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NEEDS FOR EXTENSION PROGRAMS AND MATERIALS IN MARKETING, RISK AND FINANCIAL MANAGEMENT

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The decision making environment within which the agricultural producer must function is complex. Production decisions are conditioned by available markets and the market structure. In turn, the producer's marketing alternatives are, in part, dependent upon the decisions made in the production process. Both production and marketing decisions are made in the context of time with consequent implications for output, costs, and prices. Today's commercial agriculture is capital intensive and financial management is thus a critical element for farm decision making. Overlaying the entire decision matrix is risk and uncertainty.

The program committee for this workshop had some difficulty in its development.* We had hoped to be able to have a series of presentations of Extension programs that illustrated successful integration of the various facets of farm decision making. As we reviewed programs around the country we found very few that met this criterion. We did, however, find many examples of excellence in one of the dimensions described above. Thus, it seems evident that there is a need to focus more attention on the integration of programs in farm management and marketing that address in a simultaneous fashion the multiple dimensions of producer decision making.

I would now like to more explicitly address the various aspects of materials and program needs in marketing and financial management. In

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*Presented at the National Extension Workshop on Marketing, Risk and Financial Management, April 2-4, 1984, Minneapolis, Minnesota.

doing so I will express some of my own convictions, report the views of a sample of workshop participants, and finally, the disappointing results of a survey directed to the identification of programs and materials directed to the teaching of risk and uncertainty.

In preparing for this assignment I devoted considerable time to attempting to identify and describe a list of priority needs for programs and materials. Following is the modest result of that cerebral exercise:

1. Program planning and development should be a joint activity of both farm management and marketing extension staff. This does not mean that all programs or materials should be integrated. But it does mean that efforts to coordinate and integrate programs and materials is often possible and can result in a more coherent total Extension educational program. Failure to do so results in gaps, incoherent total programs, and occasional embarrassments. (Perhaps the institutionalized planning process of Extension is partly responsible as it requires the development of plans of work under separate titles.)
2. There should be an increased amount of joint conduct of extension programs by farm management and marketing staff. Just as it is obvious that some program topics are so narrowly focused that joint conduct makes little sense, it is equally obvious that it is essential for other topics. Unfortunately, it seems that disciplinary specialization is a factor that tends to discourage the necessary collaborative effort that is essential if a more integrated educational effort is to be successful. In some states it almost appears that farm management and marketing

specialists are competitors or antagonists rather than colleagues working to a common purpose. An outstanding collaborative program involving both farm management and marketing people was that mounted by Cornell extension workers on the dairy diversion program.

3. Greater attention should be given to programs and materials concerning production risk and on means for reducing yield risk. While researchers in production economics have developed an extensive literature on risk, particularly dealing with weather, it seems that Extension has lagged in the development of methods for the farmer's use in evaluation of production strategies. On the marketing side Extension has developed several excellent programs and sets of materials on market and price risk for grains and livestock producers.

4. We need to develop some valid and simple price forecast tools that can be used by producers. Considerable research effort has been devoted to price projection modeling. Extension workers and others have used models and tea leaves to develop projections. However, for the most part projections are regarded as the province of the experts and the methodologies are cloaked in a certain mystery, at least to the lay person. Certainly, the availability of data and the sophisticated computational tools required have until recently been beyond the capability of the producer. The advent of the on-farm microcomputer has changed the situation. It is now possible for the farmer to access data bases and to use the analytical software of sophisticated

forecasting. Extension has an educational role in informing and instructing farmers in the use of such forecasting tools.

5. The emergence of the on-farm computer to assist in the decision-making process has also created a need for planning tools and decision aids for the farm microcomputer that incorporate yield and price scenarios. To state this as a need does not imply that there is no work currently being done. Rather, it is a call for recognition of a need that will be increasing as more computers are purchased by farmers. At this point we have only begun on the myriad of problem applications.

6. We need to examine our programs and our materials with respect to:

   -- Our role as educators rather than as competitors with other agencies or commercial firms. While we readily subscribe to the mission of adult education, it is not difficult to find instances where Extension assists with income taxes, helps in record keeping, provides forecasts, etc., all of which are services provided by the private sector. This is not a closed issue.

   -- The stark fact of diminishing real dollar budgets in Extension. When I began working in Extension in 1963, I had a travel budget of $2,400. Today my travel budget is about $600. In addition, we have generally experienced a net loss of personnel. We need to do two things. First, Extension needs to do a better job in finding support for its programs and activities. Second, Extension needs to identify and adopt

new cost reducing and effective technology for performing the educational role. For example, how much have we used community access television? Have we used the public libraries as outreach centers?

-- Priority needs by farmers rather than the disciplinary interests or professional specializations of Extension faculty. Farmers have problems; Extension people have specialties and programs. It may be fortuitous if they coincide. It is somewhat heretical these days but I think every Extension staff ought to include a small number of the old-fashioned generalists who can help in the integration so necessary for understanding the complex problems of the farmer.

-- Benefits and efficiencies from comparative advantage in the sharing of specialists, programs and materials. Sometimes I perceive that Extension people are a bit proprietary. There is a reluctance, furthered by institutional rigidities, to ask assistance from another state. I have heard people in my state veto the use of an excellent Extension publication from another state because its use would imply the lack of competency in the subject in our state. Nevertheless, there is increasing recognition of this need and there is ample exchange and sharing evidenced at this workshop.

-- Learn to work more effectively with other agencies or actors on the agricultural scene to "pyramid" our effectiveness as educators. We may be very effective in our assistance to

agricultural producers even with minimal direct contact if we succeed in educating the agency and service people in the agricultural community so that they do a better job. Programs for agricultural bankers and income tax preparers are common in many parts of the country and provide excellent examples of this concept.

At this point I became somewhat apprehensive about the possibility of myopia on my part. Was it possible that my perception of needs for programs and materials was colored by the parochialism of the New England scene? Therefore, I conceived of a strategy that would capitalize on the captive group attending this workshop. I asked a 10 percent (approximate) sample of those present to identify for me the two highest priority program needs and the two highest priority materials needs in the area of marketing and financial management. The results are represented by the lists tabulated below.

Highest Priority Program Needs

1. Educational programs designed to help farmers evaluate alternative market strategies and develop a market plan.
2. Programs that assist producers to better understand market risk and how to use risk information in management decisions.
3. Greater cooperation and integration in the development and conduct of Extension educational programs both within and among states. Included in the within state cooperation concept are the areas of marketing, finance and farm management. Also mentioned were the potential benefits in regional programs.

4. Programs that will teach farmers how to use computer technology to assist in management decision making.
5. Development of a system for regularly reaching counties and farmers with marketing, farm management, and farm program information.

Highest Priority Educational Materials Needs .

1. Forms, formats, worksheets, guide sheets, etc., for estimation of production and marketing costs, evaluating market alternatives or channels, and outlining or illustrating methods for analysis of decision options. (Interestingly, several respondents apologized for suggesting things so basic in nature.)
2. Materials on forecasting, technical and fundamental, intermediate and long term.
3. Basis information -- price probability distributions.
4. Materials and software adapted to microcomputers. Methods for analyzing data for decisions -- incorporating forecasts and risk (price probability) information in models for market decisions.
5. Materials to help producers identify risk preferences, individual market alternatives, and individual costs and financial situations.
6. Development of slide and tape sets that county and regional agents can use in teaching marketing and financial management.

The results of this rather unscientific and unstructured survey were both heartening and enlightening. In general they tended to be consistent with the list of needs I had previously formulated. At the same time they

suggested some additional specifics that could be fruitful for charting some short term program objectives.

As a final topic, I would like to address programs in risk and uncertainty. The majority of programs in Extension concerned with market risk have dealt with forward pricing and hedging as appropriate methods for price risk reduction. As might be expected, those programs have been concentrated in grain and livestock marketing. Both forward contracting and futures market operations are possible because of the relatively sophisticated nature of the marketing systems for the commodities involved. Well-developed grading systems, a relatively few firms dominating the price discovery process, and a national commodity market with rapid communication have combined to reduce lack of knowledge about market conditions. Such is not the case for many field crops, vegetables and fruit.

In January of 1983 a one-page, open-ended questionnaire was sent to each state in the U.S. The purpose of this national survey was to identify exceptional examples of Extension programs that have addressed risk and the problem of jointly determined production/marketing strategies. The questionnaire was sent to one individual in each state. The individual was identified by ES-USDA national program staff as being the individual most knowledgeable of the subject matter areas mentioned in the questionnaire. In some cases the individual was a farm management person and in other cases a marketing specialist. Two follow-up reminder mailings were made.

The survey contained the following specific questions:

1. What formal Extension programs do you have in the area of production/marketing strategies?
2. Do you have formal Extension program efforts that consider production and marketing strategies as jointly determined?
3. Do you have educational programs in marketing and market risk management that utilize the computer as a source of information or as an analytical tool to assist the decision maker?
4. Are you currently using materials or methods in Extension that involve simulation as a means of teaching risk management strategies?
5. Are you currently using materials or methods in Extension that teach Bayesian or other risk management strategies as related to farm production/marketing decisions?
6. In your Extension programs are you teaching or planning to teach the use of computer assisted forecasting techniques as a means of reducing future price uncertainty?

The intent of the questionnaire was to solicit as much detail as possible concerning programs in marketing and risk management. We anticipated that respondents would send examples of materials used in programs and we were prepared to organize and categorize these materials in the form of a directory that would facilitate the exchange of ideas and program materials among states. Unfortunately, the results were somewhat more modest in scope.

Thirty-five responses were received from states. These responses ranged from one word answers (no) to five pound packages. More were of the character of the first than of the second. Disappointing was the lack

of response from certain key states. These included Illinois, Indiana, Iowa, Michigan, Wisconsin, Texas, California, and Washington. Following are brief summaries of the responses to each question.

1. Approximately one-third (11) of the respondents replied that they had no formal extension programs dealing with production/ marketing strategies. Several of the states reporting that they did have such programs characterized them as "minimal" in scope and depth. The majority of the programs described were oriented to grain and/or livestock producers. Most mentioned hedging or forward contracting as the subject matter.
2. Nearly 45 percent (14) of the respondents indicated that they had no formal programs that considered production and marketing strategies as jointly determined. Most of the positive responses were from the south, midwest, and plains states and were oriented to grains and livestock. The majority of the negative responses were from the northeast and western states.
3. Almost exactly half of the respondents stated that they were using the computer in extension programs in marketing and market risk as a source of information or as an analytical tool.
4. Only 5 of the 35 respondents indicated using simulation (case farm as well as computer based tools) as a technique for teaching risk management strategies.
5. About one-third of the respondents reported using materials or methods that involved Bayesian (probability) concepts and techniques in developing risk management strategies for producer decision making.

6. Only six of the thirty-five states responding were teaching the use of computer assisted forecasting techniques to reduce uncertainty. Four of these states referred to AGNET as the information source. Several other states did indicate that they were planning programs of this nature or were considering the feasibility of doing so.

Perhaps the most useful finding from this survey was that there is much that needs to be done to develop programs on production/marketing strategies that consider risk. While there are a small number of such programs, the majority of states (in the survey) have done little to develop educational programs in this area.

In summary, there is a substantive agenda of both program and materials needs in the subject matter areas encompassed by marketing and financial management. Needs range from greater integration of subdisciplinary specialties in the program planning and delivery phases of extension to the development of worksheets to assist in the analysis of decision options. It seems imperative that more of our extension resources be devoted to these areas. It also appears that our professional attention could be profitably turned to some new and challenging problems and issues.