AGRICULTURAL TRANSITION: ITS IMPLICATIONS FOR AGRICULTURAL ECONOMICS EXTENSION IN THE SOUTHEAST

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INTRODUCTION

The current depressed state of the agricultural economy has had a negative effect on the public funding for agricultural economics programming at many of the region's land-grant colleges. Especially difficult budget times have confronted those charged with supporting the extension mission. It might seem that hard times on the farm would call for increased extension program activity support. This has not been the case, and it will be our contention that the budget outlook will not improve. Rather, we will argue that the future will not permit a return to "business as usual extension programming."

The paper will be developed in three sections. First, a statement of the problem is offered. The second part of the paper will expand upon the problem definition, and the third part will elaborate upon the implications for extension.

Before proceeding, a perspective on our approach to the topic is needed. This paper has been developed in the manner of a literary essay, seeking to make as persuasive a case as possible for a particular position. Others may disagree with the picture we paint of the future of southeastern agriculture and our views on extension in this future setting. If this disagreement is vigorous and sparks a professional debate, then the purpose of this paper will have been served.

EXTENSION: DEFINITION AND JUSTIFICATION

The product of the agricultural economics extension mission is the delivery of management information. In the initial years of the extension program, management information was focused upon the production decisions of farm firms, at a time when production agriculture was the primary income source for a large part of the nation's population. Then, with the increasing integration of the farm production sector into the general economy, the extension product was broadened to include agricultural market intelligence and the operation of national agricultural policy. At the same time, the extension clients came to include not only the farm managers, but also associated agribusinesses. Also, at a lower level of resource commitment, rural development extension grew to provide information for community decision makers both within and outside the formal governmental decision process. Attempts to broaden extension clientele beyond these groups have been resisted by public officials who review and approve extension budgets and by those who deliver extension services. Thus, the focus of extension has remained upon the welfare of rural communities and, predominantly, upon the agricultural enterprises in those communities.

The dedication of financial and personnel resources to the extension mission can be justified only if a social value of the primary extension product—the delivery of management information—is documented. The social value of extension is established in three steps. First, because raw data and specialized research studies are not management information, extension must create management information by interpretation of data and studies and by effective communication. This is the extension program input. Second, a decision must be changed as a result of the

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extension activity. This is the output of the extension input. Third, the change in the decision must have a positive effect on social welfare. This establishes the resulting value of the extension input. Demonstrating that each of these three effects occurs establishes the value of the extension product. Such a demonstration is difficult or impossible in many specific instances because of the myriad of other factors which enter into decisions and their implementation.

The creation and delivery of management information, that is, applied research and its effective communication, always has been the focus of extension professionals. Organization for the extension mission has been structured to address this need. The system of the extension specialist at the land-grant college, supported by field agents, was developed to assure rapid transmission of new management information to potential users via direct personal contact. The basic data and research input for the specialist most often came from the research mission of the land-grant college. The university specialist straddled the two disparate worlds of research and farm and agribusiness management. Meanwhile, the field agents' experience in directly delivering management information to farm operators could feed back to the specialist to improve the information product. This extension delivery system developed during a period (a) when the pace of social and technical change was slower than today, (b) when on-farm technical innovation lagged the potential production increases promised by agricultural research, and (c) when the structure of the farm economy, the educational levels of extension clients, and the available communications technology made personal contacts the most wide-spread mode for delivering management information.

Paralleling the historical development of extension programming was an increase in disciplinary specialization of extension staff, especially at the university level. From this increase in specialization came the increased attention to extension as a separable element within agricultural economics departments at the land-grant colleges. However, the roots of extension remained in the need to deliver management information suitable for farm level decision making, and often such management information required a multidisciplinary effort to develop a useful information product. The imperatives of practical utility and multidisciplinary focus for the extension product increasingly divorced extension from the direction of the agricultural economics profession as a whole. Therefore, the debate over the utility of research for extension programming has become more vigorous with time. As a result, today's extension specialist faces the danger of professional isolation and a declining intellectual support base.

The delivery of management information must change a decision if extension efforts are to have social value. A decision will be made in terms of a decision maker's established preferences, perceptions of current choice opportunities, available resources to implement a given choice, and the management information which can alter preferences and perceptions of choice opportunities. Therefore, extension information is one of the forces affecting decisions, but isolating the marginal effect of extension information on a choice is difficult. Indeed, the flow of information which can affect decisions comes from multiple sources. First, information can be internally generated by the decision making unit. Second, private sector purveyors of products and services used in production or marketing will, through their commercial sales activities, provide management information. Third, there is the extension information. Isolating the effect of one information source from among the three is not possible. However, in the past it has been accepted as an article of faith that progress in the agricultural economy depended upon extension information. By citing the limited capability of the small farm firm to develop its own management information and noting the limited incentive for the private sector to provide a full range of management information services, the importance of extension information in affecting decisions was demonstrated by arguments made in the negative—that is, other information sources could not exist; therefore, extension must.

If it can be established that extension information has changed a decision, then it must be shown that the changed decision improved social welfare. This defense of the social value of extension has been made at a general level in the political arena where extension funds are provided, rather than on specific extension programs. There has been a political consensus that the full-time farm operator was the client which extension was to serve. The long standing social commitment to supporting the welfare of the residents of rural America—a commitment reflected in the variety of programs for rural area development enacted since the creation of the land-grant college system—legitimized extension pro-

grams targeted to delivery of management information to the farm operator and farm family.

Four rationales have been offered to explain the long-term public commitment to this particular extension client. The first is related to political representation, the second related to equity, the third is related to economic growth, and the fourth is related to efficiency. First, because the population, especially in the southeastern states, was predominantly rural, rural voters had a significant influence in the allocation of public funds. Extension programs, indeed agricultural programs in general, were readily supported in that political setting.

Second, the perception has existed, at least since the turn of the century, that rural residents, and farmers in particular, were economically disadvantaged relative to the rest of society. Such a view supported favorable treatment of those programs, such as extension, perceived to enhance the welfare of the rural population. Reinforcing this commitment to rural welfare was a political commitment, rooted in the Jeffersonian agrarian ethic, to maintain a large population on the land as farmers.

Third, until the past few decades the growth of the economy as a whole, and the growth of rural economies, depended upon a healthy agricultural sector. To the extent that there was a political acceptance of the need to promote regional economic development through public programs, it was correctly perceived that the community welfare will depend primarily upon the economic vitality of the farm sector, which provided the essential base for rural area economies. Extension support for farm operators could be justified as long as agricultural development was closely linked to rural-area development.

Fourth, there are economies of size in the production and distribution of information—the product of extension. The management expertise embodied in the extension specialist and field agent is expensive to produce. Development of this expertise was beyond the capability of the farm sector which included many people with limited formal education scattered over millions of small economic units. Once developed, farm management information can serve additional users at near zero marginal cost. The high initial production cost for management information which discouraged individual farmers from its production provided a rationale for treating extension information as a "public good" to be supported by general tax revenues. In this regard an efficiency case for research and extension programming has been provided. Beginning with Griliches nearly 30 years ago, the economic value of agricultural research and education efforts has been estimated. Coffey et al., in a paper presented at this conference in 1982, summarized many of the empirical findings and noted the agreement in ex post studies that investments in agricultural research, teaching, and extension activities have yielded substantial returns. Baha and Tweeten come to the same conclusion in a recently published bulletin. What does the future hold for extension?

Today, the southeastern agricultural economy is in a rapid transition, as is the rural economy. It is our contention that the four factors which have supported the public commitment to and consensus on the value of extension programming are eroding by a rapidly changing general agricultural and rural economy and by a change in the way society views large scale production agriculture. At the same time these changes will reduce the demand for the services which we have considered to be uniquely "extension" among those who produce most of the value of agricultural output in the Southeast. The precise results of the current agricultural transition are subject for speculation, and characteristics of the new structure will be directly related to the adoption of certain policies or implementation of technologies.

STRUCTURAL CHANGES IN FARMING

Continuing a well recognized long-term trend, farm numbers will decrease both nationally and in the Southeast (Schertz et al.). One study recently released suggests that the number of farms will decline from 2.4 million to slightly over one million farms by the year 2000 (Office of Technology Assessment). While the precise numbers may be a subject of debate, the continuing decline in farm numbers has been well recognized. A result of this trend is the possible emergence of bimodal agriculture with large commercial farms (mega-farms) in traditionally strong agricultural areas and smaller part-time farm operations located near certain employment centers. The traditional family farms or mid-size farms with gross annual farm earnings in the range of $40,000 to $250,000 will experience the greatest decline in numbers as they either scale up to become mega-farms or

reduce volume of business and become smaller, part-time farms with greater dependence on off-farm earnings.

Mega-Farms and the Rest of Agriculture

Mega-farms will be defined as a group by gross earnings generated per year, not by acres of land or other physical means which traditionally have been used to define size. These farms will produce the majority of the total value of American agricultural output and will be the successful survivors of the financially troubled farm operators of today. Mega-farms will be highly specialized and located in the natural resource areas best suited for their types of production, where the predominant type of agriculture is best adapted to the land, water, climatic, and labor resources, where competition from urban development is less prevalent, and where farming is well supported by the relevant infrastructure. Initially, mega-farms will cluster in the existing strong agricultural areas such as the central valley of California, the central midwest, and prominent agricultural regions in the Southeast. Mega-farms will result in an increase in vertical integration of traditional crop and livestock enterprises and will be organized under family corporate ownership. Many of the mega-farms will produce products other than grains, oil seeds, and livestock.

Some of the ownership entities will become management units making output and input use decisions which are simply implemented at the farm level by lease holders of lands held by the ownership unit. Alternatively, individual landowners may become "employed" by the larger management units, making production and marketing decisions according to the larger unit's direction. This management approach will follow the model provided by the poultry industry and might be termed as "franchise farming." The managers of these large production units will be wholistic managers who combine the elements of production, business, financial, and marketing management into an integrated plan for profit. Management strategies will include minimizing capital investment, minimum to moderate debt financing, return on investment or profits, and positioning to capitalize on biotechnology and state of the art management techniques.

Another farm group of the future will be the smaller, part-time farms where non-farm income is generally greater than farm earnings. These units will be primarily located with commuting distance of employment centers. These farms could represent as much as 90 percent of farm numbers in the Southeast but will generate only a small percent of the value of farm output. The number of these farms will depend upon the availability and level of off-farm earnings, local, state and national tax policies, technological change, demand for agricultural products, and general economic conditions. The part-time operator's objective will not be the profit maximization of the larger mega-farms, but rather will be to produce income to supplement family earnings in good years and to minimize farm losses and reliance on non-farm earnings in economically difficult years. Also, enterprises and production methods which reduce management costs will be sought. A larger objective will be to insure that rural lifestyle can be supported by the combination of farm and non-farm income. This manager will be versatile enough to shift enterprises or management focus as market demands change, to maintain compatibility with off-farm employment needs, and to make adjustments in response to life cycle changes in the owner's family. Part-time farm operators will be interested in the economic welfare of the rural community as a whole to ensure that the relative strength of the rural economy will support their ability to farm on a part-time basis. Most of these operators will be well educated, and non-farm earnings for these residents will increasingly come from white collar, service-based industry employment.

The national shift of population and employment toward the Southeast will provide opportunities to farm as well as provide a support structure for rural communities. Specialty crop agriculture, such as vegetable and horticultural production, which is dependent upon diverse products and direct access to nearby population centers, will enhance market niches. Indeed, this may be an important opportunity for some smaller, full-time farms which need to diversify and grow by including such specialty crops to supplement or replace income from traditional livestock and crop enterprises.

Agribusiness and Rural Communities

The agricultural transition will change the composition and structure of support industries and rural communities. Two types of rural communities appear to be emerging both nationally and in the Southeast. One is an economically declining rural community that

is primarily supported by agriculture, energy, and technologically obsolete manufacturing firms that are losing markets in the global economy. Population numbers and business activity are declining, and the community profile includes a higher percentage of unskilled and elderly people with an exodus of young people seeking employment and quality of life opportunities elsewhere. School systems, the tax base, and the supporting rural infrastructure are in a general state of deterioration in these areas.

In contrast, a rural community is emerging which is growing in size and diversity in its development into a rural trade center. An increasing percentage of the workforce is employed in white collar occupations related to the growing service-based economy. The economy is diversified and stable with an increasing number of retail establishments and generally an increasing population. Agribusiness establishments in these centers are increasing in size and are offering more diverse product lines and services to the rural clientele. The rural population may stabilize as a proportion of the total population, and rural-area political representation may also stabilize. However, those who advocate the farm producers' welfare in the political arena will continue to decline as rural communities' economic vitality becomes separated from their traditional reliance on the farm economy. For example, these types of rural communities are increasingly experiencing greater conflicts in issues concerning animal rights, land and water use, pesticide application, and other "farm-city" conflicts.

Technological and Institutional Changes

Superimposed on this future is the reality of an increased pace of technological and institutional change. Agricultural research which is linked to bio-technology will result in a far more rapid turnover of technologies affecting input use rates and output levels than was the case with past research efforts. At the same time the ability to patent bio-technology research, as well as the more basic (as opposed to agricultural applications) nature of the research, will encourage technological development and dissemination by the private sector as well as academic centers outside the colleges of agriculture.

At the "receiving end" of the technological change is a more sophisticated and better educated farm operator. The mega-farms will have a staff management capability, as well as provide needed management resources, such as data and computer technology, to rapidly evaluate and put in place technologies promising increased profit and to define and take advantage of market demand and price opportunities. The smaller, part-time farm operator will, likewise, be more highly educated and have the potential to be more attuned to receiving sophisticated management advice. This latter group's numbers will be large, but the value of its agricultural output relatively small.

EXTENSION'S FUTURE: SOME SPECULATIONS

In order to discuss the implications of the preceding discussion for extension, it will be most useful to reverse the order of discussion from the first section. That is, a section on future perceptions of the social value and support for extension will be followed by suggestions for extension programming.

Rethinking the Support Base for Extension

Targeting extension programming to the emerging mega-farms will diminish the support base for extension. The mega-farms will be economically strong enterprises and viewed by the public as part of an industry motivated by bottomline profits. This segment of the economy will have difficulties making the case for special political treatment for financial and educational support services. At the same time, the continuing erosion of farm representation in the political process will contribute to a diminished support for agricultural programming as a whole. The social equity argument will lose its appeal when the mega-farm net income position is far more favorable than the net income position of most of the nation's taxpayers. This is, of course, only a continuation of an increasingly less disadvantaged income and wealth position of farmers which we have seen develop over the last decade. Also, the argument that agricultural development is essential to rural community welfare will be less compelling as many rural areas continue an economic decline while rural trade centers grow on an economic base broader than that provided by production agriculture. Finally, the "information as a public good" argument about the need to provide extension programming with public funds will be challenged if the clientele for extension are limited to fewer economically ad-

vantaged producers who are more capable of meeting their management needs.

Meanwhile the mega-farm managers themselves will begin to question the utility of extension programs. Industrial and private consultants will provide increased competition to traditional extension programming, particularly for the mega-farms where sale of management services, perhaps as a joint product with production inputs or market advice, appears profitable. For example, patent law changes will mean that the next generation of technology—genetic engineering—will be commercially marketable through the private sector, and this will encourage commercial input suppliers to provide wholistic farm management advice. Some large agribusiness firms are positioning themselves with well-trained research teams and field staff specialists to generate information and establish a mechanism for implementation of strategies to enhance profits of mega-farms. Frequently assistance combines the elements of production, marketing, and financial management in an integrated manner. Of course, this integrated management capability also will be developed by the mega-farms themselves as ownership hires, on a salary basis, specialists in farm business management. In summary, the mega-farm managers will increasingly purchase or self-generate highly sophisticated, specialized information reducing their demand for extension services.

What about the potential support for extension programming from the increasing number of part-time farm operators and the leadership of the rural communities in which they live? The support base for extension here will be uncertain. Consider again some of the arguments which have been provided to support traditional extension efforts. Political representation of rural residents will decline in number, reducing support for special agricultural programs. However, the part-time farmers, specialty crop producers, and local governments of rural areas, though small in number, will be of relatively high education and sophisticated in the tactics of political organization. Earning their support will be possible *if* extension programming speaks to their needs. Indeed in some Virginia counties, withdrawal of state and federal support for extension programs has been accommodated by increased local funding.

Nonetheless, these part-time farm groups will not convey a public image of being economically disadvantaged; as a result, the equity argument for support may lose much of its appeal. Perhaps there will be an increased opportunity to provide broader based "family income" advising services—much like the programs suggested by the "home economics" and "4-H" program titles. A shift to this type of program suggests a redirection from farm management programming to "rural life" programming and perhaps entrepreneurial training. To the extent that some rural areas are economically vigorous this type programming is unlikely to earn political support based upon equity arguments. Only in the declining rural areas will such arguments command support on equity grounds.

Perhaps the fact that there will be a large number of part-time farm managers will support the efficiency (or public good) argument for public provision of management information for this group. However, this argument alone will not support public funding if the clients are perceived to be economically advantaged and/or pursuing agricultural enterprises for the personal rewards of a hobby, rather than the broader social values of food production and rural economic welfare.

Rethinking Extension Programming

A changing agriculture and a changing rural economy will alter the demand for extension services as well as challenge the political legitimacy of public support for traditional extension programming. New clients and programs may be identified, but building support needed to serve those clients will be difficult. While continued existence of extension is not assured, continuation of traditional approaches to extension programming and organization assures declining public support. Extension professionals will be challenged with the unprecedented need to market their product and to create a demand for their services. This paper can only begin to address these possibilities. In doing so, we want to examine existing or evolving strengths in the structure and organization of extension as these may be called upon in its future role.

Multidisciplinary Approaches

One unique aspect of extension is the fact that it has been operating in a multidisciplinary setting involving both research and teaching. No other public or private institution has had a comparable experience. While there is criticism that the exploitation of the complementarities between functional areas as

well as the subject matter areas has been incomplete, the structure exists for putting greater emphasis on these joint opportunities. One way of approaching this problem is to focus on the tensions which exist in the agricultural economics profession between the discipline itself and the service needs of extension clienteles.

A fair appraisal of the direction of the professional reward system for agricultural economists within the discipline and the educational system must acknowledge that there is a tension between the service needs of extension and the requirements for individual professional advancement in research and in the classroom. The idealized model of the extension specialist bringing the lastest developments in the academic discipline to the general public has never been the reality. Rather, the successful extension program was a product of the individuals who did their own "applied" research and conditioned the research problem definition and research approach by the lessons learned from carrying that work to the field. The extension specialist has, therefore, always been something of a generalist in terms of the profession. As a result, the extension specialist has been increasingly divorced from the direction of the agricultural economics profession as the profession has attempted to demonstrate (a) its standing as a science, (b) its standing within the general economics profession, and (c) its service to governmental decision makers who set the larger "rules of the game" rather than to single producers.

It is an open question whether agricultural economics extension, or extension programming in general, should be or can be tied to academic departments in the future. With limited resources and a changed clientele it may be that extension efforts may become part of a separate, multidisciplinary organizational unit(s) in the land-grant system. At the same time the need for Ph.D. level training for at least some of the staff of such a unit to accomplish many of the day-to-day tasks might be questioned. However, such units may need to be able to draw upon expertise in the research and teaching areas of individual departments. Inevitably, persons trained at the Ph.D. level in the discipline may be pulled by the professional reward system of the discipline toward efforts which do not serve the immediate needs of extension. In the future much will depend on whether agricultural economics departments will be permitted or allow themselves to be partially staffed with sub-Ph.D., non-tenure track faculty (or explore other administrative alternatives) to meet the service needs of production departments and the extension clientele. Allowing such a staffing pattern would not eliminate the tensions but would make them manageable and would allow them to play a creative role in our departments. Such a function would not likely be served if it came to a more distinct separation between the disciplinary and service orientations of our profession.

Identification of Niches

The questions we raised earlier about the political, equity, and economic support bases of extension also cause us to look for extension opportunities which continue to be well supported by one or more of these three elements. Our approach to the identification of such opportunities is to look for social needs which will not be met by the private sector.

Extension programming in the immediate future could be focused on the economic adjustments of agricultural transition, particularly for the large number of traditional family farms. Economic forces will require these farms to scale up to mega-farms or reduce in size to the part-time farm class. Programming to serve this group could center on the generation of production, marketing, and financial planning information for prudent expansion of farm operations and for a transition to increased reliance on non-farm income opportunities. This latter opportunity could be targeted toward helping younger operators minimize equity losses as they scale back operations and become more integrated in the general economy and helping those near retirement age convert farm assets into a flow of retirement incomes (Salent and Saupe).

Another opportunity is assisting farm operators in making enterprise adjustments to capture new markets. In the production area this may be a successful program thrust; however, agricultural economics programming may face competition. For example, in Virginia a new mushroom industry has sought its production advice from the College of Agriculture and Life Sciences, but has approached the business schools elsewhere in the state for developing marketing strategies for the new product. On the other hand, a coordinated production, finance, and marketing program for tobacco producers who are shifting to broccoli production has been conducted entirely within the College of Agriculture and

Life Sciences, in cooperation with the state's department of agriculture and the USDA.

Non-farm clients might be targeted for extension programming. For example, the decline in agriculture as the basis for the economic growth of rural areas will focus attention on other regional growth programs. Extension programming to assist rural area governments—expanding a current clientele group—in growth planning and management to assure the quality of life for rural area residents can be an opportunity for earning extension support in the future. A second promising area is programming to help rural people develop the institutional adjustments that will be needed to resolve conflicts over land use, water quality, water use, and related matters that now characterize much of the rural southeast. Many years ago agricultural economists made a significant contribution to the nation by assisting in the development of new leasing institutions for farm property rights between tenants and owners (Salter). Perhaps tomorrow extension economists can promote the development of needed new social institutions for accommodating conflicts over property rights in land and water. However, there will be other professionals seeking to serve this role, and they will not be linked to colleges of agriculture or extension. Indeed, perhaps the only advantage extension brings to this area of policy is a tradition of public service through higher education—a tradition that does not exist outside the colleges of agriculture.

A more direct approach to minimizing conflicts over land and water use is to increase advisory services, especially to the part-time sector, on the profitable application of "low-input agriculture." Advising on minimum tillage practices, integrated pest management, and "organic farming" may help reduce production costs and increase environmental compatibility of production, but may not be provided by the private sector. At the same time certain specialty crop products produced in this manner may find numerous market niches in the future.

Organization of Extension Programming

The mega- and family farm sector of agriculture because of declining numbers, reduced political support base, and competition from consultants represents a shrinking audience for extension. At the same time there will be a clustering and concentration of mega-farms across county, and perhaps state, lines. The reduction in numbers implies reduced needs for extension information and staff numbers and an increase in the potential for regional specialization of land-grant extension programs with centers of expertise.

A second force leading to regional extension programming will be that all farm managers will be better educated and more able to derive management advice directly from electronic and written communication, rather than face-to-face advising. This reality will break the traditional link between the specialist and the field agent, and may, as noted below, radically alter the position of the field agent. Of most significance here is that pressures of reduced funds can lead to concentrations of expertise at regional centers.

The increased use of electronic communications will facilitate regionalization by providing managers of all size farm units access to management information. Electronic communications can expand the access of any clientele group beyond the local boundaries which have characterized much of extension programming. For example, a Virginia Tech professor recently used the latest satellite technology to beam an agricultural tax program to local communities without leaving campus. The use of VCRs and interactive video are other examples of latest technology that can reduce traditional information linkages of extension.

If extension programming for the mega-farms is continued, it is likely to bypass the field agent in many instances. The mega-farm manager might be receptive to a systems approach to evaluating problems, developing and synthesizing information, and implementing programs that will require a team effort between producer, agri-input firm, and extension personnel. As noted earlier multidisciplinary teams—animal scientist, agronomist, and agricultural economist—might work together with supporting external institutions—banks and fertilizer firms—to serve the needs of the mega-farms. Extension specialists could work with a lending institution in developing and implementing a management strategy. In turn the lender because of the involved risk could provide the necessary incentives for farmers to participate in the production planning effort by lower interest cost or fees associated with the loan. It may be necessary for extension to charge for services to the mega-farm to partially or totally cover cost. Two aspects of this team approach need to be noted. First, the university specialist will be

acting more like a for-hire consultant and may be primarily engaged in teaching or research when not filling this consulting role. Thus, the full-time extension specialist position may need to be rethought. Also, if this delivery system bypasses the traditional extension laborer—the field agent—questions must be raised about the future role of that position in serving those who will produce most of the agricultural output.

Program content and delivery for part-time operators could emphasize specialty crop production and entrepreneurial training. The focus would again be toward a systematic approach of production, financial, and market development taking into account broader social concerns such as environmental protection and resource conservation. Programs for part-time farms will be concerned with how enterprise combinations are compatible with personal perceptions of employment, family, community, and environmental goals. This will require the creation and delivery of management information that has not been emphasized by existing extension, and it is doubtful that agribusinesses will invest the resources necessary to meet the information needs of this clientele group. The role of the field agent may be greater for this group of part-time farmers. Nonetheless, the role is unclear, especially if this client group can have direct access to a regional specialist through electronic and written materials.

What is clear is that the continued support for extension programming will depend upon a new emphasis on program evaluation. There will be an increased need to document outputs—that is, how decisions have been changed by extension programs. At the same time it will be increasingly necessary to demonstrate who benefits from extension so that perceptions of unwarranted public subsidies to the commercial sector do not threaten political support. This might be termed "political accountability." However it is described, documentation of inputs such as meetings held and number of extension clientele contacted will no longer be adequate for earning program support. Program post audits must stress practices and strategies implemented at the farm level as a direct result of extension programming and their impacts on individuals and groups. This program evaluation effort will become part of the general survival strategy for extension programming, but equally important, it will be needed to better allocate a shrinking resource base.

SUMMARY

This paper reaches no conclusion other than that the extension future is an uncertain one. It is our contention that the factors which have supported a public consensus on the value of the current extension program, including its clientele definition and its organizational structure, will be challenged by a rapidly changing general agricultural and rural economy and by a change in the way society views production agriculture. At the same time, these changes will reduce the demand for the services of extension among those farm producers who produce most of the value of agricultural output in the Southeast. Future extension programming must adapt to this new reality by carefully assessing the traditional staffing procedures, procedures for information dissemination, and the targeting of programs to special clientele.

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