were not organic, but really knew what they were talking about. So a few of us are actually trying to, we did a bunch of the sap testing this summer and we're trying to now over the winter go over the results and try to figure out what we learned from it and see if we can take that direction that Michael was going in the next step. (1:41:43)

AA: Great. So what do you think are the most important aspects of organic farming history to preserve and pass on to future generations?

BC: I think, again, that information sharing, the free information sharing is a huge one. And also just that original impulse, to keep true to it, that there was a lot of wisdom in some of those early folks who just said, "No, we're not going to use synthetic fertilizers and pesticides." That's really kind of amazing that as time goes on we just see that there's more and more wisdom to that.

AA: So is there anything else you want to share, anything we missed, or anything else you want to add?

BC: Boy, Anneliese, I feel like you have done a great job of pretty much capturing pretty much everything. I'm trying to think if there are any people I should have, I think the people are really important. I was dropping a lot of names all through there because I think it's important to capture some of these folks and to recognize their contributions. Are you going to talk to any other farmers in New York State, that you've got on your list?

AA: I would like to. I don't have them yet, but any names you can give me would be great.

BC: The ones that really stick out to me would be Elizabeth Henderson and John Myer and probably Jean-Paul Cortens would be a really good person to talk to. I'm sure there's others, but those are some really good ones. Patricia Kane would be a person who was the head of the certification program for the early years. She would have some really good insights on that. She would probably be a good person to talk to as well. She lives outside of Binghamton. I don't have her phone number or anything like that. If I can find emails for these folks or addresses or something like that, I'll try to send them to you.

AA: Yeah, great.

BC: Yeah, I think you've covered it really well. I'm looking at all my books here, thinking that something's going to remind me of something else that we've missed, but it seems like we've covered pretty much everything.

AA: All right. Well, I'm going to end the recording then, so thank you so much. (1:45:33)