

**James Silverthorne, narrator**

**Anneliese Abbott, interviewer**

**January 29, 2024**

**JS** = James Silverthorne

**AA** = Anneliese Abbott

**AA:** This is January 29, 2024, and this is Anneliese Abbott doing an oral history interview with

**JS:** James Silverthorne.

**AA:** So James, thank you so much for taking the time to do this interview today!

**JS:** You're welcome.

**AA:** So why don't you start and tell me a little about when and where you were born, and if you had any connection with agriculture when you were a child.

**JS:** Okay. Hawaii, Oahu Island, Honolulu, June 21, 1942. Within a year after the war had started, within a year after the Pearl Harbor bombing, my parents were directed by the civilian authorities on the island to manage a chicken farm, chicken ranch for meat and egg production, which was a wartime essential, to supply some food to people on the island, to keep the shipping of [imported] products by aircraft for civilian purposes minimal. So that's what they did. [As a young teenager, my father had done well raising show chickens. He had polio of the spine when he was young, and was not accepted on his application for military service made shortly after the Pearl Harbor bombing. Because he had the skills for small volume poultry production, he then was told to produce more eggs and broiler meat than ever thought possible for civilian consumption.] And that was my early experience, about which I actually remember some things. My parents ran a chicken ranch.

**AA:** And so did you grow up in Hawaii, or did you move when you were young?

**JS:** After the war, we moved. As soon as the war was over, my parents got permission from the civilian authority to stop the chicken production. They [father & mother] sold the ranch, and my father said he'd never go back to that kind of work. He said it was horrible. The only thing that would have been worse would have been to have been in a combat zone, which he counted himself as being very fortunate that he wasn't. Although other family members did serve during the war. And in a couple years, my parents moved stateside, back to the East Coast, and began their academic studies for his PhD in anthropology, which he obtained. That was in the New Haven, Connecticut area.

In that area for that time, I had access to a lot of wild areas that were interspersed between some suburban-type development. Very minor at that time. There were New England regrowth forests, mixed hardwoods, and different swamp areas, all around where I went to elementary school. I just associated with all those areas, I just poured everything I could. As soon

as I got back from school, I was on my bike and off to some terrain to explore. I had a very close contact with nature for a long time. Then summer times, when my father could take time away from his studies, we drove out to his parents' place in northern Wisconsin lake country. They had a backwoods cottage on a lake. Many summers were spent just romping through northern Wisconsin's woodland areas and just rampaging across the lake as best I could, in canoes and swimming. So there was a long, strong association with nature. I did not identify as an urban person. I just barely identified as part of human culture. I mostly identified as an animal in the wild. Although every day, I was back home for supper. So that's the early part. Where do we go now? (4:50)

**AA:** So did you go on to college?

**JS:** Yeah, I did. And it wasn't my first choice, and it probably wasn't my second or even third choice, but my father absolutely insisted. I was accepted at Harvard and did my undergraduate work there at [in] Cambridge.

**AA:** What did you study?

**JS:** The concentration was medieval French history. I was fluent in French at the time, and I really enjoyed being in the stacks at the library, going through the library's collection of old French works and modern works about French history. Some of the French scholars, historians and scholars. The library just had an outstanding collection. That was fascinating. That was my happiest immersion in human culture activities.

**AA:** Did you have any connection with agriculture while you were in college?

**JS:** Off and on. An uncle ran a cow-calf ranch in Texas, east of Dallas. Vacations and so on, I often was there visiting and working on the ranch. But that was the extent of the agriculture part. (6:32)

**AA:** So then, what got you interested in organic farming?

**JS:** That was slow and steady. I never got educated or trained in deep chemical farming. I just sort of assumed, in my ignorance, that in the '50s and '60s most farming was like the little I had seen in Texas and the extrapolations that I might make from my observations walking through the woods in northern Wisconsin and central Connecticut. And boy, was I wrong! But I didn't know it.

There were some intimations. [When Rachael Carson's *Silent Spring* was published, my father read it and summarized its findings for me.] I mean, on the ranch one time there was something about treating the animals for some kind of fly that was coming around. So we had to bring them in from the grazing areas into pens at the headquarters. The ranch manager—I'm glad he did it and didn't assign the job to me—just mounted a sprayer-compressor unit and tank up on the back of a pickup truck and backed that unit up next to the pens, where a whole bunch of animals were held, and just sprayed them all down. Goodness knows what the spray was. Something pretty good and toxic at the time. But the general authoritative word on it from Texas A&M was that it was safe and effective.

The ranch did a lot of its pasture fertilizing with cattle and pig manure. The ranch, as well as running the cow-calf herd of about 300 units, also had for quite a while some pig raising. There was a lot of manure in the lagoons, and that was spread all over the fields. That was the principal fertilizing agent, as I recall.

So I thought—mistakenly, of course—that a lot of farming was already 50% at least organic. I later learned that was entirely wrong, especially for non-livestock operations. There was very little organic. This was at sort of the dead period, I call it, between when almost all farms were mostly organic and had livestock and when cover cropping came in. Up to this point very little was done in cover cropping, that I was aware of in the '50s and '60s. Maybe mid-'60s it was starting a little bit. There always was something, but as a serious, dedicated, deliberate activity mixed in for general well-being of the full farm, cover cropping took a few more years, maybe another decade, to really start arriving. Now, of course, it's massively centered, and I think it's just the absolutely best thing.

What edged me more towards the specifically organic was, I lived in Philadelphia for about seven years. First it was about three years for my MFA in sculpture. [University of Pennsylvania] Making sculpture, not the history of sculpture. [Making artistic work is good training for decision making with a multitude of options.] That was very urban. But from time to time I visited somebody at the outer regions of the next county north and slightly west, Bucks County. That was much more rural. And in driving from Philadelphia near the downtown area where I was living, up to the country area, the contrast between the two locations was [getting] sharper and sharper for me. I had purchased a house in Philadelphia, sort of a row house, a double house, and my section had a wonderful backyard garden area. I thought to do something with it, and it was mostly decorative plants and small shrubs. And looking around for amendments for the soil to sort of boost production of whatever was grown there, I paid attention to organic-type amendments. And started subscribing to Rodale's *Organic Gardening and Farming*.

My hunch all the time was that I would be leaving Philadelphia. I would not be staying in a high urban area. As several years went by, it just became less tolerable for me to be in the city, living there. I think part of the pull was putting some organic amendments on the little tiny patches of ground in the backyard of that house. And I found myself being greatly interested in that. So the first chance I got to leave the city and go to a more rural area in northeast Pennsylvania, I took it immediately. And that was my move from Philadelphia to Stroudsburg, Pennsylvania area, outside of which, in a lovely little valley called Cherry Valley, was where Josephine Porter and her dairy goat farm were. It was a biodynamic dairy goat farm. (13:29)

At the time I knew nothing about biodynamics. I knew a little about organics, how it differed from mainstream conventional chemical farming. But I was pretty ignorant, and I didn't know anything about goats. Horses, cattle, sheep, yes. Goats, no. No experience. And she needed someone to move manure out of her barns on a weekly basis. This was to be a part-time venture. In return, I got to live in a nearby house that she owned, a dilapidated-type farmer's help house. I took it immediately. And I expected to do sculpture work when I came there. I expected to move manure out, which I knew I could do and was no problem for me, and I thought there were going to be no problems. Then, in most of my time, I would be doing sculpture work.

That changed. The [manure spreader implement] machinery was dilapidated for the most part and needed almost constant repair. I was supposed to do that, and then as springtime came on, I asked her who she had coming up for a field manager for doing the spring and summer work and the haying. And she said, "Nobody in mind right now." So we struck up a deal, and it

was like a battlefield promotion, she made me field manager on the spot. I was in charge of doing the hay. That was quite an operation. And by the end of the haying season, it was very successful but very difficult and hard on me. Machine [hay rake and baler] breakdowns almost constantly. [But the John Deere “2010” tractor with side mount sickle mower worked very well. The assistant tractor, a John Deere “A”, also worked reliably well.]

Oh, how did I find out? A friend of mine that I knew from Philadelphia had a brother who worked part-time on this very farm. His real work was working a tug in New York harbor, two weeks on and two weeks off. The brother, by the name of Richard [Siegel], told his brother that the farmer was looking for someone to move manure out of barns. And I said, “I can do that.” So I interviewed for the job, actually. Josephine’s father listened to the interview, and afterwards I was told that he said, “That guy will never last.” And I think he thought that I was not rural enough and over-intellectualized too much. But I lasted for as long as I was needed. (17:16)

**AA:** Did you learn much about biodynamic farming methods while you were working there?

**JS:** I learned in bits and pieces. My first actual intro was probably, like many people, Richard showed me a book on biodynamic farming. And it was the standard, famous one, *Agriculture*, the Agriculture Course by Rudolf Steiner. Richard was totally befuddled by the whole thing. He asked me what I thought, and I saw some pictures in the book, and they were fascinating, but totally befuddling to me. It was nonsensical. I guess that’s the best way to say it. We respected it because Josephine definitely obviously respected it, paid a lot of attention to it. But we had no idea what was involved, absolutely nothing. [We respected the biodynamic preparation methods more when Josephine told us they were first used on crop ground of 1,000 to 3,000 acre farm-estates in Germany and parts of Austro-Hungary. While at the farm, Richard was expert at making any project go well. He and I got along well, I had worked deck on a Norwegian freighter for a while when I was 18. Several years later he left to continue his career at sea, becoming captain of a ship with the Alaskan Marine Highway. I say that to indicate that often Josephine and her farm attracted really competent helpers of good character.]

I learned in bits and pieces. She did not try to sway me or something like that, but if I asked any questions, she provided very sensible and clear responses all the time. I helped sometimes. She made the preparations, all of them, and sold them mail-order. She made some row compost from the manure that was extracted from the barns. Little by little, I just learned things from her as she did them, in no particular order. But I saw her very keen, professional way of doing things regarding the biodynamics, and I was impressed by that.

When I worked in Texas, sometimes whole summers, sometimes just brief vacation periods [as a teenager and during college years], a couple of ranch managers there were just excellent professional manager-type ag management people. They had an education at Texas’s best [ag] universities, but they were very down home. I had the example, then, outside of my own immediate family, of professional how to do things on a daily basis continually, week after week, month after month, how to do things in a proper, organized manner as much as possible in a biological-type operation. I was very fortunate. Everything from work with livestock to machine repair, machine usage, and so on. Organizing each day’s priorities. I was very fortunate [to have worked for such decent people who were real good managers].

So when I saw Josie, Josephine do things in a similar way, it was immediately easier for me to affiliate with what she was involved with. It seemed to me that, in various manners of speech, as she talked about different parts of the biodynamics, she did not emphasize very much

the anthroposophic aspect of biodynamics. She emphasized the practical farming part and natural farming in general. And I would say, to describe her, that was a key feature of her personality. She was most interested and most devoted to the practice of farming, and not any other philosophy about it. Although she appreciated and was knowledgeable in the anthroposophic philosophical basis for Steiner's agricultural practices, she herself spent most of her time in the actual practice [and info sharing]. That was where her heart was, and that was where she put in her time and energy. (22:35) [She had learned the preparation making from Ehrenfried Pfeiffer, in nearby NY state and the Lancaster area of PA, who himself had been tutored in Germany by R. Steiner, the originator of what came to be termed biodynamics.]

It turned out, as time went by, at one point she asked me to help do some digging for the placement of a preparation she was making. And it was the oak bark in an animal's skull bone cavity, placed [buried] in a wet, moist, swampy area where there was water flow from time to time. Shovel in hand, she told me to dig here. And I said, "Here?" And I knew it was a swampy, wet space. It didn't seem like a good location for hardly anything. And I said, "Are you sure this is the better place here? There're other places nearby." I wasn't disrespecting her, I was just stumped. And she said, "Well, we're supposed to place it in an area—" and she went on to describe the exact features of that particular area that I had thought was no good for *nothing*, and it turned out it was perfect for this particular preparation.

Once again, it was on a weekly or monthly basis that my association with her, I was going to learn something new that I hadn't even thought of before. And that was very enjoyable. Other people appreciated that aspect of it. She had quite a following of, I would say not for the disciplined practice of organic or even biodynamic, or even the farming itself, but she had quite a following of younger people—younger I mean 30 to 20 years old—in the area who enjoyed her company, and she enjoyed theirs. She was lively, [usually cheerful with a ready sense of humor] pretty well educated, and so on. Do you want me to say more about her personality? (24:55)

**AA:** Sure, yes.

**JS:** The farm [of about 150 acres tillable and/or pastured + about 65 acres tillable/hayable rented] where she lived had been in the family ever since it was a William Penn land grant from the mid-1700s. [Interestingly, the farm's ownership was matrilineally inherited or descended from that time to the present.] It was a pretty good location for general agriculture. It was very good for grazing of cattle. A little wet for grazing of horses or goats in large areas, but it was well-suited [for cow dairying]. It had a southeastern exposure, and local elevations, ridges, buffered the farm from the strongest northern winds and the strongest southern winds. And it had the early morning sunlight, which was a great help in wintertime. It was shaded in the late afternoon for most of the summer. It was a good place for livestock [and a pleasant place for people].

She was born there, she grew up there. One of three sisters and one brother. She was the one child who stayed at [came back to] the farm. She married and maybe five or eight years later divorced. She came back to the farm and stayed there. But earlier, when she was college age, she resolved to make something of herself other than just stay on the farm. Those were her terms, as she describes it. She knew there was a bigger world out there. She enrolled in—I forgot the name of the college in the Midwest, it was in Ohio, Illinois, or Indiana—and went there for nursing. But she was called back to the farm when her mother died and her father became ill. So that interrupted her academic formal education. [Blackburn College, IL. Her mother had wanted all

her daughters to have college-level skills, education. She did graduate from Blackburn, a step on her plan to become an osteopathic physician, not a nurse.]

Shortly after that time, after she returned to the farm—she didn't abandon her intentions in nursing [becoming a doctor] completely, but she changed over to nutrition and was mostly involved with the early movement for improved nutrition. I've forgotten the names anymore, now, of the groups. But she knew a lot of people in that. [She personally knew Bob Rodale and Paul Keene (founder of Walnut Acres), many others in that virtuous enterprise of better farming for better nutrition for better health.] And through that association, through the food and nutrition, which was based for the most part and trending towards eating foods of organic production, she found something [a notice] about a biodynamic conference, thought it was interesting. Her daughter told me that her aunt discovered a letter that her mother [Josephine] had written to her sister [the aunt], and in the letter it was the first voice of enthusiasm for biodynamics expressed by Josephine [in 1947 I think.]. "I have found it!" And she went on to describe something about biodynamic farming [methods] in agriculture.

At that point onward, she continued to pay attention and learn more and learn more. [Having learned to make the preparations, which are somewhat complex, she became the secretary for the Biodynamic Association, and instructed people nationwide by phone and by letters on various aspects of applying the preparations. As to the quality of her preps, Pfeiffer visited the farm, assessed her work, and directed, "Please keep on doing what you do." She also instructed at her farm some several people who hoped get serious about making the preparations. One of those was Hugh Courtney. He was seriously diligent and went on to found c.1985 the Josephine Porter Institute for Applied Biodynamics, which still thrives making all the preparations in VA .] And of course, all of that was totally foreign to every farmer in the area here. Simply foreign to farmers anywhere in the US at that time. Which probably was in the early to mid-'50s, maybe late '50s. She made it her business to learn more, and she did. And that was along with helping out on her father's dairy [cow] farm and assisting with his health needs and also raising her daughter. [Then, she started her dairy goat herd!] She was very active, and that was another aspect of her. She had the energy of a bull, all contained in this rather small, petite woman, who in later years developed emphysema, probably from the grain chaff and grain dust, coupled with, as a youngster, inhaling on a daily basis manure fumes [ammonia] from animals in the barns. I have no idea how that affects the respiration of youngsters during those years. It had to be all over the US, and all over a lot of Europe, also. The emphysema did slow her down as the decades went on. [When I worked there, she had apprentice student-helpers from Antioch College who helped with the goat dairying chores. They assisted in inserting the biodynamic compost preparations into the rows of manure off-loaded from the PTO manure spreader. They got a most memorable hands on education, if not always comfortable, some of them told me. They seemed happy to be there. They loved the kid goats! Josephine cooked their main meals, she was an excellent cook.]

I am rambling on to different pathways. Bring me back to something, Anneliese. (32:01)

**AA:** So then, why did you decide to leave there? How long did you work there and when did you leave?

**JS:** I only worked there formally—I never really left—but I only formally worked there for one year in the haying season. [During that time, I started what would become my horse herd, and seeking to quit their aggravation from flies, I came up with nothing that was non-toxic. Plenty of

animals were being sheltered around the relatively small barnyard at this farm area equaled lots of manure outdoors as well as in. Josephine did not use fly-sprays of the time, nor did I want to. No veterinarian had ideas on how to clear an area of flies by non-toxic methods. Nor did the feed store people, or other farmers. Nor did Josephine. The summer time abundance of flies at animal shelter areas remained my concern for the next 10 years until the solution became clearly apparent to me in an instant. Then, it seemed obvious.] And then by early spring of the next year, she thought she had found someone to go on to do dairying, cattle dairying, and he agreed to make all the hay and some small grain crops for her goat herd. Her goat herd was about 70 to 80 goats. [About 60 milkers, and I thanked her many times for introducing me to the playful antics of kid goats.] That was a bunch, at that time, and she wholesaled it [the milk] to a place called Pure Goat Products that was south of Allentown. I don't know if it quite reached the Lancaster area. A little north of Philadelphia, a little south of Allentown. Quakertown area. [Boyertown] And the goat milk was wholesaled there [I often delivered the milk cans of goat milk there, packed in a pickup truck, twice a week summer times, where it was processed for distribution throughout the eastern Mid-Atlantic region]. She wanted someone who would take over all the field work and all that responsibility, and she thought she found the right couple [who would rent the farm for cow dairying, married with a young daughter] for that and told me that I wouldn't be needed to make hay, except from time to time she might want me to help her out with something. And I said, "Sure."

I had already started to set up my own horse herd. I didn't know it was going to be a herd at that point. I had three horses, and I thought my release from obligations at the farm—or rather constant obligations at the farm, daily—would be good for me. So I was happy with that. I moved my horses to a rented farm [barn with large turn-out area] in a nearby [tiny] town, and that worked out fairly well for quite a while. [For about 2 years until I got my own place going.]

Making hay [for Josephine]. We [I and a summertime helper, Steve from Texas] made hay, and it was the worst summer weather for making hay I've ever experienced. I don't know if we've ever had the same here since then, maybe once or twice, but it's rare. It was moist, rain, rain, dried up sort of for a few days, then rained again, and the whole summer went on like that. I had helped make hay in central Maine, in the Skowhegan area, for a brother-in-law who had a dairy farm for a while. Made hay in Texas. And I had never seen any haymaking situation like this. It was like trying to make hay underwater. We had a [ground-driven] side delivery rake, which fell apart every third round of a field and had to be re-worked, re-jigged, for the drive shaft to stay on. I won't do that again. I will never attempt to make hay in the bottom of a valley in a rainy season without a tedder. (35:58)

**AA:** So then, when did you buy your own farm and move your horses there?

**JS:** I do want to point out one thing [about the haymaking that summer]. I kept at it. And I had one excellent helper about my age, which was 30 years old. He was about 28 years old. An excellent helper. And I couldn't have completed everything without him. We filled both of Josephine's barns. I forget how many tons it would be, but we filled them right almost to touching the metal roofs. And not a single bale was moldy. She fed that hay out to her goats and the cattle that she had at the time, fresh calf heifers, first freshening heifers. It was mostly the goats and those heifers that were fed with the hay, and she said that she never saw a single moldy bale. [The hay we made and put up was 100% feedable even though some of it was stemmy

being made late in its growth.] I took that as a positive success. I'm sorry, what was the question? (37:22)

**AA:** It was, when did you get your own farm and move your horses there?

**JS:** That was a couple years later. I found it [the land] nearby—actually, adjoining—a nearby farmer who was getting to be ancient [early 60s] and frail. He ran a very small beef operation and cropped for those animals. A lot of the ground he was cropping on was pretty wasted. At the time I didn't know how wasted. I would say, [poor] in contrast to the ground that I worked for Josephine, [with] a lot of it was fairly productive, I would say for a non-chemical farm with minimal biodynamic applications. Although there was more than a little bit of biodynamically made compost applied. The special sprays, the 500 and the 501, the horn silica, the two horn sprays, they weren't accomplished so much. I think she didn't have the help to do that. I helped with some of that, but we didn't get it on all the acreage. Got it on most of her home acreage, but not on the rented acreage. Those grounds were not as wasted as nearby ground, I was later to find.

From this neighboring farmer, I saw once when I was repairing fence, way back in the most distant pasture, it was a pasture but it was almost a wildland, with woods all around and so on. Nobody came there. It was inhabited by cattle that grazed there for a short time in the spring and early summer, and then they were taken off. They might be grazed there for part of the fall, but not much. There was not much human activity there. And repairing fence back there, I saw this neighboring farm's sort of hidden area. I went over and walked on it and thought, "This is beautiful." At that time, in the middle of it, it must have been fall, I saw a stag with a full rack of horns standing in the middle of there, making the whole place look even more beautiful.

That was the area that I chose to ask the neighboring farmer if he wanted to sell it. He didn't want to sell it. But he almost desperately needed money, and it was the worst ground that he had. It included some swampy areas that I agreed to buy also. At that time, nobody in this particular area, in Cherry Valley, nobody was selling anything. None of the farmers wanted to sell. They were still living, and for the most part their children were not interested in farming, but nobody wanted to sell. So I counted it a real blessing when Ralph and I shook hands and he agreed to sell me whatever the acreage amounted to. I made the deal with him that I never would do with anybody else before or since, it was a handshake. I didn't know how many acres there were. We just described it by the terrain. (42:00)

I went overboard to assure him that I would be a good neighbor, and that he should not change his mind on the sale. I knew it was a pretty darn good location for what I was interested in. And it was. Except for the fact that the ground was two weeks away from becoming desert, and I was not aware of that at the time. I don't know if that would have changed my mind. I didn't know then how difficult it was to bring really poor, infertile ground back up to something that's worthwhile production, grass production. I said, "Ralph, I will pay for [the survey and an attorney to] write up an agreement of sale for it." And he said, "Jim, if you think we need an agreement of sale, maybe we shouldn't be neighbors." I said, "Oh, we don't have to have an agreement of sale. I'm fine. A handshake suits me." And later that evening I thought, "What could go wrong? The worst thing that could happen is that he'll die, and his family will say, 'We don't know anything about that.'" I thought, "Well, he seems pretty healthy to me."

Everything went forward. I came to Josephine's in 1972, I rented out a dairyman's unused barn about five miles away in '73, '74. I think I made the agreement to buy [land] in late '74 and



started to do something with surveying and getting a lane built into it. What I had bought was way back off the road, and so I needed to construct an access. During that time—I've been thinking, you only do this stuff when you're young and foolish—I had thousands of dollars invested in making the lane and putting shale down for the bedding of the lane and the road.

Then I got a phone call one day saying that my seller, Ralph, had died. Unfortunately, [but] quickly, of a heart attack. He was doing some tractor work and had a heart attack, felt some pain in his chest, got off the tractor and made one yell, which his son heard from a distance, and fell over. He was dead by the time his son got there. So I said, "Possibly I've lost everything, all the money here." But no, it turned out that working with the family was just fine. [Ralph's family was honorable, we've been friendly neighbors for 40+ years.] Everything proceeded. By '75 or so, the barn was built. I built a barn first, then started on the house. In late '76, I think, I was in the house. (45:58)

**AA:** So then, what kind of cropping or farming practices did you use to restore those fields that you said weren't in very good shape when you bought it?

**JS:** It was a textbook case of how to go about it in a really ignorant way. I didn't use any biodynamics, because my reasoning was that those few sprays were not going to make any difference for what's needed here. [I probably made a mistake then, could have made an experiment of it. The BD #500, the horn compost is not expensive, is easy enough to apply. Biodynamic methods and materials, however, are intended as a most important adjunct to the base of good, natural farming practices already in place.] I had thought it would be good for touch-ups on something that was already biologically functioning. This ground, my primary first pasture area next to the stables, was about 3 ½ acres. It had a hard time growing weeds. It grew some brambly, low-growing thing. I'm not even sure if goats could find much interesting. It was terrible. Nothing worked. I mowed when I could. [Total pasture acreage was 20+, composed of 6 field areas.]

By the way, my tractor of choice was an Allis Chalmers "G" 12-horsepower and had a few implements come with it. I used that for basically all my farm work, machine work at that place. Ramshackle kind of trailer. I bought a manure spreader. It [the tractor] came with a side-mount sickle mower. And I bought a lime spreader. The lime spreader was made to go between rows of berry bushes. It was 6 feet wide. That was the width of the drop. So doing even a small acreage, like three acres, spreading any agricultural mineral amendment took forever because it only covered six feet in one pass.

I needed someone who was 70 to 80 years old to give me a once-up on how to do things better. But nobody stepped forward. And I didn't ask questions of local people, farmers that I got along with. I didn't ask questions like, "How can I do this better?" I told them sometimes what I was doing, and they would say, "Uh-huh." "How's that going? Uh-huh." And then it was time for them to do something else. I really don't know if they thought I was uninstruable. [I only slowly learned to ask questions. Nonetheless, I did realize that I had to become very good at learning from what was happening with the farm, a better observer.]

I made one error to begin with. The first thing I did was I had the ag extension agent come out. He looked over everything and said, "This is some of the worst ground I've ever seen in Monroe County." And I told him I wanted to do pasture, not corn or small grains, [but] pasture. He said, "This is some of the worst I've seen." And I thought, "This is going to be a

difficult ground here.” I had some soil tests done, and they were pretty conclusive—needs everything. I started to figure out how to go about this.

A fellow that I was getting to know better, about my age, maybe a little bit younger, had moved into brokering organic soil amendments. And he had, at the time, a very good humate product. I read the literature for the product, so I bought a pallet and spread that out. [That was the error.] Waited for the good results that I thought were going to show up. And those results never showed up. I later realized that the soil to which the humate soil was added needed to already be biologically functioning. It needed some biological action in it. And it needed, among other things, much more calcium. The humate [by itself] wasn’t going to do anything. I might as well have applied it to a parking lot.

I guess the ag extension agent said to start with the liming. [All the county was/is within a band of acid rain due to industrial emissions from the midwest’s industrial production.] I think I applied some lime. He said, “It’s obviously low in magnesium, so get some dolomitic lime, put some of that on.” I think I did some of that. But there was no response. I just continued buying hay. There was some grazing, some grass came. I composted manures. There was some improvement, but it really struggled to grow crabgrass, for example. Which was certainly nutritious, I’d read, but the volume wasn’t there.

At one point I had made some extra money from another [off-farm] venture and used that to attend this conference out in Minnesota given by Dan Skow, the veterinarian, in association with Cary Reams, a fantastic, brilliant agronomist, though I didn’t know it then. It was there at that week-long get-together that I learned about Reams’s method of biological ionization. And I had no idea what that means. I didn’t then, and I don’t now. But I learned the protocol. And it involved putting down a large amount of soft rock phosphate, followed by a tolerable but still large amount of calcium, lime, followed by a fair amount of chicken manure or some other manure.

So I engaged in that and did that. And I awaited results for the next year and the next year, and didn’t get much. There was some improvement, but not much. [Reams had said that his protocol for soil fertility improvement worked its very best on areas of minimally 5 acres. My fields were smaller than that, separated by woods. Later, investigating my new blends of homeopathic medicines to stop manure’s odor production, I did find that agents made in larger volumes (5-gal) worked much better than did their preceding versions made in smaller experimental test volumes (4-oz).] I thought, “Something’s not working here,” [with the pastures]. And [probably] what wasn’t working was that Skow and Reams had actually made an error. This became more well-known as farm news traveled over the next several years. Reams’s protocol was absolutely excellent in the South, and especially on very well-drained soil. On clay-type soil in the North, where winter comes on and stays on and biological action in the soil is only at best half the year, you can’t and shouldn’t put down a ton to the acre of soft rock phosphate [at one time], which was what was recommended at the time. In retrospect, probably 500-800 pounds to the acre would be the maximum [at one time]. I think the soil was just locked up with the soft rock phosphate addition so heavily. (55:55)

Then the same broker that I was friends with that sold the humic materials told me he had a liming agent, cement kiln dust, that they had a line on from a nearby cement plant. They were just about giving it away, and he could sell it at a very low cost per ton. They had a full mineral analysis of the material, and it looked excellent. I forgot what was the heating agent [that fueled the calcining kiln. The material broker told me it was clean (enough)]. This is dust that comes from the rotary calcine mill from cement making, where they heat the crushed rock and it

becomes calcined, it's like slaked lime or what you call hot lime. It had a little bit of potassium. Not much, but a little bit. A little bit of iron, a little bit of sulfur. It was pretty high, 24% calcium carbonate. I forgot the silica composition. It was a very fine powder. Are you familiar with cement kiln dust?

**AA:** Slightly, especially the way you describe it.

**JS:** Well, it wasn't used [much] for agriculture. It wasn't an item until the EPA came around and said [to cement plants], "You can't release all that dust where you are." All the downwind farms from cement plants were very well limed, because they were continually getting this stuff [falling onto their fields], and then rain would knock it into the ground. There was a particular cement plant that had commercial alfalfa farms downwind from it. They made what was reputed to be very high-grade alfalfa, and they baled that and sold that, and their product was always in demand. So the EPA said, "You can't do that, you can't release that anymore. You're going to have to catch it and retain it." So the cement plants did that, and now they had these huge piles of this clodded-up dust material. They had to get rid of it. One of the first things that came along was ag use. I was the beneficiary of that.

I had something like 22 tons of that delivered and dumped. I had a local feed store owner with a bulk lime spreader, and they took a front end loader and loaded that [kiln dust] on the bulk spreader [truck] and drove that out to the pastures and spread it out at what I thought was a reasonable rate. We put almost—this was in the fall—we put about a ton and a half to a ton and three-quarters on the sandy areas, the high-drainage areas, and no more than a ton to the acre on the more clay or loamy-type soil areas. There was a variety of areas. Some had very high drainage and some were more clayey.

In the early spring [of the next year] there was no change whatsoever. I thought, "Oh, another venture, no good." [I was now out of money for any more soil amendments.] But as the soil warmed up, and as I later realized, the biological action started to come on, it [result] was just absolutely excellent. There's no [microbial] action [in the soil] when it's too cold. When the soil warmed up, the initial grass growth was phenomenal. The native legumes, native clovers, rabbiteye clover that I had never seen on my fields before, that showed up. And the growth never stopped [for the next 8+ years]. It was astounding. It was the kiln dust that brought the biology, that stimulated the [soil] biology so that everything else would work. [The super-savvy (of all things eco-ag) broker of the cement kiln dust, Jerry Brunetti of Agri-Dynamics, told me (1987?) that equally astonishingly great results also happened with other ecological farmers who applied it onto biologically active soils, but not with conventional chemical farmers applying it to their soils of lesser bioactivity. On those soils, the dust acted only as any other fine particle liming agent. We agreed that this was important and that it concerned the usual methods and results of much university testing of efficacy of natural amendments to crop soils.] That ton to the acre of soft rock phosphate had never disappeared. Now it was like a savings account. It's just there. It didn't pay any dividends, but it was there. And now it's being used, and it came alive. It [the grass growth] was just fantastic. [Growth rate was so strong I could no longer clip pastures with my Allis Chalmers tractor. I had to hire on local operators with stronger tractors and bush hogs. That's the kind of problem a grazing manager likes to have.] (1:01:42)

And from that point on—that was 1984 [1986]—from that point on, the grass production was never an issue. And I rarely had to add anything to the field, and the grazing was pretty darn good even with my haphazard grazing arrangements. [For grazing,] I used basically a sandy field

that faced southeast and warmed up early on in the spring, that was for my first grazing period. Then I had a round that I would do where the grass came better, just change fields. It was the loosest rotational grazing ever. It had nothing to do with today's modern very excellent intensive grazing practices. That was about 1984, '85 ['86 actually]. That's how the grass production came. [One of the almost miraculous properties of grass growth is that as the above-ground parts grow, so do the roots, generally as soil structure allows. And when the leaves and stem are removed (eaten or machine clipped), a roughly equivalent volume of root mass dies off – to decay and be “composted” in place by soil microbes and worms. Thus improving soil structure and fertility. Then, as grass greens regrow, so do roots. OK, this slow motion growth pulsing *is* miraculous. Hay purchase volume came down, herd health seemed better.]

I [had] applied plenty of lime following the soft rock phosphate. Not too much to cause a lockup, but on a routine basis. In the fall, definitely,[a ton and then] maybe a quarter ton to the acre in the early summer, and so on. By my and other people's estimations, I didn't overdo it on the lime. So there was lime, calcium available in the ground,[that which I had applied] but it wasn't functioning. The biological activity wasn't there. That cement kiln dust turned that all over. It wasn't a different page or a different book. It was a different *library* of biological activity in the ground. It was astounding.

The single problem, I think, with using cement kiln dust—which I've recommended highly, and almost nobody has taken it up [its effect is so unbelievably good!] —is that nowadays it's not so available, because cement plants have found other, more lucrative areas to sell it into. They can use it for highways, mix it with asphalt, and other situations like that. It can be re-introduced into the cement-making flow, which they make more money doing that. But also needing attention is the fuel to make the heat for the calcining process. EPA has allowed all sorts of waste materials, from tires to waste oils and so on. I'm not sure anymore the total range of what's allowed by EPA to burn there, but in some areas they burn some pretty toxic stuff with the idea that that's the best way to get rid of it. Of course, it all [much of it] goes into the air, and if it's only used for paving, then it [the remainder] just gets locked up and stays with the paving material, or in the cement making. But if it's used for crop growing or something like that, it's not at all recommended. So that's the hurdle nowadays.

I don't know if substitution of ordinary hot lime would work or not. I never used it. [Materials heated by human action are usually not allowed for certified organic crop production.] (1:06)

**AA:** So then, what were some of the natural remedies that you used on your horses?

**JS:** When I started with the horses, I never intended to do the horses. When I came to Josephine's, that farm was just full of livestock: chickens, a few pigs, all the goats, some first-calf heifers. They didn't have horses then, but the farm still had the harnesses [harness closet] for teams from back in her father's day. I never thought to do anything with that, but the pull apparently was stronger than I realized. I [soon] owned three horses and was continuing getting more and considering doing a breeding, grazing, and training operation, which is what I engaged in. And now I've forgotten your question.

**AA:** The natural remedies you used.

**JS:** I never intended—this is a trip of moving from enthusiastic ignorance to knowledgeable caution, three decades later. I never expected to do medical stuff. I thought it would be completely routine and a non-problem, non-issue.[Josephine’s goats rarely had health problems. If they did, she consulted the always valuable *Herbal Handbook for Farm & Stable*.] All the places I had been with livestock, there were not medical issues. In Texas, with horses, if there was a problem, they got rid of the horse. If there was a problem with a using horse—and with only one exception, all the horses there were using horses—if there was a problem, they called in a horse trader or a vet briefly, and if the vet said, “It’s going to take two months or three weeks of rest,” they would just call up a horse broker and say, “I have this animal here, its condition is such-and-such, the veterinarian said. What do you have for replacements?” They shipped out any health problem. And they kept younger [fit] using horses. I didn’t see hardly any of the things that horses can get afflicted with.

Same with the operation in Maine. I didn’t see that [problem of animal illness]. With the cattle there were some problems. With the dairy herd, there were some with mastitis, but I thought, “Horses are not going to have a problem with mastitis.” With the cattle, there was basically almost nothing. With beef cattle, there were some problems maybe with calving. But I came there ignorant, started my horse work ignorant. When I first had difficulties and lost a horse—one horse died—I thought, “Oh, no, I have to learn more.” [I was just beginning to learn how ignorant I was. My mistaken treatment of a mare, because of my misunderstanding of a veterinarian’s treatment recommendation for her acute laminitis condition, led to her death.] Like many people with academic training, I said, “I’ve got to find a book on this.” And I sent away for a top-rated book on equine veterinary care. It arrived in the mail, and I opened the package, and it was heavy, and it had fine print. I looked at the table of contents, and it was page 1, page 2, page 3. I said, “Horses can get all this?”

And I was at a Y in the road. I’m going to stop. No more animals for me. I can’t do this. Or, I’m going to master this, figure out what to do. I cannot explain why I chose the second, but I did. I was just overconfident. So I started paying attention to horse care. Fortunately, there were some good vets in the area. I had met one of them, the older one, through Josephine’s dairy goat care regimen. He was a graduate from quite a while ago, from the University of Pennsylvania, which I knew was top-notch. Then a young assistant came along shortly thereafter. No, the first one [Dr. George Gorse] was from Cornell, which was top-notch for dairy. And the younger assistant [Dr. Craig Ott] came along, he was from the University of Pennsylvania, and he had an interest in horses, and I thought it would be okay. (1:11:43) [I quickly developed a lot of respect for the capabilities of both vets. They were easy for me to work with. They had no knowledge of herbs or homeopathic medicine, much less the Therapeutic Touch practice. But, I found that they had plenty of practical good sense, and that suited me.]

The first major thing that I had with my small herd, now about five horses, in the barn that I rented about five miles away from Josephine’s farm, was a terrible, terrible accident that had happened. A younger horse, a [long] yearling, tore open a patch of skin on his side, his left side, near side. I have the measurements, but I forgot. It was almost a square foot, three-quarters of a square foot of skin was ripped away from the body. It was just the skin. [The torn-away flap of skin remained loosely attached to the body. As I imagined the accident, the horse while in fast forward motion had been run and forced against the blunt end of a bolt protruding ~1 inch past the end of the nut. It should have been sawed flush with the nut. The bolt end snagged the forward point of torn skin.] The damage was not to the muscle there, which covered the ribs.

High up on the rib cage, below the withers, below and behind the withers. It was just terrible. When I came upon the horse that afternoon, the horse was in shock. I felt my knees getting weak.

I proceeded to deal with it. [Immediately after putting “Marcus” in a large comfortable pen by himself that shared rails with the other horses, I called Dr. Gorse to beg him to come by soon.] We applied everything, all the antibiotics in the amounts that this vet recommended. He visited the animal at least three times in the first week. And I administered the antibiotics. The skin was not reattaching [even though sewn in place], and infection was showing up. It was horrendously bad. I didn’t even bother taking his temperature. I could tell how the horse was by his eyes and his gait. But he was down [in his general aspect]. There was no point in spending time on that, because we were doing already everything that could be done, short of taking the animal to the New Bolton Center, [about 60 miles away], which was the big University of Pennsylvania equine care operation near Philadelphia. The animal was nowhere near worth any of that. That would have been horrible [cost]. And they wouldn’t have been doing anything different. I asked my vet, if the animal was at a top-notch ag university clinic, what would they be doing differently? He said, “Well, it would be a little cleaner operation. There’d be less dust. But not much.” [other than in a safe padded stall and with IV drip delivery of antibiotics.]

And the vet started to say things, I think in retrospect he was gently nudging me to put the animal down. I mentioned it [the disastrous situation] to a medical doctor I knew, a friend at the time, and he suggested that I make this special type of blanket, which was called an energy accumulator blanket, and put it over the wound area with the skin that the vet had sewn up to hold in place but was not reattaching. Put it there and see what happens. Because it’s just a downhill trip [for the horse]. The antibiotics simply are not working [well enough]. Maybe it would be better if they were IV, but that’s not the least bit clear.

So I did. In desperation, at [as] the last thing. I’m amazed that I had the energy for it. I got the materials, I made the bio-energy or orgone energy accumulator blanket.

[The finished blanket was about 1.5 feet x 2.25 feet composed of alternating layers of felt wool cloth and steel wool strips comprising a conductive-nonconductive alternation. Typically, the carbon layer is placed to the outside and the metallic layer next to the receiving organism, thereby inducing a direction of energy flow, from atmosphere to carbon to metal to patient. The bio-energy is found in motion, available everywhere in varying concentration, and is more mobile in the atmosphere. Also known as prana, chi, ether, Manitou, etc. However, I made this blanket with three (separate) layers of steel wool such that felt wool was the outside layer for both sides. The blanket’s layering orientation to the horse would not determine direction of energy flow but rather the much larger, stronger system of the horse would attract from the blanket and thereby naturally cause a flow to the horse, to the wound area].

With some long Ace bandages I found a way to gently strap it on to the animal so it would stay in place on the side of his ribcage and put that on late in the afternoon, early evening when it started to get dark. It was just a weird thing for me to do. I had no experience with it. I was glad it was getting dark, because I didn’t want anybody to come by and see what I was doing, because it seemed so weird and odd. I was exhausted when I left the animals that evening and went back to my own house, which was about four miles away.

I went to sleep and in the morning got up sort of early and went out to where the horse was. I had the animal in his own pen. He had a comfortable area. I don’t think he layed down. I don’t recall seeing any litter or dust on his good side. I came back there the next morning, and he looked better. He was standing up, and his face and his eyes were better. He held himself more chipper. I unwound the Ace bandages, [removed the blanket] and it was absolutely astounding.

There was no pus drainage at all. Before, the wound seemed very pus-y [purulent infection]. There was very little evidence [now] of pus at the wound scene [edges], very little. Mostly pink, healing, healthy skin joining.

And that was it. I applied the bandage the next day, the blanket the next evening, but I needen't have. Took it off the next morning. I stopped the antibiotic injections. That was it. It was healed, it was joined up. Of course it required months for all the wounds' [edges] to really heal, but they finally healed. Everything healed. There was so little scar tissue under the hair that you could pass a [saddle] cinch around that area, and there was no problem. [So I trained Marcus to saddle riding the next spring. He did very well.] The cinch did not rub up against any scar or anything like that. It was almost as if it had never happened. If I didn't tell anybody, nobody looking at it or examining it would see that.

This [basic healing recovery event] was overnight. I knew I had witnessed something astounding. But what I didn't do—and, of course, I didn't understand it, and I still don't really. [I told Dr Gorse, “Marcus healed up, and thank you, the antibiotics must have kicked in. Time to pull the stitches, I think.” He stared at me uncomprehendingly. He did not ask any questions, so I stayed silent. I suppose he filed the event in his mental folder of equine recovery capability mysteries.] I've done more studying in that bioenergy type stuff, but most of the people I talked to about with that, they had no experiences with large animals that had a catastrophic wound. But that reinforced my inclination to approach both the soil and the animal and the [pasture grass] cropping methods, my activities, in a nontoxic and (w)holistic health attitude [*engaging and amplifying beneficial aspects of natural systems*]. (1:20:57)

[The Marcus healing event by orgone energy blanket happened in fall of 1973. The little known method, was most certainly controversial then. It still is. Forty-nine years later, the editors of *Acrea USA* declined in 2022 to publish my recently written article on the event. Horse wound healed overnight by mobilization or increase of an “energy” drawn from the surrounding atmosphere, indeed!]

**AA:** So do you want to say something about the odor control methods you developed for your barn?

**JS:** Are we running out of time?

**AA:** We've got about half an hour.

**JS:** Well, yes. [Preventing the production of manure and urine sourced odors in animal shelter areas (establishing fresh air for inhalation) is a therapeutic, hygienic practice for animal care.] The other therapeutics were homeopathy and the therapeutic touch. Both of them are like [little known, considered controversial], homeopathy is no longer unknown. Back in the mid-1970s, early '80s, it was just barely starting to get known in the United States. Much more well-known in western Europe. I came to treat all of my horses with homeopathic medicines after a while. I started out with conventional medical therapies, with instruction from these two excellent veterinarians, and sort of weaned myself [from the conventional meds and] onto the homeopathics. And once there, I never went back. I never had the need, fortunately, to go back to conventional antibiotics. [But I had an excellent teacher helping with selection of the homeopathic medicines for a variety of ordinary ailments of horses.]

I came across the homeopathy by a curious method. Josephine, after a while, started to do less wholesaling and more retailing of the goats' milk. And among her regional customers was a woman from the Bethlehem/Allentown area. Ann Fry was her name. She and her husband would come up for the day, drive into the country, and they both were chiropractors. Josephine appreciated and admired the work of chiropractors. The woman, Ann Fry, looked at the goats and said, "Well, if you ever have a problem with the goats, let me know. Maybe I can help." Josephine said, "Oh, okay." She [Ann Fry] said, "I use some homeopathics." I'm not sure Josephine knew what that was at the time. [I didn't.]

And lo and behold, a goat several months later did present with a serious problem, very serious. blue bag [affecting one udder, a gangrenous mastitis, staph infection]. And the vet said, "There's nothing I can do." There was going to be either a loss of the whole goat or a loss of half the bag [by surgical removal]. So on that basis, that nothing could be done [by means of conventional therapy], Josephine called this woman, and she made some adjustments [assessments of the goat's condition], and mailed up some homeopathic remedies and directions for their use. Josephine dosed the goat with the medicines, and [over time] the goat's blue bag healed up completely. The goat became totally functioning once again. [I misremembered here; the doe lived and the affected part healed but not for milking. The healthy udder remained good.] The vet said he'd never seen [or heard of] anything like that. He asked, "What did you do?" Josephine sort of flinched and said, "Well, I used some herbals." The vet said, "Well, good going!"

So when I had my own place and I had a horse that had a high fever, she presented with not eating [the evening hay feeding]. I took her temperature, she had a fever and so on. I thought she was bred, and I didn't want her to miscarry the [potential] foal. I knew that treating the fever, I was pretty sure that treating the fever with antibiotics, which I was prepared to do, I had some supply in my refrigerator in my house, and I had the syringes and needles, but it's going to take at least six hours for that to start taking effect. I got the number of the woman in Bethlehem and Allentown from Josephine, called her and said, "This is my problem, do you have any suggestions, anything that can be done within the next couple hours?" I really didn't want her to lose the [potential] foal. She said, "Yes, perhaps, but there're no guarantees." I said, "Well, 'perhaps' is good enough." If she had the remedy, I would drive down and pick it up.

Once again, the things you can do when you're younger. I made the trip, it was about a 45-minute drive [each way], brought the homeopathic medicine back. I poured some of the powder in the form of small sugar pills, and I poured some of those sugar pellets into a clean dose syringe. It was a clean 12-cc dose syringe. Didn't need the needle. [With pellets in syringe barrel, gently inserted plunger and pushed close to pellet level, drew up 8+cc of clean water, placed finger over the narrow end of the barrel, shook it up, dissolving the sugar in there], and then went out to the stables and administered the first of several doses to the mare. [~1-2 fl. oz. per oral dosing by placing the syringe between the horse's lips where a bit bar might go, where there are no teeth.] It being sugar-flavored, the mare took it easily. The taste was appealing. This was a big difference between yet another needle injection. And I took temperatures every 15 or 20 minutes and would repeat doses.

I gave her a total of three doses, I think it was, each about an hour apart, and took temperature measurements every 15 minutes. The graph on the temperature decrease was just as beautiful as anything could ever be. It was down, then up a little bit, then down again, then up a little bit, then down again. Within an hour it was normal. I didn't do three doses. I did two doses. Because I was instructed to, when the temperature gets to normal, don't do any more dosing.



Continue to take temperatures. If the temperature goes up again, continue dosing. Very typical homeopathic therapeutic protocol. And that was my first experience, and it was absolutely stunning. The mare was totally fine [but she never evidenced pregnancy, did not foal]. It turned out either she wasn't bred, or she had miscarried out at the pasture and dropped [the embryo or fetus] out there, somewhere in the wild where I never saw it. Some animal got it [if it ever existed]. (1:29:11)

That was my first experience with homeopathic medicine. I said, "I want to learn more!" I started in homeopathics. [Much later, I made a blend of homeopathic medicines that, on application to the surface of manure accumulations, acted to abate the manure's production of odors. Much can be said about that event, but it doesn't directly concern organic agriculture or animal health management, except that it indicates that a highly/extremely dilute and energized solution can alter a biological material's function(s). This may be so in the future with application to soils. The homeopathic pharmaceutical process may lend itself, probably with some variation, to production of agents having non-medical, agricultural purpose. If so, it is a massive opportunity for future investigation of benefits to ecological/organic agriculture.]

Therapeutic Touch, you may not know about that, it's not so widely known. It's a passing of hands over [the body or areas of body], not necessarily touching. It's called touch, but it's passing [of hand(s) through or in] the energy field of an animal or a person [without needing touching of the body]. I learned it as applied to people, and I have applied it almost entirely to animals and almost entirely to my own horses and dogs. It moves and manipulates the field [of the patient]. It is, once again, astounding. [Simply stated, the energy field of one's hands engages and moderates, or stimulates, the energy field of the patient, "energy fields" being presumed with living organisms.] It is reputed to be effective for gastrointestinal distress for humans. [The originator, Dolores Krieger a PhD nursing professor, New York University, NYC, taught students to physically feel in their hands and fingers differences in the patient's field and to identify the variety of sensations. No guessing or fantasizing about the status of the patient's field. No day dreaming about what one is doing with parts of the patient's field. The feel of good status of the patient's field is similar to that of slowly, gently stroking a cat's fur.]

[I learned it from Dr. Krieger herself in her seminar at an alternative medical conference.] I [first] used it on a horse that developed the first symptoms of colic. I thought, "Well, I can get into the homeopathic medicines for colic, but let me try this, because it will be faster, I think." So I did. And once again, it was just astounding. Three to five minutes of applying, manipulating my hands over the horse's field, over its whole body, was enough to turn the tide on the colic situation. Of course I don't know what was the source of the colic, but it looked serious enough to get me afraid that I was in for a long bout of colic treatment. At that, I stopped and went back to my house. This was in the late evening, early night. I went to my stables, and all the other horses were just chomping on hay, and he was standing in front of the hay, and he didn't want to eat. I went to the house. Ten minutes, fifteen minutes later, I went back outside, and there he was, standing in front of the hay, eating it down, chomping it, looking happy as can be.

And that was it. That was the end of the problem. I walked away from him into the barnyard, and he tried to follow me and kind of nuzzled me somewhat. I walked on a little farther, making part of a circle in the barnyard. He followed me, nuzzling me. I think that was the first time I've ever experienced a horse persistently being affectionate. Persistently. Wouldn't leave me alone. Nuzzling me and so on. I walked back to the feeding area and left him standing there, and he went back to eating hay. It was absolutely astounding. I used that approach for two other instances of colic, or what appeared to be colic, and both times they worked very well.

There is more to be learned about (w)holistic veterinary care. It is huge. It is way beyond my ability, way beyond my knowledge, and way beyond my age and energy. But it's a huge area. And especially the Therapeutic Touch is something that almost any livestock manager could learn, with proper instruction. It does not take long [to start learning]. I think it would be hugely augmented when two people do it on an animal, two humans doing it. I had experience myself in one seminar on Therapeutic Touch given by a bona fide nurse practitioner who used it [and had been taught by Krieger], and two of the trainees there, like me, worked on me at the same time [for a period of 3 minutes total]. I'll just say that the results that I experienced were fantastic. It was hugely beneficial. Since then, I've never been able to find a situation where I could have two people practicing that use, the passing of hands over the field to do anything to work on me. One, yes, but not two at a time, [one on each side].

[Very likely, two practitioners working on either side of an animal could be greatly therapeutic for the animal, or good for health maintenance. Doing a treatment, the practice itself is at zero external cost, just one's time and attention. There are no medicinal materials to purchase and inventory. No special tools needed. The big hurdle is locating adequate instruction to get started. Learning to treat one's animals does not take long when one has interest. Becoming really proficient can take a while of doing treatments. TT became the "practice" developed by Krieger and her colleague Dora Kunz, deriving it from a Hungarian (Oskar Estebanye) horseman's work first healing his own horse and later humans.]

There's much to be learned, and I am one of the world's most enthusiastic promoters of (w)holistic veterinary medicines, and these ones that I've had experience with, in particular. Homeopathy is wonderful, it's fantastic. It does require a really good trained practitioner to guide it. There are some beginner manuals and down-on-the-farm approaches that can be done, and these are very helpful, but they should be used in conjunction with a trained veterinarian. And nowadays, it's possible to do that pretty much remotely. It's fabulous. You can be in a stable and have the cow, you can describe on a cell phone the symptoms. You can even send pictures of the situation, if you need to. And the veterinarian could advise you and guide you, and if you have the medicines on hand, you could administer them yourself. This is communication technology coupled with some of these (w)holistic vet methods, it's just an astounding new world. [For homeopathic, wholistic vets, I've much appreciated the skills of Edgar Sheaffer VMD in PA and Joyce Harman DVM, MRCVS in VA both particularly for consulting advice. There are more in practice nowadays, their ranks were slim when I kept my herd. They have found that a happy feature of homeopathic treatment is that succeeding generations of animals are generally healthier than the parents.] And I would advise anyone going into livestock care of any sort to keep some of them in mind. (1:36:21)

[Less controversial are some herbs for animal health maintenance. At my farm, I planted a patch of comfrey, 8' by 14', harvested the leaves several times during summer, fed them green whole or chopped then fed in buckets with grain. When I hand fed the leaves I had to be careful because the horses so enjoyed them it was like feeding meat to sharks, I imagined. Also, during as many summers as I could, I cut the leafy tops of stinging nettle plants, the top 12-15 inches before seed formation, chopped them, put them into the grain feed buckets (about 15 minutes after chopping, the "sting" is almost gone). They were mightily enjoyed spring into mid summer. Because they do sting (with their formic acid production), animals don't eat them growing green.

If they could, I imagine, nettles might become extinct by animals overeating them, the plant is so appreciated. Use gloves handling fresh green nettles. I dried nettle leaves with thin stems for feeding out with some grain during winter, about one sack full (50-lb feed sack) per horse for all winter, about one handful per day or two per horse. Dr. Pfeiffer assessed nettles to be a land version of kelp in its nutritional value. A tea of dried nettles in winter some evenings rescued me from exhaustion. I did feed a light amount of kelp all year when I could afford to buy it.]

**AA:** Now you mentioned that you subscribed to *Acre*s U.S.A. starting in 1973. Is there anything you want to say about that, some of the authors in there, highlights?

**JS:** *Acre*s was absolutely phenomenal. It was a godsend. I've listened to people who escaped from Eastern Europe, from Russian control in Eastern Europe, and they said the Voice of America radio was a godsend. At least there was somebody out there who knew that they were there. And *Acre*s was like that for me, and for a lot of other people in the '70s and '80s. As you got into the '90s, there was more communication and there were more books available, ecological-type farming was becoming sort of known.

[Authors that *Acre*s USA published often that I would always read: John Whittaker DVM, Edgar Sheaffer VMD, Philip Callahan, PhD, USDA research on plant-insect micro signaling and more. The *Acre*s bookstore remains important.]

I considered it a monumental, national disaster that ag universities have been so slow and laggard to pick up on various aspects of (w)holistic vet care, various aspects of ecological agriculture, nontoxic agriculture. To do small research in those areas is highly warranted. I understand some of the pressure to avoid that from donors to the university, especially toxic product donors. My sense of it remains the same. Unless you're threatened with death by the Monsanto advertising promoters [so to speak], go ahead and investigate ecological ag techniques. I've become more cantankerous and more grumpy in that regard as I've gotten older. In so many other areas, as I get older, I've become more mellow and easily forgiving. But when you [ag university extension agent toxin promoters] are continuing to raise the toxicity in agriculture on the farms throughout the US, to farm families, to farm animals, and to soil and widespread distribution of toxicity by wind and soil erosion and water contamination, it's something I'm prepared to fight about. (1:39:26)

**AA:** What were some of the other books or publications that were influential for you?

**JS:** Well, I'll just go through a quick list. Is that okay?

**AA:** Yes.

**JS:** This is in no particular order. J. Russell Smith, *Tree Crops*. That was an early one. That was before I even came here, I read that. It was astounding. I was really enthused by a lot of that. In retrospect, I tried some of his methods, and I used honey locust. And the honey locust was a mistake, for my purposes. Number one, the seeds are so darn hard they can crack a cow's tooth. The stuff needs to be ground first. So for me that was out. But in general, his overall protocol, permanent tree crops, feeding livestock, was absolutely excellent. I planted acorns, white

sawtooth oak, which has a low-tannin acorn that the deer absolutely love, turkeys love, and my horses love. I used to collect the acorns in the late fall. I'd try to get there before the deer and the horses got there and pick them up from the ground and build up several gallons of collected acorns that I could feed out to the horses through the late fall and early winter time. They loved it. [Acorns have fats. I later learned that the tannin in acorns can act as a mild dewormer. Of course, dosage is important.]

George MacLeod, his *Treatment of Horses by Homeopathy*. George MacLeod has several books on livestock. *A Veterinary Materia Medica* is absolutely excellent for anyone. If you don't use his suggested medicines, they're at least a good place to start. The *Merck Vet Manual* for clear diagnostic aid. Traditional medicines, conventional medicines, but absolutely excellent for helping diagnostics. Henry David Thoreau's book *Walden* has so many mind-grabbing paragraphs. It's astounding. Cleve Backster, *Primary Perception*. He was the guy that attached lie detector electrodes to plants and concluded that the plant has a sense across space of what is happening that it could have an interest in, something that could affect its wellbeing. The plant has a sense of that. That was obviously very controversial. It had some [professional] inspection, but not a lot. I think more is merited.

Philip Callahan, *Tuning into Nature*. Callahan was a research entomologist in the USDA in Gainesville, Florida. Did just astounding scientific and instrumental work and thinking work on the attraction of plants to certain pests. It was his work that allowed me to understand, finally(!), that it was the manure odors that attract flies. That was something that I definitely should cover. How much time do we have left?

**AA:** About ten minutes.

**JS:** Oh. Ten minutes. Well, my voice wouldn't last two more hours, but I have two more hours. I'm going to skip the books and get into the manure odor control. Gosh, I don't want to skip these books. Loren Eiseley, I first read when I was in Philadelphia. And he was an anthropologist, paleontologist, a professor in anthropology. Very interdisciplinarian, very much. He was the author that convinced me that interdisciplinary studies can be worthwhile, as long as you learn your basics along with that, of each discipline. I guess his most famous book is *The Immense Journey*. I recommend that. It made a big difference to me. (1:45:12)

Manure odor prevention. That was accidental, as many of my astounding—I can't call them my discoveries, but they were discoveries for me. Events happened accidentally, pretty much on an unplanned basis. Well, when I went out to the Cary Reams/Dan Skow conference in Minnesota in '82, the late spring of '82, he was talking about soil. Almost everybody that was there were good-sized corn and soybean farmers. Largely from the Midwest. There was almost nobody in livestock. One of his recommendations was a large amount of chicken manure.

So one fellow at the conference who was located in Florida said, "I have access to chicken manure, but it's sprayed heavily with fly control poisons." Reams said, "Well, that might not be a problem, because biology will take care of most of that. But here's what you do." Reams said, "Go to the chicken place. Tell them you'll provide a material for them to dust onto their areas of chicken manure that have a fly problem. And instead of using the poison sprays, use this material. You'll give it to them free. In return, you want access to that chicken manure with that material spread on it." The guy said, "That sounds good. What is it?" And Reams said, "Soft rock phosphate. There's plenty of it in Florida. It's mined right there and the shipping won't be huge."

The guy said, “If I tell them that it will work, they won’t have a fly problem?” [Reams replied,] “They won’t have a fly problem.”

And as soon as Reams said, “They won’t have a fly problem,” THAT was why I came to that conference, hoping there would be some little detail that would help me with the massive fly problem that I had. Because I didn’t use any toxic agents for fly control, and oddly—I could never figure it out—all my horses objected violently to any repellent, any herbal repellent. Anything that had a scent strong enough to work as a repellent, it was like, I could get hurt putting it on. So I didn’t. So I continued the herd with a lot of fly problems.

My manure management in my stable, I had abandoned using any bedding in my two large loafing sheds and barnyard area. That’s where they were. Using straw bedding turned out to be impractical. I used cedar soft wood chips for any areas of the manure pack that became highly moist, to soak up the moisture. But it was stinky, and there were plenty of flies. And I did flypaper all over. I wore myself out putting up and taking down flypaper and spent a lot of money on flypaper. It caught a lot of flies, but nowhere near enough. But when Reams said, “Take care of the fly problem,” I asked him a few more questions. I was the only one who was interested. He said, “Yep, dust it on.” He didn’t give any indication of how it worked, why it worked, anything. I thought the material itself had something. I had no idea. I was just lost in a bubble of ignorance and counted myself really lucky to come all the way out to Minnesota. That was a long plane flight for me.

I came back to Philadelphia [actually Allentown airport], back up to Stroudsburg, and the first thing I did when I got home is I called up an organic mineral amendment broker and said, “Do you have some soft rock phosphate, Cal-phos?” He said, “Yeah, we have it by the pallet. How much do you want?” And I said, “Well, I’ll take a pallet.” And within a couple days I had a pallet of the material [calcium phosphate clay] at my place, a whole ton of it, bagged. I opened up the first bag and started spreading it out. I don’t know if I’ve mentioned this before to you, but it was once again, late morning, pretty early summer, manure packs were stinking, horses were outside for the moment. I took a grain scoop and started to dust the manure pack with the soft rock phosphate, pretty powdery. I made a note not to do the dusting when the horses were inside, so they wouldn’t breathe it in. And I made a note to myself, “I shouldn’t be inhaling this stuff myself very often.” I continued to put it over all the area of one of the loafing shed areas.

In about two minutes, three minutes, there was no smell. There was no smell. I went outside to the barnyard where I had not applied any yet, and there was smell. I went to the other loafing shed at the other end of the barn. There was plenty of smell. I went back into the area I’d treated. There was no smell. And at that moment I realized that was how Reams was so confidently saying, “And you won’t have a problem with flies.” [I had previously read Philip Callahan’s books and his articles in *Acres USA*. He described how low concentrations of certain gas emissions from early decay of a part of plants attracted pest insects, and how slight levels of ammonia from the plant (in the barnyard ammonia is a nitrogen decay product from urine) and amplifies the attraction effect on flies. [Reams had not mentioned this dynamic. I don’t know why not.]

I dusted all the manure areas in the entire barnyard. Seven hundred square feet per loafing shed area [two sheds] and about twice that for the 1500 square feet of the barnyard area. [Within 10 minutes time all odor production had ended. The effect lasted about 7 days during summer, longer in the cooler periods. All treated areas continued to be in use by the horses.] And within a couple days there were almost no flies [because almost no attractants. Flies are compelled to seek sources of strongest attractants. The treated manure emitting no scent was in stealth mode to fly

perception.] I mean, there were a few flies, but there was no fly problem. Reams was 100% correct. No fly problem. And that's what started it. Any more you want to know? (1:53:17)

[Shortly after my first experience of fresh air not attracting flies, late spring 1982, I happily told Josephine about it. Her goat sheds adjoining the milking parlor had plenty of ammonia stink and flies. I offered to bring and apply some of the material (organically approved for soil). She said, "Thanks, but not for now." By the middle of summer, her slightly older sister who helped with milking the goats summer times emphatically told me to bring by some of that mineral and apply it to all the goats' manured bedding areas, and leave the rest of the bag. I readily complied with her command. Millie, who lived in FL and summered helping on the family farm, suffered more from the stench of ammonia and pest fly aggravations than did Josephine. Continued inhalation of ammonia fumes is known to de-sensitize people, perhaps also other animals, to its presence. Josephine may not have known at the time (I didn't) that at least one biodynamic cow dairy farmer used the material on manure in his cow barn gutters, Carsten Pank in NY. She did know CP. When meeting with each other at BD conferences, perhaps they just talked about the weather, not what was working well on their farms. Soft rock phosphate, a natural mineral compound, was not mentioned by Steiner in his *Agriculture* although he does mention several times the importance of preventing manure's typical odor production. Steiner wanted to prevent the loss to air of manure's valuable nitrogen. No mention of it attracting flies, that I know of.]

[For ~25 years, as long as I kept the summertime manure odor level very low, undetectable or almost undetectable by human olfaction, with any of several safe and sensible means, there was no fly problem at my horse shelter area even though there was always lots of fresh and decaying manure. But (almost) always abundant fresh air. Prevention of manure's odor production is required for efficiently establishing efficacy of any pest fly controlling program at livestock congregation areas. When intending to decrease a pest presence, ***we need to avoid continuing to attract the pest.*** After diligent prevention of fly attracting odors, another program may not be needed. If needed at times, the weak, non-toxic, organically approved agents will then be helpful. And the manure with urine mix itself will retain, rather than lose by emission to the atmosphere, much of its natural nitrogenous components valuable for soil application.]

[Applications of soft rock phosphate (SRP) to manure accumulations, summer times, worked well for years. But, I grew tired of handling the material every week of four-five month long fly season. By then, I had become experienced in working with homeopathic medicines treating the horses, and accepted their therapeutic efficacy even though they were highly diluted. So greatly diluted that conventional yet otherwise excellent scientists understandingly asserted they could not be effective on anything. Seeking to escape the (minor) aggravations of inventorying and spreading SRP, and its cost, I thought, "How about some homeopathic agents here?" What a reckless thought that was! After a long while of investigation with many trials, I made a blend of several medicines in liquid form (themselves made by Washington Homeopathic Products, WV) that worked well with even further dilution to water. Sprayed onto the surface of stinky manure accumulations, the agent stopped the odor production within 3-5 minutes. The first time I observed this effect, I was actually shocked, momentarily befuddled because I fully knew how very great the total dilution was.

This no-odor effect lasted for about a week on areas frequented daily by the horses. Thereby demonstrating that the homeopathic pharmaceutical potentizing process including great

dilution can produce an active agent capable of altering a recipient's bio-chemical function. In this case, perhaps altering ammonia phase equilibria, as a chemist friend suggested. Also demonstrating that I needn't be handling more than one-half a ton per year of mineral compound. Rather, three-four fl oz of a liquid concentrate sufficed for the entire summer time's treatments. Also demonstrating that further investigation of agents prepared by the homeopathic potentizing process was merited for application to other targets, for other purposes on a farm. The agent, in its concentrated form, was later found to be effective when used by other livestock managers on other farms in various parts of the country.

Much can be discussed here, but we may be leaving our central topic of agricultural events. However, one event type that occurred with the manure odor production abatement by the extensively diluted agent was that of a filling-in action on areas of spray-contacted manure. For complete abatement of an area's odor production, complete surface contact by the sprayed agent was not required. Rather, complete abatement of odor production was routinely achieved with the visible, seemingly random spray streams contacting perhaps no more than a third of the target's total surface area. This was easily seen as damp lines, measureable on the relatively even surface of each of the two loafing area manure packs. Somehow, a "filling-in" of efficacy accomplishes itself on areas between the stream lines of agent contact. Now, back to agriculture: The filling-in event(s) may help to confirm presumed efficacy of some biodynamic stirred (energized) sprays (the horn manure compost) applied as large droplets or stream unevenly onto a soil area *without* obtaining complete surface area contact.]

**AA:** Well, we've just got a couple minutes left. Do you want to really quickly summarize your philosophy of farming?

**JS:** Sure. This was a hard part for me. I don't have a philosophy of farming. I was basically raised in the Protestant church, Episcopalian, from my grandparents' church side. And from my parents' side, basically it was always the Golden Rule, how they behaved and how they talked. It was do unto others as you would have done unto yourself. And I just translated that to nature somehow. It just happened to me. As a youngster I was in nature more often than not, and there was a way of doing things. That blended with workmen or artisans' craft ethics of do a job right, and that was instilled in me with my ranch work, farming work in Maine. Every day you go out to do whatever job you're doing, you've got to do it right and not cause problems. Do it right so you don't have to come back. Do the best you can. And that was whether it was replacing spark plugs, greasing grease fittings on a baler, or working with the livestock. (1:55:29)

**AA:** So is there anything else you want to share before we end the interview?

**JS:** Yes, sure! Let's do another! I have more information. I think my non-philosophy philosophy is actually pretty darn important, if I was talking to other people. At times when I've done something, I've found that actually it's critical. If you don't have a workman-like ethic, an artisan, craftsman-like manual arts approach to whatever job you're doing, there's going to be problems that can [could] always be avoided. That's really kind of the first. And the other one is that, from my experience, I would say that I certainly—and I don't think anyone that I know of—we don't know *how good* good farming can be, is going to be. Just finding out, the last forty years I've found just more and more amazing, unexpected improvements on the usual way of doing things that has astounded me. I know change on the farm is slow, and it's a people issue.

But many of the changes I've made, I've made because I had to. The necessity was so strong. There was no choice. I had to make the change. I kind of would like it for other people if new ideas that were hugely helpful could be presented in ways, probably unfamiliar to me right now, but in ways where the audience does not have to be in a hard, desperate, heavily catastrophic situation before making a change.

[**The basic idea:** Many times I learned something new and important at moments of being astounded, but also at moments of quiet, gentle discernment while enjoying observation of a farm situation. Parts of my investigation and practice of alternative medical therapeutics have helped me better understand new procedures for soil management as with biodynamics and variations of it. I'm confident that good farming is going to become even better. With both manners of perception, advice from a well-known, astute financial professional, C. Munger, fits well with advice from the best horse trainers or the best agronomists: *Find, learn, or form a simple basic idea and take it very seriously.* I tried to do so, and I learned: When farming in conjunction with natural systems' interactivities, make your priority of action that which produces, after its beneficial direct result, a yield of many beneficial indirect results. When your initiating action has many beneficial results, its input-output ratio is highly efficient. As happens, for example, with prevention of manure's odor production at livestock shelter areas or with cover cropping programs or applications of selected soil amendments. I've termed this dynamic the Ecological Advantage wherein the advantage is provided by interactivity of the farm's natural systems enabling a cascade of benefits. That high efficiency, observed on organic/ecological farms, makes such farms the best candidates for sustainable food production.]

**AA:** Great. Well, thank you so much for taking the time to do this interview!

**JS:** Well, you're very welcome. Thank you for listening, Anneliese, thank you!

**AA:** You're welcome!

[**Vegetable production:** When my horse herd decreased to only three adults c. 1998, I partnered with a nearby experienced commercial vegetable grower, Gary. His inherited farm had never been treated with toxic agents and no synthetic chemical fertilizers used, ever. A unique tract of farm land. We and a third partner grew vegetables for the CSA he had established and for a weekly farmers' market. And a lot of garlic, about 4,500 row feet, much of which we sold at two festivals, the famous Hudson Valley Garlic Festival and the local and lively Pocono Garlic Festival. Gary had cover cropped all the various growing areas for many years. Generally, the soil particle agglomeration was excellent. A standard bagged organic fertilizer mixture was applied in the row for most plantings, seed or transplants. We also applied a spent mushroom bedding compost mostly made from wheat straw and horse manure. He said that if we could afford to do so, his preference would be to fertilize the cover crops later to be plowed down and/or disced in. And not fertilize the row crop vegetables. According to Carey Reams, general vegetable production deals with unending considerable complexity. I found that he wasn't wrong. I spent three growing seasons learning that. There was so much work to be done, I had almost no time for my ag investigations. I was getting slower as well as older. By late fall each year, all of us welcomed the first killing frost.



A few years later, a new CSA started up on land close to mine, on a part of the former Josephine Porter farm land that I had made hay on in 1972, and later often visited. The primary field intended for vegetable production had been in rotations of typical dairy farm crops, corn, small grains, grass hay, and sudax grass green chop. The soil was not fine textured as is suitable for very small seeds of most vegetables. The field had been fallow for about 3 years. Weeds volunteered profusely. The new grower had been instructed by a professional to first grow a season of cover cropping for plow down, in this case sorghum, to be followed by rye or perhaps wheat. The next early summer, I saw that the soil particle agglomeration was unexpectedly (by me) hugely improved. Based on that, I volunteered part time for vegetable production at the newly formed and surprisingly-named Josie Porter Farm & CSA.

As part of that endeavor, I devised, 2008, a procedure for fermenting local weeds (with option of some cow manure compost) that grew on the cropping area, sequential dilutions of the liquid fermentation and subsequent stirring for application to soils to enhance their fertility. The process merged some parts of my knowledge of orgone energy functions, homeopathic pharmacy's potentizing, and biodynamics: a three-way merger for very low cost fertility increase. Worked out from my years of therapeutic treatments of horses. I wrote an instruction brief to make the agent which could have assisted me in restoring production capability to my former "nearly-desert" fields back in 1975. The CSA's intern-employee assisting me, Melissa, and I trialed it late summer on about one-eighth-acre ground that was to be plowed and planted to garlic. Application of the finished liquid was by flinging large droplets and little splashlets off of wallpaper brushes as we walked across the area. Did the filling-in event happen here as it/they did with my greatly dilute sprays onto manured areas? Unlike as with abatement of manure stink, here there was no sensory method for detection of effect. The following year's garlic grown in this area, harvested early July, was uniformly very good. Garlic grown in other areas of the farm seemed not quite as good. Of course, that might have been due to the any of so many variables affecting the garlic's growth, ones that prompted Reams' phrase describing vegetable production of having unending considerable complexity. That's the fascination.]

**[Partial list of failed projects:** (1) I planted out rows of elderberry shoots on a 1/8-acre plot. They leafed out and began growing wonderfully. I envisioned selling the flowers at a farmers market. Several groundhogs ate everything in about two weeks. (2) I planted rows of juneberry shrubs on a 1/4-acre plot. Planting was for a u-pick operation, no juneberries being offered in my area. For 2 years they grew well, Spring of the third year, they blossomed profusely followed by excellent berry set. They ripened on schedule. Two days before I planned to start picking, many birds came and ate most of the berries. More birds came than I had ever seen at one time at my place. Local birds must have called in their cousins from 20 miles around. (3) I planted a 300-foot row of 1-foot high hemlock seedlings one fall. During the winter, deer ate them all. (4) I had planted autumn olive seedlings as an outside buffer along a one-quarter mile length of pasture fencing. When they grew to flowering, I noticed the great many little blossoms were swarmed with wild honey bees (they existed here then). Their buzzing sounded like a chainsaw, there were so many honey bees. The flowers smelled absolutely great! Enchanting! I thought the bees would make a wonderful honey from those flowers. The bushes were known to grow well on infertile ground and I had at least 6 acres of that. Ground so infertile, sumac trees had a difficult time of it. If I could get honey from bees working on blossoms all over that acreage, which was made worse for normal farming by being two sides of a hill ... wow! I called on an acquaintance who

kept bees who said he would come by next spring to look at bees working the flowers. For one-half a year of fall, winter, early spring, I imagined I might become the local king of extra flavorful autumn olive honey sales. And brought to profitable production that hill acreage which so far only served to push the sky up a little higher. Autumn olive shrubs then being well-known for conservation planting, I might have considered that I had not seen any writing on such a fabulous honey, but I did not. When the beekeeper, Bob, came by next spring, he readily observed the bees leaving the little blossoms with plenty of pollen, which he told me was a sign they weren't taking nectar BECAUSE as anyone could see, he said, the flowers were way too small for honey bees to get the nectar. A few years later I planted oak trees on the hillside. They still provide tasty low-tannin acorns for deer and turkey, maybe bear.]

**Partial list of books informative + inspiring, not including feeding (nutrition), and other equine medical references, in no order:**

Dave Jones, Practical Western Training  
J Allen Boone, Kinship With All Life  
Joseph Cocannouer, Weeds Guardians of the Soil  
George MacLeod, A Veterinary Materia Medica  
George MacLeod, Treatment of Horses by Homeopathy  
Rachael Carson, Silent Spring  
Rudolph Steiner, Agriculture  
Philip Callahan, Tuning Into Nature  
Cleve Backster, Primary Perception  
Merck Vet Manual for clear diagnostic aid  
Juliette de Bairacli Levy, Herbal Handbook for Farm & Stable  
H D Thoreau, Walden  
W Edwards Demming for continual process/product improvement, books & articles about  
George Washington Carver for continual investigation of nature, books & articles about  
J R Smith, Tree Crops  
James DeMeo, The Orgone Accumulator Handbook  
Loren Eiseley, The Immense Journey  
Thomas Kuhn, Structure of Scientific Revolutions  
John Ott, Health and Light  
P Tompkins & C Bird, The Secret Life of Plants