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***THE CHANGING INFORMATION NEEDS OF FARMERS IN THE U.S.
AND EUROPE***

Kevin Klair, Antonio Boggia, D. Wynn Richardson

University of Minnesota

University of Bologna

University of Padova

University of Perugia

University of Firenze

University of Piacenza

University of Wisconsin

University of Siena

University of Alberta

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The Changing Information Needs of Farmers in the U.S. and Europe

Kevin Klair
Center for Farm Financial Management
Department of Applied Economics
University of Minnesota

Antonio Boggia
Istituto di Estimo Rurale e Contabilita
University of Perugia

D. Wynn Richardson
Center for Farm Financial Management
Department of Applied Economics
University of Minnesota

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Kevin Klair, Antonio Boggia, D. Wynn Richardson

Abstract

Both policy and market forces are causing unprecedented changes in agricultural structure and management in both the United States and in Europe. These changes will have profound impacts on the role of universities and extension services who provide information and education to farmers. This paper discusses some of the emerging and anticipated changes in information content and delivery in both the US and the EU.

Some of the primary issues US agricultural producers will need to address as a result of the changes in the agricultural industry and policy include: strategic positioning, transferring management capabilities, frequent performance monitoring, evaluating new technology, monitoring external factors, managing information, and accountability.

The information needs of farmers in Europe are closely linked to the evolution of the Common Agricultural Policy (CAP) of the European Union. The general agricultural policy framework is briefly presented in the paper. Price reduction, agri-environmental measures enhancement, and rural development policy are the most important elements of CAP reform. European agriculture is in the midst of major changes, mostly started in 1992, but destined to continue and increase in the near future. Different approaches to manage the agricultural sector involve the need for a different information system for farmers. It means not only new content in information, but also new ways to inform and do technical assistance. The primary information needs out are: farm management, risk management, EU programs and measures, quality production, low input and organic farming, marketing and advertising management, new technology introduction, structural adjustment funds management, investment decisions, rural tourism and recreational activities management.

European agriculture is on the path to large and challenging changes. There is no way for farmers alone to manage these changes, and remain competitive in the market. Providing information has become the most important part of the extension activity. Information must include training sessions, demonstrations in the field, and assessment, together with the farmers, of the activities and the results obtained.

There are many similarities in the farm management information needs of farmers in the US and EU. A critical factor for the Extension Services in the future is to adjust rapidly to the changes, and quickly develop new content and delivery plans for farmers' training. The challenge for universities and extension services to respond to the information needs will strain their resources. Collaborative efforts between our institutions may prove more valuable as faculty attempt to develop research and educational programs relevant to the emerging information needs. In addition, cooperation with the growing private sector agricultural education programs will probably be essential if public education and information delivery systems are to remain relevant.

The Changing Information Needs of Farmers in the U.S. and Europe

Kevin Klair, Antonio Boggia, and Wynn Richardson

Introduction

Both policy and market forces are causing unprecedented changes in agricultural structure and management in both the United States and in Europe. These changes will have profound impacts on the role of universities and extension services who provide information and education to farmers. This paper will attempt to discuss some of the emerging and anticipated changes in information content and delivery in both the US and the EU.

The Changing Information Needs of Farmers in the U.S.

Kevin Klair and Wynn Richardson

The pace of change occurring in US agriculture has been well documented and discussed in many forums. Major changes in government policy are being implemented during a seven year transitional phase of eliminating subsidies. Even the most significant government policy changes in 50 years are probably not causing as much change in the agricultural industry as are the structural, technological, social, and market changes that are occurring. This paper will not attempt to further the discussion on the changing nature of the agricultural industry, but rather will discuss the implications for outreach programs from land grant universities and extension services.

Traditional and Continuing Needs of U.S. Producers

The primary emphasis of farm management outreach activities over the past several decades has concentrated on helping producers control production costs and maximizing production and profits. Operational efficiency has dominated efforts to improve overall profitability. However, agriculture is experiencing ever tighter profit margins that mandate higher production volumes to maintain sufficient cash flows.

Producers will continue to need educational programs and information on traditional topics such as accounting, financial projections and analyses, tax management, budgeting, marketing alternatives, and resource acquisition. This information will be particularly important during periods of financial stress.

The New Priority Issues

Following are some of the primary issues agricultural producers will need to address as a result of the changes in the agricultural industry and policy.

1. Strategic positioning

“In the past, farming success has depended primarily on the ability of management to

develop an efficient operation. With the continued industrialization of farming, there will be a growing importance associated with the development of a clear strategy to the guide the farm business” (Miller, Boehlje, & Dobbins, 1998). Profit margins in agriculture have continued to get narrower. Producers remaining in business have tended to adapt by becoming more efficient and by increasing the volume of their business.

These management solutions will probably not adequately generate profits in the agriculture that is currently evolving. Producers will need to dedicate effort and resources to determining the unique strengths and resources their businesses possess and capitalizing on them to strategically position the business. Producers need information and educational programs designed to help them evaluate the external and internal factors that will determine the direction of their business in the future. Producers will need to answer new questions including:

- a. Commodities to produce such as identity preserved high oil, enhanced starch, reduced phosphates or possibly pharmaceutical crops, niche products, organic products, and customer driven demands.
- b. Marketing through production contracts, value-added cooperatives, directly to consumers, or hiring marketing services.
- c. The size of operation, whether to specialize or diversify and organizational structure of the business.
- d. Management options, utilization of employees, hiring consultants and information management.
- e. Which relationships, alliances, and partnerships to form.

2. Transferring management capabilities.

Farmers generally considered themselves independent managers in the past, but knowing how to transfer management capabilities to others in the operation may well determine whether the business will prosper in the future. Management capabilities may need to be transferred to the family members, to employees, or to partners. Universities and extension have an opportunity to provide much needed training in business management, communication, personnel management, and management training.

3. Frequent Performance Monitoring

Annual performance monitoring has been utilized by a relatively small percentage of US agricultural businesses. In the future, the successful businesses will not only need to monitor annually, but will probably monitor both financial and production measures monthly or in some cases even more frequently. Many producers already understand the need for frequent performance monitoring so they can make quick adjustments to changing situations. Bench marking and performance monitoring are two of the more frequent requests heard from farmers as they expand operations. Continual performance monitoring will require improved integration of management information and software systems.

4. Evaluating New Technology

New technologies, biotechnology developments, integrated production systems, and company mergers are difficult topics for the typical farmer to remain knowledgeable enough about to make informed decisions. Decisions about technology adoption can have far reaching consequences that can be either positive or negative. Investments in some types of new technology are very expensive. Even more expensive in the longer run might be selecting emerging technology that fails or failing to participate in successful technologies.

5. Monitoring External Factors

Most farmers don't spend significant amounts of time learning about global economies, trade, politics and monetary issues. These issues may contribute as much to farm revenues as the production and management decisions that most farmers direct the majority of their management efforts toward. Several current economic issues could have a significant impact on the farm economy, yet few farmers consider them when making management decisions. These current factors include; the level of credit card debt in the US, the impact of the Asian economy, potential shocks to oil and energy prices, the value of the dollar, and the direction of the stock market (Kohl, 1998).

6. Managing Information

Many companies now have management information systems and employees. Farmers also need to manage huge volumes of information. In addition, they need to manage information that covers a large number of very diverse and complex subjects. Managing, interpreting and utilizing information will require increased investments by farmers in terms of resources, time, and potential new employees or outside services. This is an area in which Extension Services could excel at providing much needed education and assistance.

7. Accountability

Farm accountability is escalating in a number of areas that may have a serious impact on agriculture in the next few years. Regulations and social expectations will continue to force farmers to be more environmentally accountable for the consequences of their farming activities. Concerns from rural residents about manure odors and community attitudes toward large livestock facilities compound the environmental accountability farmers will need to address.

Consumer concerns about food safety are increasing rapidly. Farmers will need to participate more fully in assuring that the US food supply is safe. There are numerous education opportunities on this topic. The high technology/high touch efforts to be able to track food from the farm to the table are one area where significant growth could occur to add accountability to farm practices.

Overall, changing agricultural markets, policy, and industry structures will force farmers to address new issues and demand that they seek knowledgeable sources of information for assistance. Agribusinesses will continue to increase their efforts to provide information services and education to their customers. Universities and extension services will need to determine how they can respond to the changing information needs of farmers and cooperate with agribusiness to be a participant in delivering information and education in the future.

The Changing Information Needs of Farmers in Europe

Antonio Boggia

The E.U. Agricultural Policy Evolution

The information needs of farmers in Europe are of course closely linked to the evolution of the Common Agricultural Policy (CAP) of the European Union. Thus, first of all it is important to present briefly the framework of the CAP, its changes in the past and in the near future, and how it affects the information needs.

The European Commission started to think about creating a CAP in a very early stage of the European Community life. In January 1962 the general orientations of the CAP were introduced. The CAP started to be the most important Common Policy, as far as become the forerunner of the single market. The objectives of the CAP are set out in Article 39 of the Treaty of Rome:

1. to increase productivity;
2. to ensure a fair standard of living for the agricultural Community;
3. to stabilize markets;
4. to assure food supplies;
5. to provide consumers with food at reasonable prices.

It is understandable that the above-mentioned objectives were set up when Europe was in a deficit for most food products. The CAP was successful in getting an economic growth of agriculture, and in providing consumers with all different kinds of food at reasonable prices. However, the prices and guarantees provided through intervention and production aids made the production capacity higher than the consumers needs, so that in several sectors surpluses have started to appear, causing negative effects on market prices. In addition, the objective to increase productivity led farmers to use high input farming systems, with the consequence of negative impacts on the environment. These and other reasons made the E.U. Council of Agriculture Ministers adopt a very radical reform of the CAP in June 1992.

The most important changes were the reduction in three years of EU prices in the arable and beef sectors, to become closer to world market level, compensatory payments, and set-aside premia. The most important innovation were the accompanying measures, regarding:

1. **Agri-environment:**
Subsidies are provided to the farmers, if they introduce or maintain lower input production techniques, organic agricultural production, or other measures that can reduce the impact of agriculture on the environment, or protect natural resources. The EU purpose was to change the role of farmers from only food producers to guardians of the countryside;
2. **Afforestation:**
Financial aids are provided to the farmers for afforestation of agricultural land. This is to

encourage the development of farm forestry, to restore equilibrium to agricultural markets, to protect environment and contribute to development of less developed areas, and to improve market forestry products;

3. Early retirement:

This is an optional measure. Not all the member States had to introduce it. Ten out of the fifteen States adopted this measure. The aim is the establishment of young farmers.

Besides the good results obtained with this CAP reform in the key cereals sector, and in reducing the surpluses, it has been also an important step of the EU rural development policy, particularly the accompanying measures. As a matter of fact, afforestation, environmental protection and improvement, the young farmers introduction could give a significant contribution to rural development strategy.

The EU started in the middle of the 1980's, to think about measures for development of rural areas, not looking anymore only at the agricultural production. The rural development policy involves particularly those areas in which depopulation and abandonment continually increase, due to the decline in traditional agricultural activities, remoteness, weakness of infrastructure and basic services. The aim is to maintain viable rural communities. The key strategy is diversification of the rural economy. To get this aim, several measures for rural development have been set up: provision for encouragement of tourist and craft investments, renovation and development of villages, protection and conservation of rural heritage, protection of the environment and maintenance of countryside landscapes. Access to services, introduction of new technologies, and appropriate training will be key elements for developing small and medium size businesses.

The rural areas of the European Union cover more than 80% of its territory and more than 25% of its population. It is understandable how important the proper development of these areas is for the EU economy.

From 7 to 9 November 1996 an important European Conference on rural development was held in Cork, Ireland. The final result was the Cork Declaration, which calls for sustainable rural development in all rural areas. The need for simplification and integration of the EU's different measures available to support rural development is clearly expressed.

In July 1997, the EU Commission issued a document, "Agenda 2000", indicating the need for strengthening the Common European Policies, to get a stronger and wider Union. Among these Policies, the CAP also is involved, and the need of a new reform to complete the one of 1992 is expressed. To make the CAP more acceptable to the consumers is one of the most important tasks. The basic political choice is to increase direct payments instead of sustaining prices, and to develop a coherent policy for rural development.

To the aim of this paper it is important to underline some points coming out from Agenda 2000 that will be the cause of the most significant changes in European agriculture in the years ahead:

1. Competitiveness must be ensured by sufficiently large price cuts that will guarantee growth of home-market outlets and increased participation by Community agriculture in the world market. These price reductions should be offset by an increase in direct aid payments in order to safeguard producers' incomes.
2. Action on the environment will be strongly reinforced. The financial aids for

agri-environmental measures are increased and a major effort will be made to encourage truly extensive beef production by almost tripling the premium for this type of livestock. Member States are called to better monitor and control that environmental rules are complied with, introducing penalties including reducing or discontinuing direct payments.

3. The basic reason of the EU task to enhance rural development is the multi functional nature of Europe's agriculture and the part it plays in the economy and the environment, in society and in preserving the landscape. Rural development measures concern in particular support for structural adjustment of the farming sector (investment in agricultural holdings, establishment of young farmers, training, early retirement), support for farming in less favored areas, remuneration for agri-environmental activities, support for investments in processing and marketing facilities, for forestry and for measures promoting rural tourism and handcraft.

The Information Needs of Farmers in Europe

The general agricultural policy framework presented above, provides the background to evaluate the different directions in the changing information needs for farmers. European agriculture is in the middle of large changes, mostly started in 1992, but destined to continue and increase in the near future. The different way to manage agricultural sector involves the need for a different information system for farmers. It means not only new contents in information, but also new ways to inform and new ways to do technical assistance.

Actually, Extension Services are already changing their activities, due to the 1992 CAP reform, but they need further changes. First of all, it is important to underline what is changing in farming systems. Before the 1992 CAP reform, the main task of farmers was the increasing of productivity, to assure food supplies. As a consequence, the main extension activity was the training of farmers to learn to maximize production. It means that the most important information need was technical information about agronomy and farming systems. To avoid the risk of loss of products, large amounts of chemical products and pesticides were used, and farmers were trained to use pesticides even to prevent plant diseases, on a calendar basis. After 1992 something started to change, due to the price reduction and agri-environmental measures, but still quantitative production remained the first concern for farmers.

At present, taking into account the Agenda 2000 directions, information needs for farmers are changing very rapidly, and they can be very different, depending on the type of agriculture the farmers want to practice, and the type of measures and aids they want to adopt. In a situation of lower prices, much closer to the world market, agri-environmental measures and subsidies, and rural development policy, the most important needs for farmers will be:

1. Farm management.

Reduction of production costs is the most important answer to price reduction. Control of production costs, and continuous monitoring can be accomplished only with an effective accounting system in the farm. But it has to be not only financial accounting, it has to be a management accounting model. More than a new need, it is a persisting need of information, since farm management has always been an important need for farmers. But it

has to be improved, because in the past it has been not a primary task for the Extension Services, and the farmers need more education to become ready to accept, use, but above all believe in farm accounting and management tools.

2. Risk management.

The big changes in the subsidies system and the abandonment of sustained prices for direct payments, will lead many farmers to change rotation, introducing new crops, and/or adopt alternative farming systems. Risk management becomes in this way more important than in the past, and no information is available at the moment for farmers on it.

3. EU programs and measures knowledge.

Extension Services cannot anymore continue to do administrative works for farmers, such as applications for aids, because it takes too much time and there is not enough time left for training and other relevant activities. Farmers need to be informed on the technical constraints and the economic suitability of the different measures, on the administrative needs and application forms, on the control methods.

4. Quality production.

Quality production is one of the measures for rural development, since it is linked with traditional production in typical areas and with rural tourism. Concerning quality production farmers need information on laws and regulations to produce a quality product, and/or to get a quality trademark, and on the technical production path.

5. Low input and organic farming.

The agri-environmental measures involve a large number of different actions, concerning lower level of chemical use, both fertilizers and pesticides, introduction of organic farming, agricultural land afforestation, etc. It is an important need for farmers to get first of all technical information on the farming techniques that they have to use. This is the way for them to understand the consequences of low input farming, both from the economic and from the environmental point of view. At present, most of the farmers think that low input is just a way for low income agriculture. With the CAP measures, if properly managed, it could be much more than just lower income. Also they need information on the regulations and administrative procedures to follow to get aids, as well as on the control procedures.

6. Marketing and advertising management.

Particularly this is a need for those farmers producing quality or organic products. They have to valorize their products. Consumers have to be well informed on the differences between these and other products, and why quality or organic products have higher prices. Associations or cooperatives could be the right way to manage these products. Farmers need information on how they can make associations, what is the best marketing and/or advertising strategy for their products. Of course this could also be of interest for farmers not producing organic or quality products.

7. New technology evaluation and introduction.

This is an issue not strictly linked with the changing agricultural policy, but there are

of course EU guidelines and regulations on it. This is a field of discussion very difficult to develop briefly. Too many economic, ethic, politic and social issues are involved. However, there is a pressing need for farmers to understand what they can do and get with new technology, such as biotechnology and genetic manipulation, and how can they use those technologies. Information is the first step for evaluation of the potential and introduction.

8. Structural adjustment funds management.

The rural development policy includes a number of measures to provide financial aids to farmers for structural adjustments. There is a need of information for farmers on all the measures they can adopt, the constraints to respect, and the procedures for application. Due to the lack of information on this, in the past several Member States had to give back the funds to the EU, because nobody, or not enough people applied to totally utilize the funds.

9. Activities diversification orientation and investment decisions.

Many opportunities are given to farmers for diversifying their activities. Agenda 2000 stresses the importance of a multi functional agricultural model for Europe. This means that farmers have first to know the different choices available for diversifying their activities, and second to make decisions on new investments to introduce different activities besides the ones related to agricultural production, or even to modify their agricultural production. In the new view of the CAP, to be competitive farmers have to change and widen their role: from agricultural to rural entrepreneur. Investment analysis and decisions are very difficult to manage without information, so this is a primary need of information for farmers.

10. Rural tourism and recreational activities management.

Rural development policy includes the introduction of activities in the farm not only focused on agricultural production. Rural tourism and other activities related to recreation for public are much encouraged. The management of these activities has relevant needs of information, because most of the times farmers are completely news on topics like tourism, recreation, etc. Information can concern the introduction of livestock for recreational or sport purposes, such as horses, investment on land, such as the construction of artificial lakes for fishing, administrative issues, such as licenses for restaurants, etc., management techniques for guest accommodation, direct sale of typical products, etc. In the past, sometimes it happened that farmers decided to introduce rural tourism in their farms, without any education or training on it, and in a short time they had to close and go back to only agricultural production.

European agriculture is moving toward large and challenging changes. There is no way for farmers alone to manage this changes, and keep to be competitive on the market. Information becomes the most important part of the extension activity. Information must include training sessions, demonstrations on the field, assessment, together with the farmers, of the activities and the results got.

The most important needs of information for farmers have been discussed. However, since agriculture is in the middle of its changes, many other could come out in the next few years, during the process of adjustment of the new agricultural policy.

The key for an effective job of the Extension Services in the future is to get on time the

changes, and immediately set up new plans for farmers' training and information.

Summary

As we have written this paper we have been impressed by the similarities in what we perceive the farm management information needs of farmers will be in the US and EU in the future. The challenge for universities and extension services to respond to the information needs will strain their resources. Collaborative efforts between our institutions may prove more valuable as faculty attempt to develop research and educational programs relevant to the emerging information needs. In addition, cooperation with the growing private sector agricultural education programs will probably be essential if public education and information delivery systems are to remain relevant.

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