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## Agriculture's Future Model; New Farm Bill Requires Careful Cost Control

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# ECONOMICS COMMENTATOR

SOUTH DAKOTA STATE UNIVERSITY

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## AGRICULTURE'S FUTURE MODEL

by

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## NEW FARM BILL REQUIRES CAREFUL COST CONTROL

by

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### Introduction

As 1997 begins, agricultural businesses looking to the future are beginning to see a new model of operation. Agriculture has moved into a new era; one that will require agricultural businesses to adopt a new way of thinking and of doing business. This article focuses on the characteristics of this new model.

There is no need to discuss that agriculture is changing. However, it is important to understand those changes so adjustments can be made to keep a business profitable. Perhaps we can appreciate the "good old days", but we can never go back to the ways agriculture used to be. Ever since agriculture first substituted capital for labor, and adopted and embraced technology, it began the move to a knowledge based method of operation. Recognizing this, it is possible to identify characteristics of those operations that will be able to take advantage of the new environment. These identified characteristics are sometimes overlapping, sometimes contradictory, but are present in those firms which will be able to deal with the uncertainties, risks, and rapid rate of change as agriculture approaches the 21st century.

*1 This article is adapted from Identifying the Winners: Ten Things Successful Hog Farms Will Have in Common - Regardless of Size by Dennis DiPierre.*

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One impact of the 1996 farm program is a shifting of the decision of what to produce and the associated price risks back to the farm. This means cost control and careful planning are going to be even more critical management tools for farm operators in the future.

### Impact of 1996 Farm Program

One intent of the 1996 farm bill is to eliminate government subsidies to farmers by the year 2002. Thus far, the program is working as it was designed to. Although not stated specifically, a major economic justification for the Market Transition Payments (MTP) is to reimburse land owners for the value of previous farm programs that have been capitalized into land values. Over the past 60 years, land buyers have bid the price of land above its productive value under the assumption that government payments will continue forever. If these payments were stopped abruptly, there would be unexpected losses, and excessive financial stress would be placed on new land owners. The MTP's appear to be working as planned. Rents have increased enough so that most, if not all, of the MTP is going to the land owner.

If the government continues with the plan of reducing the MTP's over the next 6 years and prices do not increase, farm incomes will fall. This will force costs to adjust downward. The cost adjustments will be

(Continued on p. 3)

## **Model 1**

The oldest model of agriculture is production oriented. Producers' operating goals include using labor productively through the cropping season and feeding lower value crop products to animals in efforts to add value to farm production. Within this model, products are highly variable and seasonal, management focuses on labor, and products are of lower value with no conscious effort being made to improve product quality over time. Managers of operations that fit this model are making decisions with information consisting of minimal on-farm records and/or making almost no management use of records. Within this model, agricultural production follows historic patterns as managers have little knowledge of the production process and are unable to make informed changes to their production systems.

## **Model 2**

The second prevalent model of agri-business has been referred to as the industrial model. One feature of operations within this model is that they have detailed their management records and can document their costs of production. Economic pressures to be low cost producers and to produce a consumer-demanded product have brought the industrial model into being. Operations in Model 2 have replaced labor with capital resulting in a throughput, specialized, systematic process of production allowing product differentiation. The more specialized production system allows for analysis of each enterprise in a profit-center orientation. Efficient production, higher capital requirements, detailed records and management information, and demand for very specific inputs characterize operations within this model. Often the focus on efficient low-cost production has resulted in operations becoming so efficient at production that product quality starts to be degraded. Because of their goal to be an efficient, low-cost producer of consumer demanded products, managers of Model 2 operations have created Model 3 operations.

## **Model 3**

The third model of agricultural production has been labeled as the post-industrial model. The focus of Model 3 operations is not just efficient, low-cost production, but also to produce differentiated products in highly controlled, responsive, and flexible production systems. These production systems are more complex than Model 2 operations because the goal is not just to be a low cost producer, but to produce a differentiated product directly related to known tastes and preferences of consumers.

Producing for final consumer demand requires that both cost and quality be controlled throughout the production process. Meeting quality demands require that specialized, high-quality, uniform inputs be employed. The production system, while more complex, is broadened to include the surrounding social and environmental communities. Managers of Model 3 operations will need to create win/win relationships and recognize them as long term investments. The concentration on product quality, cost of production, consumers' demands, and business relationships will require high management/knowledge and capital inputs for Model 3 operations.

## **Relationships**

The new model of agricultural production requires attention to many and varied types of relationships. The first, as mentioned earlier, is the relationship between goods and services produced and consumer demand. The relationship must be developed, cultivated, and preserved over time if the operation will sustain profitability. Adjustments to the production system to meet changing consumer demands cannot happen quickly. For this reason, the entire agricultural system must become a part of the relationship process.

Another emerging set of relationships is interdependent or networked production systems. Often producers realize that they are not, have not, and cannot manage the entire food production and delivery system. This recognition allows them to examine other aspects of the portion of the system that they can improve. Arrangements of exchange, association, and cooperation allow groups of producers to achieve what individually they could not. Most of the emerging relationships of Model 3 operations are oriented toward the production system. In an effort to further create product value, the next set of relationships for Model 3 operations will be vertical integration through the food system.

## **Management Integration**

Management of Model 3 operations also must be integrated. While the emphasis is no longer just on low cost and efficient production, the need for financial management has not been lessened. The current changing structure of agriculture is creating an image that profitability will follow volume. Some producers have used networking relationships to obtain high-risk investor capital or debt obligations. This can be as costly as not expanding since there is limited potential for long-term growth under both scenarios.

Financial management also must be integrated with marketing management. Evidence that the market recognizes the importance of consumer demand is reflected in the decision of the Chicago Mercantile Exchange to no longer price live hogs, but to quote prices and conduct trade on lean carcasses. The shift already has started when markets will be pricing other foods, not just meat. The emphasis of the 1980s and early 1990s on using marketing strategies to achieve the highest price with the least risk will give way to marketing strategies that are integrated with the entire operation. Price goals have shifted, and continue to shift, from highest price to profitable price to price that meets the financial and operational goals of the operation. Return over cost will be combined with discussions of return on assets, investment and equity. Successful managers will be able to integrate their goals through all aspects of the operation.

Community and environmental relationships have been mentioned already. Yet, it bears repeating that successful managers will recognize, cultivate, and maintain these relationships. Even after operations meet all environmental and other permit requirements, there remains a social permit that must be continuously renewed. The public will demand that investment be made in the technology and methods necessary to ensure that the communities and environment are protected.

Additionally, successful operators will integrate the information base of their operation. Managers will need to know how their individual operation compares with past and projected performance, with other operations of similar size and type, and with other industry-leading operations both within and outside of agricultural production. This type of comparison is simply the continual proactive process of improvement - necessary for sustained profitability and growth.

## Conclusion

Model 3 type operations are already in existence, and many more are emerging. For a time, there still will be a place in the agricultural sector for Model 1 and 2 type operations. However, successful agricultural operations of the future will become more and more like Model 3 operations. The forces of consumer demand and public watchfulness are already in place and are bringing the next changes to agriculture.

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(Peterson ... Continued from p.1)

a result of land prices and rents decreasing, or at least not rising as fast as they would otherwise. In a highly competitive industry, as agriculture is, any excess profits are bid into higher asset values and for agriculture this is land. When profits decline, land prices decline to compensate. The process may take several years. The early 1980's are an example of land prices rapidly adjusting downward.

## Consequences

As profits are squeezed, tenants must become ever better managers if they are to remain in business. They must become good at controlling costs. This may mean taking a strong position when negotiating new rental rates with their landlords.

As tenants negotiate, they can expect landlords to resist. But, without government payments, and prices closer to the long-run average than we had in 1996, something must "give." If rents won't "give," then the tenant's return to labor and management and the living standard of his family will decline. Sometimes, it may be better to let another person rent a piece of land rather than lose money farming it yourself. Sometimes the original tenant can get the land back after the second tenant discovers he is paying too much. And, there are some who will go broke because of poor planning causing poor decisions.

Financial management during the next six years is going to be very important for survival of owner operators. Just as landlords can expect smaller returns from rent in the future, owner operators also can expect a decline, or at least slower increases, in land values. This means owner operators should be using their MTP's to reduce any land debt they have incurred. Failure to do so could mean reduced returns to labor and management, if not loss of the land itself. If the land is free of debt, putting the MTP's into a retirement account seems prudent.

Farm operators, whether tenant or owner operator, should be diligently trying to improve their planning and marketing techniques. The sooner these skills are mastered, the greater their chance of survival in the future will be.

## Help Available

To help farmers with their crop budgeting task, SDSU has two computer programs which operate under the DOS operating system. Either is available free of charge. While either may take a while to learn how to use, they provide a good analysis of expected costs for users. The user is expected to provide certain price and production information particular to his or her operation. These programs then will calculate an estimate of depreciation, other fixed costs, operating cost, labor and management costs. The final cost estimate can be compared directly with the expected selling prices to estimate any profit or loss and help the user decide when to lock in a price for his production.

More information on these programs may be obtained by contacting Don Peterson, Economics Department, SDSU, Brookings, SD 57007-0895; Phone (605) 688-4859.

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