

History of the Grain Science Department (1992-1996)

By

Dr. Richard R. Hahn

In November 1992, Dr. Charles Deyoe stepped down as department head and returned to the faculty. Dr. Richard R. Hahn took over as department head. He had obtained a BS degree from Bethany College, Lindsborg, KS and MS and PhD degrees from Kansas State University in chemistry. From 1956-1967, he was a research scientist with Harvest Queen Mills, Plainview, TX, developing food and industrial uses for grain sorghum. Dr. Hahn then joined A.E. Staley in Decatur, IL a major processor of corn, sorghum, wheat, and potatoes, advancing from senior scientist to vice president of research and development over his 20 year career. After retiring from Staley, he spent 2 years as Assistant to the Dean of Agriculture, University of Illinois, for Technology transfer. He also traveled to the Orient for the US Grains Council, seeking new opportunities for grain exports and grain technology commercialization. Dr. Hahn returned to Manhattan in 1989 to start the Kansas Value Added Center, a legislative initiative to assist agriculture processing business in the state.

Faculty

Dr. Hahn took over a department with a national and international reputation as the leading grain technology school in the world. The entire faculty had industrial experience coupled with many years of teaching and research experience. He inherited the following faculty from Dr. Deyoe.

Faculty

Keith Behnke
Bob Bequette
Steve Curran
Charles Deyoe
Dale Eustace
Jon Faubion
Jeff Gwartz
Carl Hosenev
Roger Johnson
Carol Klopfenstein
Robert McEllhiney
John Pederson
Joseph Ponte
Bob Pudden
Robert Schoeff
Paul Seib
Chuck Walker
David Wetzel

The AID contract with the Food & Feed Grains Institute ended in the early 1990s. The program remained active for a time, looking for a new contract, with Roe Borsdorf remaining as program director when the FFGI was moved administratively to the Dean of Agriculture's office. Most of

the personnel were absorbed by University departments. These included Ekramul Haque, Harvey Kiser, and Dosup Chung.

Student Enrollment

Our student recruitment efforts paid off with total department enrollment reaching 212 in 1996, a new department high. By curriculum, enrollment broke down as follows:

Milling Science & Management: 120

Bakery Science & Management: 40

Feed Science & Management: 52

Part of the reason for the enrollment increase was the abundance of high paying job opportunities for our graduates. All were placed each year with most having multiple offers and many receiving “signing bonuses”. The internship program assisted placement as did the scholarship program. Our scholarship numbers and dollar amounts were #1 in the college of Agriculture, leading to attracting Kansas “brightest and best” and encouraging students to transfer into the department.

Graduate student enrollment also reached record numbers with more than 80 students. Research topics were heavily Baking oriented but there were also significant emphases in grain storage, feeds, grain quality, nutrition, and milling.

Curriculum

Changes were made in all 3 curriculums in response to input from the 3 industry advisory groups. Industry wanted graduates with more business training but still having the engineering training, “hands on” operating skills, and communications skills. This is a difficult task but was accomplished with the cooperation of the Ag business group and by adding operations management courses. The curriculum is an ongoing discussion point with the advisory committees. However, one thing is clear; our blend of “hands on” training, theory, and internships allows our students a fast start on the job.

New Research & Teaching space for the department

When I arrived in 1992, it was obvious the department was faculty limited. In addition, offices & laboratories were crowded and in poor condition. We immediately started a general lab cleanup and began painting of halls, offices, and classrooms. By the end of summer, Shellenberger had been completed and we started on Feed Tech and Waters. Many of these areas had not seen paint in years and years!

In 1993, space in East Waters basement and Waters Annex became available. These were assigned to Grain Science but there was no money provided to adapt these areas to new and different uses. So we scraped together small amounts of funds and slowly began making these labs and offices habitable without major changes.

IGP already occupied the southwest corner of Waters Annex. This area had been renovated with funds from the Kansas Wheat Commission. There were some labs in good shape in the north end of Waters Annex and Pederson’s Mycotoxin work was moved to there. The southeast corner of the Annex was slowly remodeled into the flour and dough teaching labs and for bakery

research. The large lab in the central area of the building took a couple of years to make suitable for Dr. Flores milling research.

At the same time we received a classroom and 4 laboratories in east Waters basement. These became home for Dr. Herman's grain quality research, Dr. Reed for grain storage, and Dr. Sun's utilization work. Other than painting, we did not have funds except for Dr. Sun's laboratories where the Dean gave us some start up funds to adapt these areas to new use. We also received a cold room in central Waters and a shared storeroom in this same area. These new laboratories increased the department research space by about 25% but the space was old and in poor repair and did not help the overall condition of the laboratory space.

During this same period, several new laboratories for the department's research came into being. First, the wheat quality breeders' lab was established in new facilities in West Throckmorton Hall in cooperation with the Agronomy Department and the Kansas Wheat Commission. Agronomy provided the laboratory space, Grain Science staffed and managed the laboratory, and work was funded by the Kansas Wheat Commission. This brought together the plant breeders and the cereal scientists charged with evaluating new varieties and has led to better communication and faster commercialization of improved wheat varieties.

At about the same time, Dr. Wetzel received a major NFS/EPSCOR grant to establish a Microbeam spectroscopy laboratory. A state of the art imaging microscope was purchased and installed in a laboratory in Willard Hall made available by chemistry, and a classroom was also obtained. The space was later lost when the Art Department took over Willard and Wetzel moved the Microbeam Spectroscopy laboratory to Grain Science space in Waters Hall.

A cooperative wet milling laboratory and food processing laboratory was established in Ag Engineering with Grain Science, Ag Engineering, Chemical Engineering and Food Science participating in using the lab. Funding was provided by Kansas Value Added Center and the Dean of Engineering.

One of my toughest struggles was to get department control of the parking spots in the dock area. After 3 years of discussion with parking services, the department gained use of this area for department visitors and clients. Having these spaces has served the department well.

A much needed major improvement to Shellenberger was the renovation of the 204 conference room. The Millers National Federation's K-State Committee provided funds for the work. Asbestos was found in the room so it took a long time to remediate and complete. This conference room provided meeting space for clients and visitors that we could be proud of. In 1996, the Millers National Federation also provided \$150,000 in seed money to begin planning new facilities for the department.

Scholarships

The department has been fortunate to have the loyal support of its alumni, friends and industry over many years. We have many endowed and annual scholarships that have enabled us to provide scholarships to many of our students. We lead the College of Agriculture in number of scholarships and dollars awarded. A significant contribution to scholarships in this time period

was the 1992 pledge of \$500,000 for 10 scholarships of \$5,000 to \$10,000 per year for Milling Science majors. This insured a flow of outstanding graduates to the milling industry.

International Grains Program (IGP)

This program, started by Dr. Deyoe, continued strong during this period. Dr. Deyoe took over as Director with Roger Johnson as assistant director. The program was active with regular short courses and short term trade team activities and tours. A number of the industry short courses offered simultaneous translation, and industry experts were a regular part of the teaching team. Annually, we averaged around 8 short courses and trade teams and other training courses.

Extension

During this period, service to the feed industry remained an important part of the program but grain quality under Tim Herman became a major focus.

Faculty Honors

Schoeff- Feed
Eustace – Named Hal Ross milling professor
- AOM President
Seib – Japan Starch Association Award
Hoseney – AACC President
Hahn – AACC Past President

Faculty Losses

Bob Bequette
Steve Curran
Jon Faubion
Carl Hoseney
Roger Johnson
Robert McElhiney
John Pederson
Joseph Ponte
Bob Pudden
Robert Schoeff

New Hires

John Brent
Fred Fairchild
Rolando Flores
Tim Herrman
John Howard
Finlay MacRitchie
Pat McClusky
Moses Okot-Kotber
Susan Sun
Kathy Tilley
Marvin Willyard

“Second Bite” 2006 to 2008

With the sudden departure of Dr. Virgil Smail to industry, Dr. Richard Hahn was asked to return as the Interim Department Head while a search was conducted. He served from Nov '06 to May '08 when Dr. Dirk Maier came on board. The department had expanded rapidly under Dr. Smail, and Hahn's role during this 18 month period was to consolidate this expansion and get the department ready for new leadership.

Faculty additions

Praveen Vadlani

Buddhi Lamsal

Highlights for this period

- Worked with the Foundation to secure a \$2 million lead gift for the Feed Mill. The mill will be named for H. O. Kruse of Western Feed Milling Co of Ontario, CA, recognizing the generous contribution from the Kruse family.
- Leland McKinney and Mark Fowler developed an expanded Wheat Quality evaluation and marketing program for the Midwest region. The program was funded by 5 state wheat commissions. Necessary milling equipment was obtained by a gift from the Kansas Wheat Commission and Buhler Company of Uzwil Switzerland.
- An ethanol production option was added to the feed curriculum.
- Buhler Scholarship was established for exchange of students between Grain Science and the Swiss Milling School.
- A total of 5 endowed or Sponsored Chairs existed in Grain Science
 - o Hal Ross Milling Professor – Jeff Gwartz
 - o Buhler Milling Professor – Kendall McFall
 - o Singleton Chair – Jon Faubion
 - o BNEF Bakery Professor – Dave Krishock
 - o Enzyme Development Corporation – Buddhi Lamsal