

## **History of Marketing Programs in the Department of Agricultural, Food and Resource Economics of Michigan State University, Circa 1950 to 2014**

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In 1949, the Agricultural Economics Section of the Economics Department of the Division of Science and Arts and the Farm Management Department of the College of Agriculture at Michigan State College merged to form the Department of Agricultural Economics. Thomas K. Cowden was appointed head of the department. In the formative years, the traditional field of farm management was clearly identified with 11 staff members. By the beginning of 1954, staff members oriented to marketing had expanded to 15, covering such areas as dairy, livestock, fruits and vegetables, retailer education and consumer education. Undergraduate and graduate courses on cooperatives had been offered but had been dropped by 1952 (Hill, 1966, 1968, 1970).

(Emphasis in this documentation will be on extension programs in marketing, but references to research and teaching will also be included. Typically, extension specialists in the department have had joint appointments also in research and teaching. The writing will also be oriented to the participation and experience of the authors. Jake Ferris began a PhD program in the department in the fall of 1952. After the U.S. Army interrupted his career for two years beginning in the fall of 1953, he joined the department in January 1957. James Hilker joined the department in 1982 and has continued there since. Jake retired in 1997.)

Agricultural economics at Michigan State College was not very well known nationally, and had not established a reputation, when Jake Ferris received his BS in agriculture at Purdue University in 1951. Headed to Cornell University for an MS, he was alerted by Professor Richard Kohls, his Purdue teacher in ag econ, not to overlook Michigan State for further graduate work, where a strong program was being built. Kohls was aware of the Purdue input, not only for professional contributions but also for leadership. Tom Cowden had been on the faculty at Purdue before becoming Director of Research for the American Farm Bureau Federation, his position when President John Hannah appointed him as chair of the newly organized unit in 1949 (no search committees then).

Prior to Tom Cowden's appointment, Clifford Hardin, with a PhD from Purdue, joined the faculty in 1944, moved up to Director of the Agricultural Experiment Station, then to Dean in 1953. In 1954, he resigned to become Chancellor of the University of Nebraska and in 1969 was named U.S. Secretary of Agriculture by Richard Nixon. In the 1948-50 period, three other Purdue products joined the agricultural economics unit, Lawrence Boger, Robert Kramer and Dale Butz, all with bachelors and masters degrees. Boger and Kramer finished PhDs at Michigan State and Butz at Cornell. Larry Boger moved up through the administrative ranks at MSU and became President of Oklahoma State University. Bob Kramer became President of California State Poly Tech College at Pomona, CA and Dale Butz, a brother of Earl's, became Director of Economic Research for the Farm Supply Co. of Bloomington, IL.

## The Outlook Program

A major marketing program of the department has been called “Outlook.” This activity has been part of a broader national effort, which could be called “the USDA/Land Grant Extension Outlook Program” begun in 1923 (Ferris, 2011). Before 1950, the participants at Michigan State were in farm management. Herb Berg, farm management specialist in the precursor of the Agricultural Economics Department, gave Jake Ferris copies of the national outlook conferences held in the 1930s.

“Outlook” also belongs to the early agricultural policy group in the department gaining national recognition. The extension program was headed by Art Mauch and the research and teaching by Dale Hathaway. (Jake Ferris accompanied Art to a National Agricultural Outlook Conference in Washington D.C. in the 1960’s. Art had attended this conference a number of times before and was often outspoken in his responses from the audience when called upon. This time, he was not quite ready for an answer, but wittingly replied to the speaker, “My Dean sent me here to learn. He told me, ‘Mauch, when you are talking, you aren’t learning.’” The audience applauded loudly.)

The outlook programs varied from state to state over the 1960 to 2014 period, and new electronic media were quickly applied in the individual states. In Michigan, for example, Jake’s annual report in the mid 1960s covering field crops and livestock listed 38 farm magazine articles (including regular issues of the major state farm publication), 25 articles in departmental, other university and trade publications, 70 radio programs, 45 public speeches and the organization of 20 outlook meetings. Other outlook presentations were part of programs sponsored by farm and agri-business organizations. Other extension specialists covered the outlook for dairy, poultry, fruit and vegetables. In the early years, the marketing team included Donald Stark on livestock, Gerald Quackenbush and Glynn McBride on dairy, Henry Larzelere on poultry and George Motts on fruit and vegetables.

The department published and distributed a monthly newsletter called “Michigan Farm Economics” with the major topic changing from issue to issue. A feature of each issue was a page on the agricultural outlook and a table of price statistics. For a few years, a weekly single sheet two page mimeograph was distributed to county agents for their own publications, radio spots, etc. (The title, “The Outlook for Michigan Farm Prices,” was pre-printed on each sheet. The mimeograph machine missed printing the first page on one copy. The county agent receiving it sent it back and scrawled across the first page, “Never has the outlook been so bleak and so blank!”)

Throughout the period from about 1960 to 2014 has been the monthly or bi-monthly appearance of the department’s outlook material in a state publication. For many years the outlet was *The Michigan Farmer*; and following the termination of that publication, the Michigan Farm Bureau’s *Michigan Farm News*. Numerous surveys found the outlook page to be the most read part of the publication.

Later, outlook programs shifted to television, electronic links to county extension agents and to the internet. One of the innovations James Hilker introduced in the 1990s was a regular feature

on the web entitled, “Market Outlook and Probabilistic Price Forecasts for Livestock and Grains.” Hilker was responding to earlier prodding by his profession for probabilistic forecasts such as were promoted by Gene Nelson of Oregon State University, later at Texas A&M University (Nelson, 1980).

During the 1960s, Jake wrote a monthly outlook page for a publication called the *National Live Stock Producer*, based in Chicago and distributed throughout the country. The editor wanted price forecasts on cattle, hogs and sheep for the month following each issue. This was somewhat of a challenge because the publication was distributed a month after Jake wrote the articles. In 1965, the editor confided to subscribers that he wondered whether a computer program could make those predictions. After interviewing experts in the USDA, he was told that, “You have a man on your staff that can not only beat us but is better than any computer you’ll ever find.” Of course, Jake was humbled by that assessment and never knew who those “experts” were. Because of his exposure in the magazine, the Chicago Mercantile Exchange invited him to present a lecture on factors affecting cattle prices when the CME first introduced live cattle futures.

In the 1960s and 1970s, the format of the USDA/Land Grant Extension Outlook Program was fairly well established. In the fall or early winter when the National Agricultural Outlook Conference was held, one or two representatives from most of the Land Grant institutions attended. Usually, these persons would be identified as extension specialists in market analysis or in farm policy.

The value was an opportunity to hear from the commodity experts -- mostly from the Economic Research Service (ERS). But broader than that, those in attendance also were privileged to hear from economists outside agriculture on the general business outlook, foreign competition and other issues of interest to rural populations. Of course, government farm programs became a standard topic in this period. In addition, agricultural economists from agri-business and foreign nations were in attendance to add to the mixture of expertise. Attendees also took advantage of the opportunity to sit down with the ERS commodity specialists to obtain more specific answers to inquiries. Informal gatherings with other extension specialists and agri-business colleagues were also a feature.

Possibly more important than, or at least as important as, the national meeting were the regional conferences. The standard Midwest Agricultural Outlook Conference, for example, could focus on the commodities and issues most relevant to that region of the U.S. These meetings were held at a strategic time (in August) as the state specialists were preparing for the fall and winter outlook meetings. Key USDA economists were invited to participate, but state specialists provided most of the program. The attendance was restricted to the state specialists and invited USDA personnel.

In 1978, Jake Ferris was on a committee of members of the AAEA (American Agricultural Economics Association then), that launched a survey of the association concerning the agricultural outlook for the coming year. Later, for a period of years, both Jake and Jim Hilker were responsible for conducting the survey. The report on the results of the survey became a regular program for Extension Track Sessions at the annual meeting of the AAEA. Besides

providing consensus about the outlook, continuity of the survey has been providing an excellent base for evaluating forecasts. Since 1989, the forecasters have been evaluated across five sectors – livestock, dairy, poultry crops and the general economy. Among 37 individuals who have received awards over this period, as of 2014, Jim Hilker ranks Number 1 in frequency and Jake Ferris is Number 4.

## **Long Term Projections**

Michigan State University's "Project '80" initiated in early 1964 was one of the first to engage not only other departments in the College of Agriculture and Natural Resources but also those in other colleges with experiment station and extension staff. Also, reviewers of the basic documents included farm leadership and representatives of agri-business.

Project '80 was designed to answer three questions; (1) What will rural Michigan be like in 1980, *in the natural course of events*? (2) What do rural people and others concerned want it to be like in 1980? (3) What can be done to capitalize on the opportunities, avoid impending problems, or change the natural course of events and redirect Michigan's rural economy toward the goals? Interdepartmental committees were assigned to answer these questions. Preparatory papers provided them with assumptions, analyses and projections at the national level from members of the Department of Agricultural Economics.

In Phase 1 of the project, papers were prepared on the environment for rural Michigan in 1980 including population and income growth, agricultural programs, the U.S. demand for food, foreign trade prospects and organization of markets. Projections on the U.S. demand for food were furnished by Rex Daly of the USDA. In Phase 2 of the project, papers were prepared on the outlook for major crop and livestock enterprises, farm adjustments, farm labor, farm machinery and equipment, credit and food wholesaling and retailing. Other papers covered the nursery and floricultural industries, use of land and water resources, outdoor recreation and tourism, the timber industry and commercial fisheries. Attention was also given to rural family living and rural youth.

In total, some 50 discussion papers were prepared involving more than 100 individuals. In Phase 3 of the project, about 200 individuals outside the college joined the faculty for a two day seminar in the spring of 1965 to review the papers and provide input. A series of 16 reports were published and summarized in *Highlights and Summary of Project '80* (Ferris, 1966).

The value of Project '80 was more than providing something of a blueprint for rural Michigan for 15 years into the future. The subject of outlook was of common interest to the broad base of Michigan State University faculty, its administrators and its stakeholders beyond the campus. This furnished a forum for substantive discussion.

The value of this type of a long range look ahead has been verified by the number of times similar efforts have been undertaken later at Michigan State University and other universities. From 1972 to the mid 1990s, three additional such projects were completed at Michigan State. Tabulations through 1983 revealed that at least 10 other states had initiated broad-based long range outlook studies, in two cases twice. The project received two national awards.

A major activity in the department's research program supporting efforts like Project '80 was the development of econometric models to generate long term projections. In the mid 1970s, Deere & Company, needing regular long term agricultural projections both domestically and internationally, approached Michigan State ag economists for assistance – and the MSU Agricultural Model was established. Several faculty members were involved in the construction and maintenance of the model, and a number of graduate students received excellent training in the process. However, resources were strained. Constructed on a main frame computer, the model was eventually replaced by a desk top version called AGMOD in the mid 1980s.

Prior to the 1988 annual conference of the American Agricultural Economics Association (AAEA) in Knoxville, TN, a pre-conference was organized. The objectives were to (1) compare aggregate economic impact estimates from various large-scale quantitative models of the U.S. agricultural sector; (2) reveal, to the greatest extent possible, the structure of each model; and (3) identify ways for improving the models, their application, and the delivery of model-based policy analyses to decision makers (Taylor, et. al., 1988). For proprietary reasons, private forecasting firms were not invited. AGMOD was invited and did participate. Unfortunately, FAPSIM, the major USDA model was not able to do so, but 6 other models did accept including:

AGSIM, a regional econometric-simulation model of crop and livestock production.

CARD LP, a regionalized linear programming model.

COMGEM, a macroeconomic-simulation model emphasizing U.S. agriculture.

FAPRI, an econometric-simulation model of U.S. agriculture with international linkages.

NAC/BLS, an international linked set of econometric/programming models.

POLYSIM, a simulation model of crop and livestock production in the U.S.

Later, this pre-conference of the AAEA became known as the “War of the Models.” Jake enjoyed the experience and exposure for AGMOD. His quick evaluation of the 10 year projections for major agricultural variables in 1988 was that AGMOD's projections carried about the same error terms as the other models, but in the opposite direction. That means that the consensus forecast was closer to the truth because of AGMOD – not comforting, but at least a contribution.

Two unique applications of AGMOD were (1) to utilize gross enterprise margins in supply analysis and (2) to generate crop yields and thereby prices as probability distributions. On crops, the major independent variables were gross margins over variable costs per acre deflated by an indicator of general inflation. Farm program components were also included. On livestock, deflated gross margins over feed costs in combination with indicators of other costs were employed in supply analysis. Probability distributions for crop years were generated by repeated solutions to AGMOD (as many as 500 to 1000) with random draws from representative patterns. (Ferris, 1989, 1999).

Connected with the development of AGMOD has been an associated development of MI-AGMOD, a satellite of AGMOD – a model of Michigan agriculture. Precursors and later development of this model supported the four long range planning efforts of the college and numerous other endeavors. In 1983, MI-AGMOD was employed for background information in

a “Governor’s Conference on Agriculture” and, in 1988, an Ag Econ Staff Paper on “The Long-Term Outlook for Michigan Agriculture and the Food Industry” was based on its output (Ferris, 1988).”

MI-AGMOD was the analytical tool in two consulting requests. The report on “Economic Consequences Associated with Bovine Tuberculosis in Northeastern Michigan” (Leefers, Propst and Ferris, 1997) and “Economic Implications of Projected Land Use Patterns for Agriculture in Michigan (Public Sector Consultants, 2001)”. The first was requested by the Michigan Department of Agriculture, Michigan Department of Natural Resources and the Michigan Department of Community Health. The directors of these departments rated the 1997 study as an “excellent” report. The second report became a chapter in *Michigan Land Resource Project*, prepared for the Michigan Economic and Environmental Roundtable by the Public Sector Consultants, Inc.

## **Economic Development**

With the growing interest in biofuels starting with the federal Clean Air Act Amendments of 1990, sectors on ethanol and biodiesel were developed for AGMOD. Papers were written and presentations were made on the possible impact of this legislation on agriculture. The economic impact of a dry mill ethanol plant in Michigan was evaluated. A technical, economic and environmental analysis was conducted on biodiesel use in Michigan.

Several studies were initiated on the economic impact of agriculture, food, agribusiness and specific commodities. The major publication, “An Analysis of the Importance of Agriculture and Food Sector to the Michigan Economy” has been updated by the Product Center of Michigan State University (Ferris, 2000; Knudson and Peterson, 2012). An analysis of the potential for soybean processing in the state provided assistance for the first solvent-type mill in the mid 1990s, an operation which has proved to be successful. Other studies evaluated the contribution of the sugarbeet and soybean industries to the state economy.

## **Marketing Workshops**

With the expansion in forward pricing tools including livestock futures in the 1960s and options markets in the 1980s, along with the accompanying cash contracts, the need to educate farmers, county extension educators, bankers, agri-business and others on these alternatives became apparent. The core teaching and sponsoring group for these Extension Marketing and Pricing Workshops typically included as many as eight campus based specialists, and over 20 county extension educators. The format included up to three full day sessions. Over the years, cumulated attendance reached about 8000.

As an example of the impacts of these workshops as well as the resources involved, an evaluation was conducted on those held in the winter of 1982 (Austin and Ferris, 1982). During January to March of 1982, the Department of Agricultural Economics and district and county extension agents sponsored some 20 marketing and pricing workshops in various parts of the state. Over 600 persons attended these sessions. Most of the workshops involved 2-3 day

commitments, each typically 4-5 hours, from 9:30 a.m. to 3:00 p.m. There were 6 special single-day workshops handled by the field staff.

Rich information was collected from pre and post surveys. Participants who filled out the questionnaires at 14 of the workshops (farmers at 6 workshops were not tabulated) represented 3-4 % of the harvested acreage of corn, soybeans and wheat in Michigan and about 1.0% of the milk cows, .65% of the beef cows, 6.4% of the cattle-on-feed and 1.6% of the hogs. Estimating the acreages represented by those attending workshops not tabulated plus those who did not fill out the forms at workshops which were tabulated, the total coverage very well included 4-5% of the acreage harvested in the state in 1981.

Much detail was collected on their size of farms, marketing practices and suggestions for improving the workshops. Participants demonstrated improved understanding of marketing at the conclusion of the workshops. In the overall evaluation, 8% rated the workshops exceptional, 56% very good, 27% good, 4% satisfactory and 2% below standard.

Jake was a member of a North Central Extension Marketing Committee which produced a number of publications that proved to be useful for all the states involved. Jake authored two on *Using Seasonal Cash Price Patterns for Selling Decisions on Corn, Soybeans and Wheat* and *Developing Marketing Strategies and Keeping Records on Corn, Soybeans, and Wheat* (Ferris, 1985).

Later in the 1980s, options on futures were introduced into the tools for farmers to use in their forward pricing alternatives. The North Central Extension Marketing Committee was called upon to help educate farmers concerning this new tool. Jake was involved at the national level to launch this project, and obligated to organize a conference for marketing specialists in the North Central Region. With this new tool for forward pricing agricultural commodities, Jake was asked to write a chapter on “Marketing Strategies and Alternatives for Individual Farmers” for *Marketing U.S. Agriculture*, USDA’s Yearbook of Agriculture for 1988 (Ferris, 1988).

## **General Marketing**

In the early 1950s, a major marketing research project of the department was a consumer panel of approximately 210 families. They reported weekly on their food expenditures. The MSU Consumer Panel, operated under the direction of Gerald Quackenbush and James Shaffer, furnished data on per capita income, age of homemaker, and size of family. While very useful for conducting programs with producers, consumers, wholesalers, retailers, etc. and worthwhile for the years involved, the survey was eventually discontinued because of the magnitude of the data management and the need to spend more resources in analyzing the information.

As Michigan farmers were watching the terms of trade going against them in the early 1950s – that is, farm prices were dropping and the index of prices paid by farmers was not – they got the ears of the state legislature about their plight. While appreciative of the Land Grant System in improving the efficiency of production, farmers felt that resources should also be directed at marketing. The legislature responded and additional funds were obtained from the federal Agricultural Marketing Administration. Most of the support was for extension, but also funds

were allocated for research. The personnel included on-campus specialists, a group called “District Marketing Agents” to work in various locations in the state with the specialists, county extension agents, farmers and others involved in marketing. Another group were called “Consumer Marketing Agents” located in major cities. The program, which began in 1954, was headed by Robert Kramer, a faculty member in Agricultural Economics.

Fourteen campus specialists involved came from the Department of Agricultural Economics. Dale Butz from the department headed retailer education.

As stated by Einer Olstrom and Howard Miller who authored the book, *Plus Two Score, The Cooperative Extension Service in Michigan, 1940 to 1980*, “Staff worked with growers, marketing organization, wholesalers, retailers and consumers. Where commodity groups were ineffective, agents helped to organize cooperatives or marketing associations. Retailing specialists held workshops for store managers, produce department staff and store employees. Economists developed strategies for market promotions and provided regular market analysis through newsletters, reports and publications (Miller, 1984).” (Jake Ferris was tapped often by the Consumer Marketing Agents to supply price forecasts for meat built on his forecasts for livestock prices.)

The staff also worked with processors. As further stated in the book, “Extension marketing programs became well recognized. For producers, increased emphasis was given to market outlook, interpretation of market information, grades and standards and market regulations. Assistance was given on pricing, market development, sales organization and market efficiency. For firms, dozens of activities were organized from management workshops to processing plant design. Consumer agents as early as 1958 were providing food buying tips to low-income families.”

As examples of how campus specialists in agricultural economics worked with the District Marketing and Consumer Marketing Agents, workshops were held to provide them with a better understanding of the agricultural and food sectors, and also marketing tools. In 1978, three slide tape presentations were developed for their use with clientele – “World Food Prospects,” “Food Prices – Today and Tomorrow” and “Inflation – Public Enemy No. 1.”

Later, as noted by Miller, there was attrition as appropriations failed to keep up with inflation. However, this program did continue through 1980, the ending year for the book, and beyond.

In the latter part of the 1980s, Ferris and Hilker conducted a major in-service training program in marketing education for selected county agents. In the first year was a series of workshops on campus. In the second year was a tour of Midwest markets and agribusinesses, including Chicago, IL and St. Louis, MO. In the third year was a trip to the Pacific Rim which included Seoul, South Korea; Hong Kong and Guanzhou, China; and the area around Tokyo, Japan. Visited were wholesale and retail food markets, processing facilities, farms, educational facilities, some tourist sites, etc. The Michigan Department of Agriculture had an office in Hong Kong that was helpful in the China leg of this international educational program..

## **On-Campus Teaching**

### **Undergraduate Courses**

In the 1960s, Jake taught an undergraduate course in agricultural prices and marketing which featured a day trip to Detroit to the major wholesale market for fruits and vegetables, stockyards, livestock and dairy processing facilities and the Kroger warehouse in Livonia. The local extension District Marketing Agent was involved and very helpful in this educational supplement. With some pride, Jake recalls that John Engler, former Michigan governor; Jack Lauri, former President of the Michigan Farm Bureau; and Don Nugent, prominent fruit grower and processor, and former member of the Board of Trustees at Michigan State University took that course. Students from that class still tell him that this trip was the most memorable part.

In the early 1980s, undergraduate students complained to the administration of the department that there was no course that covered futures markets in depth. As the result, FSM 441 (Commodity and Futures Marketing) was developed with the first class in the spring of 1982. This course filled a void that had existed for several years in the FSM (Food System Management) program. The course has provided background information and a frame of reference for undergraduates and those graduate students who want to analyze futures markets and understand the functions they serve.

The course was popular. From 1982 to 1995, years in which data is available, the average enrollment was 35.

### **Graduate Course**

In 1974, Jake Ferris and Marvin Hayenga initiated AEC 845 (Commodity Market Analysis). After Hayenga left MSU for a distinguished career with General Foods Corporation, the University of Wisconsin and Iowa State University, Stanley Thompson joined Jake in the leadership of joint-teaching the course. Stan left MSU in 1990 to chair the agricultural economics department at Ohio State University.

A purpose of the course was to help students develop analytical skills in applied econometrics. As a focal point of the course, each student selected a commodity and country of choice and pursued the information and techniques necessary to generate supply, demand and price forecasts of the commodity. The students then developed a term paper on the analysis. Because over half of these graduate students have either been from a foreign country or were interested in international agricultural development, we can be grateful for the wealth of data from both the USDA and OECD-FAO for providing the necessary time series.

As with Jake's undergraduate classes in the 1960s, he, along with Marv Hayenga and Stan Thompson, can also be proud of the students taking AEC 845. Over the years from 1974 to 1995, the total students numbered about 500. Those who became members of the department included, chronologically, Larry Hamm (subsequent chair), Michael Weber, John Staatz, Valorie Kelly, David Schweikhardt, Scott Loveridge, David Tschirley, Larry Borton, Thomas Jayne,

John Whims, James Lloyd and Duncan Boughton. Other notables who left MSU included Ralph Christy and Robert King, both who later became Presidents of the AAEA.

The culmination of Jake Ferris's appointment in the Department of Agricultural, Food and Resource Economics at Michigan State University, was his textbook entitled, *Agricultural Prices and Commodity Market Analysis*, first published by WCB/McGraw Hill in 1998 and subsequently by the Michigan State University Press. The current issue is in the second printing of the second edition. This book emanated from class notes for AEC 843 and reflected his long term involvement in his joint appointment, mostly extension with the balance in research and on-campus teaching. While needing some updating, the text continued to sell in 2014.

The most appreciated evaluation of Jake Ferris's educational efforts over his career was a favorable review of his text book in the May 2004 Edition of the *America Journal of Agricultural Economics* by Andrew Barkley from Kansas State University. He states, "A great deal can be learned from this interesting and important addition to the available price analysis textbooks. The book provides a great degree of value added to the reader with previous knowledge of economic theory and introductory econometrics. The direct, compact writing style and fascinating institutional details are the book's greatest assets."

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