

Sylvan Wittwer

November 30, 2000

Jeff Charnley,
interviewer

Charnley: Today is Thursday, November 30, the year 2000. We're in Logandale, Nevada. I am Jeff Charnley, interviewing Dr. Sylvan Wittwer for the MSU [Michigan State University] Oral History Project for the sesquicentennial of the institution to be commemorated in the year 2005.

As you can see, we've got a tape recorder here, Dr. Wittwer. Do you give us permission to tape this interview?

Wittwer: I have given you permission.

Charnley: I'd like to start first with some personal background and educational background. Where were you born and raised and where did you go to school prior to college?

Wittwer: I was born and reared in Hurricane, Utah, in 1917, I presume during the first World War. I went to high school at the Hurricane High School, graduated there in 1935.

Charnley: What was that community like when you were growing up?

Wittwer: Of course, I grew up during my teenage years during high school during the Great Depression. It was a very depressed area. The community was about a thousand people. We were poor. If we didn't grow it, we didn't have it. We produced about everything that we were

able to have to eat. We had no supermarkets then. We had a grocery store, perhaps, maybe a drugstore, but we seldom went there because we had no money. Much of the trade that we encountered, of course, was by barter.

We were on the farm, and we produced milk and eggs and meat. Often this would be bartered for essentially groceries or, let's say, ice on Sunday to make ice cream--

Charnley: That was essential.

Wittwer: --which happened occasionally. But there were some things that we did have to purchase, and this was often done by bartering and by selling and peddling the fruit that we had in southern Utah at that time, taking it further north into Cedar City. I went often during the growing season, during the summertime, with my father to peddle fruit. That was a small source of money income, cash income.

Charnley: Did you have a specialty fruit?

Wittwer: Well, a vegetable and fruit farm, and also, as I said, if we didn't produce it, we didn't have it. So there was grain and alfalfa. We had livestock, which was, of course, maintained by the crops that we produced or the pastures. The meat that we were able to have was meat that we produced ourselves, chickens or pigs, as we called them, and beef, and eggs, of course, that were available, milk that was produced by the cows. We were poor in those days, but we didn't know it because everyone else was poor.

Charnley: Did you go on to college right from high school?

Wittwer: I was inspired while in high school--I was in what they called the Smith-Hughes area in vocational agriculture--by a very fine teacher by the name of Elmer Graff. He often talked to me. "Sylvan," he said, "you could go on to higher education. You should go on to obtain a doctor's degree in agriculture." It was through the inspiration of that vocational agriculture teacher, who was also the basketball coach, to go on to college. I owe a great deal to him and also to my parents, who, likewise, encouraged me to do so.

Charnley: Did you play basketball?

Wittwer: I didn't play basketball. I despised basketball. It was the only athletic sport in the high school I went to. There was no track. There was no football. There was only one competitive sport, and that was basketball. And I hated it.

Charnley: But Mr. Graff was the coach.

Wittwer: He was the coach, but he was also the vocational agriculture teacher, and it was through the vocational agriculture program that I was inspired to go on to further my education.

Charnley: Where did you do that?

Wittwer: That was done at Utah State, what was then Utah State Agricultural College, in Logan, Utah, now, of course, Utah State University. At that time, the University, or the college, Utah State Agricultural College, had a total enrollment of about 2,000. Of agriculture, of course, horticulture was an important department, and there I had the opportunity to have as an advisor Alma Wilson, who was also an inspiration for me to proceed to go on and do graduate

work.

In the meantime, of course, I fell in love and married my sweetheart. We were married after I had completed my junior year. We, likewise, stayed on so that she could receive her degree. In the meantime, there was a baby came into the family. I enrolled in 1935 at Utah State Agricultural College. In 1940, I applied for graduate work at three institutions: Texas A&M University through contacts I had at Utah State, and also to the University of Missouri in Columbia, and also Cornell University. I received the same offer from each one: 600 dollars a year as a graduate research assistant, half time. The price was the same, 600 dollars a year, 50 dollars a month.

In 1940, then I departed for the University of Missouri. I selected that university primarily because of the professor that I'd be working with, who was Dr. A.E. Murneek. So in 1940, in September of 1940, I, with a wife and a child and all the worldly goods that we had with a few cardboard boxes, we departed with the help of a friend to the University of Missouri in Columbia and arrived there.

To me that was a dramatic change. I'd never been east of the Rocky Mountains. It was hot and humid, and we'd never experienced that kind of a climate. Of course, there was an entirely new group of people, an entirely new group of professors, a new university. It was a real challenge. But we pursued this, and graduated in 1943 with a doctoral degree in agriculture.

Charnley: What was your dissertation research?

Wittwer: My dissertation had to do with the physiology of reproduction in higher plants, with special reference to synopsis and syngamy. It became published in its entirety as Missouri Research Bulletin 371. It was reprinted several times and considered by some of my professors

at the University of Missouri as a classic, but published intact, no alteration at all. Took my thesis and published it as a bulletin, the entire thesis.

Charnley: How did you come to that topic? Were you steered in that direction?

Wittwer: First of all, it had to do with horticultural crops. [unclear] horticulture, and my major professor suggested the problem, the area, and it was an area that I was very interested in to begin with. Actually, it involved the identification, in a very crude way, of naturally occurring growth substances or hormones in plants, phytohormones, that stimulated reproductive responses in plants such as flowering and fruiting.

One of the outcomes of this was the isolation, with the cooperation of people at Caltech in Pasadena, California, in the isolation of a new compound, indoleacetic [phonetic] acid, which is a naturally occurring plant growth hormone.

Charnley: How was that used?

Wittwer: It's used to extend the growth of flowering and fruiting, growth in plants. Of course, from this many other analogs were derived that were even more effective in that naturally occurring. This often happens in the isolation of food materials, native materials from plants, that there are sometimes chemical analogs that will be somewhat superior in certain reactions than the original material.

Charnley: What happened after your dissertation and your degree?

Wittwer: I was encouraged to stay on at the University of Missouri. Well, then, actually at the

University of Missouri I earned 600 dollars a year, 50 dollars a month, with a wife and child, which was a challenge in itself, even in those days, and was able to, with the aid of renting apartments and managing them and also growing a garden in Columbia, Missouri, in obtaining that degree without financial debt. With a wife and a child and a degree in 1943.

After that, I was encouraged to stay on in the department as an instructor, which graduated my salary from 600 dollars a year, 50 dollars a month, to 1,800 dollars a year. In other words, a threefold increase, which was dramatic in those days.

Charnley: Were you living like kings?

Wittwer: Not quite, but we were fortunate also in being able to obtain a home without a down payment for 3,500 dollars a year, including taxes and utilities. Well, not utilities, but taxes and insurance. That's 3,500 dollars total cost, \$43.50 a month.

Charnley: You remember the payment.

Wittwer: Which covered the interest, which covered the payment on the home, and also covered insurance and taxes. In those days, we didn't income tax, as I recall. As I recall, also we didn't have to driver's license for cars.

Charnley: In Missouri.

Wittwer: Or Utah.

Charnley: No driver's training?

Wittwer: Well, there was no driver's training. In Utah, my father purchased a car before I departed for college in about 1926. I must have driven that car when I was probably ten or eleven years of age or younger, without a license.

Charnley: My grandparents had purchased their first refrigerator before they had electricity. It was waiting on the porch.

Wittwer: We didn't have a refrigerator when I grew up. We didn't have a radio until I was in high school. Of course, television was unheard of.

Charnley: How did you preserve most of your food?

Wittwer: The food was preserved by salting or by processing, canning, bottling, as we called it, and just dehydration. Of course, the meat we had on the farm. We would slaughter the animals as we would need them.

Charnley: Keep it fresh.

Wittwer: By salting the bacon and so on, with pork you could keep it through the winter. We also, in those days, my father would go deer hunting and would get fresh venison, at least in the fall of the year for a while. We also had rabbits and squirrel, rabbits and quail we'd shoot. We didn't have restrictions then in terms of wildlife then that we have now.

Charnley: Hunting for subsistence was common.

Wittwer: Hunting was a common process. We didn't have coal in my hometown of Hurricane. First time I saw coal was when I was in high school. We obtained our fuel by cutting wood in the nearby mountains, the Little Creek Mountain. We'd go out and cut down the cedar trees and the pinion pine trees and haul them in and use them for firewood.

Charnley: How far away was that?

Wittwer: About twenty miles. That was the source of our fuel.

Charnley: By horse and cart?

Wittwer: By wagon.

Charnley: How long were you at the University of Missouri?

Wittwer: I was at the University of Missouri until 1946.

Charnley: Then where was your next stop?

Wittwer: Next stop was Michigan State University.

Charnley: How did you first hear about Michigan State University?

Wittwer: Well, I attended a meeting. I attended a meeting, a horticultural meeting in St.

Louis, Missouri. At that meeting, I gave a paper concerning my research at the University of Missouri, which at that time had graduated into growth regulator or hormone effects on plants, which was considered of considerable interest at that time in a national meeting of the American Society for Horticultural Science. This was, of course, a very small society in those days. One probably very near could have been a charter member of that society. For the entire United States, there was not a large number of people, maybe thirty or forty people there. I gave a paper. There were those there that were present from Michigan State University, including Dr. H.B. Tukey and Robert Carolus. They visited with me very briefly. I just came to know that they were there.

After the meetings, I received a letter from Dr. H.B. Tukey, inviting me to come to Michigan State University for an interview as assistant professor of the Department of Horticulture. I went for that interview. I remember I took the old Grand Trunk Western from someplace in Missouri, I think it was Centralia, to Chicago and then on to Lansing, Michigan. I'm not sure whether the old Grand Trunk Western is still a train that goes into Lansing, Michigan, or not.

Charnley: I took Amtrak from Leslie or Jackson to--

Wittwer: When I arrived in Michigan, I was disoriented by a ninety-degree angle. In other words, the sun was setting in the north instead of where it should have been. I was disoriented for the fifty years I was in Michigan as a result of that. Never did get myself straight oriented as long as I was in Lansing. But when I left Lansing, outside of Lansing, I then became properly oriented with respect to direction, which resulted in me getting lost in Lansing even up until the days I left.

But at that time, I was met by Dr. H.B. Tukey at the train station. We had breakfast

together, then proceeded to go out to the university to be interviewed. In that interview, I was interviewed by Director B.R. Gardner, the director of the Michigan Agriculture Experiment Station, one of the famous horticulturists of the past. I was also interviewed by Anthony, Dean Anthony. What's his first name? I can't remember his first name. Dean Anthony with the College of Agriculture. I was also interviewed by John [A.] Hannah, who was then the president of the university. And also, as a guest in the Horticulture Department, a Mr. Armstrong from Sunkist Corporation in California, was also a guest when I was there. So I became acquainted with him. I remember B.R. Gardner had his office, the director of the Agriculture Experiment Station, in the Horticulture Building, a temporary spot for him.

Then I returned back to Michigan. Michigan State, of course, paid my way to come to Michigan to be interviewed. Then pretty shortly after I returned, I received a letter from Dr. Tukey, inviting me to come to Michigan State University and join the staff as an assistant professor for the total of 3,800 dollars a year. And I thought that was an enormous increase over 1,800 dollars. Well, of course, that sounded real good, and so we departed.

It was difficult to find a place to live in those days. Dr. Carolus said, "If you'll come to Michigan, we'll find you a place to live. We'll find you a house." In the meantime, I had a house in Columbia, Missouri, at 109 McBain Avenue, which, incidentally, is still there. We went back this week in Thanksgiving in St. Louis, Missouri, and went to Columbia, saw the old house at 109 McBain Avenue in Columbia, Missouri, and the house is still there. That was the house we purchased without a down payment for, I think it was 4,200 dollars.

Charnley: And it's still there.

Wittwer: It's still there. That was in June of 1946. We were offered to come either July 1 or September 1, to Michigan State University as an assistant professor in horticulture. We decided

on the date of September the 1st. So we departed and arrived in Michigan September 1st of 1946, with a tremendous salary increase. By that time we had a second child, two little girls. Of course, having been in Missouri some six years, we had many friends in Missouri, and it was a little difficult to leave there, but we immediately made friends in Michigan.

Now, one of the interesting sidelines to this story is that when I was invited to Michigan, they thought I was someone else. There was another professor, another young man at the University of Missouri, by the name of Ray Schroeder, and they thought they were inviting Ray Schroeder, and I showed up instead. I didn't learn of that until years later. But my appearance there was impressive enough that they hired me. [Laughter]

Charnley: That's amazing.

Wittwer: That's a true story. I didn't learn that originally.

Charnley: How did you find that out?

Wittwer: Someone told me at Michigan State. I don't know whether it was Dr. Tukey. I think it was Dr. Tukey. That was an interesting introduction.

At Michigan State University, of course, things went very well.

Charnley: How would you describe the campus in those early years?

Wittwer: Well, Berkey Hall was being built, and it was used entirely for a classroom, because the great deficiencies at Michigan State University were classrooms for students. There was an enormous enrollment that happened in 1946. About 10,000 students arrived, 10 to 12,000

students. That had not been the case during the war years, and they were hiring lots of people. Just placing the whole classes was a big challenge. That's what Berkey Hall was used for. I think it's still used for that purpose. If Berkey Hall still exists there.

Charnley: It does.

Wittwer: Across the street from the Horticulture Building. There was just enough teaching capacity. Of course, they lacked professors and lacked space. This was during the great and grand period of John Hannah when there were many buildings being under construction. Many buildings were being planned and developed. The auditorium. The greenhouses back of the Horticulture Building were the only greenhouses on the campus. In the Horticulture Building itself, there were no chemical laboratories, only one big one that was used by everybody.

One of the first things that I did rather early in my career, in the 1950s, was to make an application to the National Science Foundation for something like, I believe, 150,000 dollars to refurbish and construct, build, get some laboratories in the building, teaching laboratories, research laboratories. That was one of my first successful endeavors was to persuade the National Science Foundation to make a sizeable contribution to the development of laboratories in the Horticulture Building.

Of course there was another adventure when Dr. Tukey at this time had, with the Michigan State Horticultural Society, the intent of obtaining a million dollars, a million dollars to remodel the Horticulture Building and to initiate the building of new greenhouses, which came to be known in about 1950 as the finest greenhouse structures in the United States, known then as the plant science greenhouses out on Farm Road. They are still there, but, of course, have had many other facilities added to them since then.

I remember that Dr. F.W. Went, from the California Institute of Technology, came by as

a guest. F.W. Went was a very famous plant physiologist, and he commented, he said, “You have the finest greenhouse facilities in the United States.” This is when Dr. Went was at the California Institute of Technology and had developed the so-called phytotron. That, of course, was a very good facility.

Charnley: Dr. Tukey was successful in that fund-raising?

Wittwer: Yes. Dr. Tukey was very successful in fund-raising. He was a good department chairman.

I enjoyed every moment I had at Michigan State University during the some forty years that I was on the faculty. I stayed ten years after I stepped down from being the director of the Experiment Station. During those forty years, I was associated with Michigan State University, every year I was given a salary increase, which is more than I thought I deserved. I was more than satisfied with the way that Michigan State University treated me. I owe a great deal to Michigan State University for what it's done for me, for the privileges that I had there and the opportunities I had, the research facilities I had, the money I received from the university, the support I received from the university.

Charnley: Dr. Tukey recognized your abilities in research?

Wittwer: Dr. Tukey recognized my abilities in research and in teaching, very much so. The dean did. The director did. Following Director Gardner, of course, was, I believe, Cliff Horton [phonetic]. Then Cliff Horton became, later, the Secretary of Agriculture, became the dean in the College of Agriculture. He, in turn, was followed, as I recall, by Lloyd [M.] Turk.

Charnley: Did you replace him?

Wittwer: Yes. Well, that was a situation that Lloyd became somewhat nonfunctional. When I went in as director of the Experiment Station, I didn't want it.

Charnley: What year was that?

Wittwer: By the year 1964, probably about eighteen years after I arrived at Michigan State University, there was a need for a new director of the Agriculture Experiment Station because Lloyd just wasn't doing a good job, had problems. Dean [Thomas K.] Cowden, who was the dean at that time, he followed Cliff Horton. Tom Cowden, T.K. Cowden.

I had good relationships with all the deans and the directors and the professors there. But Dean Cowden called me over several times. Well, in the meantime, of course, Dr. Tukey passed away--or was retired. He didn't pass away. He retired, had to retire. He was replaced by John Carew [phonetic] as chairman of the Department of Horticulture. John Carew was a good department chairman. But then after a few years, he got a brain tumor, malignant, and he died. But prior to his death, two or three years before that, this was when Cowden was inquiring about a director of the Agriculture Experiment Station. He called me over several times. I said, "Dean, I'm not the man." I said, "I've recommended to you now several times, I've recommended--" and I'd run down the list. I said, "I don't want it."

He said, well, the last time he was there, he said, "All I want to know is whether you're interested or not."

After he'd done that three or four times, I said, "Dean, if I tell you I'm interested, that's a commitment. I don't want to make that commitment."

Well, anyway, he finally persuaded me to say I would be interested. I think to myself,

and I said, "Look, will I be able to look at myself in the mirror the rest of my life if I don't respond to this?" But I didn't want it.

At that time, I had--well, let's see just a moment in my history. I had several postdoctorals, I had several graduate students, and I had a separate laboratory. I had all the research grants I wanted, and I was a full professor. I did what I wanted to do. But anyway, at that time, well, here's the group right here. This would be of interest. It's in my history. It's called "the Great Group." This was by one of my graduate students, Aubrey Tannan [phonetic].

Then over here it says Aubrey Tannan is written a little of my history also. There he talks about "the Great Group." So I had what I wanted, and I was getting research grants from NSF [National Science Foundation], and I had the postdoctorals all over the world.

I was ready to depart on a foreign trip for about five weeks. I'd been invited to go to Ethiopia, to the Netherlands, Italy, to Lebanon, and to Turkey for a series of presentations of former graduate students that got in the act, you know. Cowden got wind of it, of course. He was the dean. It was about the middle of May, and he said, "I want to see you before you leave." We met in Kellogg Center, had breakfast there. I remember that Cowden was there and the provost. Who was the provost at that time?

Charnley: In 1964?

Wittwer: Yes. Well, he was there.

Charnley: Okay. We'll look it up.

Wittwer: And the president showed up. I said, "Oh, this is it." So they wanted to know, "Are you interested?" I said, "Yes, I could be interested." And I left. That was in the

morning, and at ten o'clock I was on my way to Detroit International, over to the Netherlands. I didn't come back until about the middle of July. Of course, when I--

[Begin Tape 1, Side 2]

Charnley: This is side two.

When the tape ended, we were talking about the Ag Experiment Station and your becoming director. When was it effective?

Wittwer: August 1, 1964, as I recall. I think that's right. Well, anyway, at this point I had all these students, postdoctorals, and I had to move my whole office and headquarters over to Ag Hall and occupy the office that Lloyd Turk had occupied, which was in itself a little odd because Lloyd was promoted down as associate director. Lucille Adams had been his secretary now for years, and now I was the head honcho, which placed me a little bit of a--but Cowden came in, "We want people to know that you're the director." In other words, I had full support.

I asked Tom, I said, "Would you support me? Do I have your support if I'm in this Experiment Station?"

I asked Hannah that also. Hannah said, "I know you can do the job."

I said, "What's the job?" I asked Hannah, "What's my job?"

He says, "Sell agriculture and eliminate all the nonessential projects you have in the Experiment Station." That's the research projects. Of course, I tried to do that for twenty years.

After that, I was in a little awkward position. I was placed in an awkward position by the dean. He knew it and I knew it, but we worked it out. I had a very pleasant association there with--of course, Tom Cowden is deceased now. He took a job about six years later and

went to the Assistant Secretary of Agriculture with Cliff Horton up in Washington.

We had a new dean, Dean Larry Boger. I think Boger is still living, isn't he?

Charnley: Yes. He's in Oklahoma, and I have to schedule an interview.

Wittwer: I would think so. Boger was a fine dean also. We differed. I differed with all the deans in some ways. But I told them, I told Cowden, I said, "If I'm director of the Experiment Station, I'm going to run the Experiment Station and you won't." He had been doing that, you know. Had to. Of course, that was pretty much the pattern that we followed for the time that I was in the Experiment Station.

Charnley: What had been the emphasis prior to you taking over in, let's say, maybe the ten years before, in terms of research?

Wittwer: Well, there'd been very little in the way of federal grants, as I recall. I was very critical of the Agriculture Experiment Station. In their publications, one of the things I did very shortly after I became a director, is I eliminated one of the publications that goes out regularly. I can't remember what the name of it is.

Charnley: It had been published?

Wittwer: It had been published for years. I can't remember what it is.

Charnley: We can check that.

Wittwer: That was one of the first things. Getting public relations people in there that could advertise and sell the programs. I spent a great deal of time myself out giving talks and meeting the people, going out and seeing what the research people were doing on research projects, on campus and off, in the outlying field stations. In other words, the director for research ought to be where the research is, and we didn't have that.

I initiated a competitive grant program in the Experiment Station within the university itself. Our budget was low. We went to the state legislature and spent a lot of time in budget hearings directly with the legislature and with the governor's office. Our research budget was low. We had about a five-million-dollar budget when I went in there. When I left, we had thirty-million dollars. In other words, we worked with line items, specifically, research projects that should be done in Michigan with state funds.

Charnley: Did you find Governor Romney was receptive to that?

Wittwer: Yes. He was the governor at that time. Incidentally, he's gone now, too.

Charnley: Yes. His son was just recently elected as a board of trustee member.

Wittwer: That must have been Mick.

Charnley: Scott Romney.

Wittwer: Scott. Well, Mick, of course, is running the Olympics, Salt Lake for the Olympics.

Charnley: Right. And Scott was just elected for the board of trustees.

Wittwer: That's good. I didn't realize that.

Well, Romney was the governor then. He was receptive, not unduly so. I knew Romney. I had personal acquaintance with Romney. I was involved in the church with Romney, so we knew each other. But we dealt primarily with the legislature, with the--I forgot the finance committees.

Charnley: Nick [Dominic J.] Jacobetti.

Wittwer: Jacobetti was one. Garlaine [phonetic] from Flint was chairman of the Appropriations Committee in the Senate. I did a lot of work with Garlaine, letting him know what's going on, why we needed it. In other words, this was important for Michigan, the research we were doing. We spent a lot of time educating the legislature. At this time, also a very important component.

At the time I went in as director as the Experiment Station, Pat Ralston was director of Extension. Pat Ralston was not too effective in going about funding. Is Pat still alive?

Charnley: I don't know.

Wittwer: Well, anyway, he was my cohort. We had three budgets, of course: we had the university budget, we had the Experiment Station budget, and we had the Extension budget. Three separate budgets within the university. But Pat was replaced by George McIntyre [phonetic]. Is George McIntyre still living?

Charnley: I don't know.

Wittwer: Probably not. But George McIntyre, he was former director of agriculture, in the Department of Agriculture, Michigan Department of Agriculture director in the State Department. George McIntyre came, and we got along wonderfully well.

At this time, I also introduced visual aids. I used visual aids in giving talks out in the state, slide projectors, showing visually. We received a lot of demand for this, took up a lot of my time going out to the counties and going out to other states and, you know, giving visual aid presentations. Of course, this was going back to Hannah's thought: sell agriculture, sell agriculture research. Well, lot of people to sell agriculture research to. Got to sell it to the people, got to sell it to the legislature, got to sell it to governor's office, sell it to the national level. So we spent a lot of time doing this, and I used new technologies to do it. Used the dissolve unit. It was the first time they ever experienced a dissolve unit.

Charnley: With the slide dual.

Wittwer: Yes. Then, of course, the problem was getting help. We had a station photographer by the name of Phil Coleman, and Phil Coleman was not doing very much. Of course, I put Phil Coleman full-time making slides and as my assistant slide projectionist. Then we used these dissolve units. And, of course, this was all very exciting to the people. They'd never seen this before.

George McIntyre tried to do the same thing but was not very effective. George couldn't imitate me. But we'd go out in the state, hold these county meetings, district meetings. I was out speaking for Extension, as much as I was research. I said, "George, you ought to put me half time on Extension. I'm selling your program."

Charnley: Or add it to your job description.

Wittwer: Well, anyway, George McIntyre was good. Then, of course, George retired. He was replaced by Gordon Guyer. Gordon Guyer and I worked beautifully together. We understood each other. We jointly went to budget hearings together. We met the legislature. We'd meet with the legislators separately. Gordon Guyer, of course, was a public relations man. But only I had the technique of speaking and using visuals. So, as I told Gordon, "I'm half time on Extension. I ought to be in your office." I presume you have talked to Gordon Guyer.

Charnley: I have, I have, yes. I interviewed him and he talked about his research in entomology.

Wittwer: We went to many meetings. Gordon was a great promoter, and a great promoter of me as well as the programs, and still is, for that matter. Gordon is still a very close friend of mine.

So, where were we?

Charnley: We were talking about the changes that you brought in the Ag Experiment Station as director and the new directions that you took.

Wittwer: The other thing was we had an association of West Central directors. They met two or three times a year, three or four times a year, just going over the same old stuff all the time. I said, "Look, why don't we do something different in these meetings? Have each make a report on what they're doing that's exciting." Well, I got along that way for two or three years, and

they fell back to their old tracks. Finally, I sent my associate director to attend these meetings. I couldn't waste my time on them. I mean it was just the same old stuff, all these planning meetings. Their planning is doing no good. It isn't reaching the right people.

One thing I found as director of the Experiment Station, I got involved on the national level with the National Science Foundation, with the Department of Agriculture, with the Department of Energy, with the USAID, with the World Bank, with the International Agricultural Research Centers. Made contact with all of those and with NASA, with EPA [Environmental Protection Agency], and with the Secretary of Agriculture and the assistant secretaries, made those contacts.

I got involved at the national level. I got involved with the National Research Council, National Academy of Sciences, became chairman of the Board of Agriculture within the National Research Council, which had much of its responsibility in setting national priorities with National Science Foundation and the other national groups. I got involved with international agricultural research conferences, three of them; namely, the one that was the Agricultural Experiment Station in cooperation with George F. Kettering Foundation, with the Department of Energy, with the Department of Agriculture, and with the National Science Foundation, and then the U.S. Agency for International Development. With that group, we sponsored an international conference on crop productivity in 1975 and again in 1985, "Crop Productivity Research Imperatives." That was in 1975, and then '85 was "Crop Research Imperatives Revisited." Well, let's see, I have one of them here.

Charnley: For the tape, again, would you tell us, again, the title?

Wittwer: The "Crop Productivity Research Imperatives." That was the title in 1975, which I no longer have a copy of the proceedings. This is "Crop Productivity Research Imperatives

Revisited," in 1985. I gave the short introduction for this, and then, of course, I was one of the co-authors for the earlier one. I was the organizer for this.

Charnley: Where were those held?

Wittwer: They were held at Buena Jaras [phonetic] in Michigan, both of them.

Charnley: You had attendees from around the world?

Wittwer: All around the world. The list is in the back. We had a budget for it. We had a budget also to publish 10,000 copies of this. That was part of the budget. Sponsored by national agencies, Agency for International Development, the National Science Foundation, the Department of Energy, the Department of Agriculture, Michigan Agriculture Experiment Station, the George F. Kettering Foundation, and all these sponsors here from the private sector.

Charnley: And the complete list is in the back of the book. Was [M.] Peter McPherson head of AID at that time, or not?

Wittwer: He was not. I can't remember who it was. You'd have to check. He could have been.

Charnley: I know he was right in the '84, '85 time frame.

Wittwer: Okay. He probably was. You check that out.

Charnley: He perhaps didn't attend this.

Wittwer: He certainly knew about it.

In other words, I said, "Look, there's many ways of determining research priorities." One is the international conference concept. The other is write up projects and proposals. But we used the international conference option as a very good one.

Charnley: Did you have reception on campus to the ideas of the international aspect of the research?

Wittwer: Well, of course, at that time, Ralph Smuckler was the director of International Programs. Of course, he was preceded by Glen Taggart. We also had the support of the university.

Charnley: Glen went to Utah State, I believe, didn't he?

Wittwer: Yes. He was there as director of International Programs for probably ten or fifteen years. So there was very definitely a very important input there. I was involved in the first. I was a member of the first delegation that went to China. I got involved in many international activities.

Charnley: How did you get asked to go to China originally?

Wittwer: How did I become a member of the first delegation? I think it was a recommendation of probably the president. [M. Cecil] Mackey was the president then. I think

it was perhaps he. Dean [James] Anderson followed Boger. Of course, Dean Anderson was there when Gordon Guyer was there and I was there. We were a great team.

Charnley: That was Jim Anderson?

Wittwer: James Anderson. Have you talked to him?

Charnley: I haven't yet. He's in North Carolina.

Wittwer: Is he still living?

Charnley: Yes.

Wittwer: Because my last correspondence with him was when his wife passed away a couple of years ago.

Charnley: I haven't contacted him by phone, but I do believe he's still living.

So Gordon Guyer was on that same mission, wasn't he?

Wittwer: No.

Charnley: Okay. That was a different one that he went to.

Wittwer: He went on a special mission before that, one of the very first to get into China. But, see, I was invited in 1980 in that first delegation. On that occasion, the Chinese took

special aptitude toward me, and they pulled me aside in the Ministry of Agriculture and said--actually, what I did on that, I took slides with me about agricultural research. In the China trip in 1980, there was students of mine that met me, students that had graduated in 1949 and '50, doctoral students. Dr. Hu-Shen-Li [phonetic] and a doctor--someone from Shundu [phonetic] in Szechwan University. What was his name? I could pull that out if I had an opportunity to review this.

Charnley: We can add that.

Wittwer: When I was at Szechwan University, and at that time, Michigan State University through Dr. Smuckler, who was the dean of International Programs there, the university wanted to establish a special relationship with Szechwan University in the Szechwan province of Shundu. I was there at Shundu, and this student knew of me. He said, "Would you give a seminar to my biology class?" He was head of the biological department. What was his name? I had some slides. I took some slides with me. Slides go over.

Charnley: The photographs fit in with them.

Wittwer: Oh yes. I gave a seminar. "I want you to give a seminar to my class." So I did. God, the word got out. Chinese have ways of communicating I don't know. "This guy gives an interesting lecture."

Before we left, see, we traveled a great deal of China on that trip. Up in Harbeing [phonetic], which was capital of the Hibijong [phonetic] province, which was the headquarters of the Northeast Agricultural University and the Hibijong [phonetic] Academy of Agricultural Sciences, when we got there, there was Dean Cowden, Dean Anderson, and Larry. Who was

the chairman? I can't remember his name. Somebody from the Department of Agricultural Economics. He wanted to know something about the land-grant university. And a big crowd gathered, both from the university and from the Hibijong Academy of Agricultural Science. That's the northeastern province of China, and it has a climate kind of comparable to Michigan. That's why we had a special relationship with them, you know.

So they got together a big crowd of scientists and agricultural people. They first had Dean Anderson speak a little bit about the land-grant system. Well, he took about ten minutes, and the rest of the time was left up to me. I had the slides ready. I spent a lot of time talking about agricultural research and research priorities, which is the main subject I talk about all the time in Michigan and the various other places in the world.

Charnley: Were you using examples from Michigan Experiment Station or was it all around?

Wittwer: Oh, yes. No, mostly Michigan. Mostly Michigan.

Charnley: As a case study, more or less.

Wittwer: Well, selling Michigan's agriculture. But anyway, they after that got very excited after I gave that seminar talk. The Ministry of Agriculture people, Mr. Chin Ng Kong [phonetic] and Hu Kong [phonetic], who was the Minister of Agriculture, pulled me aside and said, "We want to make you the most knowledgeable American of Chinese agriculture that there is. We want you to come back to China next year and bring your wife with you. If you will give lectures for the first two weeks, when you come back for a month, then we'll take you anywhere you want to go in China for the remainder two weeks."

So, the next year we went back. Then after that, in the next year which followed, they

did take us in to the far reaches. We've been in every province of China. I know China probably better than any other American in terms of its agriculture. That's why I wrote the book.

But we had a marvelous time. It was hot. We went into the three ovens of China at that time, the hottest places on Earth, Wu Hong, Chun Ching, and Sat Nan Ching [phonetic]. But they kept their word. Took a cruise down the Yangzhou River, saw the Three Gorges. They gave us the best of accommodations, which weren't very good, but they gave us the best. In other words, if you ran a hotel in Chung Ching, we had the only air-conditioned room in the hotel and they turned air-conditioning off at eleven o'clock. And it was hot.

But then they invited us back. Then in about 1983 they decided, well, we ought to write a book and they'd help me write it. So then we began to formulate, well, who would be the authors. Well, it ended up, of course, the three authors were Wang Lang Zang [phonetic], who was the outstanding soybean breeder in China and president of the Chinese Academy of Agricultural Sciences. The other was Yo Yo Thai [phonetic], who was the president of Northeast Agriculture University in Ar Bien [phonetic], who was an agricultural engineer. The other author was Sun Han [phonetic], who was an agricultural economist at Nang Cheng [phonetic] at the University of Changzhou [phonetic], Changzhou Academy of Agricultural Sciences. We had our struggles, but we came up with a book that is now a collector's item.

Charnley: Did MSU Press publish that?

Wittwer: Yes. Which was unfortunate, because MSU Press had no marketing capability.

Charnley: The title was, for the record?

Wittwer: *Feeding a Billion.* At that time there was a billion people in China. Now there's a billion and a quarter.

Charnley: In just that fifteen years. What was the thesis of it?

Wittwer: The unique things about Chinese agriculture that enables them, with 7 percent of the arable land in the world, to produce enough food for 22 percent of the people, and we go into item after item, crop after crop, practice after practice.

Charnley: What are some of those essentials that you discovered?

Wittwer: Well, there's been several reviews written of the book. One was in *Time* magazine for a full page. Another was in for the February review. What were some of the points? Well, the use of resource utilization. No resources are wasted. All human waste, all animal waste, all resources are utilized. Also that 50 percent of the land they have is irrigated, which increases the 12 percent of the land that's irrigated in the world produces over a third of the food. They have more irrigated land than any nation on Earth.

Also they have very good genetic improvement of crops. They have produced hybrid rice. Hybrid rice is the number-one food crop of the world, number-one food crop in China, and it's the most important crop in China. Hybrid rice results in a 30 to 40 percent increase in yield. They do it by very unique and fascinating techniques.

The other, of course, is in the production of pigs. They produce more pigs than any country on Earth. More chickens. But they utilize waste materials that we don't usually utilize. And fish, all kinds of fish.

Charnley: Aquaculture.

Wittwer: Aquaculture, highly developed, and lots of it. Soybeans, they have the genetic resources of the world. They have all the genetic resources of the soybean.

Charnley: When you got there, you probably went with some conception of Chinese agriculture. What things surprised you?

Wittwer: Well, the high intensity, the labor intensity of high production agriculture. Labor-intensive, high production. Instead of growing bush beans, they'd clean them up, utilize more energy from the sun. Just little things. It's not one thing; it's many things. I go crop by crop. I go practice by practice. I point these out in the book. It's the only book in the English language now published which describes Chinese agriculture.

Charnley: That's interesting.

Wittwer: The interesting thing is it's a joint product of mine and theirs. I had to rewrite the whole book. I had to rewrite the chapters they wrote, which means I had to learn to become familiar with all of it. Of course, one of the reviewers pointed that out. He said, "This is by different authors, but there's a common style in there that extends out in the book." That's my style. He was very sharp to notice that. But it's true.

Charnley: The cooperative nature of the writing of the book, was that--

Wittwer: Well, that came up, what about the controversial issues. What are we going to do

with Taiwan? What about the South Sea Islands that are claimed by--and I had to be very careful. They finally said, "In the case of conflict, you make the final decision." They told me, "In the case of differences, you make the final decision." They were very cooperative.

Charnley: I was reading a newspaper clipping that was in the MSU Archives, and it talked about when you went back again, there were some problems because of the political unrest.

Wittwer: I was there. You see, I was invited back repeatedly to go and give talks and to visit other provinces and areas and take photographs. I had unlimited use of photography. [unclear], if anything. I went back and it was in 1989, I believe, in June, if my recollection is correct, I was invited back. This was during the [unclear]. I was invited back and Maureen was with me. During my later years at Michigan State, I said, "Anyplace I'm going international, the wife goes with me. If my wife doesn't go, I don't go."

Charnley: Good strategy.

Wittwer: I had more than I can handle, so why not? But anyway, we were there and it was at the time of the release of *Feeding a Billion*. It had published and released in 1987, but then they decided they wanted a Chinese edition of it. Michigan State University Press. [Richard] Chapin was the director at the time. I had my problems with Chapin, big problems.

Charnley: In the publishing of the book?

Wittwer: Yes. He didn't put the map in here that gave all the details of the cities and provinces and so on. But let's not talk about that. Let's forget about that.

But we were back and they decided they wanted to have--and I don't have a copy of the--

[Begin Tape 2, Side 2]

Wittwer: ...and they met us there. Of course, they treated us red carpet every place we went. When we flew, we flew first class. They took care of everything. We met in Shanghai and went to Nanjing, and there they had the sixtieth anniversary of the Chungzhou Academy of Agricultural Sciences. I was the [unclear] who spoke there. That was in June or late May of 1989. From there we went to Shandu in Szechwan province to make--Lu Ping [phonetic] was the former student that gave the first seminar in China. Zu Chin Lee [phonetic] was at Zhe Chung [phonetic] Agriculture University in Zhe Chung province.

Then we went from Shandu we went down to Kung Ming [phonetic], which is a Hu Nong province next to the Vietnam border. Yung Kung Ming [phonetic] is the city of eternal spring and we were treated royally. I mean, they took us wherever we wanted to go. I mean to the Stone Forest. We had a great time. Maureen was with me.

Then we were next scheduled to go back to Beijing and then on to Harbin where they would release the Chinese edition. Well, we got in Kung Ming in Hu Nong province and we left, I think it was--I'll tell you what day of the week it was, I think it was Sunday morning. Let's see. The Tiananmen Square debacle occurred, I think, on Friday evening, Saturday, kind of ended up on Sunday in Tiananmen Square with the crackdown.

Well, when we boarded the plane in Kung Ming to go to Beijing, there was scarcely anybody on the plane. I said, "This never happened before. The Chinese Airlines, every seat is occupied. What's going on?" No idea what. Got in Beijing, had Army encampments all around the airport. Soldiers. We got there and things looked a little strange. People that were there to meet us, but we'd never seen them before. It wasn't any of my friends. At least I

didn't know them. But they knew us.

We got in the car, and they take us to what they call the Friendship Hotel in the western part of Beijing. On the route, en route, we saw burned-out buses, burned-out tanks, Army tanks, soldiers pulling Army trucks by hand out of the city, demolished. Then we got a little further in and got in the roadblocks. Almost got hemmed in. Drivers were getting worried.

Charnley: And your wife was with you?

Wittwer: Oh, yes. She had a video camera with her. I said, "Maureen, don't, don't, don't, don't use it. We might not get out of here."

Charnley: Sounds like good advice.

Wittwer: We did get a video camera shot, though, beautiful, of the student demonstrations in Shanghai. We have it vividly shown in a video. Beautiful. We were parked there, and this happened all at once. We happened to be right where they do, when the parade was right alongside. She photographed everything, the demonstrators with their banners.

Charnley: You were able to do that.

Wittwer: Well, nobody really knew we had it. We just kept it. I think the Chinese would love to have it because they could identify some of the people. But we haven't passed that on.

But, anyway, when we got to Beijing, we finally got back to the hotel, and things were pretty rough there. They got us a place to stay there. Friendship Hotel was sort of the complex.

By this time we knew something had happened. We didn't know what, but we figured that

there'd been some crackdown. I didn't know how long we were going to be in the hotel, so I went out to the market and I was going to buy a little fruit and vegetables, but there wasn't very much there.

Went back to the hotel, and I got a telephone call. There's a Mr. Chi Ng Kong [phonetic]. He says, "Are you okay?" I said yes. He said, "Don't leave the hotel." I said, "Why not?" He says, "You'll get shot." So we were in that hotel for three days. Finally, the vice minister got the other little group. We had kind of a little farewell banquet.

The next day he arranged for and accompanied us directly to the airport. I've never seen such bedlam in my life in an airport, everybody trying to get out. My god, you couldn't go anywhere. But with him there as the vice minister, he finally took us through and got us to the departure gate and we left.

There was never an occasion [unclear] of the book. I don't even have a copy of the Chinese edition. Now, I think I left those copies at the University of Utah.

But in the meantime, contact had been made with the Japanese through my friend Mr. Shou. Shou Ng Kong [phonetic] had called the Japanese, told them we'd be coming to Tokyo and they were to meet us. The reason for that was that I had made a previous arrangement to meet with about three or four Japanese professors in the language department in the University of Tokyo to go over their translation of the *Feeding a Billion* and to have it in Japanese. So we spent about three or four days with the Japanese going over, answering the questions they asked me about the book and their translation. This is the product of the Japanese.

Charnley: This is the Japanese translation?

Wittwer: Now, how many copies of that were ever published? The price, I think, was atrocious. I think maybe 60 or 70 dollars, but I heard nothing. Didn't ask about any royalties

or anything. But the Chinese did a wonderful job. The reproductions are beautiful.

Charnley: The Japanese?

Wittwer: The Japanese. They put all the photographs at the front. They did a tremendous job.

Charnley: Did you take a lot of those photos yourself?

Wittwer: I took them all.

Charnley: Oh, you did?

Wittwer: I didn't have anybody to take along as a photographer.

Charnley: Did you end up when you came back from your visits and your work on the book, did you have American audiences?

Wittwer: Oh, yes. Oh, yes.

Charnley: Where did you speak?

Wittwer: Well, all over the world. I spoke in Mexico, in every state in the nation. I have given talks in every state in the United States. In some states such as Michigan, Illinois, Florida, Texas, California, Arizona, Minnesota, Wisconsin, Iowa, Utah, and Washington, and New

Jersey, I've given talks several times. Alaska, I've given talks several times. Hawaii, I've given talks several times. Now, they weren't all on China, but they were slide presentations.

I was in Tokyo in 1983 in September to speak at the Second World Conference on Animal Agriculture. At the hotel there, it was absolutely packed. We had the projector. I had Larry Marshall there. Larry Marshall is a very interesting person. I don't know if he's still around or not. But he was my projectionist for the last three or four years I was there. He was very good. We really loved the program with music and all with the introduction and with three projectors.

Charnley: With the light dissolve.

Wittwer: Oh, yes. Beautiful effects. But at the International Conference on Agriculture in Tokyo, that place was packed. And the thing I did not anticipate, the Japanese were there with their cameras and that screen would just light up with flashbulbs. I didn't expect that. Every picture [unclear].

Charnley: They were stealing your photographs. [Laughter]

Wittwer: I didn't expect that. I've had some interesting experiences, especially in some of the presentations and going to some institutions. Minnesota, for example, and with some of the large groups, I gave the specific requirements of the equipment I wanted, the projectors I needed, and also an experienced projectionist. It never happened, anyplace. It never happened.

I finally decided from now on--and this was two or three years before I quit giving those speeches--I'm not going to accept an assignment without taking my own equipment and my own projectionist. I did that for the last three or four years, but I almost had some disasters. In

Minnesota, the guy showed up five minutes before I was to speak and then dumped all my slides.

I said, “Just put them in any way you want to. I’ll speak it according to what you put down.”

Charnley: You let serendipity set the program.

Wittwer: And that’s all through my history on it.

Charnley: Did you speak in the Soviet Union?

Wittwer: Yes, I’ve been there three times.

Charnley: What were those circumstances?

Wittwer: In 1985, all during the Cold War. In 1985 I was invited especially. I was one of two foreign members of the [unclear] and Union Academy of Agricultural Scientists, one of two Americans ever elected to that society.

Charnley: Who was the other one?

Wittwer: It was a fellow from Illinois, a professor from Illinois. He’s now deceased. A plant breeder.

Charnley: How was it that you think you first were invited?

Wittwer: What happened there was that I went there, the first thing that happened was there

was a fellow by the name of Yuri Mortinoff [phonetic], who was an agricultural engineer, came to Michigan State University as an invited guest from the Soviet Union along in about 1969 or '70. I took Yuri Mortinoff, although he was invited by the agricultural engineers, but as director of the Experiment Station, I took him around Michigan. I showed him some things about Michigan agriculture. That was the first contact. Then I told Yuri, I said, "If I come to USSR," it was then the Cold War, I said, "I would like you to do the same for me about Soviet agriculture."

Well, we went with the people in People's Tour there in 1972. This was a group from Michigan, Michigan agricultural people. It was recognized by someone in agricultural economics. What was his name? John--his name slips my mind. But, anyway, when we were there, we made contact with Yuri Mortinoff. He was director of a large research unit having to do with medicinal plants. In China and in Russia they spent a great deal of effort in [unclear], medicinal plants, growing them for medicinal purposes. That was Yuri's position.

So when he met us, we were there for two or three days with the tour group, People to People Tour. Yuri said one day, he said, "Tonight I'm coming to see you and Mrs. Wittwer. We see Moscow by night." And we did.

But in the process, as we were in the one of the streets there, a whistle was blown. The police in USSR use whistles, not guns. Blowing your whistle, you stopped. Yuri stopped and explained, I guess, who was with him and what he was doing.

He said, "Next day I take you to the ancient city of Zоргorsk [phonetic]." Zоргorsk is the ancient cathedral city. It's about ninety miles north of Moscow. Now very few people have been in Zоргorsk, but they have the most beautiful cathedrals there that I've ever seen. So, sure enough, Yuri came along with his car and we departed for Zоргorsk.

Meanwhile, I take my camera along. I see many things to take a photograph. I see a very large powerplant with greenhouses attached, and I take a picture of that. In the Soviet

Union, instead of having lawns, they grow potatoes in their front yard, and that was interesting. I took a photograph of that and many other pictures. I went to Zorgorsk and took pictures of the other cathedrals. There were many tour buses there. Maureen, my wife, was with me, and, she said, “Oh, look at all the tour buses.” I said, “Yes. There’s not a one from the United States. Those are all the Russian tour buses.”

Well, on the way back, we were stopped at one of the checkpoints. The policeman blew his whistle, and Yuri gets out and talks to them, and after a long time comes back. You know, we were sitting in the car. He says, “They want documents.” I says, “Yuri, all our documents are at the hotel. We have no documents.” [unclear]. We were out where we shouldn’t be.

Charnley: You thought your stay might be a little longer than you anticipated.

Wittwer: But, anyway, my wife can verify all of this, you know. Then he comes back and I said, “Yuri, is everything okay?” Well, he says, “Yeah, but he says strange kind of tourist I’ve got with me.” Taking pictures of all the things that we’d taken pictures of. He said, “More pictures?” I said, “No, Yuri, get back to Moscow.”

Well, we’ve been back to Moscow four times since then, but we’ve never seen Yuri. We’ve called him. He knows we’ve been there, but we’ve never been able to make contact.

Well, the last time I was there was in 1985, which was still during the Cold War. See, the wall didn’t go down until ’89. I was invited back. This was the second or third time.

Well, in the meantime, I had this People to People Tour, and then I’d become involved through my friend Tom Malone, who was president of a university in Indianapolis, Butler University. Tom gets acquainted with me at the national meetings of the National Research Council, National Academy of Sciences, and the Commission on Natural Resources, which John Cannon [phonetic] was also a member. I, being chairman of the Board of Agriculture, I met

with the Environmental Resources Group. That's why John and I always canceled out each other. He was an environmentalist.

Charnley: You came at it from different angles.

Wittwer: Exactly. [unclear] interesting way. But, anyway, I got involved with that group. Tom Malone one time called me up. It was on a Thursday. He said, "Sylvan, there's an important meeting in Washington I want you to attend, having to do with the Dartmouth conferences." I had no idea what the Dartmouth conferences were. He said, "I know it's a Saturday. It's an imposition to ask you to be there, but could you come?"

So I went. That's where I got into a real conflict with another environmentalist, George Woodwell [phonetic], at that meeting. I was really on the defensive. But there was one little fellow in the back there, in the audience, who came to my defense. I had no idea who it was.

So I asked Tom Malone, I said, "Who was that fellow back there that was my friend," which was John Color [phonetic], president of the Charles F. Kettering Foundation, Yellow Springs, Ohio. So I sat down and wrote John Color a letter and thanked him. I said, "I appreciate your comment." Well, he wrote back. He said, "Would you come down to Kettering? We want you to give a seminar."

So we went down to Kettering, at invitation, and there I met Marvin Lomberg [phonetic]. The other had people in the research division there at Yellow Springs, Ohio. Charles F. Kettering wanted to know what the little green [unclear] were that made plants grow. Well, Marvin Lomberg then comes back to the Dartmouth conferences. Bob [John?] Color was one of the prime promoters of the Dartmouth conferences. The Dartmouth conferences were set up as sort of a pugwash group to alleviate détente with the Soviet Union, U.S. versus--nonofficial scientists getting together to see if we couldn't alleviate some of the tensions.

Well, Bob Color was a member of the Dartmouth conference. Tom Malone was a member of the Dartmouth conferences. Norman Cousins, editor of the--oh, what is it, not *The Saturday Evening Post*--was a member. David Rockefeller, president of the Chase Manhattan Bank, a member of the Dartmouth conferences. Well, as a result of this, I got invited to participate in the Dartmouth conferences. The Dartmouth conferences were held in the Soviet Union one year, the United States the next year, alternating.

So in 1975, I was invited to go to Moscow to attend the conferences, along with these others. The next year it was in old colonial Williamsburg. Well, in Yurma, in Latvia, I was there. The Soviets were there. Well, who were the Soviets? Well, there was George Zucoff [phonetic], who was member of the Supreme Soviet. There was George Orbortoff [phonetic], who was president of a fictional institution that operated in Canada and the United States. It was a chief spy, really, of the Soviets in the United States. There was Boris Unoff [phonetic], Minister of Agriculture, and some other very notable people.

We were there, and I happened to be there. Then they informed me in one of these meetings that I was to be elected as a foreign member of their academy and that I was to be part of the Soviet Embassy in Washington and to receive the recognition at the embassy, which I did, along with my wife. So we had kind of the red carpet laid out for us from then on.

I'm not sure what year it was, it was the fiftieth anniversary of the establishment of the A.I. Lenin Hall Union Academy of Agricultural Sciences. Vashneil [phonetic], they called it. So I was invited to come to Moscow, and it was in December, 1975, 1976, I'm not sure, as an invited member of that as a foreign member of that academy.

I was met at the airport, given the red carpet treatment, taken through Customs, and invited to attend the Honor of the Red Flag or something, which was held in the presidium, the big convention hall there on Red Square. I was introduced immediately to my interpreter, who was Nina Bogdonova [phonetic]. Nina Bogdonova was the chief librarian of the University of

Moscow libraries. She was a soldier in the Second World War and met the Americans at the Yelbe. She was an interpreter. She knew English.

Well, anyway, I was in the company of Nina Bogdonova to look after me, take me to the circuses and the ballets or whatever they have there, which you went to all of them, and to be my constant companion and interpreter and translator. So we attended the big meeting, which was held there in Moscow.

Mikhail Gorbachev was the Minister of Agriculture at that time, and he was a very powerful speaker. I remember that. I was introduced to him personally. I was the only American that was there and the only one who was not a member of the so-called socialist group.

I mean, there were representatives from Poland, Vietnam, Siberia, Cuba, you know, the whole Yugoslavia.

Charnley: And you were the only American.

Wittwer: The only American, and the only one who was from a non-communist controlled unit. Then they said they wanted me to speak. I says, “Well, what about, and how long?” They said, “As you wish.” [Laughter] That’s a true story.

Charnley: So how long did you speak?

Wittwer: Well, I have a picture of myself in my history, speaking to Nina Bogdonova at my side to interpret what I said. I can’t remember, but I had with me a copy of the proceedings of the First International Agricultural Conference on Crop Productivity. I had a copy of another book that I was co-author of, which I don’t have. I think I gave them a copy of the Common_____ Lecture that I gave in India. I mentioned that the others were, of course, I think

the one from Vietnam was a picture of Ho Chi Minh, portrait, you know, that kind of stuff. But I personally handed to Gorbachev my books.

I didn't know really at the time, but when I went back in 1985, they said to me, the Soviets, that's the last time I was there, because the Academy of Agricultural Sciences no longer exists. It's out.

Charnley: You say you met Gorbachev later?

Wittwer: Only that time. Only in 1975, actually, when he was the Minister of Agriculture. But, anyway, when I went back, they said, "We don't know whether you knew it or not, but when you were here, you met Gorbachev." [Laughter]

Charnley: What was it about your research, do you think, that maybe brought about the initial invitation?

Wittwer: Of course, I had a knowledge somewhat of China at that time, too, and I had a pretty good knowledge of research priorities of the United States. I had a pretty good knowledge of the world. See, in the meantime I had traveled to the International Agriculture Research Centers. I had been in India three or four times. I'd been in Egypt, I'd been in Ethiopia, at the International Agriculture Research Centers in the Philippines, in Mexico City, in Ethiopia, in Kenya, in Nigeria, and, let's see, the rice center, the wheat center. I had been there, see. I knew what was going on in agriculture research. I knew agriculture research and I knew research priorities.

Charnley: Would you talk a little bit about, not just your travels, but the world recognition of

Michigan State? Did you have to tell people about it, or did they recognize the university for its research in agriculture or in other areas? Could you talk a little bit about that?

Wittwer: Michigan State University, of course, is well known as far as its agricultural contributions are concerned. Michigan State University was forward as a university dealing with international programs through the efforts of Glen Taggart and Ralph Smuckler. Is Ralph still around?

Charnley: Yes, I interviewed him at the end of September of this year.

Wittwer: Glen Taggart's dead.

Through John Hannah, Michigan State University was known worldwide and certainly, to some extent, its agriculture. Michigan has very diversified agriculture. I guess you knew that. Its leadership in agricultural economics and in agricultural engineering and horticulture, in the crops area, is well known. I mean, the first hybrid corn was pretty much a result of efforts of Michigan State University, John [William James] Beal. I don't know if that's right or not. Beal is the last name. The longevity of weed seeds, which I think is still under way, there are some things that--

Charnley: Yes, they kept those. They just opened some up, I think, recently in the last year or so.

Wittwer: But horticulturally, Michigan State University is known worldwide. Tukey was the president of the National Horticultural Society, for example. But I would say it was, the international dimension was really initiated by John Hannah that put Michigan State on the map

with respect to with the International Agricultural Research Centers. McPherson, of course, himself with the USAID program and aid, U.S. aid in terms of agricultural development, has always been a key mover as far as Michigan State is concerned. I don't know of any other university that is more prominently known for its international efforts than Michigan State.

Charnley: So when you would go overseas--

Wittwer: Oh, I had contacts. These were university contacts.

[Begin Tape 2, Side 2]

Wittwer: Then the other thing that was of interest was that we had many students that come to Michigan State University sponsored by NATO, for example. And the foundations, the Rockefeller, Ford Foundations are very prominent with the U.S.; of course, they're U.S. foundations. I had a very close relationship with those foundations.

Charnley: Where they brought overseas scholars to study at Michigan State.

Wittwer: Yes. And the efforts of our faculty. We just had programs in almost every--like work in Nigeria, for example, we did way back with Glen Taggart.

Charnley: That was prior to the revolution there?

Wittwer: Yes. But I think that Michigan State University should be commended in terms of its international efforts very early. It was really the leader in the United States and still is, which

we could be criticized for, but I think it's advantageous overall for the university.

Charnley: Could you talk a little bit about some of your own experiences on campus, what changes that you saw, especially in the College of Ag and Natural Resources with the different deans, James Anderson you mentioned, and some of the others? Was there a change in the 1970s after Dr. Hannah left and went to AID and when Clifton Wharton came on?

Wittwer: Clifton Wharton carried on very much in the footsteps of Hannah in terms of local campus developments and also on the international programs. Clifton Wharton, I think, was really a great asset to the university. He did not depart from its missions.

Charnley: His background in ag economics probably affected this.

Wittwer: Up until that time, we had people heading the university that had a good agricultural background. I mean, you take Hannah, and especially the deans. Michigan State University, of course, has diversified much since I left and during the time I was there. But I think the thing that really happened when I was involved there was that getting increased support for the programs and increased coordination with the Extension and teaching and research and looking at alternative methods of funding, getting federal support, and international support for research projects as well as state, and identifying the people, working with the people that really make the decisions.

Charnley: In Washington and elsewhere?

Wittwer: Yes, yes. Jack Breslin did a good job--of course, he can't be interviewed now--in

terms of relationships in Washington.

Charnley: Would you talk a little bit about that, about Jack Breslin's efforts?

Wittwer: Well, he knew the Washington arena, he knew the Washington people, he knew the people that represented us in Congress and he knew their aides. Gordon Guyer did a good job in that.

Charnley: So the legislative liaison worked quite well.

Wittwer: Yes. And, of course, this did not exist fully until I think Gordon and I got involved, and Boger and, of course, Hannah loved it, what we were doing, fully supportive. But in our close working relationships with the legislature, with the executive office, the governor's office, and taking them out on tours, exposing them to the results of research and the results of extension, educational programs, in other words, giving them personal contact, this was not done before that, taking time to inform them, as well as just ask them for money. Then, of course, communicating back the results that what we were doing. It was a great experience for me. I loved it. I guess I was criticized in a sense because I was gone so much.

Charnley: Really?

Wittwer: I know I was. But on the other hand, I had good lieutenants.

Charnley: Who were they?

Wittwer: Jake Hoefer, who is now deceased. John Bartholic [phonetic]. Don't know whether he's around or not now. I don't know. Richard Sower [phonetic], Dick Sower, excellent man. Those are the people I worked with. And someone like Larry Marshall, who helped me with visual aids and speaking engagements.

Charnley: Was he under College of Ag and Natural Resources?

Wittwer: Information Services. We did have good people like Joe Marx [phonetic]. Joe's dead now. He went to the University of Missouri. Joe was a good information specialist. We had good people at the information level, and we had some conflicts sometimes, but we usually straightened them out.

Charnley: Did you have any dealings directly with the board, board of trustees of the university?

Wittwer: They were very supportive. I knew them personally. They knew what was going on in agricultural research and Extension. Yes, I had good contact with the board of trustees.

Charnley: Were there any board members that were particularly supportive of the programs or in the course of your experiences with them?

Wittwer: Name some of them. I can't remember. Well, let's see, one of the recent ones was--do you know any of them now?

Charnley: Well, Dean Pridgeon was for a while.

Wittwer: Well, Dean Pridgeon. Dean Pridgeon was also at the Farm Bureau. We had excellent relationship with the Farm Bureau in Elton Smith. With the American Farm Bureau Federation I spoke many times. We always dealt with them in terms of our budget priorities. I received the highest recognition from the Farm Bureau Federation, the only one in the academic field to ever receive the award, a special presentation. The Farm Bureau, we worked with, and Elton Smith, who was president, and Dean Pridgeon, of course, was involved there with the Michigan Department of Agriculture. That's two important men.

People like--I can't remember their names. Michigan bill producers, who are they?

Charnley: I don't remember the name of all the listing of the trustees. But they were generally supportive of the Ag Experiment Station?

Wittwer: Oh, yes, and they were informed. The Michigan Department of Agriculture, we worked with them, which I think is important. I knew them all. They knew what was going on in the Experiment Station. We had many sessions where we invited the entire legislature out to see what we were doing.

Charnley: How long did you direct the Ag Experiment Station?

Wittwer: Twenty years.

Charnley: In that time, what were maybe some of the most important things that developed as a result?

Wittwer: Well, of course, an increase in support of agricultural research by severalfold in terms of budget. Introduction of a competitive draft program within the Experiment Station, which we initiated.

Charnley: Does that continue today?

Wittwer: I don't know.

Charnley: I'll have to ask the current director.

Wittwer: This was a stimulus internally. We had our own reviews. I wrote them down here. If I open that book, we can check them out. It's probably interesting. Let me check them out here.

Charnley: Sure. We'll pause here. [Pause]

Wittwer: [Reading from documentation] "As new director of Agriculture Experiment Station and after my first few months in the office, there was a general reaction about the university and throughout Michigan and the nation that new dimensions would be encompassed. I have tried in the intervening years to meet this responsibility and expectation. In other words, I tried to be the very best state Agriculture Experiment Station director Michigan had known and the best in the nation. Time would yet reveal the outcome of this goal.

"Some of the innovations I introduced as director include widespread coverage of the state and nation and international in giving slide presentations and talks concerning the accomplishments and the opportunities in research on campus, off campus, nationally and

internationally. These presentations have numbered up to five or six a week to ten to thirty a month and literally hundreds, perhaps thousands, during the eighteen years I served as director." I said twenty; it's eighteen.

"A listing of the publishing and scientific achievements of the Michigan Agriculture--" This is one of the first things I did. "A listing and publishing of the scientific achievements of the Michigan Agriculture Experiment Station in 1968, 1973, and 1979. Those are on the record someplace in Michigan State.

"The establishment of a remote-sensing program on the campus and close linkages with, first, the University of Michigan's well-run laboratories, which later became and is now the Environmental Research Institute of Michigan. Principal contacts in bringing this about were and remain longtime friends A.G. Norman, Mike Holder, George Brown, and Dick Lego [phonetic].

"Fourth, establishing the administrative structure and control of the Pesticide Research Center and hiring Dr. Fumio Matsumora [phonetic].

"Five, establishing linkages and administrative input into the Institute of Water Research, the Kellogg Biological Station and the DOE, Department of Energy, Plant Research Laboratories.

"Seven, initiating in the Experiment Station many competitive grant programs of over 500,000 annually.

"Eight, establishing a firm base for toxicology research on the campus with the major input for the creation of an Environmental Toxicology Center. The state legislature wanted it to be run by the Agriculture Experiment Station. The Agriculture Experiment Station coordinator for toxicology was Steve Ost [phonetic] of biochemistry." There's a young man you might want to see.

"Establishment of a joint research program with the dean of the College of Veterinary

Medicine.

"Initiating major interdisciplinary resource inputs into energy research in the home program in the College of Human Ecology.

"Acquiring and developing the Trevor Nichols Dunn van Drack [phonetic] Kalamazoo Orchard Research facilities, the Montcom [phonetics] experimental farm and the new horticulture research station at Clarksville. In the northwest, Michigan Horticulture Research Station in the Sutton Bay area.

"The acquisition of 3,500,000 dollars in some twenty-two line items in the Agriculture Experiment Station budget and the establishment of some fifteen commodity-based research programs. "Establishing a coordinated agricultural, genetics, and plant-breeding program for research and graduate training with the plant research laboratories, with Dr. Kenneth Sink [phonetic] as the first coordinator."

Charnley: Quite a list of accomplishments. You raise some issues. Some of the experimental stations that were there, were they bequests to the university or how were you involved in those?

Wittwer: Usually bequests, not always. Some were bequests that were initiated by the growers, the producers. In fact, they all were. That's the origin of the station, actually.

Charnley: What about the Pesticide Research Center? You were director during the PBB incident. Could you talk a little about that, how you first heard about it, and how MSU was involved in that?

Wittwer: Well, we were jointly involved, of course, with the Cooperative Extension Service.

We heard about it first through the Department of Agriculture, Michigan Department of Agriculture. It was a special request by letter for us to initiate, design research programs and educational programs dealing with the issue.

Of course, this involved the Pesticide Research Center and Toxicology Center, all of which, Pesticide Research Center is part of the Experiment Station. Toxicology Center is part of the Experiment Station. These were initiated by the Experiment Station.

Charnley: How did the incident play out? Were you involved with public relations with that?

Wittwer: Definitely. And, of course, the burial sites and so on. This was quite a serious problem. Yes, we were definitely involved, as far as the research components were concerned, and also informing the public.

Charnley: What were some of the tough issues, or the issues that you had to deal with at that time?

Wittwer: Well, of course, one of them was identifying the residues that were harmful and what to do with the animals and how you'd reimburse the people. I'm trying to recall the details of how this all got started. Was it the feed?

Charnley: It was a feed mistake in the feed mixture, where the fire retardant was mixed in the St. Louis, Michigan, plant, Hooker Chemical. I knew a little bit about it from a family experience.

Wittwer: We were definitely involved, and we were at the front in working on that trying to

resolve it. Our people were definitely involved in the Experiment Station.

Charnley: Was the Pesticide Research Center established after that, or had that been existing?

Wittwer: It existed then, but the Toxicology Center wasn't. This was the stimulus, catalyst for the establishment of the Toxicology Center. The Pesticide Center of Research existed then, but not to deal specifically with a problem of that magnitude. That was more than just a toxicology center.

Charnley: Were you involved in any of that direct research?

Wittwer: The Station was, yes. Steve Ost, definitely, because he was director of the toxicology. He was in biochemistry. Of course we were supporting research and biochemistry.

Charnley: What about later in your career and in terms of your position at the university? When did you leave the Ag Experiment Station?

Wittwer: In June of 1983. Bob [Robert G.] Gast was the one that came in. As a result, I was, of course, heavily involved. It was in 1987, you see, that we published the book on China. I was heavily involved with the Chinese, the international program then. What happened was that the university thought it would be desirable if I stayed on, so I moved from the office in the Experiment Station down to a little office in the Extension area with Adger Carroll. Is Adger Carroll still living?

Charnley: I'm not sure.

Wittwer: I had a little office and I was given a secretary. I just carried on the international activities tremendously after that, actually until 1987, when I took an assignment to Belize in Central America for two years. I had a secretary and an office space there from 1983 until 1987, which was generously and graciously provided by the College of Agriculture, dean of College of Agriculture.

Charnley: When did you ultimately retire?

Wittwer: From the Station in 1983. June of '83.

Charnley: Were you teaching at all after that?

Wittwer: No. Only giving lectures.

Charnley: Would you talk a little bit about your attitude toward teaching?

Wittwer: My attitude toward teaching. I love to teach. I was half-time teaching at the Department of Horticulture, half-time teaching, half-time research. I had some enjoyable classes with many students that--I had a student that, let me see, this would be of interest. The students that I had, I really enjoyed teaching. Sometimes I felt it detracted from doing research, which I also enjoyed. But you can't have everything all the time. Let's see if I can find this.

Charnley: I'll pause. [Pause]

Charnley: We're talking about former students that you've had and your attitude toward teaching and people that had been an important influence. You mentioned Elmer Graff.

Wittwer: Yes, in vocational agriculture.

Charnley: The first one.

Wittwer: Of course, people like H.B. Tukey and Bob Carolus and so on, and many others.

Here's one here from Victor Alamos Montero [phonetic], gives an e-mail address, and addressed to me, dated October 25th, the year 2000. He says, "Dear Dr. Wittwer, It's almost impossible you may remember my name. I am Victor Alamos, and I was a grad student from Chile at MSU back in 1958-'59. Recently I wrote a book, *Student Life at MSU*, in which I decided to dedicate a chapter to John Carew, my mentor. In the last pages, I couldn't forget my unforgettable professor of horticulture, as you are also mentioned. I am mailing you by courier what could be an almost final draft, humbly asking if there's any objection from your end. It should be there the first days of November. Paul Larson gave me your e-mail, and he suggested an epilogue should be considered. I am now writing it. He discovered all those tricky misspellings. Do excuse me. Although I was there in the late fifties, the story takes place in the very late eighties and early nineties as the names had to be somewhat disguised except yours. If by any chance you want to make a comment, it will be very, very welcome. Be strict, though."

And this is what Victor Alamos says, "But the last, but not least, the environment of Michigan State, keep me posted about your thesis and give my personal regards to Dr. Sylvan Wittwer. I loved his classes. Ask if he remembers when he taught us how seeds of seedless watermelons are grown." And the letter goes on.

Charnley: So that you've been discovered on your e-mail address. You've had contacts.

Wittwer: Yes, that's true. I've been discovered.

Charnley: Since your retirement from the university, have you had any other contacts or any formal contacts with the university?

Wittwer: Well, each year I've been going back to Michigan State in October to see the color of the leaves. We don't have them in Logandale, Nevada. In Michigan, and there make a reacquaintance with many of the people.

Charnley: Did any of your children stay there?

Wittwer: My children are to the four winds of the Earth. One lives in Atlanta, Georgia, with her family. The other lives in St. Louis, Missouri. Another lives in Salt Lake City. Another lives in Orange County, California.

Charnley: So everyone has left Michigan.

Wittwer: Everyone has left Michigan, but I still have many friends in Michigan. But it's their interests and their positions have taken them elsewhere. We owe much to Michigan, though. All our children were reared there.

Charnley: When you left Missouri and took that job at Michigan State College, probably at the

time, and then university, did you anticipate you'd spend your entire career there?

Wittwer: No, I really didn't. In fact, many people said, "This will not be your last move." Well, it really wasn't the last move until we moved back here in southern Nevada. We were there for fifty years. As I mentioned, Michigan State University has treated us very well. I have no complaint with anyone at Michigan State University or any misgivings or any mishandling or anything that I have been in any way treated unfairly or been mistreated. I have no real enemies. I think I have lots of friends, and we have many fond memories of Michigan and Michigan State.

Charnley: In looking back at your career there and thinking about the university, is there anything that maybe comes to mind as being most important?

Wittwer: Within a period of fifty years, there were many things that were important, but the thing that impresses me is the dramatic growth and maturity and increased dimensions internationally that Michigan State University has undergone. And the faculty. It's a great university, more than just that basketball team that just won. I still follow the activities of Michigan State University.

Charnley: Are you more of a fan of basketball than you used to be?

Wittwer: When it comes to Michigan State University, I'm very supportive. We had some good teams there, back with Magic Johnson. Likewise in football.

Charnley: And in research.

Wittwer: And in research. It's been outstanding. There's still an outstanding research program there, and I think the thing that impresses me is the broad interdisciplinary programs that we pursued, encouraged, and initiated, and endorsed when we were at Michigan State University. Research involves more than just one discipline if it's to be successful. You have to have cross-disciplinary, interdisciplinary activities to accomplish much in the way of any kind of research.

Charnley: Do you think that climate was an important one there?

Wittwer: I think it's very important and very conducive, very encouraging. It was easy to do. People were receptive to it. Michigan State University always impressed me with the innovation of the people there. The innovative approaches, the originality of what has taken place in that University and is still taking place, I'm sure, it's unique and covers all. The dimensions of interest in Michigan State University are very broad. I think the thing that has happened is that some extremely good faculty have been recruited and good administrators. That's what makes a university. There's a balance there, of course, in teaching public service and research that is really unique in terms of the degree to which it now occurs and what has happened.

I'm prejudiced naturally, and always will be, with respect to Michigan State University, because I think it's unique in many ways. I hope it stays that way. But good leadership is what's required. Selection of good people and recognizing talent and where there's good work is done, that it's recognized. That was always. As I mentioned, I have never been dissatisfied. I've never asked for a salary increase. I've never really had a strong inclination. I have been approached on many occasions at Michigan State to go elsewhere, but didn't pay too much

attention to them because the treatment I received at Michigan State University and the reception that I received in so many ways was all good.

The people I worked with, I have no complaints with the people I worked with at all, any of them. There's just some outstanding people there in many, many fields. I hope that hasn't changed.

Charnley: It hasn't. It hasn't. I want to thank you for the time that we've spent and the insights that you've shared. I appreciate your perspective. Thank you.

Wittwer: You're welcome.

[End of interview]

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