

Michael D. Miesch Jr.
B.S. – Texas A&M 1955
M.S. – Purdue 1959
Ph.D. – Oklahoma State 1964

HOPE IS NOT ENOUGH !

We hear a lot about “hope” these days and that has caused me to reflect on my hopes and the efforts I made to achieve my life’s objectives. I was born on a cotton farm in Northeast Texas two and one-half months premature. I possessed a severe hearing loss, which ultimately contributed to a severe speech impediment. There were no hospitals in our county and we lacked electricity and running water. My aunt told me that I weighed between two to three pounds at birth with fingers the size of matchsticks. They put me in a shoebox near the open oven door of a wood-burning cook stove, which served as an incubator to keep me warm. It took a year and a half before I was able to walk. Despite this beginning I did not lack intelligence and I started school at five years old in a two-room schoolhouse. My brother, Pete, who had just turned four on September 8th, went to school with me just to get my lesson assignments. He learned the lessons and was promoted along with me. Pete finished high school at the age of 15. Living on a farm, I hoed or chopped weeds out of cotton, corn, and vegetables, plowed the fields, and picked cotton, corn, vegetables and hauled bailed hay.

After finishing high school, we hoped to go to college. State employees who worked with the handicapped tried to discourage me from going to college. They said I would never be able to make it. I could hear vowels but not consonants. I did not move my lips or tongue but talked with the back of my throat. Only my immediate family and close friends could understand me. Since I depended on lip reading to understand people I could not read lips and write at the same time. My brother took notes for me through grade and high school. All through college, I depended on other students for notes. If a student did not take good notes, I was in trouble.

My brother and I went to Paris Junior College for two years where I received some speech therapy and then transferred to Texas A&M College. At mid-semester, I had one B, one C, two Ds, and two Fs. They put me on probation and tried to send me home. At the end of the semester, I finished with two Bs, two Cs, one D and one F. The F was due to a 25 on my first physics test. The second semester I made all Bs. A difficult first year but I survived and realized that hope would not carry the day. I had to work twice as hard as others who could hear and speak.

One of my English professors took an interest in me and on his own time, helped me with improving my speech. This is where I learned to relax while speaking.

After receiving my B.S. degree, I was accepted into graduate school. I received Cs in two graduate courses even though my test papers showed that I had an A and a B. My mother wrote the two professors asking what I made on

my final exam. One professor did not answer. The other professor said I made 94 but he graded students more on their ability to carry on a discussion in the classroom than on grade points.

I spent the summer in 1955 working for Stroope Pest Control in Waxahachie, Texas checking cotton crops for insect infestation, doing household pest control and treating houses for termites. Anita, the wife of Clayton Wright (Purdue -1950), suggested that I go to Purdue University if I was interested in pest control. My mother called Dr. John Osmun in August 1956 and asked if I could get in Purdue. Dr. Osmun told me to come on up. I was told that Dr. Osmun was shocked when he saw that I was deaf with a severe speech impediment. Nevertheless, Dr. Osmun immediately introduced me to J.J. Davis, who had been the head of the entomology department and was famous for his work with pest control operators. Although at the time, I had no idea who J. J. Davis was; this experience stimulated me to pursue my career in the economic phases of entomology.

After finishing my M.S. thesis, everyone on my committee voted against me going for a Ph.D. except Dr. Daniel Shankland, my major professor. Whereas one respected professor told me that my thesis was not acceptable for an M.S. degree, Dr. Shankland reassured me that it was a good thesis. Dr. Leland Chandler agreed to be my major professor for my Ph.D. with the understanding that many on my committee had stated that they would vote against me for a doctorate. Obviously, Dr. Chandler thought I had a good thesis and respected my intelligence and drive or he would not have accepted me as a student for the Ph.D. Truthfully, I do not believe the highly respected professor thought my thesis was bad. More probably he was greatly concerned that a student with a severe hearing loss, speech impediment and one that had difficulty taking notes in the classroom would most likely be a bad reflection on the Entomology Department. He did not want to use my handicap as an excuse but criticized my thesis in an effort to discourage me from going for a Ph.D. Anyone can view my thesis in the Purdue University Library.

I spent the summer of 1959 at Purdue University doing research on my Ph.D. In September Dr. Chandler told me about a fellow from Ohio State with a speech impediment, who had described over 600 new species of leafhoppers. He put his "type insect specimens" up for sale. "Type insect specimens" are used as the museum standard to compare and identify other insect specimens. Dr. Chandler had written him about the type insect specimens and received a very bitter letter from him. Dr. Chandler said this person was upset that he did not get the job he wanted with a university or museum and that he probably wasted his time getting a Ph.D. as he was no longer working as an entomologist. As a consequence of this man's experience, Dr. Chandler recommended that I go out into the field and prove myself before continuing on for the Ph.D. Even Dr. Chandler admitted that my handicap was the reason he asked me to leave.

As an aside I must relate a few brief anecdotes of amusing events during my time at Purdue. In 1958 the Purdue Entomology Department was having a hard time with other departments on the campus taking over their classrooms in Ag Hall. After Christmas break, I brought about fifty scorpions from Texas that I

found hibernating all clustered together. The scorpions were placed in a large open cylinder container, which rested on a glass plate. Someone may have picked up the cylinder unaware that there was no bottom. A few of the scorpions got out and scurried into one of the classrooms. The professor and students started screaming and hollering, and climbing on their chairs and desks. When the dust settled and the scorpions were returned to their container the professor asked Dr. Chandler how often these creatures got loose. Dr. Chandler said, "Quite often". The professor and students left giving the entomology department complete control of the classrooms and building.

I have often wondered if Dr. Chandler had purposely released a couple of scorpions under the door of the classroom to frighten the teacher and students. My classmate, Dr. Bill Bowers said this was something Dr. Chandler would do.

Since Dr. Chandler did his B.S. thesis on earthworms. I asked Dr. Chandler what he knew about the two and three-foot long earthworms from Texas. He had never heard of one that long and everyone gave me a hard time because the record for North America was twelve inches. Soon thereafter my mother and dad mailed a few two-foot earthworms from Texas. There was a professor on campus who was an expert on earthworms and Dr. Chandler asked him what he knew about two foot earthworms from Texas. He told Dr. Chandler that the "kid from Texas" must have glued two earthworms together. Dr. Chandler and I walked over to his office with the earthworm. He was stunned. He did not say anything. Soon thereafter a number of live earthworms were mailed to Dr. Chandler including one, which measured 31 inches. Dr. Chandler said it was 29 inches when he received it. This earthworm was placed with the Purdue insect collection. Subsequently, I measured one earthworm at 36 inches. If my mother and dad had not mailed a few two-foot earthworms I believe I would have been kicked out of Purdue before I got my M.S. degree. One professor commented that Texas needed these earthworms to eat up all the bull we shoot in Texas.

The people at Texas Parks and Wildlife were shock to hear about these giant Texas earthworms. An article on these giant earthworms was published in their magazine in November 2008.

Although deeply disappointed in my career trajectory at this time I refused to give up my educational objectives and sought real world field experience. Clayton Wright helped me get a job in Dallas working for two brothers, Dr. Byron Williamson and Dr. Thurmond Williamson, both whom had Ph.D.'s in chemistry. They formulated and sold insecticides for livestock, poultry and pets. Clayton told me to go sweep the floors and do whatever they wanted me to do. The brothers did not have any one to work in the laboratory so they trained me to do laboratory formulation and product development. I spent four years doing research, formulating, developing and testing new products. I was responsible for raising houseflies, cockroaches, dog ticks, taking care of dogs, cats and cattle. We ran oral toxicity tests on white laboratory rats, chronic and dermal toxicity tests on dogs, cats and kittens to support new product registration.

While working in Dallas, I decided to take some more courses in organic chemistry at Southern Methodist University. Dr. Harold Jesky, who was the head

of the chemistry department, taught the course. When I went in to register, we were in a small room. Dr. Jesky's booming voice echoed off the ceiling. I had to ask him to repeat three times before I understood what he said. He put his hands on the table and said, "Are you sure you want to take this course?" I said, "Yes!" He would not have anything to do with me the first six weeks but he wrote everything on the blackboard so I had no problem taking notes. He gave everyone a copy of the questions he had asked on the previous two exams he had given his students in his last two courses. Each exam was an hour and a half. If you knew the answer and wrote as fast as you could write, you could finish the exam. After the first exam, 50% of the students dropped the course. A student next to me was majoring in Chemistry and was taking this course for the third time. He had three "A's, in three other courses in Chemistry. I made an 89 on the first test, which was the second highest grade in the class. The person who made 91 had taken the course before. From that day on Dr. Jesky took an interest in me and tried to get me to major in chemistry. He would stop in the middle of a lecture and say, "Miesch, do you understand?" I took two semesters of Organic Chemistry and felt like a walking textbook, when I finished.

Dr. John Osmun stopped at Love Field in Dallas in 1961. I told Dr. Osmun I would like to go back to Purdue to work on my Ph.D. Dr. Osmun would not give me any encouragement. Dr. Don Schuder told me later that the reason Dr. Osmun did not give me any encouragement was that the one professor who criticized my thesis, was the most influential economic entomologist in the department at Purdue.

I drove to Oklahoma State and talked with Dr. Mike Howell. He told me that they would not hold my handicap against me and for me to get started on my research before starting my residence at Oklahoma State. I had just spent two years working on a Face Fly syrup formulation that was applied to the face of beef cattle to control Face Flies. The company put DDVP into liquid fly syrup to kill the flies. They had to bring all the liquid bait back at the end of the season, as DDVP was not stable in the presence of moisture. I developed a powdered sugar DDVP formulation with a thixotropic ingredient and a stabilizer for the DDVP. It was stable until the farmer added water.

I was trying to come up with a project I could work on the year-round and not just when certain insects were available. I thought about coming up with a roach bait. I bought some dehydrated potatoes and mixed it with powdered sugar using DDVP and the same thixotropic ingredient and stabilizer that were used for the Face Fly bait. The roaches loved it. I ran tests in roach infested apartments and picked up and counted the dead roaches every morning. At the end of two and/or four weeks I used a pyrethrum flush-out to determine the total number of roaches in each apartment. This enabled me to determine the percent control overnight, the first week and the second week, etc. In one apartment the bait gave 95% control overnight.

I took my bait and data to Oklahoma State and told Dr. Howell that I would like to work on roach bait. "Oh no", he said, "We already have a student working on roach bait." When I showed him my bait and data, he said I was so far ahead that he was going to stop this other person. He wanted me to work on food

preferences of roaches. At Dr. Howell's direction, I spent two years working on food preferences for different species of roaches before attending Oklahoma State. I developed a statistical method to test four or nine baits per test. The tests were continued at Oklahoma State especially with liquid baits.

I won a fellowship from National Pest Control Association to attend Oklahoma State and Dr. Howell accepted all the graduate courses at Texas A&M and the three years at Purdue University. I went to Oklahoma State in September 1963 and earned my Ph.D. eleven months later in August 1964.

The U.S. Forest Service in Maryland wanted me to work for them because of my pesticide formulation experience, but had other candidates ahead of me. I came back to Dallas and visited with my friend, Dr. Ernest Laake who was formerly Director of USDA Man and Animal Research Laboratory in Dallas. Although Dr. Laake had moved the USDA Lab to Kerrville, Texas, he was now working for National Chemsearch at the time of my visit (Now NCH Corporation). Dr. Laake, was responsible for the original work with DDT and toxaphene on the control of insects and ticks on livestock and highly recommended me to National Chemsearch because of my formulation experience. The US Forest Service job offer came the day after I had accepted a position with National Chemsearch. Dr. Laake and I worked together for a year and a half when he retired at the age of 79. Dr. Laake was a graduate of Texas A&M in Entomology – Class of 1913 and lived to be 99. His close association with pesticides did not appear to endanger his longevity.

With more than thirty chemists working in their laboratories National Chemsearch grossed \$15 million in 1964. On my retirement in 2000, 36 years later, they grossed over \$800 million as a worldwide corporation.

At National Chemsearch I was the head of the pesticide and agronomy section responsible for the formulation and development of insecticides, herbicides, fungicides, rodenticides, fertilizers, growth regulators, wetting agents, etc. I was also in charge of the insectary. We had a colony of houseflies that were originally collected before World War II that had never been exposed to DDT. I kept this colony going by collecting eggs and raising them each week for thirty-six years. The company lost these houseflies within three months after I retired. They asked me to come back each week to maintain the insects which I did for six years after my retirement.

I reported the first case of Baygon resistant houseflies in the nation. They were discovered in a poultry house in Keller, Texas where I was performing some tests. Bayer Corporation did not believe that there were any houseflies resistant to Baygon. Resistant flies were collected and a colony was started in the lab. In a test, the non-resistant flies were dead in a few minutes, while the resistant flies were alive after one hour. Bayer representatives admitted that this was definitely a bona fide case of resistance.

My expertise was in making stable emulsifiable products. Some of my accomplishments include:

- Making the first Delnav formulation that passed the rigid USDA 90 days emulsion stability test that was approved for use in dipping vats in quarantine area to control ticks on cattle.

- Developing a stable emulsifiable Baygon formulation that did not separate or split when added to water.
- I did the original work in developing the Golden Marlin fly bait. DDVP was mixed with powdered sugar and pressed into flakes instead of coating sugar granulars to reduce the repellency of DDVP to houseflies.
- Running toxicity tests with rainbow trout and bluegill sunfish to support dibrom registration for use in trickling filters at sewage treatment plants to control filter flies. A room was constructed with refrigeration to get the temperature down to 45 degree F for the rainbow trout.
- The company sold the roach bait as Roach Strike.

Over the years, I have formulated hundreds of products. Some of the technical pesticides I formulated were DDT, toxaphene, chlordane, lindane, dieldrin, aldrin, heptachlor, DDVP, malathion, dursban, Baygon, Sevin, Lannate, pyrethrum, synthetic pyrethroids, boric acid, rotenone, plus many herbicides and fungicides, etc.

The struggle I went through has been a blessing. If it had been otherwise, I would not have had the opportunity to learn the whole field of formulation and product development, which turned out to be my life's work. I made a lot of friends and learned much everywhere I have been. I ended up with a career I really loved with very good bosses and spent forty years doing research, formulation and product development.

Despite the difficulties, I have kept in touch with all of my professors. Some of the best and happiest years of my life and some of my fondest memories were on the campus of Purdue University where I developed many close friends. The first year at Purdue I lived with a family in Lafayette with whom I have maintained contact through the years. I worked at the Zeta Tau Alpha sorority house next to the campus, washing pots and pans for my meals. Mabel Walker was the cook for the sorority house. My wife and I later spent the night at her house several times when we visited Purdue. Dr. Don and Mary Schuder spent a couple nights in our home during their visit in Irving, Texas. Dr. Leland Chandler's family also spent a couple nights in our home. Dr. and Mrs. Schuder, and Dr. John Osmun have visited my laboratory and the plant manufacturing facilities where I worked. Dick Wright and I were lab partners in Dr. John Osmun's 515 pesticide formulation course where I did my first pesticide formulation. Clearly, this first experience with pesticide formulation was an important beginning of what became my life's work. Dr. Ralph Killough was a good friend who loaned me his class notes. Dr. Bill Bowers and I continue to keep in touch through e-mail.

One weekend, Mr. Arnold Mallis, the author of the "Handbook of Pest Control", honored us with a surprise visit. Mr. Mallis had an interest in the identification and study of ants. After a brief visit, we looked for ants in our yard and found some tiny black ants, which he put into a small vial and took with him.

I have a beautiful, lovely wife, a family of three married sons and now grandchildren. I retired in 2000, but still collect insects. I have 14 cases of

insects on three walls in the house. My wife, Ann, taught science and was chosen as the Texas State Teacher of the Year in statewide competition in 1986.

Michael D. Miesch III is a Senior Program Manager for Avaya. He is married to Jean Marie who is an accountant for St. Gabriel's Catholic Church. They have one son who was conceived after 16 years of trying to have a family. They reside in McKinney, Texas

Mark David Miesch is Vice President and Director of Project Management for a Design-Build-Developer in Houston. He is married to Tracy Lynn, who is self-employed in Sales and Marketing. They have three children, Margaret Ann, Meredith Estelle, and Donovan Andrew Miesch. They live in Magnolia, Texas which is northwest of Houston.

Paul Martin Miesch is a writer. He is married to Christy, who is a pharmacist. They have one son Nicholas Asher who was born on April 27, 2014. They live in Austin, Texas.

I am an Eagle Scout with 76 merit badges, a Vigil member of the Order of the Arrow, and have earned Scouting Wood Badge and Beads. I was awarded the Silver Eagle for the Explorer Scouts, which was supposedly equivalent to the Eagle Badge for the Boy Scouts. The Silver Eagle is no longer offered by the Boy Scouts of America. I have also studied Indian dancing and made numerous performances. The Greater Dallas Pest Control Association presented me a plaque as an honorary member of their association. In 2010 Paris Junior College inducted me into their Academic Hall of Honor for Science with a very beautiful plaque and my picture on the wall. This is a brief story of my life.

I am thankful and grateful for the education and experience I received at Paris Junior College, Texas A&M, Purdue, SMU and Oklahoma State Universities. Each of these fine academic institutions possessed great professors and teachers. I learned a great deal and made many friends that I cherish to this day. I am very thankful to my brother, Pete, for helping me through grade and high school, the students who willingly loaned me their notes and the professors who helped me reach my great desire in college education. My brother, Pete, was awarded a B.S. in petroleum engineering and later went on to receive his Ph.D. in petroleum engineering at Texas A&M. Two of my sons are graduates of Texas A&M University and the other son is a graduate of the University of Texas at Austin.

The professors at Texas A&M giving me C's in graduate school and Purdue sending me home was a blessing in disguise. Otherwise, I would have missed the opportunity to learn chemistry, research, formulation and product development which became my life work and to meet the beautiful and lovely lady who became my wife. It was also helpful that I was able to do two years research on my dissertation at the company before entering Oklahoma State which enabled me to get my Ph.D. in eleven months. I am truly thankful for my family, friends, and for all the blessings I have received. I had a very rewarding career and all of my dreams and desires have been fulfilled.

From this brief safari through my life's adventures I believe you will understand that my hopes were carried forward on a river of perspiration and that hope is not enough.

Michael D. Miesch Jr.

Mike is a Roman Catholic, a lay Dominican, a member of the Serra Club and has attended Mass daily since 1970.