

Interview with Jim Kinsella

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Maniscalco: Today is May 23, 2008. We're sitting in Lexington, Illinois, with Jim Kinsella in his office. How are you doing today, Jim?

Kinsella: Doing fine.

Maniscalco: Great, thank you. Thank you very much for allowing us to come here and do this interview with you. Let's start out with some of the easier questions about, you know, kind of your date of birth, where you were born, and that sort of stuff.

Kinsella: Actually I was born just about a-mile-and-half from here on the farm. Just, in 1940. And it's a family farm, and my dad was born right across the field here, and our son was born right in the house behind us here. So it's kind of a family farm that was actually established in 1906, so it's a century farm.

Maniscalco: Now, you're saying your grandparents are the ones that came and started this farm?

Kinsella: Yes. My great-grandfather came from Ireland and they worked on the railroad for a few years when the railroad went through Lexington, until they got enough money to buy a farm, which was just a mile down the road. And my grandpa was born there, and then in 1906—well, 1905—they bought a farm in Minnesota. And they—for two years, they farmed up there and they had two—one really wet year, and one really cold year, so they moved back down here and bought this farm that we're sitting on now in 1906. And that was kind of the start of the—of our farming operation, really, and we still farm most of that family farm—the original farm.

Maniscalco: Wow. How big was the original farm?

Kinsella: The original farm was four hundred and twenty acres.

Maniscalco: Four hundred and twenty acres.

Kinsella: And my dad had three brothers. The three of them, they all grew up on the farm and with horses. My dad started farming—actually in grade school, or in—ten or eleven years old, would be running—driving horses on this very land we're sitting right here. And he would pick corn by hand with horses, and plowed with horses. And then before he died, seven or eight years ago, he rode in our combine with the yield monitor, and we could combine, you know like, two thousand bushels per hour, and on a good day, picking by hand, and he said, his brother was really good and he good get a hundred bushel a day. So he saw quite an evolution in the farming operation on the same land.

Maniscalco: I guess so. I guess so. That's amazing.

Kinsella: And actually my first memory is of riding in a wagon—I was probably three years old—with horses. My dad had tractors, but he could sow oats with horses easier, and he had a team of black horses. And we sowed oats and alfalfa, and I remember laying on the alfalfa bags in the front of the wagon. And he'd let me drive the horses, but I wasn't actually driving them because they knew where to go anyway and they always turned at the right end, and so I remember that distinctly. And yesterday, my grandson rode with me planting corn. He's three years old, same age I was. We have Auto-Steer—RTK Auto-Steer, one inch accuracy—and he thought he was driving. I would tell him to drive and he'd hold onto the wheel. And then, finally, he realized that he wasn't driving, and he started... You know what the horses were doing automatically, sixty-seven—sixty-five years ago, now we're doing by satellites, so it's just amazing. In my lifetime, I rode in a wagon with a—sowing oats by horses that were basically RTK'ed. I mean, they were directed by their own instincts. And he was directed by satellite.

Maniscalco: That's an awesome story. That's pretty cool. Can you explain to me, what's RTK?

Kinsella: RTK is "real-time kinetic"—I can't remember quite the terminology, but it's the most accurate satellite correction, which will give you one inch or less accuracy. And we're basically using the satellites and a ground position to locate our position exactly in the field, within an inch of accuracy. And it is accurate—very accurate—and it's repeatable. You can go in from year after year, and go in the same track and be within an inch of what you were the year before.

Maniscalco: Wow, cool. Okay, now, you said you have other relatives that live nearby here, and we found one of them. (laughs) Can you tell us a little bit about, kind of where the family lives now and...

Kinsella: I have two cousins that farm right in... My dad and two of his brothers farmed, and one of his sons still farms part of the land, the old homestead. And my

other cousin, Ed, which you stopped at, he farms part of the other—what they inherited. So there's three of us here, sharing what was originally the home farm my grandfather bought. And of course, they farm other ground too, so it's not the whole operation yet. But we all farm each part of what our dads inherited.

Maniscalco: That's pretty cool. That's pretty cool. So now are they renting other land, or they've purchased—?

Kinsella: Yes. Yeah, we all rent or purchase other lands. And my cousin here that you saw, he was a teacher, a full-time teacher in Elgin, Illinois, and he retired from teaching and then came down to farm the family farm. As well as his wife, had some land. Their folks had some land, and he also rents some ground. So he's a retired teacher that's jumped into farming, so. And my other cousin, he's farmed all his life.

Maniscalco: Very cool. Let's talk about your childhood, because you brought up a really great story about being a child in a wagon. What other memories do you have about growing up on the farm?

Kinsella: Well, I think—as you know, I do a lot of no-till, I've no-tilled ever since we've back to the farm, and some of my first memories were—my dad was always concerned about soil erosion and caring for the soil and things, and I think was taught by him. But I remember when you go out, and there was no other choices back then, you were actually in a four-year rotation of basically, two years of corn, oats, and alfalfa, and pasture—we had cows, pigs, chickens, and a lot of—a lot of chores.

And as a young boy, I remember we'd always be dry in the summertime; we always want rain. And then we'd always go out, and rather than enjoy the summertime rain, we always go out and look at the destruction, the soil erosion. And I—if you can remember that we always had the grass waterways and things—kind of ahead of my dad's time, but there's just tremendous erosion on these hills out here. So I think that kind of always stuck in my mind.

And I went to college and I got a degree in soils—then I got a Masters in soils—and I always wanted to do something to save more soil. So that's kind of the—I guess, ingrained in my early childhood that, in order to be sustainable in agriculture, we need to do something better than what was going on then. And I remember the bad things too, about cleaning out hog pens and chicken pens. I had to gather the eggs every morning and clean out the chicken house Saturdays, so that wasn't a fun thing, no. I guess now the kids watch television, but I—we didn't have television, so that was my entertainment, was cleaning out the chicken house.

Maniscalco: (laughs) Now, I mean, you've mentioned some chores. Which were your

favorite chores?

Kinsella: I think working with cattle. We always had—we had a cow-calf operation and we would raise our calves and take them to Chicago. And I always had that favorite calf that I would raise, and he would always come to me. I'd go out in the barn at night and he'd always come to me. And probably the saddest thing would be, my uncle had trucks. And they hauled cattle to Chicago. And when we shipped our cattle, I'd always go up and ride—get to ride in the truck with my uncle or my cousin. And to see my long-time buddy (laughs) steer go down the chute there, and—we'd follow them in the pen, and I knew the next day, he wasn't going to have a good outcome. So that was a—but I always loved the cattle, and I didn't care for the chickens. I hated the chickens, and kind of... Pigs are okay, but.

Maniscalco: Why did you hate chickens?

Kinsella: It was just the smell of the chicken house. Gathering the eggs in the morning, and sometimes the chickens wouldn't get off the nest, and it was just... And they would mess up the eggs pretty good. You always had to clean the eggs, and they smelled, and I just hated the chickens. And I always decided my kids would never have to clean out a chicken house. I'm sure they wouldn't have anyway, but...(laughter)

Maniscalco: Well, now... I mean, you're kind of living out here in the country. Did you have a lot of friends around, or come around?

Kinsella: Yeah, we did—I went to country school to start with, and really, it's just my sister and I, and she was a year older. My two uncles lived just across the section and my grandpa lived here, just down the road. So I would ride my bike over to my grandma's house, and she'd always have cookies there. And then when—like, when we'd always visit. I mean, it was like—not like it is now; you wouldn't ever think of just dropping in. But every night, it seemed like, in the summertime, we'd just get in the car and go visit some of our relatives or friends and just sit around and visit. And so we had cousins my age, and we would play, and the folks would sit around and visit and play cards, and that was a—I think, a really neat part of living in the country.

And then as we went to—after my second grade, I went to—third grade, went to town school in Lexington. Developed friendships of local farm kids of my age. Actually, the Payne boys lived down the road and we would ride our bicycles back and forth and play basketball and just—I mean, we worked. And we all, from the time I was—my first tractor job, I wasn't—OSHA wouldn't have approved of that now, but I think I was eight years old. My dad built onto a clutch, welded a plate on the clutch so I could reach the clutch on the Allis-Chalmers WC. And my job was mowing and hoeing. Which is very dangerous, of course, no seat belt, no cab, no air conditioner, but... So I just always loved to drive tractors, and be on the farm, and I would do that and...

You know, we didn't have Little League at that time—I guess later on we did play a little Little League, but I'd always—if it came to playing baseball or working on the farm, I'd always choose working on the farm.

Maniscalco: Really?

Kinsella: It just seemed like there was always something to do, and we were always busy, and working. Of course it was so diverse, then, with livestock, and we had hay, and I actually wanted—I used to ride the rack a lot, and it was hot, and dusty, and those guys on the rack were just—you know. And I finally figured out the guy running the baler had a lot better job than I did. And so—I think I was in high school, I think it was my sophomore year or junior year, I... Between my sophomore and junior year, I made enough money and my dad helped me—I bought a baler. So I got to run the tractor and watch the other guys work, and we made some money. A couple of years, we baled 89,000 bales of hay, just going around the neighborhood. And then everybody worked together. We'd have a crew—I mean, our neighbors would all share help, and we'd just—one guy would mow one day, the next guy the next day, and we just had a neighborhood haying group, and I baled for all those guys, and... But I got the easy job, and I made more money, so I guess that was my first entrepreneurial venture. And I thought I was making all that money, but dad provided the fuel, of course. But I think gas was nineteen cents a gallon then, and (laughs) so, it wasn't as big a deal as it would be now. And we also picked all our corn by hand—I mean, not by hand, with a picker.

And I always wanted to go out for football, but that was corn-picking time, and I would either—some days, skip school, come home and help my dad pick corn, and... So there was always a lot of work to do, and I don't see how they got it done. My dad farmed four hundred and fifty acres pretty much by himself back then, with just, you know... Of course we had cattle and everything, but he was busy every day. And he put two kids through—both of us through college on a four hundred acre farm. It was mostly rented at that time.

Maniscalco: Wow. Now... I mean, you've experienced both being country school kid, and then going to the town to go to school. What are some of the pro's and con's?

Kinsella: Well the country school—(laughs) I was actually valedictorian of my class. (laughs) There was three of us in the class, and I was the only one that passed first grade, so I was pretty proud of myself at that point. But I got to town school, and this was a little bit tougher in there. I found it a little more competition, and... I think the first year we went in, it was kind of threatening, because all—you know, at that time, it was a big school for us, just a school of—in Lexington, a small town. But I think, it was—the town kids and the country kids, I mean it was just—I think, sports, and we just all merged together, and I think, eventually, the town kids were envious of us kids in the country, because we got to drive tractors and have cows and do a lot of things

that they didn't get to do. In fact, I would—when I had my baler, I'd have all of my buddies come out and ride the rack, and (laughs) they thought I had a better job. My town buddies would come out and ride the rack and were kind of envious of me, sitting up there on the tractor, I think. But I think we all—we really merged together, in a really nice community. And this is just a farming community, and it's—you know, I think there was no really, I guess, cliques, either way. It was not "farm kids" and "town kids", it was just a bunch of kids having a good time and studying once in a while.

Maniscalco: Very cool. Very cool. What about farm organizations when you were a kid? You know, like, 4-H, FFA?

Kinsella: I was in FFA, and I was... I really didn't get involved in 4-H so much because it took a lot of time, and it seemed like we... You know, I mowed hay, I baled hay, I—you know, we just didn't have time in the summertime. So I was in FFA all through high school, and—an officer in FFA—and we had a really good teacher at that time, Ollie Myers, which turned—after my sophomore year, he started the fertilizer business in town here. And he employed a lot of his ex-students, and we worked for him in the summer, doing fertilizer application and spraying and things like that too. FFA was—at that point, it was a very good education, I think. We spent a lot of time just learning the economics of farming, the book work, a lot of the techniques of—you know, fertilization was new back then. So we had some really good instructors and... Terry Bush was another one that was really good, and so I think FFA was a very strong base of education for any of the—and it was mostly just the farm kids then, that were in FFA. And it was—oh it was—a lot of farm kids back then, that was when a lot of people lived on the farm. And I think there were probably more farm kids in the school than there were town kids.

Maniscalco: What sort of role did religion have, and did—in the life out in the farm?

Kinsella: We went to church every Sunday, and we always prayed for rain. (laughs) And it seemed like it was always praying for rain, I don't know. But it was a strong part of my upbringing, and... my folks were Catholic and their folks were Catholic, and there was no animosity between the non-Catholics and... it was always just a very—just part of the small town life, I guess. It was very religious and we tried to live, you know, a good life and follow, you know, God's preachings, I guess. So I think it was a—probably a bigger part of our upbringing than I realized at the time. And the... I'm not sure that we appreciated all the... Have to get up and go to the church—and we had catechism, of course, every Saturday, and I always had things I needed to do, but I didn't want to necessarily go to catechism, but we always went.

Maniscalco: What other events were there, involved with the church? I mean, were there church (inaudible).

Kinsella: Yeah, we had... We didn't have a lot of social stuff here. It was a small church,

ours, and we didn't have... that area where we would go... you know, necessarily have parties and things. We didn't have a—what you call it—a rectory, or a community place. I think family was probably more important, and we had... both of my parents came from large families, and, seemed like every Sunday or Saturday night, we would always visit families. And that was probably more of a social event than the church. People that had moved here from other places or just didn't have a lot of family here, the church became a social event. But for us, with both parents with big families, there was always aunts and uncles to visit, and weddings, and graduations, and unfortunately a few funerals to go to, so that seemed to be more of a social event. And actually the Catholic funerals that—even now, I think. But then, you know you'd always go to the wake and the funeral and then there was always a big feast afterwards at somebody's house. And even the—as we were growing up, the families worked together on the farm too. A lot of—one guy got behind, the other one would come and help, and we just shared a lot of help with neighbors and things like that. And that was a real neat social entity for growing up, was the neighborhood. And that's not even—sometimes you don't even know your neighbors now, but it was just—we'd all work together, we butchered hogs together (laughs), we'd bale hay, we'd shell corn, and do all that stuff together. So it was a real neat, I think, upbringing, to have that interaction with a lot of different people.

Maniscalco: Yeah. You have a lot of your relatives around this area, still. Is it kind of still that way?

Kinsella: It is. We have three children. Our oldest girl lives in Lexington, and they have three children, which—my wife would keep two or three of them every day. And she works—and my son-in-law is a teacher, and she works at State Farm. And my other daughter lives in Hudson, which is seven miles away and we kept their two kids while—before they got in school during the day. So we kind of have the Kinsella day care, I guess. (laughs) And that's so neat to have the grandkids here. And yesterday, they—my little granddaughter that's two, and my grandson that's four, I guess—they rode with me in the tractor, and just to see them out here, and you get—we have to go play every day at dinnertime, and, you know. Our son is not married. He works on the farm. Well, he works—he's part of the farm. He's a major part of the farm. He's here every day, and of course, my wife cooks dinner for he and myself and some of the grandkids, and it's just... Every noon is a family event. If we're busy, they all come up the field, we usually eat in a ditch or something, and it's just to get to see the kids and the grandkids. So, it's so nice to have the family close and just to be able to see them and things. So I really—I just love the rural life environment, I guess. I did work in Chicago for two-and-a-half years, and rode a train to downtown Chicago, and I decided that wasn't for me.

Maniscalco: What did you do in Chicago?

Kinsella: I worked for Libbey Foods in the research department, right out of—when I

got out of college. And it was a pretty good job; I had quite a bit of responsibility, I traveled a lot. But every day, I'd have to ride a train to work when I was in Chicago, and I just... It's totally, totally different atmosphere from a small town, growing up on a farm, to working up on Michigan Avenue in Chicago and ride the train in every day.

Maniscalco: Yeah, definitely. You've kind of—I mean you've mentioned this farm, and the other farms around here that are all your family farms. Can you explain this actual farm, like your working out of here—what's it kind of look like? (unintelligible)

Kinsella: Well this farm is a rolling farm, and that's kind of—probably what spurred me to get a—end up with a Masters degree in soils. Because there is—we range from some good flat, black soil, but we have rolling hills—it's on a—not a terminal moraine, but it's on a temporary moraine, next—some of us next to the river, we have timber soil. We actually have twenty-one different soil types on this farm, which makes it a little more complicated to farm. A lot more complicated, actually. They all dry out, they warm up, they dry out different, they farm differently, and you have to—that's one reason we do have a lot of technology, that we can change rates of chemicals and seed on the go, because have so many different soil types. It would be considered still Class A and B soils. Hardly any C soils. But they are erodible. Parts of it are what they consider highly erodible. But we've been no-tilling this farm—or I have, I came—moved back to the farm and started taking over from my dad, or you know, helping him with the farm but working with dad, in 1975, and we started—we stopped doing tillage. That next year was the last tillage we did. We've been no-tilling since 1976, everything. So it's changed the farm dramatically, really, as far as the soil quality, the soil texture, the ability to absorb water, the organic matter's increased, the productivity's increased dramatically, and it's—and the soil erosion is basically, down to—close to zero. As close as you could get, I believe. This winter, we did have some very erosive rains on frozen ground in January—January ninth, matter of fact. And we did lose some soil there. But during the summertime when we have good crop cover, good residue cover, and the ground can absorb water, erosion is really next to zero.

Maniscalco: What about the buildings? What buildings do you have here?

Kinsella: The building we're in now is our—it was really, started out to be a training center for no-till, basically. I call it the Ag Development Center. After about—oh, from '75 to about the mid-eighties, I was no-tilling and I saw a lot of—I made a lot of mistakes, and I saw a lot of improvements, and really, I think I helped in some of the improvements. I worked with a lot of companies, and they said, this isn't working, and we need this, and we need a better drill, we need a better this and that. And so we did a lot of work with various engineers of companies and by—after eight or nine years of no-tilling I think I'd worked out a pretty successful system, at least on this farm, and I had these different

soil types that I was fairly confident would work on a wide variety of soils. I was working full-time for BSF at the time, and farming, and my dad was helping too, on the farm, and I saw all the advantages of no-till.

And then, at that time, in the early eighties, there was a lot of adverse publicity about no-till. People would try it once and they said, "Oh it didn't work." And it was all these bad stories, and it was really kind of a... I could see that they just—they made the same mistakes I made the first two or three years. I was working for BSF as a agronomist at the time and I worked with them, and they had some chemicals that worked really nice, and that helped the no-till. And I built this building, and they did help me with it. Well, not with the cost of the building, but they helped provide groups and things.

So we started having training sessions on no-till farming here, in 1988—we built the building in 1988. And from 1988 until, really, about two years ago; we've pretty well stopped doing the training. We're just farming too much and we were... Everybody's no-tilling is pretty good at it, now, and the people that aren't going to aren't going to even listen. So we've had about ninety thousand people through this building here, just in working—you know, viewing no-till, looking at it in the field. We'd have buses come through from all over the place and we'd go over what we're doing, how it works, what mistakes we've made, how that might apply to other farms in other areas. And we've had groups from all over the world, really. Brazil, Argentina, Poland, Romania, Africa—several different African countries, and Australia, and Canada, and... so we've had people from all over the world come through here.

And I think, you know, we weren't necessarily saying that was the only way to farm. We just said, "If you want to farm no-till, here's what we're doing. Maybe there's something you can gain from that, and here's what we've tried." And we'd go out and show them how it's work. We worked a lot with soil quality, carbon sequestration. We realized that organic matter raised a lot, that increased on a farm. So that's the building we're in now, and there's a meeting room upstairs, and there's the—what we call the seed room now—it used to be a meeting room, and we had the small area in the back for equipment. Now it's pretty much equipment and it's a farm building. And we have offices and things too, that... We catered a lot of meals here, and my wife was the coordinator. And my son was going to college then, but he helped a lot. And then Mike Kelly and Carey Davis were two of the people that—the kids right out of college at that time, that came in and worked full time to help with the tours and things. So we spent a lot of time—and I think we have helped a lot of farmers initiate no-till practices. And that was back in—the 1985 Farm Bill did have the compliance feature in it, which was basically, if you had highly erodible soil, that you were not allowed to do a lot of tillage on it. And so there was a lot of incentives from the government at the time to do no-till and people said, "I can't do it, I don't know how." And we were doing it, and a lot of the government agencies sent people here to say, "Here's somebody who's doing it. See what they're doing." And I think we've helped a lot of people.

Maniscalco: Were you one of the only people doing no-till at that time, or...?

Kinsella: Well, we were one of the first that were doing continuous no-till. Back in '75, there was a few people trying it—they'd try one year, and then maybe they'd till the next year, and try... But I finally—I think through my education—and I did go to Southern Illinois University, and George McGibbon down there, at Dixon Springs, was doing continuous no-till back when I was in college. We took a lab course over there, and my—for a Masters course, I saw what he was doing. And everybody was saying, "It won't work", and he had some really poor ground and he was very successful on that poor ground. And I decided right then, continuous no-till was the only—was the best way to go.

So that was my goal, to get back to the farm, to try to apply what I'd kind of learned in college and what I'd seen George do down there. And so I—as far as a full-time farm, being continuous no-till, there was a fellow in Kentucky that was... continuous no-till. About the same time, Carlos Caveto in Chile was starting to be a full-time no-till farmer. And a fellow in Brazil, and myself, and maybe a couple, three others that just said, "We're going to stop tilling and we're going to go no-till." So I conversed with those people, actually—some also, and there was a very limited group of us that were really no-till farmers, and not just planning with the no-till planner. So that was a—and it was a real learning process. I mean, it was trial and error because there was no... no guidebook, there was no manual.

Actually, I wrote a manual back in 1985, I think. A no-till manual, which was a—kind of the first of the kind, and we published a bunch of those. BSF published them for us, and that was really—I think the first ye—the first manual those things are written down, kind of, Here's the options, and here's the things we have to do, or we think will work. So there weren't many of us back then. And then after, in about 1981 or two, there was a few other farmers that I'd worked with, and also that were on their own, trying to—they'd been here. And we formed a, what we called, no-till innovators. We had—originally we had about nine people, all the way from South Dakota, which I guess you're from, to all the way from Ohio and Kentucky, Missouri, two from Indiana, four from Illinois, two from Iowa. So we just had a group of Midwest farmers that were no-tilling, and we'd get together twice a year. We'd usually get together here in the wintertime and discuss what we're going. And then we'd have a tour in the summertime. We had a big van that we'd all jump in, and go somewhere. Went to Kentucky, did a no-till days—no-till field day at Milan one year, We'd go to somebody's farm every year and see what they were doing. And that was a neat—it was really a—a really good—they were really good no-tillers. Good, smart farmers, and we learned a lot from each other. And I credit them for where I'm at right now, really. And hopefully that helps some of them too. But that was really a neat part of a—that was kind of our social group too, because the average ordinary farmer, that was doing tillage, wasn't really enthused back in the early eighties about even talking to no-till farmers. And I even had people come and try to rip ground from my

father, because they said I was going to break them with these no-till practices, so (laughs). So it wasn't a—it wasn't really a very accepted practice back in the seventies and eighties. That was actually in the seventies. And we did have one bad year back in the seventies. We had a cold, wet spring in '77, and our corn was way behind and yellow. And I'd learned a lot that year, because I made a lot of mistakes. But fortunately, my dad did—he put me the farm, so we didn't lose the farm over—And, actually, the crop turned out just as good as anybody else's, but it looked bad for a while.

Maniscalco: Can you explain to me, kind of the—What's the process for no-till?

Kinsella: The process is really fairly complicated. It's not just, put some colder down the planter, you're no-tilling. First you—the soil has really been degraded from organic matter, to structure—there's a lot of... it doesn't infiltrate water like it used to. If you go out and look at soil in a forest. Dig a spade of soil in a forest has never been tilled. Then go out and dig a spade of soil in a field that's been tilled for a hundred years. You'll see a difference. And it—so it is a process, a process of getting soil structure, organic matter back. Getting earthworms and the soil biology back to what some—similar to what it was before it was tilled. So it's—and there's a lot of compaction out there, when you lose soil structure, you pack it back down.

So it's a process of first—and getting some fertility on the ground, getting some fertility mixed in. I go in—I have a book, here, I think, and a whole section on how to prepare a farm for no-till. There's a soybean—this was our third edition, actually, and I think there's probably... let's see, there's... eight pages on preparing for no-till. So it's not—it's a fairly complex transition from a till farm to a no-till farm. And I think that's what got a lot of people in trouble. They thought all you had to do is put colder on the planter, spray a burned down herbicide, and then everything was okay. And they blamed a lot on—no-till failed—on no-till. And what was really had failed was a hundred years of tillage that had transitioned the soil into basically just clay, and no structure, and organic matter was depleted, and... So it just takes a few years—maybe four or five years—to get the soil back where—and it takes some, really, effort and time, to get soil—where it will allow you to not till it. So it is a process. It's not just a change in planters. And I think that's what I learned, back in the seventies, and I think that's what got no-till a bad name, because they thought, "Well so all I have to do is put a colder on a planter and spray some burn-down."

But things have improved so much. Now we have really good equipment, we have good chemistry, good herbicides—Round-Up has been a big factor in no-till—and a lot of the other chemistry too. And the varieties of—soybean varieties and the corn hybrids are better now, and so we just have—the technology now shouldn't hold anybody back from not no-tilling.

Maniscalco: Now, I'm sure in the seventies, when you came back from school, and you had

seen this new form of farming, I guess we could call it at that point. You had to have had a conversation with your father about, This is what...

Kinsella: Oh yeah, oh yeah.

Maniscalco: And can you kind of give us...? (laughter)

Kinsella: Well, there was actually a period in there—I graduated in '66, and then I actually spent a year-and-a-half in Air Force flight training. And then I worked for Libbey Foods for about six years in between. And that was a real learning proc—to work for a vegetable company, which I was a agronomist, kind of a—covered the whole United States, and I saw how they were treating the—as a soils major, and how they were treating the soil to grow vegetable crops, was just... I mean it was devastating to me. Because the thing there was just to beat the soil to death, to pack it down, they till it four or five times, they beat it down with these colder packers and then they plant beet, or pea, or sweet corn, or whatever. But they were—vegetable companies at that time, and still, are not—they're kind of nomads, really. They go into an area, and they just beat the tar out of the soil for a few years, and they finally realize that they can't grow as good a crop, because it's just too much tillage, too much degradation of the soil.

So that period, I tried to change Libby Foods. I instituted a program that where you can no-till beets, red beets. We could no-till sweet corn. We could no-till peas. And I just got—I mean, in the Research Department, we had good results. We took it to the farming operations, and had absolutely no acceptance. I mean, just... So that's one of the reasons I left the company. I just saw there's no... Then I had the opportunity to go with BSF, which was—I'd interviewed them, and they were... they had some herbicides that were coming that were really going to help no-till. I had the opportunity—I said I'd take the job if I could move back to Illinois near here, and I got that job, and so I was in Market Development, which we were allowed to go out and put in plots and work with a lot of farmers. I learned a lot during that period, but when I moved from Janesville, Wisconsin, down to here, the moving company left, I had a van with a trailer hitch, and I loaded a—I bought a no-till planter up there.

It was around the first of April. I'd loaded in the back of a U-Haul trailer—I had no money at the time—brought it down here, unloaded it, and my dad said, "What the hell are you going to do with that?" Those are his exact words. I said, "We're going to no-till." He said, "Whereabouts?" I said, "Right out here." He says—and he shook his head, "It won't work." So what—I still have the picture, that I got him on the pla—I said, "I want you to plant this." Because I got up in the crib, which is over—and we were planting right out by the crib, and I let him run the planter to see how well it would work. And it was bean-stubbed, it was going to no-till, we had colders on the planter, and I thought it was a beautiful seed bed. He'd go about—he'd go around, he'd stop,

and I was up in the crib, I wave him on, "Need some more pictures." Well, I was out of film long time ago, but I kept wanting him to go more, just to see it would really work. So he pulled the tractor in and shut it off, and said, "That's it." And I said, "What's wrong?" And we went and looked at the seed, it was—I said, "This just"—and he said, "We're not going to do this farm this way." So he went to town to get some more seed. So I got back on the tractor, and I did about forty acres before he got back. (laughter) And he wasn't real happy about that. But actually, we did it really—that was more first time luck than anything. We had—the soil was dry at the time, we had a warm spring, it was good variety corn, it was actually the best corn that we raised that year. And the weed control was excellent. And the next year, we were going to no-till a lot. Well, I had a full-time job, and I'd left with the instructions that that field wasn't to be tilled, and I showed dad how to do it, and he'd run the planter. And I got back, and the field had been field-cultivated. (laughter) He said, "It just didn't look right." But you know, after that—but that year, also, the no-till had actually outperformed the till ground. It had dried out. He worked it a little too deep, we didn't have as good a stand. And after that year, he—my dad was pretty innovative—and he—after that, he was a proponent. We'd have tours here, and he would go out and show them how well no-till would work himself, if I wasn't home. So it took about two years for me to get him to really understand how it worked, and he was a strong proponent of it after that. But the first year—and it was a big change for him that—of course, grew up farming—plowing with horses, and then seeing me go out there and no-till. He said, "It just doesn't look right."

Maniscalco: So eventually, you won him over?

Kinsella: I won him over. And it didn't take long. It took that second year—the first year, he thought that was blind luck, the second year... And of course, I mentioned all the time, that he'd field-cultivated, he dried it out, and my—the no-till stand was better. And he did learn from that, I think.

Maniscalco: Now what about your other relatives around? Did they get involved in that?

Kinsella: Yeah, my... About that time, my other cousin started farming with my uncles. And my uncles were still pretty skeptical about it, but he started no-tilling about three or four years later, and now he's a full-time no-till farmer. And it's worked out really well. Now, my other cousin, his parents—and he's a teacher, and he came back and his parents didn't farm. His wife's parents did, and they were on the other side of town, on some really battered ground, and they still do quite a bit of tillage on their farm. But it's just—it's a mindset, it's just—and it's a big change, it really is. It's the transition period everybody's afraid of. And of course with—now with pretty good prices, people don't want to lose the—have any chance of losing extra yield. Well, back when prices were low and they weren't making any money, they didn't want to chance on losing money. So the transition period is a bit of a learning process.

Maniscalco: Now you mentioned, worked for a company, BSF. What is that?

Kinsella: It's a large chemical company, out—it's a German chemical company, and they developed a herbicide called Basagran to start with, back in '75, it was registered. And that was the first post-emergent herbicide for soybeans. And we were no-till—we thought we could no-till corn back then, because we had Atrozene and some pretty decent—and Round-Up was available. With soybeans, it was very difficult to get weed control—broad-leaf weed control in a soybean crop, without tillage—without cultivation and tillage. And I saw them as having this product coming, it was really good on broad-leaves, which is a big problem in soybeans. And that was the fit that got me talking to them when I found out they had a job available, and talking to them—when I first interviewed, I said, "I think you have a product that is going to really revolutionize farming." And they said, "Well, how's that?" "Well, you can grow soybeans without tillage." "Oh. I don't think so." But eventually, they became very supportive and had—they put a lot of money into helping farmers no-till. So I worked for them for about twenty-two years. And I took early retirement, basically, because our son was come back to farm, we're expanding our farming operation, and we just wanted to concentrate on that and that's what we've done so far.

Maniscalco: And you've worked with a lot of people to kind of persuade them to no-till or make—help them to understand it, I guess.

Kinsella: Yeah. I don't think I've tried to persuade them. I didn't try to persuade anybody. If you want to no-till... If you don't want to no-till, don't bother, I'm not... You know, that's fine. You can do whatever you want to do. But if you want to no-till, here's what, maybe, I can help you with. Or here's some mistakes I've made and...

Maniscalco: At least, giving the knowledge, I guess, is really a better way...

Kinsella: Yeah. And really, at that time, the universities really didn't have much experience in no-till, and if anything, they were probably more negative on it than they were positive. So there wasn't a lot of information available. And I kind of—I guess, maybe, mirrored what they were doing in Brazil and Argentina, because there, the farmers were out, you know, and they were teaching other farmers how to no-till, and I thought, Well shoot, we can do the same thing up here.

Maniscalco: And, I mean, do you do any of that now, really?

Kinsella: I have, other than phone con—it just—the last year, and we're farming more acres and we just flat ran out of time. And I still do a lot of phone—I do some speaking. I spent quite a bit of (phone rings) time the last two years in Washington, on some farm bills, trying to get more conservation in the farm bills, and I've kind of given up on that. It seems like everybody thinks it's a

good idea until you—it just never does get into print. So I've really... The last year or so, I've just said, you know, I'm going to concentrate on the farm, and... Still, a lot of people call, and I—but—probably that's a call right there for somebody that's wanting to know about strip-till or something about no-till. I'll try to get ten to twelve calls a day, yet, that I try to answer every day.

Maniscalco: It seems like you've come across a lot of anti-no-till people and a lot of—almost, resentment of no-till.

Kinsella: I don't know that it's called anti-no-till. I mean, it's just pro-tillage, I guess, and it's—but remember, I mean, that's what we've... Farmers are usually—I mean, they're pretty traditionalist. And we farmed for a hundred years with—or a hundred and fifty years around this area with tillage, and that was the only way we could farm. And it is easier, and especially in the consolidation of farms. With bigger farms, you get these guys farming ten, twenty, thirty, forty thousand acres, and they're not running the tractor. Now, my son and I, we don't hire any other help. We farm 2,200 acres and we do it all ourselves. And I think part of the management process is the guy sitting on the tractor seat. And you see the soil, you see the condition of the soil, you see what you're doing, and that's part of the learning about no-till.

Well, when you hire somebody to sit on your tractor, and you're out here trying to acquire more land or sell—do something other than being on the tractor, I don't think you have the closeness to the soil, you don't have the understanding of the soil, and it takes the understanding of the farm—it takes more management to no-till. And I think they just don't have the time, and really, the association with the land. The best part of management on a farm is sitting on that tractor and looking out the window and seeing what's going on. And I think you lose that when you get off the tractor seat. So I see the—consolidation farms is actually... is probably slowing down the movement to no-till. And it's the opposite in Brazil and Argentina. Down there, the big farms are the ones that are no-tilling. Up here, the smaller farms, family farms, are the ones that are no-tilling.

Plus, so much of our ground around here is cash-rented. Absentee landowners that may be two or three generations away from being on the farm, that have no concept about soil management, soil conservation, organic matter, microbes. So the highest bidder gets the farm no matter how he takes care of it. So I think that's part of the process, is the more absentee owners, and the less farm ownership, really, farmers own their own ground. But if you own your own ground, you're getting—you know, you have more incentive to take care of it, I'm sure of that.

Maniscalco: Yeah. What I'm interested in is, what's keeping you going with, you know... What is that... What's the foundation to your strength for no-till? With a lot of people out there saying, "Oh no, you should be tilling."

Kinsella: Oh, just, I guess my association to soil and, you know, trying to conserve soil and feed populations in the future. The degradation of soil is just amazing in this country. And Africa. I mean, that's one reason they can't feed themselves. They degraded the soil years and years ago. The East Coast can't feed itself as well, because they've degraded the soils. And we were very fortunate here to have three glaciers and have some really good soil, and I see the—as a soil scie—I mean, I've got a Masters in soils, and I can just see the degradation that tillage has caused. And you can reverse that process. And it's pretty easy and economical to reverse that process. And that's what keeps me going, is, I mean, a lot of people say, "Well, why do you worry about that?" Well, I'm worried about my farm, but I'm also basically worried about the whole society. And if we don't take care of our land, I mean, that's the basis of everything. And if we don't take care of our land—and we're seeing right now, food already just—really, all over the world. And it's not because of ethanol. It's because of—we're taking 10,000 acres a year out of our country, and other countries too, and now the developing countries, China and India, they've found out, meat's probably better than rice. And so they're requiring a lot more land, a lot more food, and their populations are growing. So it's just the worldwide demand. It's not just the population, it's the demand for high-protein food, and crops, and meat.

So I think if we're going to feed the world, we're just going to have to have a better understanding of soil. And I'm really disappointed in the government lack of incentives to incentivize farmers to take better care of the land. That's basically one of the reasons I just stopped having meetings. I said, "If the government's not going to support us in developing no-till in a farm bill, which they should have—I fought for the '85 Farm Bill to have compliance in it—Bill Richards was the chief of SES. They went a long ways in getting farmers to take better care of the ground, especially the highly erodible ground. But once the new—the next generation came in, the next administration came in, they basically forgot about compliance. They didn't follow up on it. Anything goes. They didn't want to make the farmers mad, and to make them do something they didn't want to do, and they thought they were going to go broke, and...

So the government programs have just been really not very strong in encouraging us to take better care of our ground. I spent two or three times on Senate Ag Committee, and on the 2000—one of the—the '96 Farm Bill. And then again, the 2002 Farm Bill. I took two days—they always have the meetings right during planting season—I took two days off from planting, go out there, we made a real appeal to get, basically, a carbon credit for no-till farming, and to have a good incentive in the CSP, which is the Conservation Security Program. They had a pretty good Conservation Security Program, but they didn't fund it. So, it's been so disappointing, and I just said, "I'm not going to beat my head against the wall anymore." Because the government's kind of, not helping at all. And they're really not. It's basically been very disappointing in the approach that—they should know better, and they should

help educate farmers on how to take care of the ground, and they should incentivize them to take better care of the ground.

Maniscalco: What do you think has to change to get the government on board?

Kinsella: Well, I don't know, I think it would probably... I think it'd take a really strong Secretary of Agriculture, which we, I don't think, have had, personally. I know a couple that I would've really liked to have in there that I think would've made—but... A stronger person in the head of NRCS that would really follow the rules and make it imperative that they follow the rules all the way down. I think, probably, a shortage of people getting hungry might do more than anything. Finally realize we're not taking very good care of the soil. But soil is a very complex issue, and the further we—the senators and their aides and the House—the Representatives get away from the farm, and their lobbyist, and—there's just—seem to ignore the needs of the soil. And that's the basis of, really, our civilization. I know don't know whether there's any hope of the government ever finally realizing what's going on. I really don't. Unless we get real hungry.

Maniscalco: Yeah, I guess. Let's talk about your farm here. I'm kind of curious—I mean I know you did corn. And probably alfalfa.

Kinsella: No.

Maniscalco: No?

Kinsella: Just corn and soybeans now. Yup.

Maniscalco: Corn and soybeans? Okay, so, you just switch back and forth from corn and soybeans year after year?

Kinsella: Yes.

Maniscalco: And this year you're going to be planting... soybeans?

Kinsella: Well, we have half and half—roughly, we're about sixty-five percent corn and thirty-five percent soybeans. And we do—so we do have some corn-after-corn. We have two farms that we pretty much keep in corn. Really good ground. Now with—corn is a little bit more profitable, and we can actually—now with no-till, and what we do, we strip-till our corn. Corn after corn. And our yields are very good, and we can actually build soil better—soil organic matter better—with corn-after-corn than we can in a corn-bean rotation. Because corn is, what they call a C-4 crop. It'll actually take in more carbon, more CO₂, transfer it to organic carbon, which transfers to organic matter, and if you don't till it a lot, that organic matter stays in the soil and that is food for the microbes, for the earthworms, and that's what makes soil soil. You got sand, silt, and clay, and you don't grow anything on sand, silt, and clay. You throw in organic matter, the more you throw in, up to a point, of maybe, muck

ground or peat, up to maybe eight or ten percent organic matter. Because that's the energy—the carbon is the energy in the soil. The sand, silt, and clay don't provide anything. So if you can build up the organic matter, which we have in our soils, and if you grow corn after corn without tillage, you can build it up. So we can actually—and after soybeans—soybeans are a more erosive crop than corn, so we're kind of gearing towards more corn. And with the market now, we've already had to do that. We'll probably, maybe increase that a little bit. But... alfalfa is a good crop, it'll build soil, but it also takes a lot of labor to bale it. And I know that well (laughs), I spent my younger years in hayfields, either mowing, raking, or baling, and then feeding livestock—leading, feeding livestock. But this area, to me, is corn country, corn-soybean country, and there are areas that are better for growing alfalfa. So we pretty much got out of the rotation of alfalfa.

Maniscalco: Now as a child, you had livestock. You don't have any livestock anymore?

Kinsella: No, no, nope. It's pretty much specialized now. The livestock people are big, and they're—you know, the regulations are such that it's very difficult, and—like, small farmers—especially the hog farmers right now that don't have contracts are going to be out of business. And it's a very labor-intensive business. So I think it's just—it's like everything else, it's specialized. You specialize in livestock, you specialize in hogs, you specialize in cattle, or specialize in crops. And even that is getting specialized. You might—we don't grow wheat. We probably should have in this year, when it went to seventeen dollars, but it takes a little different equipment, a little different approach. You'd need to get good at what you're doing, and we like to get pretty good at corn and soybeans.

Maniscalco: Now, to stay in corn and soybeans, then, what sorts of fertilizers are you using.

Kinsella: We're using pretty much commercial fertilizers. Phosphorous of—what we call DAP, di-ammonium phosphate. And muriate of potash, calcium chloride. And we do add a little bit—we do tissue test. If we have added—now that power plants are scrubbing all the sulfur out of (inaudible speech), Mississippi River, we're finding some sulfur deficiency. So every other year, we do—if we have a deficiency—we'll add a little bit of sulfur—elemental sulfur, which is fairly cheap. And we use anhydrous ammonia. It doesn't hurt the earthworms, as everybody claims it does, we've got more earthworms on this farm than, I think, most farms. And we use anhydrous every other year. And we use Inserve, which is a product that keeps it in the ammonium form. We follow our guidelines for—we fall-apply, we never get out before the soil's below fifty degrees. We use Inserve, and we plant our corn—what we call, we index it, right over the top of that. We strip-till, we put in a strip, we use RTK, that guidance system, to accerlate—put in strips. We don't have markers on our applicator, we'd rely on the satellites to... And we plant our corn crop right on the top, called indexing. So our nitrogen is right underneath the seed, and

that's where it should be. We can lower—we can use less rates there. We also have what we call the equal-ply NH₃ system on our applicator that we can lower the rates of nitrogen and keep them equal between all the line. So we're doing everything to minimize our nitrogen rates, and we try—as expensive as nitrogen is, especially this year, we're not likely to put in the water supplies. So we'd like to keep it all the farm.

Maniscalco: Now, what about pesticides?

Kinsella: We use herbicides, we use Round-Up as one of our primary herbicides now. We do have Round-Up-ready corn, and for the first year, all Round-Up-ready beans. But we do use—we have four modes of actions in soybeans, and—one, two, three—and four modes of ac—different modes of action in corn. And one thing about Round-Up, it's a very safe chemical, but if you use it all the time, weeds will adjust to that and they'll build up resistance if you don't use other modes of action. So we do all of our own spraying. I do have a history of twenty-two years in a chemical company, and I think I understand—I've learned a lot about how to... we use mostly post-emergent materials that do not stay in the soil, that do not leech, that do not move in the water supplies, so we're very conscious. We have our—my son lives on one of our farms and we live on the other. We rent out another farm, and my cousin lives on another farm that has a well. And we're not attuned to poison any of our relatives, so we don't want anything in the water either. So we're very conscious, we follow all the restrictions, we don't mix or... near a well, and we minimize our rates. We use herbicides that don't leech, that don't get in the water supply. So we're very conscious of that.

Maniscalco: Do you have any problems, ever, with insects, or...?

Kinsella: Yes, we do. And we use—most of our corn, we have a—what they call "triple stack", which is genetically engineered to control corn borer, which had been a huge problem for us. We'd have to spray by air in the summertime with bees out and things, which is costly and also, it attacks a lot of the beneficials. And then we have, for root worm now, which has been a really bad insect on corn that can just devastate a population of corn early in the season by eating the roots, and we have root worm-resistant corn now. So most of our—we have, eighty percent of our corn is what we call "triple stack", it's Round-Up (break in file)—it's genetically controlled, it's the root worm and corn borer. So we don't spray any corn for insects, it's genetically controlled, which I think is a lot safer.

Maniscalco: So those are hybrids?

Kinsella: Hybrids. Hybrids that are designed better to control the insects. I think that's a lot safer, it's a lot more environmentally sound way to control insects than doing a lot of overhead spraying. So we don't do a lot of spraying for insects. And herbicides are pretty... Most herbicides we use are not very toxic to

humans or earthworms or—some of the insecticides really hurt earthworms, which we don't want to hurt. They're beneficials that get hurt, so we're very conscious of using—of things that just are directly targeted towards the problem, like a weed or insect.

Maniscalco: Now, you mentioned a few times now, earthworms. And they've got to be one of your best friends out there on the farm.

Kinsella: Oh! They're our tillers, and those guys work—they work just about, you know—any time the soil's warm and not too cold, they're out there working. I bet they're just working today. I got millions of them. They do our tillage. They move herbicide—or they move fertilizer up and down. Their excretions are very high in phosphorous and potassium, and they develop soil—they bring soil up from clay soil, and they mix it in with organic matter. So they're my workers.

Maniscalco: And they have—bet they probably work for pretty cheap.

Kinsella: Oh they're cheap, and they—they're just absolutely—they never complain. And the only time they complain is they get out on the roads and all these people drive over them the morning after a rain, so that's their biggest complaint.

Maniscalco: What do you do to kind of, get as many earthworms into your ground as possible?

Kinsella: You feed them.

Maniscalco: Do you?

Kinsella: Yeah, we feed them the crops. That's what they eat. They eat the crops that—the night-crawlers are surface feeders, they do not eat under the ground. You see these mids out in the field—in fact, I have a whole section in this book on earthworms and how to maintain them and how to... And if you don't have any on a farm, we actually went out and pick them up off the roads after a rain. I'd go out and my—(laughs) some of my kids were little, I'd get them up after it rained all night like last night, and I'd say, "Hey! Come on, got to get up." They'd all have their buckets and we'd all go out and we'd pick up—have a little spatula and pick up earthworms. And that wasn't their favorite job, by any means. We had a little contest, whoever got the most got some sort of a prize—ice cream cone or something, I can't remember what it was. But they learned pretty quick that wasn't worth it, so... But we did, we had some new farms back when we were starting to no-till that just—pretty much devoid—they had some red worms—the smaller ones, the sub-surface feeders—but very few night crawlers. So we did seed some farms, and I think it really did help. But now that once you get them going, they do really propagate. And if they have plenty of residue on top, plenty of food, then they will have more babies, actually. And the neat part is, they're bisexual. They have male and

female parts, and so rather than just have half the population having babies, you got all the population having babies. So they can expand fairly rapidly. And they drill holes. The night crawlers, particularly, will drill holes the size of a pencil down to four or five feet, we found them, and they'd move residue down. They go down in the wintertime when it's cold, the summertime when it's hot, they come up on these cold, rainy mornings to feed. And they just do a tremendous job of keeping the soil porous, keeping the fertility moved up and down, the organic matter moved up and down, penetrate—they can penetrate clay, sub-soils, where roots can't. So I've seen—we dig soil pits, and you see just a vast amount of roots going down a earthworm hole. So they're just amazing little animals, and we just love them. So they're our—the other thing after a rain, after a big rain, you can have two or three inches of rain, if you have these night crawler holes, and you don't go—that's why one reason, you don't—on a no-till farm, you don't ever go out and do any sort of broadcast tillage, because you plug those holes up, and the water will just run off. Well, today, we could take four or five inches of rain without any—well, maybe not that much, because of what—the soil's fairly saturated, but two or three inches before we get runoff. Because the water goes down in the earthworm holes. Now we do have tile. Some people, "Oh my gosh, you got tile on your farm." Well, yeah, you got to get rid of some of the subsoil water. And we're very conscious on keeping it clean and keeping the tile—we have our own tiling machine, and where we have a wet spot, we go and tile it. And it's a lot better to have a little—the soil will filter the water and rather than have it—have it filtered and run out a tile hole, than run off the surface with a bunch of soil, nutrients in the soil attached to the soil particles, and some pesticides in it. So the filtered water, earthworms do a good job like filtering the water.

Maniscalco: Huh, very interesting.

Kinsella: But the main thing is that, just the infiltration is just tremendously improved. And what you usually get in the summertime, you get maybe a two- or three-inch rain, and it all runs in on this farm—on the no-till farms—and you see where they've tilled it, two-thirds of it runs off. And to me, that's wasting water, and water is a limiting factor on most of our yields in this area. How much water you can get in a corn crop.

Maniscalco: So, really, that's kind of your ultimate goal with some of the no-tillage. You get a lot of the water...

Kinsella: Oh, that's probably the biggest advantage right now. The biggest advantage we have for long-term—and that's why, talking continuous or long-term no-till—is the water infiltration. And when it infiltrates, it doesn't wash off and erode the ground and take off the nutrients in the topsoil. And it'll feed your crop the most important element, which is H₂O.

Maniscalco: Yeah, yeah. Very interesting. Now, you have a lot of acres here, and that's a lot of work. And you've mentioned yourself and your son doing all of that

work, from the way it sounds. Have you ever had to hire people to help you?

Kinsella: The only people we hire is just—we do have a neighbor, real good retired farmer that runs a grain cart for us. And, actually, the husband of the... who are the people that rent one of our farmhouses, he helps when he gets off of work too and on weekends. And we do have just one guy running the grain cart, because my son runs the semi and I run the combine, and we just need somebody to run the grain cart. But other than that, we don't hire anybody. And two reasons. One, we got fairly sophisticated electronics and technology in all the tractors—we got two tractors, and we got Auto-Steer, you can—sometime just to program that, and we got—what they call—it's Ag Leader Insight, which you can adjust planting rates and spraying rates on-the-go and things, so we just—we don't hire anything down, because—and sometimes if the soil is a little too wet, we'll just stop and wait. And we don't like to track up the soil, we don't like to compact it. So basically, we do all the—and we do our own spraying, we do everything except our—we do hire our lineman or PNK_ applied with a custom applicator.

Maniscalco: And you—you just mentioned this and you made me think of it, the soil is very wet right now in the spring. Can I talk about the situation we're in now?

Kinsella: Sure, sure. Yeah, we've had a cool, wet spring. Which is probably the worst for no-till because if you leave residue on top, it stays cooler, and when it stays cooler, it doesn't dry out as quick. So we have been fighting some wet soils, but we have tiled our home farm pretty well. We planted beans the last two days, we've—it's been like two days on, four days off all spring. Maybe it just gets dry enough in some fields, and we get a day or two of planting and then it rains, which it did last night. We do have some new farms that really need some tile. We stopped planting. We have our own tile machine and tiled out two wet areas two weeks ago. And it's really helped us. Only allowed us to get through those areas. If it's just too wet, if it's compacting the soil, we just don't go out. We'll wait; there's always a better day. And our objective is not just to get done planting at a certain date. Our objective is to get done, but to get the best potential for the crop, and not hurt our long-term investment, which is the soil. And we won't sacrifice that just to get a crop in. And we are waiting now for—we got two really wet farms that I don't know when we're going to get in now. But we'll wait. You got to be somewhat patient. We do strip-till our corn, and when you build that little mound in the fall, you do—you till about a six-inch area and build a little mound, and it will—it elevates and it will dry out and warm up quicker, and that has allowed us to plant corn just when anybody else is planting corn. So our corn is all in, our corn is all up, and it all looks very good. And it's been a trying year. You see this planter out, we got a twenty-four-row planter this year, which is fortunate because we—and Barry said, "Well you don't need a twenty-four-row planter on 2,200 acres." Well, this year we did. (laughs) We could've used the forty-eight-row, actually. Because we just didn't have that many hours to plant, and we ran at night, and then it'd rain, and... So we are very fortunate to have a bigger

planter.

Maniscalco: Now, another thing that's affecting you right now is gas prices.

Kinsella: Ah, yes. We had contracted some diesel fuel for—now, spring, we don't use a lot of diesel fuel. We no-till everything. I don't see how these guys afford to buy the diesel like it is to work the ground two or three times. But we can plant and... we spray and plant in the spring, that's all we do. And the sprayer, I'm using about two-te—well, not even two-tenths, about fifteen hundredths of a gallon per acre to spray. And it's working out about three-and-a-half tenths of a gallon to plant. And then I'll spray it one more time. So we're really not using much in the spring, but the fall, with combining and running a grain cart and a semi, we use a lot of diesel fuel. And we did contract some early—not early enough for fall, but we thought, then... It just keeps going up, I don't know what's going to happen in the fall. And our costs are just—our prices are going up, but our costs are going up exponentially more than our prices. Nitrogen has gone from—two years ago it was like 300 dollars a ton, then it went to 400 hundred, then it went to 450 last fall. Next fall, it looks like—if you bought right now, it'd be, I think, 830 a ton. DAP, which is di-ammonium phosphate, three years ago, it was in the range of 300 to 400 a ton, last year it was like 485. Next year it's going to be over 1000. If you pay twenty-five percent now. So our prices—partially because of the devaluation of the dollar, the expansion of world economy and world agriculture, and mainly, the devaluation of our dollar, it's making fertilizer—they can export it to China and get a higher price for it in dollars than they can to export it to Illinois from Florida. So our costs are just going up exponentially, and everybody thinks, well, these prices, these farmers are making all this money. Well, not really, when you consider the costs of production. And fuel, fertilizer cost, seed cost has gone up. It will go up more next year because of high prices. And they have to pay more for land to grow seed too, so it's not all... I'm looking for this—last year was a good year, a really good year. This year is going to be a fair year. And I think if we do over-produce and if they do put restrictions on ethanol expansion—which I think is a mistake—I think prices have a chance to go down, and the prices we pay for our inputs are probably not going to go down. So I think we could hit—we could have a couple tough years in agriculture, on the farm.

Maniscalco: Are you doing anything to try to prepare for that?

Kinsella: Yeah. (laughs) We're trying to save some money. We're not borrowing a lot of money, or we try not to. We did upgrade our equipment this year because we kind of thought, with inflation—there's got to be inflation, and the steel prices are going up, and we hadn't really done a lot of upgrading on our equipment, and we had a pretty good year last year, and we... We had a few things that we just need to get bigger, because farm more acres. But we're probably set now. We shouldn't have to buy much equipment now for several years. We had built our fertilizer up pretty—we've always done a good job of build-up. We

could probably back off a little bit on fertilizer on our home farm, but we don't want to do that on rented ground, because we want to keep the land where it was when we got it. There's not much we can do on fuel cost except, you know, what we're doing now, is we're just minimizing, I think, our fuel cost. We're trying to put some money in the bank now to use in future years. Well I've farmed for, this is the thirty-fourth year, and it seems, if you get a good year, it doesn't last—or a good time doesn't last over two years, for some reason. Of course, everything we buy is, they set the price. Everything we sell, they set the price. So everybody thinks farmers are making all the money, so it seems like, you know, everybody's getting their share of that at this point.

Maniscalco: What are the things that are making you get up every morning and come out and do this again? I mean, there's some hard parts to it.

Kinsella: Oh, I get up at five o'clock just to go do this. I mean it's just... I can't think of a better profession. I really couldn't. I've worked.... I flew fighter jets, I had a chance to go on with the airlines, I've worked for two major companies, and I just can't think of anything I'd rather do. Every day you do something different. Just to go out—I drove around this morning and just looked at the crops. On corn, it was almost like a victory tour. Because we went through—this year was just one crisis after another. This field wasn't ready to plant, we moved so many times back and forth, and you get rain, and you're trying to decide how deep to plant, and We're going to plant this field now or wait, or what variety to go. And I drove around and saw every farm this morning, and the corn's all up, and it was just... I mean, the thought of just, what we went through, and our son and I... To see that crop coming up. Every year you can see that.

And in each year, every day is different. You get to see it grow, you get to see—to put something in the ground and see it to grow all year, and show your grand-kids what an ear of corn looks like when it comes from a kernel. And to have them ride with you to harvest—and everybody said, well I'm retirement age. We're having our fiftieth class reunion, and I'm probably one of only—I guess there's one other guy still farming. Everybody else is retired, everybody, "What do you do in your spare time?" They had a little survey. I said, "Well, I don't have a lot of spare time." "What do you like to do?" "Well I like to farm." (laughs) I can't believe that, that's my—I can't think of anything I'd rather do, I really can't. I've golfed some, I've... But to me, to go out and chase a little white ball around a golf course, or to go out and plant a crop and see it grow, the satisfaction is not even close.

So I don't know how—everybody says, "How long you going to farm?" Well, probably, sometime to—if God's willing to, probably quit about the year I die. Somewhere in there. So I hope my son will tolerate me that long. To me, it's a joy to get up. The living in the country, I mean there's deer and there's turkeys, and I get to go out every morning and just see what you've accomplished. And really, to see this farm get better. There's not too many manufacturers—and I

consider myself a manufacturer of corn and soybeans—but not too many manufacturers that can start out thirty years ago and see their plant improve. And I can do that. I can see it every day, I can see it after every rain, I can see it after every storm, and I can see it in the wintertime, I can see it every time I stick a spade in the ground, about how the ground is improving. And I don't think there's—I can't think of another business that you can do that. And every year it gets better, and your factory gets to be in better shape.

And my son was here this morning, and he was asking me about, well, I was going to have an interview. And I said—well, you know, if that's what it's about, it was kind of about the farm, I said if—but he was born in 1975. It was the year we moved down here. And probably, if it—and he's worked on the farm ever since he was little, and... But he's been a big part of that too, because if it wasn't for him wanting to take over the farm, I'd probably... And he's great on the technology. I couldn't handle some of the stuff he sets up for me and the—he does most of the computer. The high-tech stuff, and he gets everything ready for me just to drive—which, I don't even have to drive anymore, I just have to sit there and I can look around and watch the planter and make calls and stuff. But if it wasn't for him, I might not be able to do it. Because the technology has changed so much, and he's the incentive to keep this thing going.

Maniscalco: How do you feel about the changes in farming over these years? I mean, do you see the changes in farming, good? Bad?

Kinsella: Well if people like to eat, they're good. And I think people like to eat. And everybody says, "Well—" I mean there's a lot about sustainable farming and organic farming. I get questioned a lot, and said, "Well, if we all went organic, about half the people in the world would die. Because they'd just go hungry." The efficiency of agriculture is gone beyond organic. There's a niche for that, and some people think these chemicals are bad, and I've... My folks both lived to ninety-three, they were both ninety-three when they died, and they lived on a farm and drank well water and ate sweet corn out of a garden, and were around chemicals all the last half of their life.

And I just think that's kind of a pipe dream, really, to have everything go organic. I mean, if people want to do that, feel it's important, fine. Have to pay more money. But we can't feed the world and everybody stopped using the technology that's available. So I think we're seeing right now how important food production is. And also, I think we need to take every advantage of the biofuel situation. I think ethanol is taking a very unfair hit at this point about, Oh; ethanol is raising the food cost prices. And that's the easy—that's the people that don't understand the technology, they don't understand the complexity of agriculture or the market—the complexity of the market. And what's made food prices high is China and India and the third-world likes to eat meat. And they're growing, and their populations. And the value of the dollar's declined.

And ethanol might have two to three percent of the food price increase, but just think what gas prices would be if we didn't have that ethanol incentive to take three percent of the market. If we had three percent less supply. It's a supply and demand thing, it's nobody controlling the market. So we need the ethanol. And the main thing we need ethanol for is the technology. It's a stop gap. It's a way to get in to, say, cellulosic fuel, to develop all kinds of other means of running machines and tractors. We have to—that's our lifeblood, that's how—we can't support the population of the world by everybody going back to the early twentieth century. Or the mid—even the late-, mid-twentieth century. So we have to have all the technology we can use and it's—I mean, that's a great idea, "Oh yeah, let's go back and farm like we did back in the forties." Well, we were organic farmers but we barely survived. It wasn't fun. Let them—the people that want to do that, let them clean the chicken house I had to clean, and we'll see how long that lasts. That won't go very far. So I just think it's—we have to use all the technology we have. I think the genetics development has been very important to agriculture and feeding the world. I think the availability of the chemistry has been very important and it's safe. I mean it's tested so much. I was in the industry for twenty-two years, and I know the rigorous testing that goes on and how sure they have to be of any sort of danger to the population. So we have, you know—and it's a good scapegoat. Oh yeah, it's this chemistry that's causing the cancer and stuff. Well, our life expectancy has increased about fifteen, sixteen, seventeen years since we've had the chemistry, so it must not be too damaging. And our food quality is so much better than it was.

So I just think we're on the right track, but we have to allow and incentivize, really, greater increase in technology. And that's what we're leading the world in, really. It's not manufacturing anymore, it's technology. So we can't start limiting ourselves by some congressional mandate of stopping ethanol or stopping the incentives to do better things. And I'm really... I think eventually, we'll figure out the hydrogen thing. I heard this morning, General Motors will have a hydrogen car out in 2013. And once we can crack that little problem, the gas tank will be basically three gallon, to run 250 miles. So that's how we're going to lead the world. We're not going to lead the world in making toys. We're going to lead the world in the technology of food production, fuel production, and just all kinds of techniques.

Maniscalco: What about the future of farming?

Kinsella: Well, I'm more concerned about that, actually. I'm really a little bit disheartened on the fact that—the consolidation of farming, that I mentioned before. The economy of scale in most industries has been generally positive, I think, maybe with some exceptions. Getting too concentrated, maybe. It is more efficient, but I think the consolidation of farming has been detrimental to the soil, because it's everybody's factory and the big farmers aren't taking care of the factory like the small farmers. They're not capable of doing that. Also, I think there's a lot of... well maybe, I'm not sure, just the non-farming owners.

The people that live, you know, they may just—there's too much value placed in the dollar, not enough value placed on the value of their asset, their property. And not enough knowledge about that. I think we're probably—I think the technology is going to expand. I think this is the real bright spot, I think. Especially the genetic mapping, the ability to, probably, control pests genetically, to improve yields, to improve nitrogen efficiency in corn. That's the thing we're really looking for next, is a corn crop that will be a lot more efficient in its use of nitrogen. I think much of the development in rice has really helped feed the third world. And the genetically altered rice, wheat, is going to be the next thing that you're going to see—some real improvements in yields. Fungicides—and actually, resistant to fungicides. So I think the bright spot. The technology is going to improve as long as we can keep a profitable industry.

But I'm a little concerned about the... The rural life is just not what it used to be. And it's so competitive now. We used to work with all our neighbors day after day, and now you kind of got to worry, which one's going to try to rent the farm from you, you know. Not around here, but I think there are neighborhoods. And the big farmers are just going out, and some guys are just going out and up and down the road and trying to rent—just pay more for the ground, cash rent. And I think that's very negative towards long-term sustainability of farming and agriculture. But I think the technology is really going to improve and it's going to be—every year there's something new. And that's what I really—that's another thing that keeps me up every morning. We try a lot of new—we try to keep up on all the technology, we try all the new things, some of them work, some of them don't work. Just to go out and experiment. And we have yield monitors, and we could try this thing versus this thing, and every year there's something new. That's another thing that keeps you—you want to try, you want to try this, and you just don't want to keep doing what you were doing. So I guess, overall, I think food production is going to really keep pace, as long as we don't get too regulatory on both what we can use.

And we do have to keep—I know there's a big hassle about the Farm Bill right now, about all the money they're spending for the Farm Bill. Well, over half—almost half the Farm Bill's spent on food stamps and food programs. So it's not necessarily all going to rich farmers. And I do think that the farm—the one disagreement I do have on the signing of the new Farm Bill, is that they should've lowered the payment limitation. I think there's just too much lobbying from the bigger farmers, and somehow the corporations are getting into—that's the other concern, is especially worldwide, corporations are getting into farming, and that's a disaster. Cargill's farming a lot in South America, other companies are buying ground down there, and not so much in the US, but then you got total vertical integration, and it's not good for the land or the long-term—basically, sustainability of the soil.

Maniscalco: This is the last question, and the last question I ask everybody. You know

you've mentioned that you have your grand-kids here, and that's a real joy and pleasure for you.

Kinsella: And my kids. (laughs)

Maniscalco: And your kids, too, yeah.

Kinsella: We've got all three of them here, so.

Maniscalco: In the future, this oral history interview is going to be a document for—hopefully, forever in eternity. One of your great-great-great-grand-kids might happen to wander in the museum, and say, "Hey, look, there's my great-great-grandpa Kinsella." What would you like them to find in this interview? What's the one thing you would want to leave for them?

Kinsella: I would like for them to say, "Hey, that was my great-grandpa. He was kind of a pioneer, and I think, hopefully he was left his farm in better shape than he got it, and caused a lot of other people to leave their farms in better shape than it was when they started farming." I think that would be my legacy, is to, hopefully, as a soil major, and to have an impact on not only my own farm, but a lot of farms. Even, I think, across the world. I think I've had an impact in other countries too. So I guess that would be—what I would hope they would maybe write, that he did maybe improve the quality of soil on his own land and a lot of other land.

Maniscalco: Oh, great, well, thank you, Jim.

Kinsella: Thank you, that was a very good interview.

Warren: I've got a couple of brief follow-ups. I wonder if, Jim, you could kind of go through a little bit of the annual cycle. Kind of comparing no-till versus cultivation, and how the planters are different or similar, and what a life of no-till... how that differs from, or compares with the life in with the cultivation.

Kinsella: Well, it basically starts in the fall. And after harvest, you leave the crop residue on the surface. You don't do any fall tillage at all. We do quite a bit of fall spraying. We spray a lot of winter annuals and perennial weeds. They're easy to control in the fall, because all the food supply—nutrients are going down to the roots, and translocation is going downward, and that takes the chemicals down. So we control a lot of our weeds in the fall. We haven't sprayed anything this spring yet. We've—everybody's been out spraying. It's windy in the spring, you got trees that are just having buds coming out, you have all the new growth coming up, and you have a lot of wind in April and May and March. So we haven't done any spraying, basically, and we'll come in and spray one time post-emergence, and we spray one time in the fall, both the corn and the beans. No-tillage, in the fall, we do put our nitrogen on in the fall, as we talked about. We put a head of corn, we index it, we put it down with the knife about eight inches deep. We put a nitrous ammonous inhibitor

in, which keeps it in the ammonium form. We wait till the soil gets below fifty degrees. It'll stay there 'til long in the spring because down there deep under the residue, it may not even be fifty degrees yet, where the microbes start breaking down. So it will last up until one of the crop starts to need it. In the spring, we basically—there's a planter sitting outside. That's the first trip across the field, will be that planter. And we do—we don't put any nutrients on with the planter anymore, we just put corn in it.

We don't have insecticide on it. Well, we do on the refuge, we got those—the rows on the outside have what we call smart boxes. And they're electronically controlled insecticide that just go on in the twenty percent of the refuge corn. We have to have twenty percent of our insect-protected genetics in non-protected corn, so we won't build up resistance. So we're very—we spent 9,000 dollars for what they call a refuge box on the front of that planter, so we keep our non-refuge corn—or refuge corn in that box, and we put in twenty percent of every field in the refuge. And then we will go out and spray one time, and possibly two times if the—have some weeds come back. But usually one time, post-emergence, both in corn and soybeans.

And in soybeans, or corn, if we have a fungus problem, a fungus coming in, which in soybeans, it's usually—it could be rust, it could be septoria_glycines spot, some other diseases. If it's a cold, or it's a wet spring, or wet summer, we could spray a fungicide. We do our own spraying in the soybeans, but because the corn's tall, we don't have a high clearance sprayer, we'll have it sprayed by air. But we do scout our fields. At least every other day we're in a field, just to make sure—we're watching for insects, for disease coming in. So basically that's all we do. We spray in the fall, and we put our nitrogen on in the fall, we spray. We come in in the spring and we plant, and then we spray once or possibly twice. And then we harvest.

The only bad thing about—in as far as fuel time, or fuel use and time, is harvesting. We do the same thing as everybody else does. And it takes a lot of fuel to run a combine, and we do use a grain cart, and we have tracks on our grain cart which will not compact the soil. We really like that. So the contrast would be, a lot of the corn-after-corn, particularly. Anything after corn, the ground would be chiseled or disked, sometimes, first, then chiseled, plowed in the fall. And then come in the spring with, possibly, a leveling trip, and then another trip, right ahead of planting. And then there's hardly any cultivation anymore. Most people use just a—they spray a post-emergent material, or a residual material. So we basically save two or three trips with till—and the real expensive trip is the deep tillage in the fall, because the ground is usually dry and it's hard, and it takes a lot of power and a lot of fuel to till the ground down that deep. Where we just use a little skinny knife, what they call a mole knife, and put a nitrogen down, and that's the only deep tillage we do. And it's not really, it's just a band tillage. So that's the contrast. And the field use is probably... I would say, the combine, of course, would be the same. And the combining is probably about... and the getting rid of the grain is about half

your field use, even on a tilled farm. So I would say our fuel use is probably a little... maybe around a half of what a tilled farm would use. A heavily-tilled farm. And a lot of farmers now are maybe tilling a head of corn, and no-tilling their soybeans. So there is a lot of... but to me, that's not a continuous no-till, and you don't get the benefits of the earthworms and all the other stuff if you till every other year. And the soil porosity and the soil organic build-up and all that. So that's the big difference.

Warren: God, thank you. And one of the things you mentioned that you have a Bachelors degree as well as a Masters. Can you talk about your college education? Where you went (inaudible)?

Kinsella: Yeah went to Southern Illinois University. I think at that time, in the sixties, it was a very good ag school. I had a lot of personal contact with my soils instructor, Dr. Valver and became—I went there with the idea of studying soils, and I think I got a really good education. We had opened up a new farm up at Belleville at the time, and I worked on the college farm. And then I stayed there and got a Masters degree at same university, because I was already—I had worked at that farm, and I'd already started my Masters project even while I was an undergraduate. So I worked on the farm and I got to use the farm for my Masters. I think it was a... I know University of Illinois has got to be—got the best reputation in the state, but I think at that time, in soils, I think Southern Illinois was comparable. And the other thing that was... that I did learn a lot over at the Dixon Spring experimental station from George McGibbon, was doing a lot of no-till work when that was unheard of and it was really not even—they thought he was wasting time and money in the university scale. So he was a real innovator that really impressed me on what he was doing on that—what I call Class D soils. So that's my education, and I've been learning ever since. I guess every year it's an education in soils. It really is, because you just learn how to take care of them, you learn the shortcomings and what you can do, what you can't do.

Warren: And you mentioned this brochure, this booklet that—is that something that you've written, as well?

Kinsella: Yeah, I pretty much was the author of it. And I started this as the third edition and I just started—BSF was supporting it, and they let me write it. And they did edit it a little bit, I had to put some things in about their herbicides, of course, but it wasn't a selling point at all. Actually this is the Midwest Third Edition. We wrote one for the West Coast—or the Plains, and one for the Southern, and one for the East Coast. But I wasn't—they used mine as the basics and then some other people wrote those, but... Yeah, I wrote most—all three of them, actually. So I've done quite a bit—I've other work I did, I worked kind of with—in RCS a few years ago, they wrote a... oh, basically, conservation manuals for different parts of the country, and I worked with Dr. Mollenbrock at that time. So I've done a quite a bit of work in publishing different things on no-till. And I've been all over the world in meetings, I

guess. I kind of—Argentina, three times. And I've been to Europe twice, and different parts of Europe, and... They wanted me to go to Australia, but their seasons didn't work—it didn't work out that I could go, but we've had farmers from all over the world here. We've had herb farm groups. Romania, back when—even when the Soviet Union was still intact, we had a group from Romania. And it was the farm managers—the corporate—it was the—not the corporate farms—the company or the state farms, basically. And I traveled with him—and he didn't speak very good English at all, and I traveled with him. And he and the Minister of Agriculture of Romania was there. And we traveled—I picked him up at Indianapolis Airport, and we went all through here. We stopped at my father-in-law's, who still had a four wheel drive tractor over. And it was just—he didn't live on the farm, there was just this machine shed and start-up—and they wanted to see a four wheel drive, so I started up and just drove it out, drove it up and down the road, and let them drive it. And I found out later that they thought I stole it. (laughs) They didn't know it was my father-in-law's. He says, "He went in and stole the tractor and let us drive it!"

But anyway, that night, the one guy that was on the farm—that he was a farmer, and he was kind of the farm manager, I guess—and he was so interested in no-till, and he couldn't ask enough questions, and we went all the way across—we stayed in Bettendorf, Iowa. And about two o'clock in the morning, somebody's knocking on my room door. And he was—it was when the Soviet Union was still there. This may not be for total publication. But he through—the little bit of English he spoke, he was wanting to stay in the United States. And he saw this agriculture over here, what we were doing, and he wanted to know if there was any work here, if I could find him a way to get asylum. He kept on saying, "Asylum. Asylum." I didn't know what to do. I mean, here I'm traveling with the Minister of Agriculture of Romania. So I did—the first thing in the morning, I did call the Iowa State University to see what we—because they were going to go over there next. And I told them of the situation and who he was and everything, and years later, he contacted me from Romania after the Soviet Union fell, and he was managing that same farm now, and owning part of it. And he contacted me, and wanted me to come and talk at a field day over there or something. But I wasn't able to go, but it was just amazing thing, that he saw agriculture in the US, and saw it, and he kept saying—I can't remember, but it was like, "We're ruining our soil. We're ruining our soil." And they were. The collective farm was what I was trying to think of. And what he would—and he told me later, and what I've learned over the past—those soils are just worn out over there. And they would—they had all the—to keep them—they had a drinking problem on the farms, and they'd go out there, and... Well, the one time I was over there, it was in Eastern Germany, and we were on a collective farm. And they were just out in the middle of summer, there was just these tractors, there was like these old Bolerus or those—a Russian tractor. There's about ten tractors just going down the dust vine disking the weed ground down. And there were some weeds out there, and I said, "What are they doing?" "Well, they're

disking. They're—just, the soil was lacking, well it didn't matter anyway. And it's going to blow, and it's, well.. " And they finally have realized that—well, they're collective farms, they have way too much labor there. And to keep them from drinking vodka, they had to keep them busy. So they just send these guys out to disk. And the disk is the absolute worst thing you do to soil. I mean, as a soil major, the—oh my God, they're just ke—I said, "You're better off getting vodka and just let them drink, rather than tear the soil." But that's what—that was his big thing too, he says, "We're just ruining our soil, we're ruining our soil with the collective farms."

And now they have changed, and there is quite a bit of no-till over there. In fact a friend of mine was a—Horsct, have you heard of Horsct Manufacturing? Horsct, H-o-r-s-c-t. He was a manufacturer of farm equipment. And they had a farm in Germany, and he got really intrigued with no-till and strip-till. So every time he'd come to the US, he'd stop by here, and I talked to him about strip-till and what we were doing, I'd take him around and show him the farm, and they ended up—the company, when... And being a German company, they could buy this ground in East Germany really cheap. An outsider couldn't do it for that. But they got these—and he went over there and their company bought this 10,000 acre collective farm. They're all strip-till now, they're no-tilling it and strip-tilling it. And he—when they were getting that started, he'd call me about it. And he'd send me pictures, and e-mail me pictures, "Look at this soil. What are we going to do with this soil?" Just be a big block of—chunk of clay. And so I would try to help him (inaudible speech). You know, you need to get the fertilizer down to break it up—I'd go through the whole thing, and—because he really wasn't a farmer at that time, he was a manufacturer. And he—now they're very successful there, and they've got some... They've got, now, five or six years of no-till in Romania.

And he's the one that got me on Auto-Farm. Because I have Auto-Farm—Auto-Steer. And we were looking at a Deere system or a Trimble system. And he called me one day, because he knew the guys in California that—and he was kind of—start to—and he said, "You can't mess with Deere, you can't mess with Trimble, you got to get Auto-Farm." He said, "It's far superior." And he gave me this—Dr.Sashes. was developed the thing out in California—he gave me his name. He said, "Call him," he says, "He'll get you a system." So I called him—president of the company—and he said, "Mike Hurst told me—Oh yeah!" he said, "He told me about you!" So that's how I got—that's got me started on Auto-Farm. But he's farming all no-till in Romania, and now I—or, not in Romania, he's in East Germany. So, you know, it's been a—you know I got to work with a lot of people in a lot of different places, and just met so many neat people in the last—basically, thirty years. But I got—one thing I just got—you know, with the farm here, and it got to be where it would be a meeting in Ohio, and there would be a... And I was putting too much burden on my son, on our son, that I was traveling too much and we weren't—I need to be here, and so I just said—if I—just gave a few meetings, and say, "Well, you're in Ohio last year," it kind of generated more meetings, so I just

pretty much last year stopped giving meetings. So... but I would—I just had a lot of good times and a lot of good travel, and now... Well, one of the brochures was for our class reunion, they send out a little thing, you're supposed to send that little thing back, they're going to publish and, said, "Where have you traveled, and what was your latest trip?" Well, a little up here in Minonk, so well, my latest trip, really, was to Minonk for parts. I said, "Very scenic" Minonk's just up the road here about ten miles. (laughs) That was my latest trip. Everybody else has been to, you know, Mexico, Cancun, and... But I could care less, I'd rather go to Minonk for parts.

Warren: One last thing. You talked about your flying days.

Kinsella: Yeah, a little bit. I always loved—you know, from the time I was a little—I just loved airplanes, and I was always—objective was to get on the airlines, really. I was going to quit and learn to fly, and I had a chance when... I never did really have the money or time to get my pilot's license, and a friend of mine—in Parker Camp, actually, flew in the [National] Guard. And he was flying F-84s in the Guard when I was in college, or even before then. And so I got with him. "How can I get in the Guard?" Or, "How can I get--?" And so I went. He got me the right people to talk to down there. I went and finally got registered. I was just graduating out of... Got my BS, which was a requirement. I went to Cham—the big thing was passing the physical. Well I passed the physical very well, and my eyesight was really good, and so I got accepted, and we were—just got married. Well, first of all, they didn't have any slots and that was the Vietnam—the war was going on. So I couldn't get a slot, I had to go to [National] Guard meetings down there, just sit there and we'd—I'd get to talk to all the pilots, and when these slots come, and... We were living in Wisconsin, my wife was teaching second grade. And we're waiting—and that was Vietnam War, of course, we weren't—didn't know about that too. So I got a call that this was on like a Tuesday, that I had to be—next Monday morning, I had to be in Lubbock, Texas for flight school; I got a slot. So I had—my wife was—this was like, ten o'clock in the morning, so I had to go and tell. I said—I went and got her out of class and told her, and she said, "Well I got to talk to the principal." And so she left me with these twenty-two second-graders (laughs), and that was my one reason I don't—. And they were all real quiet and everything. And of course, she was young and I was young—you know, of course at that time, she was right out of school and I was going... She told them I'm going to go to flight training, and she just walked out of the room, and these twenty-two kids just... they're sitting up on my desk up there. I mean, I didn't know how to control them. (laughs) She was gone for probably an hour, I had these kids in there, trying to get them in their seats, trying to get them back on some sort of... And she was up there, trying to explain to the principal that she was going to be gone for next Monday.

So we took off in her Corvair because I had a company car I had to turn in. We took off in a '56 Corvair to Lubbock, Texas with no money. (laughs) And

start at flight school. And we got there at about two o'clock in the morning. And I'd heard from other guys that had gone that if your wife teaches, she'd better get a job early because a lot of these wives will teach. So I get up early, called the—finally got the president or the school board or something at Lubbock schools, and they said, "Well, yeah, we do need—we got one position still open. Could she be here by nine o'clock?" I said, "Sure." So we travel all night. Been married a year, almost divorce court. And I told her, I said, "You got an interview." I woke her up, and I said, "You got an interview in an hour-and-a-half. For teaching." And that was nearly a divorce court. But she was the only one in the class of some that got a job, and she was—because she'd just had to either work at Wal-Mart, or—there wasn't Wal-Mart, but... So she got a teaching job, and so that really kept us going.

Of course in flight school, we went for a year. And in the meantime, she got pregnant and had to come home because the baby was due about the time I graduated—I didn't get to my graduation. Chris, our oldest daughter, was born about two weeks after I got graduated. Flew out of Springfield in training. In fact, I was flying the day—it was kind of—I got called, I was up in the air on a training flight with an F-84, that, "Lieutenant Kinsella needs to get back on the ground as soon as possible. His wife is on her way to the hospital." So we—I was out in the flying area, out there in the air area, and so I had to divert and came running home, and our daughter was born. Flew out of there in gunnery training for six months, and went down—flew out of St. Louis, which had a better gunnery school. And flew 84s for five years, and then we got F-4s. And we were supposed to go to Vietnam, that was—then we had two daughters, and we were scheduled to get F-4s, and the next step would be to go to Vietnam. Well, we went to George Air Force space in California for training in F-4s, and got checked out in F-4s, and they got back to base, and that's when the Tet Offensive hit over there. You may not remember that—you do. And they shot up so many F-4s that they had more pilots—they didn't have the planes for us when we got there.

Because we were just going to go over and not—we were actually flying RFs was just to keep us current. So we never did get to Vietnam, which was fine with me. But we got to fly F-4s. To me, the best flying though, was the F-84. Single-seat fighter over central Illinois with just unlimited BFR rules. And that was when Vietnam was heating up, and they were getting shot down with SAMs, and so our training was really to low-altitude bombing. And we'd come in over the treetops, down around Havana and the river and do low-levels, and we'd come up, you know, and spot something and just—it was like, really training. One of my memories—and I'll just be real short on, but—one Sunday morning, a flight of 84s, we're sam—what they call, "Wreckie in the river" looking. And so you'd see something, and you'd say, "Get that bridge. Here's a bridge, I'm going to knock it out." And the lead would come in with (laughs)—they said—or, Pat Riley was our lead, he was a Kurt, he said, "Sam Pan, two o'clock, take him out." So there's two guys out there in the middle of the Illinois River, fishing. I'll never forget this as long as I live. I was Three,

there's four-ship, and Two rolls in on him like this, and—I mean, then, there was no li—it was as low as you could go, that was our training. And Four comes in—or Lead comes in on him, and Two rolls in on him, and I'm Three, and by the time—I can still picture this as clear as it was that day. They apparently couldn't get the motor started, but they—I could see the two guys were rowing, and I mean there was water flying about that high. They were heading for shore, and they were rowing, and the wake was—I mean not the wake from the oar. I can still see that guy—we were close enough, you could see their expression. And the one guy in the back, he had those oars going, and the water was flying ten feet in the air. And I can't imagine what those guys thought was...

But we did a lot of that stuff back then, when there was no rules. VFR, you'd just go out, we'd go—we'd go air-to-air. A four-ship. And St. Louis had F-100s and we had 84s, so they could whip us if they were really good, but we thought we had better pilots. So we'd go out to be an air-to-air mission, which you'd go out, you'd break into two flights of two, and you'd separate and you go back, you count to five—one thousand, two thousand, five—and you come back in on each other, and then the two would fight. Well, we'd get out there, and the 100s are nowhere out there, you hear on the radio, or we'd know they were there. So why wait? We'd go out there and fight the 100s and I mean, some days, you'd get down in the treetops, and they'd be chasing them down just like a real—I mean, it was real live dog-fighting. But those were the days, though, I mean, nobody... And Vietnam going on, it was an air-to-air location, and everybody that...

And I worked with farmers later out there. Well, I worked with BSF, and I worked with farmers, and I say, "Yeah", I said. You know, and one of the sales reps was—Bob Gordon, I'll never forget that—he was out there. We were out there along Havana or something, and—maybe a complaint. And he was telling, "Well, Jim—" you know, he's the market development guy, and he says, "He flies in the Guard, and you know, you've probably seen him fly." "You sonofabitch!" he said, "Are you one of these guys that flew over—and I had chickens, and my turkeys, and you killed half my turkeys!" So that didn't go real well. I told board ref that, "Don't ever mention, when you're out in that air-to-air area, that I ever flew, because I'm sure we got a lot of guys mad down there." So that's the story about the flying.

Warren: Great, thank you.

Kinsella: But it was really fun, and I guess it was—at the time, it was a lot of work too, and we had... Especially with the F-4s, and Vietnam coming. The new technology—you know, laser bombs were coming in, and computerized bombing, and things. So we had to—during that period, that was the hard part, because we had the same regulations to keep up on that the regular Air Force did. We had to have the same number of aerial refuelings, we had the same number of bombs, you had to qualify on strafing and bombing and all that

stuff, and with two kids, a full-time—three kids then—a full-time job, and farming. (laughs) I didn't have a lot of time. But it was a real experience. I wouldn't trade it for any—I wouldn't trade the farming, I wouldn't trade the flying. I guess the working in industry was just a necessity that's paid for all these other—these hobbies, I guess. (laughs) Paid for the farming and the flying. And the flying, you made decent money on the weekends, but it sure wasn't going to support a family. But that was a part of life experience, I guess.

Warren: You ever think of the comparison between your jet versus your John Deere when you go out in the field?

Kinsella: Here's the comparison, was back then, I would be on the tractor—and then, I mean, we didn't have air-condit—we started with minim—I had a five-sixty. With no cab, and a four-wheel corn planter. And I'd be out there, and I planted at maybe five mile an hour, maybe. Say this would be a typical day in May, I'd plant all day, maybe get up at five o'clock, plant all day at five mile an hour in a snowmobile suit or something just to stay warm. And then, I had a little—one-fifty Cessna parked over here—we had a little airstrip here. And then I'd go five mile an hour, and then I'd jump in... I had maybe a—it would be Friday night to get your three drills in, and in five flights, you'd fly—Friday night, get night refueling. Friday night refueling, and then... Usually at night, you had to refuel just to keep your re-fueling up if the weather was decent. So I jump in my one-fifty, and go, maybe, 110, 120 knots or miles—130 miles an hour down to Springfield. Land down there, and then, within an hour-and-a-half, I'd be sitting in a flight suit, in an F-4, launching off at... You know, we'd take off at 220 knots, and then we'd be—and be up there refueling within two-and-a-half hours from when I got off of a five-sixty, looking at a corn row, I'd be up there looking at a tank or a KUC 135 with fire flying out of the damn thing, and a guy out there and a boomer, and I'm trying to—and you just—the transition was just amazing. And I really needed a little airplane to kind of get me from the five mile an hour, to the 600 mile an hour. I needed to go something—110 or something, so I get my speed up. But then to come back. Fly Friday night, two days—two flights on Saturday, and usually air-to-air was Sunday, you go out air-to-air fighting. And then that was a real transition. You might go over Lake Michigan—you refuel, go over Lake Michigan, and then it was—you could break the sound barrier. Then you could go unlimited. And what you'd do then, you get two flight of two, and we'd be going mach one, two, or something, and go meet each other at that speed, and then that's when the fight would start. And you'd go canopy to canopy. And the transit that—the revelation of speed is still incredible to see somebody going 600 miles an hour, coming at you. And so it's 1,200 mile an hour—and to see this little dot in the sky, the dot, the dot, the dot, and the plane go by. And to see that speed, and then get on a damn tractor, and take you a minute, or two-and-a-half minutes to go a quarter mile, was just amazing. I mean, it was like you had to re-program, you know, from the weekend. And I know that. And then Monday you get back on that planter, and it's like, "My God! Am I ever going

to get to that end? I can see it out there but it's not coming any closer!" But that was the real change, I guess. I guess that got my, you know—I always had... And my daughter, one daughter is the same way. She bungee jumps and jumps out of airplanes. I had to have that thrill segment in there too, I guess. But I always wanted to fly, and that was the—I got that out of the way, and it took me about thirteen years, but I finally outgrew that little part of it. And I had a motorcycle when I was in school and stuff like that. I always wanted to—speed was kind of a thing, I had enough speeding tickets to pack up here. That was always our excuse, was... Well I've lived in Wisconsin and if it wasn't good to fly, that was when we were working for Libby, and I'd have to drive all the way—work till Friday noon and drive all the way to—and on 51 before they had I-39, I'd have to drive all the way to 51. And I'd always—I put my flight suit on up there, because I knew I didn't have enough time, and then if I did get stopped, I had an excuse. That we got a drill going on, and I got to get there. And more often than not, the cops would let you go if you had a flight suit on. (laughs) Then I started wearing the flight suit when I wasn't going to Guard. But that worked a couple of times, but they kind of got on to that one too, I think, so.

Warren: Well it's been one heck of an interview. It's really been interesting.

Kinsella: Well, thanks for coming, and I'm... it was a lot longer than if it hadn't been raining outside. I might've shortened it up a little bit. But I hope it wasn't too long for you.

Warren: Thanks again, we really appreciate it.

Kinsella: Well, thank you. And thanks for coming up, and making me a part of this. Hopefully I've been a little bit of an influence on Illinois history. I don't know how much, but. (detaches mic)

Warren: We were interested. Are there copies of this that we could—?

Kinsella: Yeah, you can just take it. I got (inaudible) left.

Warren: And one other request. Would you be willing to take us outside so we could film your tractor, maybe, point out some of the key aspects of it?

Kinsella: Oh sure. Sure. (pause) This was actually—this one here was me.

Warren: Oh yeah?

Kinsella: And that one was when we were—went out cross country, out over the Grand Canyon. And I'm not sure where we were right then, but we had—it was five of us, and the guy had a—he was the information officer, and he'd take a bunch of pictures.

Warren: He's the one taking the picture? (laughs)

Kinsella: This one here—let's see, where's an F-4 one (inaudible speech). (Inaudible speech) somewhere. That was actually... (pause) Oh.

Warren: Oh, this one over here?

Kinsella: Yeah. That was actually me taking the picture of my wingman here. I'm sitting in there and put on the autopilot and I thought, That's a really neat picture. And that's what you would want. When you're flying, of course, that star, that's how you float formation, is you put the wingtip in the star.

Warren: Oh I see.

Kinsella: And that was the—and if you see a star on all those planes, that's what—where that star is, you put the wingtip on the star, and then anyplace you go, you just follow up the tangent onto that thing. And then if you're flying, like for... If we would... like if you're flying echelon, getting in to land, you'd bring that wingtip up to right about there on the back, so you'd be almost lying abreast, not quite. But that little wingtip in the star, that's what you'd see, and that's how they—that's how you steep that position. And if you're coming in and you're joined up, you just get on that tangent and you just follow that wingtip and the star, and then you'd come in, and join up.. You see these like, every air show, like what the Blue Angels over in Joliet three weeks ago. And those guys are good. I mean, they're joined up like that, as fast—that was the impressive thing to me, is the pilot, is they would—they have solo, or four would be out, or five, then they'd all join up. They'd go, you know, they can do the starburst thing, and they'd join—and that's really deceiving, is the depth perception to come in... And you can come in kind of slow, and you kind of get your... Those guys would just sit there, and they'd just come in there and stop, right there. That just amazed me, how good they are. And they're actually better than us. I think the Blue Angels are better pilots, actually, or at least, I thought. We thought the Thunderbirds last year. And I really think the Blue Angels are probably more highly... they weren't quite as smooth, I guess, as in-formation. The Thunderbirds, I mean, they are just perfect. And Blue Angels are just a little... and their plane's not quite as air-worthy either but stable. But those guys are just good pilots, I mean. And they may be taking (inaudible speech) kill one here about two months ago, but they take a little more chances too. Maybe that's what makes them look good. But that impressed me so much, how quick they can join up.

Warren: Well maybe if we go out—Could you put this back on, then? Maybe you could clip it to your belt or even to your pant pocket? (sounds of mic being reattached)

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