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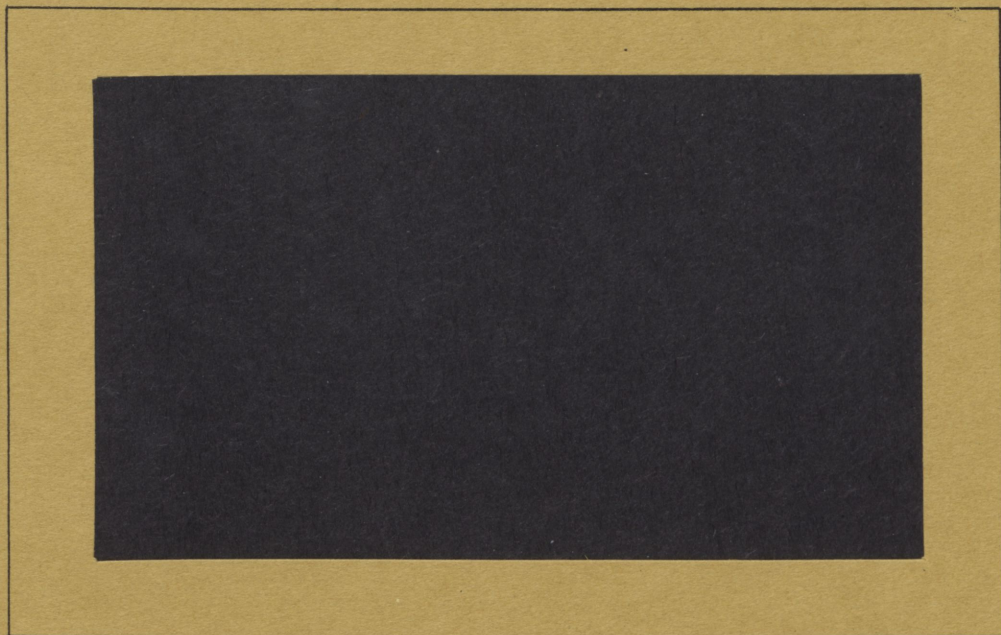
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Marketing - Bibl.

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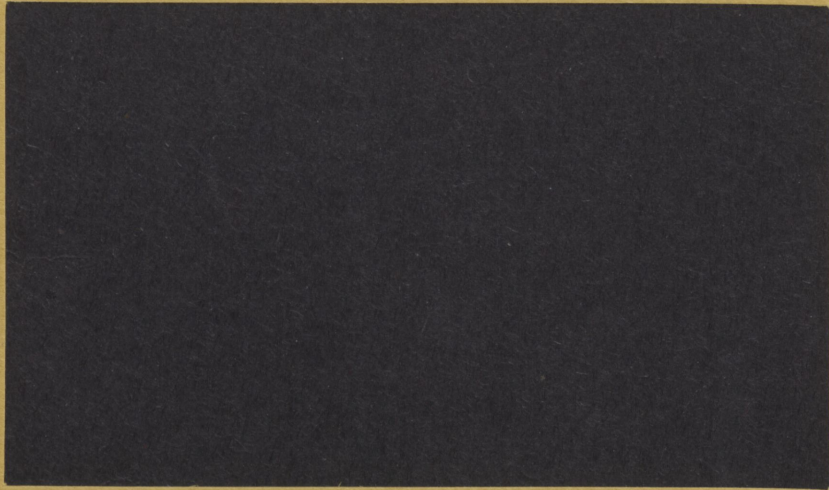
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1
2

3
4

~~MARKETING TO FARMERS~~

An Annotated Bibliography

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Working Paper AE/72/14

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INTRODUCTION

This publication contains references to over eighty journal articles, research bulletins, and theses dealing with the general topic of marketing to farmers. These publications have been carefully reviewed by the authors and are included in this bibliography because of their relevance to agricultural input markets, and in particular to farmer purchasing behavior.

Most of the publications referenced in this bibliography fall into two broad classifications - farmer purchasing behavior and the adoption of new products and techniques by farmers. Both of these areas are important to marketers of farm supplies.

The publications dealing with farmer purchasing behavior cover a wide range of topics. In terms of specific inputs studied they include feed, seed, pesticides, farm machinery, petroleum, fertilizer, and miscellaneous farm supplies. Most of the publications in this category deal with descriptions of the purchasing activities of farmers in buying these inputs; however, some explore this process in greater depth. Other topics considered in many of these publications include: dealer and brand loyalty, farmer response to marketing activities, dealer selection, shopping behavior, farmer decision processes, goal formation, and use of information sources. The findings of these studies can provide valuable guidelines to marketing decision-makers in agricultural input firms. Moreover, the methodology reported in each publication can aid others who might desire to study this phenomenon in greater detail.

The majority of the publications dealing with adoption behavior are the result of significant work by rural sociologists in this area. While their basic orientation to this area is somewhat different from input supply firms, many of their research findings have direct decision-making applications to agricultural marketers. Some of the more interesting and vital topics considered in these publications include: the adoption process, the diffusion of information in rural communities, opinion leadership, rationality in decision-making, the perception of product attributes, and the role of communication agents in bringing about change.

An attempt has been made in this bibliography to supply the reader with some basic information about each publication. In addition to the bibliographic data, each publication is also discussed in terms of the purpose or objectives of the research, the methodology used, and the conclusions or major findings of the study. Space constraints have limited the length of each discussion so only the highlights are reported. As a result, the interested reader is urged to obtain copies of those reports which are of particular interest. All of the publications listed in this bibliography can be obtained either directly from the publisher or through any agricultural library.

1. Anderson, M.A., L.E. Cairns, E.O. Heady, and E.L. Baum, An Appraisal of Factors Affecting the Acceptance and Use of Fertilizers in Iowa, 1953, Special Report No. 16, Iowa Agricultural Experiment Station, Iowa State University, Ames, Iowa, June, 1956.

PURPOSE

- To determine the characteristics of Iowa farmers who use varying amounts of fertilizer
- To ascertain the information sources important in fertilizer acceptance and use
- To determine the quantitative relationships between fertilizer use and factors considered to influence its use

METHODOLOGY

- Iowa was divided into nine general soil areas, and a random proportional sample of 532 farms was selected

CONCLUSIONS

- Users have more capital invested, larger farms, more years of formal education, and fewer years of farming experience
- Other farmers and the mass media are the most important information sources influencing farmers to accept fertilizer
- Lack of capital was the most important limitation to the use of fertilizer

2. Askew, W.R., Seed Marketing Channels for Grass and Small Seeded Legumes in the North Central States, 1954-55, Res. Rep. 158, Marketing Research Division, United States Department of Agriculture, March, 1957.

PURPOSE

- To describe the marketing channels for grass and small-seeded legumes
- To describe the functions and services performed by wholesale dealers of these seeds

METHODOLOGY

- Based upon data obtained from 59 wholesale seed dealers in the Midwest U.S.

CONCLUSIONS

- There has been a steady increase in the production and use of grass and small-seeded legumes
- Major problems include: instability in production, variations in supplies due to weather conditions, and unplanned production
- A great deal of this type of seed is sold between farmers and is generally of poor quality

3. Barban, A.H., C.H. Sandage, W.M. Kassarian, and H.H. Kassarian, "A Study of Riesman's Inner-Other Directedness Among Farmers," Rural Sociology, Vol. 35, No. 2, pp. 232-243, 1970.

PURPOSE

- To investigate inner-other directedness among farmers
- To examine the relationships between social character and the demographic characteristics of farmers
- To study adoption leadership and innovation proneness
- To examine the relationship between inner-other direction on the one hand, and adoption leadership and innovation proneness on the other

METHODOLOGY

- Mail questionnaires sent to 954 members of an Illinois farm panel maintained by the Farm Research Institute of Urbana, Illinois
- Measuring instruments included the "Inner-Other Social Preference Scale," and two self-rating psychometric scales

CONCLUSIONS

- Revealed that inner-other directedness, innovation proneness, and adoption leadership are normally distributed
- Inner-directed farmers exhibited the highest degree of innovation proneness
- It is likely that face-to-face and mass media approaches can be made more effective by knowing the inner-other directedness of one's audience

4. Beal, G.M. and J.M. Bohlen, The Diffusion Process, Special Report No. 18, Cooperative Extension Service, Iowa State University, Ames, Iowa, November, 1962.

PURPOSE

- To summarize the process by which farm people accept new ideas on products

METHODOLOGY

- Based on the findings of 35 previous research papers

CONCLUSIONS

- The process by which farm people accept new ideas is not a unit act, but rather a series of complex stages
- The five stages are: awareness, interest, evaluation, trial, and adoption
- The value of alternative information sources depends upon the individual's stage in the decision process

5. Beal, G.M. and J.M. Bohlen, "Why Do Farmers Buy Their Machines Where They Do?", Farm and Power Equipment, St. Louis, Missouri, February, 1965.

PURPOSE

- To determine why farmers buy machinery where they do
- To discover what services and characteristics of dealers are considered important to farmers
- To determine which information sources are considered by farmers to be the most useful

METHODOLOGY

- A random sample of 1,027 United States farmers were surveyed

CONCLUSIONS

- Sixty percent of all farmers have no specific method for determining the amounts they invest in machinery
- Dealer selection is based to a large extent on the brands carried by the dealer, parts and service policies, and costs or deals available
- Major machinery information sources include farm magazines, company literature, local dealers, and demonstrations
- Dealers should aim to project an image of standing behind their machinery and of honesty

6. Beal, G.M., J.M. Bohlen, and H.G. Lingren, Behavior Studies Related to Pesticides: Agricultural Chemicals and Iowa Farmers, Special Report No. 49, Cooperative Extension Service, Agricultural and Home Economics Experiment Station, Iowa State University, Ames, Iowa, December, 1966.

PURPOSE

- To determine the level of farmers' knowledge about agricultural chemicals
- To determine the sources of information used
- To determine the role played by supply sources

METHODOLOGY

- A stratified, random, area segment sample of Iowa farmers who farmed more than 70 acres was used
- 229 personal interviews were conducted

CONCLUSIONS

- About half of the farmers answered knowledge questions correctly
- A majority of the farmers appear to have favorable attitudes toward the role of chemicals

- The most used information sources are farm magazines, other farmers, and local chemical dealers

7. Beal, G.M., J.M. Bohlen and W.A. Fleischman, Behavior Studies Related to Pesticides: Agricultural Chemicals and Iowa Agricultural-Chemical Dealers, P- Bulletin - 139, Cooperative Extension Service, Agricultural and Home Economics Experiment Station, Iowa State University, Ames, Iowa, October, 1969.

PURPOSE

- To determine the characteristics of agricultural-chemical dealers
- To determine the level of knowledge and attitudes of dealers
- To determine the information role of dealers

METHODOLOGY

- A five percent area-segment sample stratified by type of farming, area, and population size was used
- 126 dealers were interviewed
- To be included in the sample dealers had to have sold \$300 or more of agricultural chemicals in the previous year

CONCLUSIONS

- Little attempt was made to analyze or interpret the data
- Agricultural chemicals were the major line for only 5% of those dealers selected

8. Berry, J.E., E.D. Smith, and R.W. Rudd, Selected Factors Affecting the Price of Fertilizer in Kentucky Retail Markets, Bul. 698, Agricultural Experiment Station, University of Kentucky, Lexington, Kentucky, June, 1965.

PURPOSE

- To determine if those buyers who are least deliberate in their purchasing decisions and those who are least knowledgeable about fertilizers pay most for the product
- To determine if the conduct of sellers with respect to pricing and nonprice aspects would be affected by the responses of buyers

METHODOLOGY

- A disproportionate randomized sample of 248 farmers in 8 Kentucky retail markets
- Personal interviews with the above and with the managers of all major fertilizer retailing firms

CONCLUSIONS

- A large proportion of the fertilizer buying was "habitual" rather than deliberate
- Farmer knowledge is inadequate
- The level of deliberativeness affects the price paid by the individual farmer - and the prices paid by all individuals regardless of their buying habits

9. Bertrand, A.L. and H.L. Hitt, Radio Habits in Rural Louisiana, Bul. No. 440, Agricultural Experiment Station, Louisiana State University, September, 1949.

PURPOSE

- To determine the times of the day or night that farmers and homemakers listen to the radio
- To determine which programs are most enjoyed
- To determine what subjects should be discussed by county agents

METHODOLOGY

- Four areas within a 35 mile radius of major cities were surveyed
- Each area was divided into quarters; these quarters were divided into blocks 3 miles square
- A total of 1,268 personal interviews were conducted with 1,069 homes being represented

CONCLUSIONS

- The favorite listening time of weekdays is from 12:00 noon to 12:30 P.M.
- Farm people prefer news and musical programs
- Desired topics include health, homemaking, livestock, farm practices and management

10. Blackmore, J., R.M. Dimit, and E.L. Baum, Test-Demonstration Farms and the Spread of Improved Farm Practices in Southwest Virginia, Report No. P 55-3, Agricultural Economics Branch, Tennessee Valley Authority, Knoxville, Tennessee, June, 1955.

PURPOSE

- To determine how much test demonstration farmers influence their neighbors to adopt improved production practices

METHODOLOGY

- A sample of 150 test-demonstration farmers and 25 non test-demonstration farmers were interviewed

CONCLUSIONS

- Test-demonstration farmers stimulate neighboring farmers to try new production practices
- Test-demonstration farmers are often deemed to be "innovators"
- The closer the distance between the test-demonstration farm and the neighbor, the more likely the neighbor will adopt a new practice

11. Brandner, L. and B. Kearl, "Evaluation for Congruence as a Factor in Adoption Rate of Innovations," Rural Sociology, Vol. 29, 1964, pp. 288-303.

PURPOSE

- To determine whether farmers who evaluate an innovation as congruent with a previous favorably evaluated practice will accept the innovation more rapidly

METHODOLOGY

- More specifically the authors evaluated whether the congruence of hybrid corn with hybrid sorghum was used as an evaluative process in accepting hybrid sorghum
- A corn area and a non-corn area were selected
- A survey was conducted with 309 Kansas farmers
- Comparisons were made between areas and between adopters and non-adopters within areas

CONCLUSIONS

- In the areas where hybrid corn is grown, hybrid sorghum is accepted nearly four times faster than in the non-corn areas
- Asked how they happened to try sorghum, farmers in the hybrid corn area, in general, gave experience with hybrid corn as the reason

12. Brown, E.J., Why Coop Members Buy Feed Where They Do, Progress Report 160, Agricultural Experiment Station, Pennsylvania State University, University Park, Pa., November, 1956.

PURPOSE

- To determine which characteristics of feed are felt to be important
- To determine the characteristics of the seller which are important to the buyer

- To determine important channels of communication

METHODOLOGY

- 322 farmers who were members of two cooperatives in Lebanon county, Pennsylvania were interviewed

CONCLUSIONS

- Price and quality are the most important reasons for cooperative buying
- Convenience is the major reason for non-cooperative purchasing
- About 2/3 of the farmers feel that the way employees treat them is an important factor in buying feed where they do
- The most used information sources are friends, neighbors, or relatives

13. Brown, J.S., Adoption and Purchasing of Agricultural Pesticides, Research Bulletin No. 39, College of Agriculture Experiment Station, Experiment, Georgia, June, 1968.

PURPOSE

- To investigate sources of pesticide information used by farmers and dealers
- To study farmer adoption of pesticide practices for cotton, peanuts, and tobacco
- To study farmers' attitudes and behavior in purchasing pesticides

METHODOLOGY

- 250 farmers from eight Georgia counties were personally interviewed
- Mail questionnaires were completed by 49 pesticide dealers

CONCLUSIONS

- Dealers, county agents, and neighbors are the most important information sources
- Farmers who know more about pesticides adopt a larger number of pesticide practices
- It appears that advertising contributes to the pesticide learning process

14. Bursch, W.G., Pricing Structure and Service Costs in the Retail Feed Market in Illinois, Res. Report AEER-100, Agricultural Experiment Station, University of Illinois, Urbana, Illinois, September, 1969.

PURPOSE

- To identify pricing and price discounting practices among Illinois feed dealers
- To describe the structure of costs for common services provided by retail dealers
- To summarize the impact of pricing practices on typical livestock operations

METHODOLOGY

- Data obtained from 101 feed dealers in two study areas in Illinois

CONCLUSIONS

- Most feed dealers offer some type of quantity discount, but this is particularly prevalent among cooperatives
- The pricing of services varies a great deal among dealers
- Differential pricing schemes suggest that there are economies in feed purchasing for large livestock operations

15. Campbell, R.R., "A Suggested Paradigm of the Individual Adoption Process," Rural Sociology, Vol. 31, No. 4, 1966, pp. 458-466.

PURPOSE

- To develop a paradigm of the individual adoption process that will account for rational or non-rational decisions and innovation or problem oriented ones.

CONCLUSIONS

- Four ideal type processes exist: rational-problem oriented, rational-innovation oriented, non-rational-problem oriented, and non-rational-innovation oriented
- "Stages" are hypothesized for each of these processes
- Most real-life decisions actually include elements of all four types, but because of dissonance resolution they normally are reported to be more rational than they actually are

16. Copp, J.H., Personal and Social Factors Associated with the Adoption of Recommended Farm Practices Among Cattlemen, Tech. Bul. No. 83, Agricultural Experiment Station, Kansas State University, Manhattan, Kansas, September, 1956.

PURPOSE

- To locate factors in the life-situation of farm operators that might influence adoption of recommended farm practices

METHODOLOGY

- 157 cattlemen from Kansas were interviewed
- Although the sample was not randomly selected, it was believed to embrace a reasonably typical cross-section

CONCLUSIONS

- The basic factors accounting for the tendency of beef producers to adopt recommended farm practices are their farm incomes, their intensity of managerial ability, their tendency to view farming from a professional standpoint, and their so-called "mental flexibility"

17. Copp, J.H., "Perceptual Influences on Loyalty in a Farmer Cooperative," Rural Sociology, Vol. 29, 1964, pp. 168-180.

PURPOSE

- To determine if the perception of compulsion in the recruiting situation is more closely related to loyalty than the reason for joining
- To determine if the belief that the member can get a better market for his produce outside the cooperative is more closely associated with loyalty than the actual price received
- To determine if the amount of influence that a cooperative member feels he has on the organization will be more closely related to loyalty than the degree to which he participates in the cooperative

METHODOLOGY

- A ten percent stratified, cluster sample of approximately 800 members of a cooperative were interviewed

CONCLUSIONS

- The associations implied in the objectives as well as three others were found to exist
- In general, it is shown that experiences as a member of a cooperative are associated with loyalty to a lesser degree than the interpretation of those experiences

18. Copp, J.H., M.L. Sill, and E.J. Brown, "The Function of Information Sources in the Farm Practice Adoption Process," Rural Sociology, Vol. 23, No. 1, 1958, pp. 146-157.

PURPOSE

- To study the use of information sources by farm operators in the farm practice adoption process

- To develop a model to account for the differential use of sources as farmers progress toward adoption

METHODOLOGY

- Interviews with 175 dairy farmers in a western Pennsylvania county
- Practices considered were spittle bug control, grass silage, and artificial hay drying

CONCLUSIONS

- In the "awareness stage," the mass media are most important
- In the "interest and acceptance stages," face-to-face sources are mentioned proportionately more frequently
- In the "trial stage," extension sources and commercial media appear to be the most useful

19. Coughenour, C.M., "The Functioning of Farmers' Characteristics in Relation to Contact with Media and Practice Adoption," Rural Sociology, Vol. 25, No. 1, 1960, pp. 283-297.

PURPOSE

- To build an empirical model of practice adoption, given that the adoption of improved practices is a function of contact with information sources

METHODOLOGY

- The relationships of farmers' personal and social characteristics to this basic linkage are examined in personal interviews with 285 Kentucky farm operators

CONCLUSIONS

- Personal factors and socio-economic variables determine the amount farmers use printed and institutionalized media; other factors, such as age, attitude, and social participation operate at this point, and the result is the adoption of improved practices

20. Cromarty, W.A., "The Demand for Tractors, Machinery, and Trucks," Journal of Farm Economics, Vol. 41, May, 1959, pp. 323-331.

PURPOSE

- To estimate the demand for tractors, farm machinery, and farm trucks

METHODOLOGY

- Use of annual aggregate data to estimate single equation demand models

CONCLUSIONS

- The demand for machinery was found to be related to the price of machinery, stocks of machinery on hand, the asset position of farmers, net farm income, total acres of crops, and farm labor costs
- The demand for tractors was found to be related to the price of tractors, net cash receipts of farmers, and the average tractor sales for the previous five years
- The demand for farm trucks was found to be related to the price of trucks, the replacement rate for trucks, and the trade-in value for trucks

21. Dahl, D.C., and J.D. Anderson, and R.D. Peterson, Purchased Farm Input Markets in the United States, 1950-1971, Misc. Rep. 103, Agricultural Experiment Station, University of Minnesota, Minneapolis, Minnesota, 1971.

PURPOSE

- To provide a bibliography, containing over 500 references of publications dealing with the economics of the purchased farm input markets in the United States

22. Daniel, R., An Economic Analysis of the Farmer Demand for Fertilizer Nutrients, Unpublished Ph.D. Thesis, Purdue University, Lafayette, Indiana, 1970.

PURPOSE

- To specify and estimate short-run demand relationships for fertilizer at the individual farm firm level
- To determine seasonal differences in demand elasticities
- To evaluate the effects of economic, physical, and behavioral relationships on the demand for fertilizer

METHODOLOGY

- Farm panel data from the Farm Research Institute was used to estimate a simultaneous system of equations

CONCLUSIONS

- The demand for fertilizer is a function of price of fertilizer, price of farm products, price of land, price of labor, and the size of farm
- Elasticities of fertilizer demand vary according to seasons

23. Daniel, R., and J. Havlicek, Fertilizer Purchasing Patterns of Farmers, 1960-65, R.P.R. 375, Agricultural Experiment Station, Purdue University, Lafayette, Indiana, June, 1970.

PURPOSE

- To analyze farmers' purchases of different fertilizers
- To determine the association between demographic factors and fertilizer purchasing behavior

METHODOLOGY

- Data about the actual fertilizer purchases of 900 Illinois farmers was provided by the Farm Research Institute, Urbana, Illinois

CONCLUSIONS

- Total fertilizer purchases increased 65 percent from 1961-65
- Larger farmers doubled their fertilizer use
- Smaller farmers' fertilizer use decreased slightly

24. Dean, A., H.A. Aurbach, and C. P. Marsh, "Some Factors Related to Rationality in Decision-Making Among Farm Operators," Rural Sociology, Vol. 23, 1958, pp. 121-135.

PURPOSE

- To investigate the relationship among certain socio-cultural variables, the adoption of farm practices, and "rationality" in decision making

METHODOLOGY

- Personal interviews with 547 farm operators in eight North Carolina counties
- Nine questions were combined to form a "rationality index"

CONCLUSIONS

- The greater the degree of economic rationality on farming matters, the greater the likelihood of accepting improved farm practices

25. Dodds, J.P., and K.R. Marvin, How Do Iowa Farmers Obtain and Use Market News? Res. Bul 417, Agricultural Experiment Station, Iowa State University, Ames, Iowa, November, 1954.

PURPOSE

- To determine how farmers selling hogs, cattle, corn, and milk use market news
- To ascertain which kinds of market news are preferred

METHODOLOGY

- Personal interviews with 1,000 Iowa farmers to determine how they used market news in their last sale

CONCLUSIONS

- Radio was found to be the most useful information source for all commodities

26. Downey, W.D., Purchasing Behavior of Farm Supply Cooperative Members, Unpublished M.S. Thesis, Purdue University, Lafayette, Indiana, 1963.

PURPOSE

- To study the feed, fertilizer, and petroleum purchasing behavior of cooperative members
- To analyze differences in behavior in terms of socio-economic variables
- To suggest guidelines that will enable cooperatives to better serve their members

METHODOLOGY

- One Indiana farm supply cooperative was studied
- 99 members were personally interviewed
- Random sampling techniques were used, with names being drawn from a list of cooperative members

CONCLUSIONS

- Farmers tend to purchase from near-by sources
- Dealer selection criteria and cooperative loyalty varied with the product
- Patronage dividends are not actively considered in the purchasing decision
- Cooperatives should promote the "cooperative spirit"

27. Downey, W.D., R.L. Kohls, and R.B. Wilson, Purchasing Behavior of Cooperative Members, Res. Bul. 797, Agricultural Experiment Station, Purdue University, Lafayette, Indiana, May, 1965.

PURPOSE

- To analyze the buying habits of farm supply cooperative members having varying degrees of patronage loyalty

METHODOLOGY

- Members of a farm supply-grain marketing cooperative in Northern Indiana were interviewed
- Data was gathered concerning the purchases of feed, fertilizer, and petroleum products

CONCLUSIONS

- Cooperative members do not behave much differently from other farmers
- Shopping behavior varies with the product
- Belief in cooperatives as institutions is the most pronounced factor in explaining cooperative loyalty

28. Finley, J.R., "Farm Practice Adoption: A Predictive Model," Rural Sociology, Vol. 33, No. 1, March, 1968, pp. 5-18.

PURPOSE

- To develop a qualitative method for prediction of adoption behavior
- To illustrate the use of this method by predicting the adoption behavior of Ohio farmers

METHODOLOGY

- A 1957 statewide random area sample of 104 Ohio commercial farmers
- Validating data was obtained from a statewide study in 1962, a Fayette county study in the same year, and a Miami county study in 1958

CONCLUSIONS

- It is possible, through the prediction or configurational method, to construct an instrument that will predict adoption behavior of farmers at a level exceeding that which could be obtained by chance

29. Fitzsimmons, C. and E.G. Holmes, Factors Affecting Farm Family Goals, Res. Bul. 663, Agricultural Experiment Station, Purdue University, Lafayette, Indiana, July, 1958.

PURPOSE

- To study the extent to which families recognize their goals, and direct their action toward goals
- To determine relationships between socio-economic factors and family goals

METHODOLOGY

- Tipton County, Indiana, an area in which farm incomes were relatively high, was selected
- 70 families whose head was not over 50 years of age were interviewed

CONCLUSIONS

- Most goals are short-term
- Goals change as the family's position in the life cycle changes
- Some goals have priority over others; measures taken for attainment of high priority goals influence action toward other goals

30. Fliegel, F.C., and J.E. Kivlin, Differences Among Improved Farm Practices as Related to Rates of Adoption, Bul. 691, Agricultural Experiment Station, Pennsylvania State University, University Park, Pennsylvania, January, 1962.

PURPOSE

- To determine the extent to which the rate of adoption of new managerial technological practices is related to their cost, complexity, and other attributes

METHODOLOGY

- Adoption rates for 43 farm practices were determined from the adoption histories of 229 commercial dairy farmers
- A panel of 20 agricultural leaders from the study area rated each of the practices on the degree to which it possessed selected attributes

CONCLUSIONS

- Saving of time was found to be a major attribute of rapidly accepted practices
- High cost is not necessarily a deterrent to rapid adoption

31. Fleigel, F.C. and J.E. Kivlin, "Farmers' Perceptions of Farm Practice Attributes," Rural Sociology, Vol. 31, No. 2, 1966, pp. 197-206.

PURPOSE

- To refine methods of measuring farmer perception of farm practice attributes

METHODOLOGY

- Data on adoption behavior obtained from personal interviews with 229 farm operators
- A 20 member panel of experts was set up to measure various attributes of farm practices

CONCLUSIONS

- Mechanical attraction, a savings of time, and cost attributes had low correlations with adoption rates
- Complexity, savings of discomfort, and divisibility for trial were more highly related to adoption rates

32. Funk, T.F., and J.D. Snyder, "Market Share Response to Marketing Activities in the Feed Industry," Feedstuffs, Vol. 44, No. 20, May 15, 1972.

PURPOSE

- To determine the relationship between changes in the market shares of feed firms and changes in product price, advertising, and distribution activities

METHODOLOGY

- Data was obtained from a panel of Illinois farmers and a survey of the leading commercial feed firms serving the Illinois market
- A model relating market share to price, advertising, and distribution was specified and estimated using simple least-squares

CONCLUSIONS

- Changes in market shares of feed firms are very responsive to price changes and only moderately responsive to changes in advertising and distribution budgets
- The price, advertising, and distribution elasticities of demand for branded commercial feeds differ depending upon the type of feed considered

33. Funk, T.F., and J.C. Snyder, "Marketing Strategy Selection in the Feed Industry," Feedstuffs, Vol. 44, No. 21, May 22, 1972.

PURPOSE

- To establish a method for determining the level of promotion, number of distribution outlets, and product price to attain a predetermined objective under conditions of uncertainty

METHODOLOGY

- Data was obtained from a panel of Illinois farmers and from a survey of the leading feed firms in Illinois
- Demand models were estimated using the method of single equation least-squares
- A decision theory model was used to evaluate alternative strategies under conditions of uncertainty

CONCLUSIONS

- The techniques developed can provide managers of commercial feed firms with sound decision guides in the area of marketing strategy selection

34. Funk, T.F., and J.C. Snyder, "Brand Switching Analysis of the Feed Market," Feedstuffs, Vol. 44, No. 22, May 29, 1972.

PURPOSE

- To analyze the brand switching behavior of farmers and to predict future levels of market share knowing only the brand switching activity in the market

METHODOLOGY

- Data obtained from a panel of Illinois farmers was used to calculate a transition matrix of brand switching probabilities
- A Markov process model was used to determine steady state market shares for the major firms in the industry

CONCLUSIONS

- The extent of loyalty to individual brands of feed is quite high
- The extent of competition among brands varied considerably from brand to brand

35. Funk, T.F., and J.C. Snyder, "Feed Purchasing Behavior of Illinois Farmers," Feedstuffs, Vol. 44, No. 23, June 5, 1972.

PURPOSE

- To study two major elements of feed purchasing behavior - brand loyalty and brand purchased
- To relate these behavioral characteristics to certain socio-economic characteristics of the farmer and his farming operation

METHODOLOGY

- Farmers in the Illinois farm panel were segmented in terms of brand loyalty and brand purchased

CONCLUSIONS

- Brand loyal farmers tend to either own or rent all their land
- Grain farmers tend to be more loyal than farmers specializing in livestock
- Economic class, age, main source of income, education, and acreage change were related to brand purchased
- Older, better established farmers tend to purchase from small regional firms emphasizing low price and technical expertise
- Younger grain farmers tend to purchase from large national firms emphasizing high price, supported by large advertising and personal selling programs

36. Gifford, J.I., Selling and Purchasing Decisions of Farmers, Unpublished M.S. Thesis, Purdue University, Lafayette, Indiana, 1956.

PURPOSE

- To determine the reasons for farmers' choice of alternative sources of supply of farm machinery

METHODOLOGY

- A cluster sample of 201 farmers from one Indiana county was selected
- Chi-square tests of significance were used to test the relationships between certain factors

CONCLUSIONS

- The farmers' basic shopping activity was quite limited
- Farmers cannot perceive much difference among machinery dealers
- Price plays a major role in determining the place of purchase

37. Greene, C.H., Marketing Practices and Problems of Pesticide Dealers, Bul. 521, Agricultural Experiment Station, New Mexico State University, Las Cruces, New Mexico, April, 1967.

PURPOSE

- To determine the characteristics of firms selling pesticides
- To determine the characteristics of pesticide users

METHODOLOGY

- County agents helped select the names of 74 New Mexico agricultural pesticide dealers
- 60 usable questionnaires were obtained through personal interviews

CONCLUSIONS

- Sales of fertilizers and general farm supplies most often provide the bulk of the responding firms' gross revenues
- The dealer is the primary source of information for pesticide users

38. Griliches, Z., "The Demand for Fertilizer: An Economic Interpretation of a Technological Change," Journal of Farm Economics, August, 1968.

PURPOSE

- To estimate the aggregate demand for commercial fertilizer
- To estimate separate demand relationships for short and long run situations and explain the adjustment process to disequilibrium

METHODOLOGY

- Secondary data is used to estimate a model consisting of a long run demand function and an adjustment equation

CONCLUSIONS

- Almost all of the variation in fertilizer consumption can be explained by changing relative prices
- The elasticity of demand for fertilizer with respect to its real price is estimated to be $-.5$ in the short run, and -2.0 in the long run

39. Heady, E.D., R.J. Hildreth, and G.W. Dean, Uncertainty, Expectations and Investment Decisions for a Sample of Central Iowa Farmers, Res. Bul. 447, Agricultural Experiment Station, Iowa State University, Ames, Iowa, January, 1957.

PURPOSE

- To determine how farmers actually make investment and production decisions under conditions of uncertainty

METHODOLOGY

- A sample was drawn from 16 townships within four Iowa counties
- The sample was restricted to owner-operators under 60 years of age, farming at least 60 acres

CONCLUSIONS

- Maintaining high equity, diversifying, and buying on a "need" basis are the most common precautionary methods used in handling uncertainty
- The advice of the farm wife is sought more often than the advice of relatives, bankers, or county agents
- A majority of the farmers use the "pay-off" method for evaluating prospective investments

40. Herder, R.J., Farmers' Preferences for Formula Feeds, A.E. Report No. 90, Agricultural Experiment Station, Kansas State University, Manhattan, Kansas, August, 1960.

PURPOSE

- To gain information concerning the type of formula feeds purchased, frequency of purchases, selection of feed dealers, and the use of dealers' services

METHODOLOGY

- 138 livestock farmers in four Kansas counties were interviewed

CONCLUSIONS

- Convenience was determined to be the most important factor in selecting a dealer
- The most desired dealer service was credit

41. Johnson, G., "New Knowledge of Decision-Making Processes," Journal of Farm Economics, Vol. 40, 1958, pp. 1393-1406.

PURPOSE

- To determine the types and sources of information which farmers use in their decision process, the importance they attach to different kinds of information, and the difficulty they experience in getting this information

METHODOLOGY

- Part of the data gathered in the Interstate Managerial Survey was analyzed

CONCLUSIONS

- Technological information concerning production methods is the most widely used type of information
- The farmer's own experience, the observed experience of others, farm magazines, and extension personnel were the information sources most often used in obtaining technological information

42. Kalb, Klaus, Product Differentiation in the Mixed Feeds Industry, Unpublished Ph.D. Thesis, Ohio State University, Columbus, Ohio, 1964.

PURPOSE

- To analyze product differentiation variables in the feed industry
- To study feed dealer behavior
- To ascertain farmer attitudes toward feed brands, dealer services, and pricing

METHODOLOGY

- Mail questionnaires from 105 Ohio farm supply dealers
- Dealers were classified as either Major or Non-Major brand dealers
- Personal interviews with 203 Ohio farmers

CONCLUSIONS

- Major Brand dealers are more brand conscious than Non-Major Brand dealers
- Larger farmers tend to purchase from Non-Major Brand dealers and appeared to be more price conscious
- Dealer selection criteria included dealer services, convenience, feed quality, and prices
- Feed handlers, fieldmen, magazines, and journals are the information sources most favored by feed purchasers

43. Kivlin, J.E., and F.C. Fliegel, "Orientations to Agriculture: A Factor Analysis of Farmers' Perceptions of New Practices," Rural Sociology, Vol. 33, No. 2, 1968, pp. 127-140.

PURPOSE

- To study the effect of farmers' perceptions of farm practice attributes upon their adoption behavior

METHODOLOGY

- Survey of 309 Pennsylvania farmers
- Factor analysis of fifteen farm practice attributes

CONCLUSIONS

- Results of the study suggest that the way in which a farmer relates to his business is at least as important as particular perceptions in accounting for adoption behavior

44. Klonglan, G.E., and F.W. Coward, "The Concept of Symbolic Adoption: A Suggested Interpretation," Rural Sociology, Vol. 35, No. 1, 1970, pp. 77-83.

PURPOSE

- To illustrate the place of symbolic adoption in the adoption process
- To illustrate the usefulness of considering symbolic adoption in this manner

METHODOLOGY

- Development of conceptual model of adoption using schematic diagrams

CONCLUSIONS

- Symbolic adoption refers to the acceptance of the idea component of an innovation
- This concept is useful in explaining lags in the adoption process and in clarifying issues related to the rejection and discontinuance of an innovation

45. Kohls, R.L., Farmers' Behavior and Decisions in Purchasing Farm Supplies, Res. Bul. 749, Agricultural Experiment Station, Purdue University, Lafayette, Indiana, October, 1962.

PURPOSE

- To outline the general characteristics of farmer buying behavior
- To summarize buying behavior with regard to three specific inputs - feed, fertilizer, and machinery

METHODOLOGY

- Summary of the results found in the theses of J.I. Gifford, D.A. Storey, J.F. Krueckeberg

CONCLUSIONS

- Farmers have a strong "propensity to nearness" in buying habits and preferences
- Most farmers don't actively compare alternate sources of supply
- A small group of farmers do shop actively and this group is better informed concerning the nature of the potential market
- Effective channels of information vary with the product

46. Krueckeberg, H.F., An Analysis of Farmers' Feed Purchasing Activities, Unpublished M.S. Thesis, Purdue University, Lafayette, Indiana, 1960.

PURPOSE

- To determine the nature of the farmers' feed shopping activities
- To determine why farmers chose to purchase their feed at a particular source

METHODOLOGY

- Personal interviews with 95 Indiana farmers from three different counties
- The chi-square test of significance was used, with relationships significant at the .20 level or better being accepted as valid

CONCLUSIONS

- The farmers' feed purchasing area in Indiana is limited to five miles
- Knowledge of alternative feed sources is low
- Large feed purchasers are inclined to use more than one feed source and to check prices more carefully
- Dealers are selected mostly on the basis of location, brand availability, service, and management
- Feed dealers cannot afford to generalize about the farmers that they serve

47. Leuthold, F.O., Communication and Diffusion of Improved Farm Practices in Two Northern Saskatchewan Farm Communities, C.R. No. 22, Information and Technical Services Division, Canadian Department of Forestry and Rural Development, Ottawa, Ontario, December, 1968.

PURPOSE

- To determine the patterns of acceptance of improved farm practices
- To ascertain the effects of agricultural communications media on the farmers' adoption of new practices

METHODOLOGY

- 248 Northern Saskatchewan farmers were interviewed
- Two different areas were surveyed; one area was characterized by poor soils and livestock production, while the second area had better soils and was geared to cash grain production

CONCLUSIONS

- The farm dealer is a relatively important communications agent
- Farm magazines are one of the most important sources of information for farm practices
- Other farmers served as the most important source of information
- Various socio-economic variables are associated with adoption practices; these include farmer-to-farmer interaction, farm size and the ability to afford new ideas

48. Lionberger, H.F., "Some Characteristics of Farm Operators Sought as Sources of Farm Information in a Missouri Community," Rural Sociology, Vol. 18, 1953, pp. 327-338.

PURPOSE

- To determine whether farm operators who are frequently used as sources of farm information possess characteristics which distinguish them from their less sought associates

METHODOLOGY

- Interviews with 279 farmers in a Northeast Missouri farming community

CONCLUSIONS

- Opinion leaders operate larger farms and have higher farm incomes

- They are more active in all types of formal organizations
- They are characterized by a higher order of technological competence

49. Lionberger, H.F., "The Relation of Informal Social Groups to the Diffusion of Farm Information in a Northeast Missouri Farm Community," Rural Sociology, Vol. 19, 1954, pp. 233-243.

PURPOSE

- To determine the influence of informal social groups, of a non-locality-group nature, on the exchange of farm information among farm operators

METHODOLOGY

- In-depth interviews with 279 full-time farm operators in a Northeast Missouri community

CONCLUSIONS

- Informal groups facilitate the interpersonal exchange of farm information among members of the same group
- Contacts with influentials are distinctly less frequent where mechanisms of clique or other informal group exclusions are involved

50. Lionberger, H.F., Information-Seeking Habits and Characteristics of Farm Operators, Res. Bul. 581, Agricultural Experiment Station, University of Missouri, Columbia, Missouri, April, 1955.

PURPOSE

- To determine if farmers who use institutionalized sources of farm information possess distinctive characteristics
- To determine what channels of communication are used by farm operators

METHODOLOGY

- Personal interviews with 279 farm operators and wives living Northeast Missouri farming community

CONCLUSIONS

- About 40 percent receive no farm information from institutionalized sources
- Non-users are older, farm smaller acreages, and are accorded lower status in the community

51. Lionberger, H.F., and M.C. Coughenour, Social Structure and Diffusion of Farm Information, Res. Bul. 631, Agricultural Experiment Station, University of Missouri, Columbia, Missouri, April, 1957.

PURPOSE

- To define elements in the social structure of a farm community which might have a bearing on the interpersonal exchange of farm information
- To determine how these elements operate in the farm information diffusion-use process

METHODOLOGY

- Interviews with 279 of the 285 full-time farm operators and wives in a Northeast Missouri community
- Prestige ratings, farm organizations, and newspaper records

CONCLUSIONS

- Broadly-oriented farmers are in a strategic position to facilitate desired changes
- Social cliques, like neighborhoods, tend to facilitate the exchange of farm information
- It may be easier to facilitate the diffusion of farm information by working through middle-aged farmers than through either the older or younger ones

52. Lionberger, H.F., and J.D. Francis, "Views Held of Innovation and Influence Referents as a Source of Farm Information in a Missouri Community," Rural Sociology, Vol. 34, No. 2, 1969, pp. 197-211.

PURPOSE

- To conceptualize views held of farm information sources
- To assess the differential manner in which farmers view personal innovators and influence referents as sources of farm information

METHODOLOGY

- Semantic differential and factor analysis techniques were used to conceptualize utility, affectivity, practicality, and accessibility views

CONCLUSIONS

- Although the two referent types were perceived as being close in semantic space, influence referents were generally held in higher esteem as sources of farm information than innovator referents

53. Mason, R.G., "The Use of Information Sources in the Process of Adoption," Rural Sociology, Vol. 29, No. 1, 1964, pp. 40-52.

PURPOSE

- To relate the use farmers make of information sources to their stage of the adoption process and to the relative influence of these farmers

METHODOLOGY

- Variation due to occupational differences was reduced by selecting farmers from one area of Oregon County, Oregon, where virtually all farmers raised grass seed as their principal source of income
- A first interview was mainly for measuring relative influence, while a second provided data on sources of information and stages of the adoption process

CONCLUSIONS

- Use of all information sources was related to stages of the adoption process
- Use of authoritative sources increased rapidly as farmers passed through successive stages of the adoption process
- Influential farmers are involved in more face-to-face communication
- Cognitive dissonance is suggested by the fact that farmers use information sources prior to and after adoption

54. McKee, G.W., J.U. Pasto, H.T. Campbell, R.P. Pfeifer, and C.S. Bryner, Factors Affecting the Farmer's Choice and Use of Seed, Bul. 706, Agricultural Experiment Station, Pennsylvania State University, University Park, Pennsylvania, October, 1963.

PURPOSE

- To determine the factors affecting the choice and use of seeds by farmers

METHODOLOGY

- 142 Centre County, Pennsylvania, farmers were interviewed for one hour
- Conventional tabulation and correlation analyses were followed

CONCLUSIONS

- The most important information sources are county agents and neighbors

- Farmers have a rather meagre knowledge concerning seeds and cannot differentiate between well-processed and poorly-processed seed

55. McMillan, W., "A Demand Curve for Commercial Dairy Feed in Northeastern Pennsylvania," Journal of Farm Economics, Vol. 35, November, 1953, pp. 606-610.

PURPOSE

- To develop a theoretical demand relationship for commercial feed and then test this against actual observations of farmers' feed purchases

METHODOLOGY

- Data from 15 single enterprise dairy farms were synthesized into a representative farm
- From this data the marginal value product curve for feed was derived

CONCLUSIONS

- The predictions generated from the marginal value product curve were almost identical to the actual feed purchases of the dairy farmers

56. Nielson, J., The Michigan Township Extension Experiment: The Farm Families...Their Attitudes, Goals, and Goal Achievement, Tech. Bul. 287, Agricultural Experiment Station, Michigan State University, East Lansing, Michigan, 1962.

PURPOSE

- To determine the personal characteristics, goals, and attitudes of farmers
- To measure changes in goal achievement as they relate to certain aspects of the managerial process and farmers' participation in formal organizations

METHODOLOGY

- 311 Michigan farmers in each of five experimental and five control areas were interviewed on benchmark, intermediate, and terminal surveys in 1954, 1956, and 1959, respectively

CONCLUSIONS

- Farmers in the experimental areas made substantial progress in achieving their farm and family goals
- Experimental area farms showed high rates of investment

- There were no changes in farmers' memberships in farm organizations
- The township program made a moderate contribution to the improvement of farmers' managerial abilities

57. Nordbo, M.T., L. Schaffner, and S. Strangeland, Decision-Making Processes in Farm Machinery Selections, Bul. 410, Agricultural Experiment Station, North Dakota State University, Fargo, North Dakota, June, 1957.

PURPOSE

- To determine the distribution and relative importance of various machinery costs
- To analyze the decision-making processes used by farmers when purchasing farm machinery

METHODOLOGY

- Machinery ownership costs were derived from a 1954 farm machinery survey in North Dakota
- 31 farmers in two North Dakota counties were interviewed to obtain decision-making data

CONCLUSIONS

- Tractors were traded for various reasons, including added convenience and fuel savings
- Combines were traded when the farmers obtained more land or when old ones wore out
- Farmers, in general, tend to continue to purchase the same brands of tractors and combines

58. Prairie Farmer, Seed Corn and Field Seed, Survey Report, Research Department, June 1964.

PURPOSE

- To obtain information on the purchasing patterns and use of seed corn and field seeds

METHODOLOGY

- 3,000 names were chosen at random from the circulation lists of Indiana and Illinois subscribers
- About 40 percent of the mailed questionnaires were returned

CONCLUSIONS

- Farmers, on the average, purchase seed corn from two companies
- Farmers plant about four different varieties
- Seed is bought mostly from farmer salesmen, company salesmen, and elevators

59. Riddell, B.D., Analysis of Farmers' Purchases of Formula Cattle and Swine Feed, Unpublished paper, Purdue University, Lafayette, Indiana, 1969.

PURPOSE

- To estimate the demand for commercially prepared cattle and swine formula feeds
- To estimate the future demands for feed-related services

METHODOLOGY

- Data was obtained from the Farm Research Institute, Urbana Illinois
- Mail questionnaires were also sent to 400 livestock farmers in Indiana

CONCLUSIONS

- The quantity of feed purchased tended to increase with education
- As farmers carry on more non-farm work, they tend to purchase less feed
- The most valuable services desired in the future included quantity price discounts, feed formulation advice, feed-stuffs analyses, and livestock marketing outlook information

60. Rocke, D.C., Farmer Behavior and Decision-Making in Purchasing Supplies, Unpublished Ph.D. Thesis, Purdue University, Lafayette, Indiana, 1965.

PURPOSE

- To determine the extent of dealer loyalty, brand loyalty, and the propensity to shop of farmers
- To determine whether farmers exhibited consistent patterns of shopping behavior
- To determine what characteristics of the farm or farmer were related to shopping behavior

METHODOLOGY

- Products considered were feed, fertilizer, and machinery
- Personal interviews with Huntington County, Indiana, farmers

CONCLUSIONS

- Dealer selection depends upon location, brand, service, and management
- Where brand loyalty was high, dealer loyalty was also high
- Farmers do not check prices very often and do not often switch dealers

61. Rogers, E.M., "Personality Correlates of the Adoption of Technological Practices," Rural Sociology, Vol. 22, No. 3, 1957.

PURPOSE

- To determine the relationship between certain personality characteristics and the adoption of farm practices

METHODOLOGY

- Interviews with 23 farmers residing in a central Iowa rural community

CONCLUSIONS

- Rigidity, change orientation, innovative proneness, and adoption self-ratings are all related to adoption

62. Rogers, E.M., "A Note on Innovators," Journal of Farm Economics, Vol. 41, 1959, pp. 132-134.

PURPOSE

- To determine some behavioral characteristics of farm innovators

METHODOLOGY

- Innovators were defined as the first 2.5 percent of farmers to adopt new practices
- Using the above criteria, a statewide sample of 96 Ohio innovators were chosen

CONCLUSIONS

- Innovators are more highly educated, earn higher incomes, and depend more on extension services for farm information

63. Rogers, E.M., Characteristics of Agricultural Innovators and Other Adopter Categories, Res. Bul. 882, Ohio Agricultural Experiment Station, Wooster, Ohio, May, 1961.

PURPOSE

- To determine the characteristics of innovators and other adopter categories

METHODOLOGY

- A statewide sample of 104 farm operators and 92 innovators from Ohio were interviewed

CONCLUSIONS

- Innovators tend to have more education, own larger farms, have more direct contact with agricultural scientists, and are more venturesome than other farmers
- The most important sources of farm information are farm magazines, friends, and extension services

64. Rogers, E.M., "The Adoption Period," Rural Sociology, Vol 26, No. 1, 1961, pp. 77-82.

PURPOSE

- To determine the length of the adoption period

METHODOLOGY

- The length of the adoption period was found by subtracting the year of adoption from the year of awareness
- A state-wide random sample of 104 Ohio "commercial" farmers, and data from some other studies

CONCLUSIONS

- Farmers vary widely as to the length of the adoption period
- Social characteristics of farmers are generally more closely related to adoption period scores than information-gathering behavior

65. Rogers, E.M., and G.M. Beal, "Projective Techniques in Interviewing Farmers," Journal of Marketing, Vol. 23, No. 2, October, 1958, pp. 177-179.

PURPOSE

- To contrast the results obtained through direct questioning and through projective techniques

METHODOLOGY

- Farmers were interviewed first using direct questions and later using "stimulus pictures"
- A comparison was made between the farmers' attitudes toward agricultural scientists using the two techniques

CONCLUSIONS

- No negative opinions were expressed when direct questions were employed, while negative replies were received when "stimulus pictures" were used

66. Rogers, E.M. and G.M. Beal, "The Importance of Personal Influence in the Adoption of Technological Changes," Social Forces, Vol. 36, 1958, pp. 329-335.

PURPOSE

- To determine if personal influence is more important at certain stages in the decision-making process of farmers

METHODOLOGY

- Personal interviews with 148 farm operators in a Central Iowa rural community

CONCLUSIONS

- Personal influence is more important at the later stages in the adoption process
- Personal influence is used to a greater degree by late adopters

67. Rogers, E.M. and A.E. Havens, The Impact of Demonstrations on Farmers' Attitudes Toward Fertilizer, Res. Bul. 896, Ohio Agricultural Experiment Station, Wooster, Ohio, December, 1961.

PURPOSE

- To determine the impact of demonstration programs in changing farmers' attitudes toward the use of fertilizer

METHODOLOGY

- 126 farmers in an experimental and a control county in Ohio were interviewed
- Interviews were conducted before and after the program was completed

68. Rogers, E.M.; and R.L. Pitzer, The Adoption of Irrigation by Ohio Farmers, Res. Bul. 851, Ohio Agricultural Experiment Station, Wooster, Ohio, June, 1960.

PURPOSE

- To investigate the adoption of irrigation

METHODOLOGY

- A random sample of Ohio irrigators
- 105 responses to a mailed questionnaire

CONCLUSIONS

- Personal observation on the farms of others is the most important source of information influencing irrigation adoption
- Half of the irrigators carried out a small-scale trial before full-scale adoption of irrigation

69. Scott, J., and E.O. Heady, "Regional Demand for Farm Buildings in the United States," Journal of Farm Economics, Vol 49, February, 1967, pp. 184-198.

PURPOSE

- To investigate the demand for new investment in farm buildings in eight of the ten production regions of the United States

METHODOLOGY

- Annual time series data were used to estimate a linear demand model
- Least-squares estimating techniques were used

CONCLUSIONS

- The results show investment in new farm buildings to be related to gross farm income, an equity ratio, the interest rate, and a time trend representing change in technology

70. Segall, A., Farmers' Attitudes to Farm Machinery Purchases, The Queen's Printer, Ottawa, Ontario, 1969.

PURPOSE

- To gain an understanding of the attitudes and behavior of farmers in regard to the purchasing of machinery
- To investigate the decision-making process of the farm machinery buyer

METHODOLOGY

- Personal interviews with a random sample of 85 farm operators in six farming areas of Manitoba, Saskatchewan, and Alberta

CONCLUSIONS

- The most frequently used sources of information are informal discussions with friends, neighbors, and relatives; and watching machinery in operation on neighbors' farms
- Advertising placed near the bottom of the information source list
- Farmers are willing to travel relatively further to a dealer offering a good repair service
- Farmers purchase new machinery because they need larger equipment, require a replacement, or for prestige reasons
- Dealer selection depends upon the dealer's reputation, repair service, and price

71. Storey, D.A., Farmers' Machinery Purchasing Decisions, Unpublished M.S. Thesis, Purdue University, Lafayette, Indiana, 1958.

PURPOSE

- To determine the nature of the farmers' machinery shopping activity
- To determine why farmers choose to purchase their machinery at a particular source

METHODOLOGY

- Personal interviews with 121 Benton County, Indiana, farmers
- 233 farmers were contacted, but many were eliminated because they did not meet the criteria of having made a purchase within the last seven months

CONCLUSIONS

- Farmers have a marked tendency to be loyal to one brand and to one dealer
- Farmers contact only one or two dealers before making their purchase
- Farmers felt that there were considerable price differences between dealers
- Service of dealers did not appear to be an important determinant of the place of purchase
- Younger farmers are more brand loyal and tend to contact more dealers when shopping

72. Verner, C., and P.M. Gubbels, The Adoption or Rejection of Innovation by Dairy Farm Operators in the Lower Fraser Valley, Publication No. 11, Agricultural Economics Research Council of Canada, Carleton University, Ottawa, Ontario, June, 1967.

PURPOSE

- To analyze the characteristics of farmers with respect to their response to innovations and their use of information sources

METHODOLOGY

- From a universe of 1,617 dairy farm operators in the Lower Fraser Valley of British Columbia, a random sample of 100 were interviewed

CONCLUSIONS

- Positive relationships were found between adoption scores and enjoyment of dairying and amount of social participation
- Negative relationships existed between adoption scores and the number of years on the farm and increasing off-farm income
- Earlier adopters were more successful and actively sought information

73. Wallace Farmer, Seed Corn and Field Seed, Survey Report, Research Department, June, 1964.

PURPOSE

- To obtain information on the use of seed corn, field seeds, and related practices by farmers

METHODOLOGY

- 1,500 names were chosen at random from the circulation list of Iowa subscribers
- About 50 percent of the mailed questionnaires were returned

CONCLUSIONS

- Farmers purchase seed corn from an average of 2.5 companies
- An average of nearly five varieties are bought
- Seed is purchased mostly from farmer salesmen, company salesmen, and seed stores

74. Warrack, A.A., Changes Over Time in Goals of Farm People, Unpublished M.S. Thesis, Iowa State University, Ames, Iowa, 1965.

PURPOSE

- To perform a time longitudinal study of the goals of farm people
- To relate goal choices over time to goal achievement
- To relate socio-economic factors to goal achievement over time

METHODOLOGY

- Random sample from 10 Iowa counties, representing each of the state's five major types of farming areas
- 339 families were included
- Farmers were all under 38 years of age

CONCLUSIONS

- The most important goal to husbands and wives is to provide an education for their children
- Husbands emphasize the farm and its productivity
- Changes in goals indicate increased emphasis on the management aspects of farm productivity

75. Wilkening, E.A., and S. Guerrero, "Consensus in Aspiration for Farm Improvement and Adoption of Farm Practices," Rural Sociology, Vol. 34, No. 2, 1969, pp. 182-196.

PURPOSE

- To test the combined effect of farm husbands' and wives' aspirations for farm improvement on the adoption of different types of improved farm practices

METHODOLOGY

- Statewide multi-stage probability sample of 505 Wisconsin farm families

CONCLUSIONS

- Consensus in aspirations between husband and wife is associated with higher adoption than when only one spouse has high aspirations

76. Wilkening, E.A., "Roles of Communicating Agents in Technological Change in Agriculture," Social Forces, Vol. 34, May, 1956, pp. 361-367.

PURPOSE

- To determine which information sources are used by farmers to gain awareness, which are used to evaluate new farm practices, and which are most useful in implementing a trial

METHODOLOGY

- Interviews with 636 randomly selected farm operators in six Wisconsin counties
- Selected farmers had 10 years or less farming experience

CONCLUSIONS

- The mass media is the most frequently used information source for hearing about new practices
- Other farmers are most useful at the evaluation or "decision-making" stage
- Extension services, other farmers, and commercial sources are most often used in the trial or "action" stage

77. Williams, M.S., "Farmers' Decisions in the Use of Fertilizer," Journal of Farm Economics, Vol. 40, 1958, pp. 1407-1417.

PURPOSE

- To determine how farmers go about deciding on using or not using fertilizer
- To investigate the association between farmers' general attitudes toward farming and their level of fertilizer use
- To find out where farmers seek information about fertilizer and the influence of these sources on farmers' attitudes toward fertilizer

METHODOLOGY

- The study was designed so that information would be available for five major regions of the country
- The sample design used was a stratified, multi-stage, cluster, probability sample resulting in 1891 useable questionnaires

CONCLUSIONS

- The average farmer's knowledge about fertilizer is surprisingly limited
- Because of limited knowledge, the value of much information is nullified
- In spite of valuing very highly the usefulness of extension services as information sources, the farmer more often discusses his fertilizer needs with his local dealer before buying

78. Woodall, C.E., J.M. Stepp, and J.L. Madden, An Economic Analysis of the Fertilizer Purchasing Practices of Farmer Owner-Operators in Marlboro County, South Carolina, AE 191, South Carolina Agricultural Experiment Station, Clemson University, Clemson, South Carolina, February, 1960.

PURPOSE

- To analyze the fertilizer purchasing practices of farmers
- To estimate the effects of various purchasing practices on total fertilizer costs

METHODOLOGY

- Farmers had to have purchased at least five tons of fertilizer during the previous year to be included in the sample
- Ten areas were selected at random from a grid map of Marlboro County, South Carolina
- 68 farmers were interviewed while price information was checked with four county fertilizer dealers

CONCLUSIONS

- Farmers making credit purchases paid below average prices
- There were large differences in prices reported as paid by farmers, and those quoted by dealers
- The price difference paid by farmers varied between \$9.00 and \$40.00 a ton

- 79.. Woodworth, R.C., Farmers' Attitudes, Knowledge, and Use of Fertilizer, Bulletin N.S. 81, Georgia Agricultural Experiment Station, Athens, Georgia, March, 1961.

PURPOSE

- To determine farmers' sources of information on fertilizer use
- To determine farmers' knowledge and opinions concerning fertilizer use
- To determine important factors associated with differences in levels of fertilizer use by farmers

METHODOLOGY

- A survey of 519 farmers from six South Georgia counties

CONCLUSIONS

- Personal contacts are the most important source of fertilizer information
- Differences in attitudes caused differences in fertilizer use

- The capital position of large farms was related to fertilizer use

80. Wright, K.T., Purchases of Major Farm Machinery, Research Report No. 3, Michigan Agricultural Experiment Station, East Lansing, Michigan, 1963.

PURPOSE

- To determine the percentage of farmers having various strengths of intent to purchase machinery
- To determine how actual expenditures compared with intentions
- To determine if purchasing prediction based on intent to purchase and farmers' income level can be made with any reliability

METHODOLOGY

- Farm account records obtained by a Mail-in Accounting Project, conducted by the Michigan State Extension Service and a special farm machinery intentions questionnaire provided the basic data
- 89 percent of the 1,042 mailed questionnaires were returned

CONCLUSIONS

- Strength of indicated intent is a strong factor affecting actual expenditure
- Higher income during the previous year is associated with stronger intent to buy and higher machinery purchases
- Predictions on future expenditures based on strength of intent to buy and income level the previous year appear to have only a moderate amount of reliability

81. Wright, K.T., Intended and Actual Tractor Purchases, Research Report No. 15, Agricultural Experiment Station, Michigan State University, East Lansing, Michigan, 1964.

PURPOSE

- To determine the percentage of farmers having various strengths of intent to purchase tractors, and to relate the tractor purchase actions of each group to their indicated strength of intent
- To analyze the relationships of various farm characteristics to the intended tractor purchase expenditure, and to the farmer's expenditure

METHODOLOGY

- Data was provided by two sources; the Michigan State Extension Service Mail-in Accounting Project, and a questionnaire dealing with tractor buying intentions mailed to the Mail-in Accounting Project farmers

CONCLUSIONS

- The stronger the intent to buy, the more likely the farmer is to fulfill the intent
- If the intent is quite strong, the actual amount spent is generally larger
- A farmer's previous year's net cash available and his strength of intent to buy showed a fairly pronounced effect on actual purchases

82. Young, J.N., and A.L. Coleman, "Neighborhood Norms and the Adoption of Farm Practices," Rural Sociology, Vol. 24, 1959, pp. 372-380.

PURPOSE

- To study the role of neighborhood norms in the adoption process of farm practices

METHODOLOGY

- Personal interviews with all 343 operating farmers in 12 Kentucky neighborhoods in the Outer Bluegrass region

CONCLUSIONS

- Farmers in some neighborhoods ascribed scientific farming attitudes to their neighbors to a greater extent than is true in other neighborhoods
- Farm operators in some neighborhoods are more frequently guided by the opinions of their neighbors
- Farmers in some neighborhoods use information sources more extensively
- Each of the above patterns is more prevalent in neighborhoods with high adoption scores

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