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Some Current Issues in Agriculture; Dairy Riding High, But Rougher Times Ahead

Evert Van der Sluis
South Dakota State University, evert.vandersluis@sdstate.edu

Donald Peterson
South Dakota State University

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SOME CURRENT ISSUES IN AGRICULTURE

by

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Evert Van der Sluis
Assistant Professor
of Economics

This article presents an overview of some recent and ongoing developments in U.S. agriculture and related industries. The article draws heavily on information presented at a national conference on cooperatives held in the Twin Cities in the early part of November, and pays particular attention to material presentation by Terry Barr, Chief Economist of the National Council for Farm Cooperatives. The issues discussed are relevant not only for those associated with agricultural cooperatives, but for all individuals associated with agriculture. While the article presents neither an all-encompassing set of topics nor many newly identified issues, a review of the current issues may provide further understanding of the extent to which U.S. and global agriculture are affected by ongoing changes.

Food Systems Restructuring

The U.S. food and fiber system is undergoing a series of rapid changes. Farmers and their families, individuals working in farm-related industries and others associated with agriculture are all affected by these changes. This transformation of U.S. agriculture is taking place on several fronts. First, agriculture and its affiliated industries are adjusting to structural changes taking place in U.S. society in general. Among these societal changes are two major demographic shifts that, in turn, affect consumer demand. One of the demographic changes is a decline in population growth. In the early 1950s, the U.S. population increased by more than 15% per decade. Since then, the population increase has dropped to around 10% per decade and it is projected to be around 8% by 2010. An important driver of population growth is immigration. Without immigration, the U.S. population is projected to increase by just over 5% per decade by the decade 2010. A second demographic change is in the age distribution of the U.S. population. During the period 1970-90, the group of individuals aged 25 to 44 constituted the most important driver of economic growth, while during the period 1990-2010 it

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DAIRY RIDING HIGH, BUT ROUGHER TIMES AHEAD

by

Donald Peterson
Extension Economist
Marketing and Management

The current economic conditions for dairy are the best they have been in years, and probably the best they have ever been. It is the current bright spot in agriculture. But, as has always been the case in agriculture, this too shall pass.

Current milk prices are at historical highs. The Basic Formula Price (BFP) announced in both July and August set historical highs for those months. September was only 27¢ under the record high set in 1996 and the October BFP was announced at $16.04, smashing the old record of $15.37 set in September 1996. The BFP futures prices are above historical highs for the months of November and December 1998 and the first 3 months of 1999. Cheese prices, both futures and spot, have been on the rise for 11 consecutive weeks. On November 20th, the cheese auction at the Chicago Mercantile Exchange (CME) set record high prices for 40 lb and 500 lb barrel prices for the 11th consecutive week, at $1.8700 and $1.8350 per pound, respectively.

The cost of producing diary products is lower than it has been in years, due to lower feed costs. Alfalfa prices in mid-October were down 37% from a year ago, to the lowest level since 1992. Soybean meal is down about $100 per ton (44%) from a year ago, and corn prices are down $.78 per bushel (34%) compared to October 1997. The milk-feed price ratio, as calculated by the USDA, has been improving for 5 consecutive months. In October 1997, a pound of milk could buy only 2.63 pounds of feed. This October it could by 4.08 pounds of feed.

The major reason for the favorable conditions in dairy is a demand that has been growing faster than supply for dairy products. The demand for milk fat has grown the fastest, as more people rediscovered the taste of butter when the CCC emptied its warehouses between 1993 and 1996. Consumers also have increased their consumption of ice cream. Cheese consumption has increased with the popularity of pizza, bagels with cream

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will be made up of those in the age group 45 to 64. Between the years 2010 and 2030 the most important demographic group contributing to economic growth will be comprised of those aged 65 and over (U.S. Department of Commerce, 1998).

Other structural changes in the U.S. demographic structure are the increased prevalence of single-person households, an increase in the number of families with more than one wage-earner, a trend toward a declining average family size, and an increased importance of ethnic groups. Consumers are also becoming increasingly aware of food safety issues and the health aspects of their diets. Furthermore, there is an increased emphasis on convenience in food purchases and an increased demand for food-away-from-home (FAFH). Finally, while not a major issue of contention among U.S. consumers, animal welfare concerns play a role in consumer purchase patterns in some industrialized nations. This is illustrated by the fact that the Danish pork industry (controlling 40% of the world pork market) is developing a new export competition strategy, by focusing on animal welfare to enhance its competitive position in the world market. Denmark is in the process of developing a labeling scheme indicating "animal-friendly" produced pork (SCI Policy Report, 1998).

These structural changes occurring in the U.S. and other nations are associated with the development of mature and saturated markets for products produced by the agricultural system. Under saturated market conditions, a company's profits may continue to increase by reducing costs, expanding consumer demand, realigning with other companies to increase market share, or increasing the company's economic flexibility through outsourcing. Evidence of the existence of mature markets is provided by a number of important indicators. For example, while the number of newly introduced food products increased from 8,183 to 16,863 between 1988 and 1996, it decreased to 13,266 in 1997. Also, the number of newly introduced non-food products declined to 19,572 in 1997, after increasing from 10,558 to 22,572 between 1988 and 1996. For both types of products, 1997 was the first year a decline occurred in newly introduced products.

A second illustration of the development of mature markets is the increased concentration among all industries associated with the farm sector, as well as in the farm sector itself. For example, in 1972 the 100 largest companies in the food and manufacturing industries controlled only 53% of the market and the 20 largest companies had a market share of 24% in the U.S. In 1995, the market share of the 100 largest companies was 77%, while that of 20 largest companies had increased to 52%. Similar developments have taken place in the retail sector. In the first part of this year, 17 major mergers took place among large supermarket chains. Not included in these mergers is the recent acquisition of American Stores Co. by Albertson's-until then the second largest grocery chain in the U.S.-creating the largest food retailer in the U.S. with a market share of 8.5% of total supermarket sales. The other top five grocery chains in the U.S. are Kroger, Wal-Mart, Safeway, and Ahold (a Netherlands-based grocer), with sales of 6.3%, 5.9%, 5.3%, and 4.3% of total supermarket sales, respectively. Currently, the ten largest food retail companies control 44% of the U.S. food retail market (Feedstuffs).

The aforementioned structural changes in society also affect consumer eating patterns and food delivery. In 1950, more than 85% of U.S. food expenditures were comprised of grocery store sales and the remainder was spent on food-away-from-home. In 1997, 55% of total food expenditures included grocery sales and 45% were comprised of FAFH expenditures. Nearly 20% of total FAFH expenditures is accounted for by the four largest firms (McDonald's, Tricon Global Restaurants (which owns Pizza Hut, Taco Bell, and KFC), Diageo (Burger King), and Wendy's International.

In addition to industrial realignments on the output side of the food and fiber system, there are ongoing restructuring forces in the agricultural input industries. In the agricultural feed industry, integration in the livestock industry is forcing consolidation. Also, in the fertilizer industry, global competition and capacity increases have already led to consolidation. Further-more, a major change is taking place in the seed and crop protection industries, where biotechnological changes and the increased use of integrated pest management techniques are leading to a decrease in the number firms. In addition, mergers in railroad companies affect transportation costs and alternatives, and in the agricultural lending industry, bank mergers and changes in investment alternatives change the rules of the game. On the energy side, changes in the electric power industry are also causing realignments, and in the telecommunications industry mergers and internal agreements affect information provision. Last but not least, the farm sector itself is consolidating. In 1995, less than 6% of all farms-those with annual sales of at least $250,000-accounted for 60% of total sales and 54% of cash expenses in the U.S.

Technological Changes

In addition to structural changes taking place at all stages of the food and fiber system, a second challenge to agriculture is posed by the changing role of technology. Technological developments have improved information delivery and have increased both information quality and quantity. The improved information technology has particular benefits for highly integrated systems which tightly coordinate their supply chain networks. Information is shared at various stages of the agricultural system. This reduces the need for keeping inventories, which not only reduces costs and shifts risk burdens, but also affects planning and coordination at various stages of the food and fiber system. In addition to providing benefits within the supply chain, information systems also provide a link between consumer preferences and

the various stages of the food system, including the farm sector. Vice versa, the information technology allows food products to be traced to the farm level, allowing for quality management, but also causing shifts in risk burdens within the food system.

Biotechnological advances are expected to lead to further market segmentation, although other specific impacts are not clear. Biotechnology will drive the demand for specific product traits, resulting in trait-specific systems from producer to consumer. For example, feeding genetically engineered corn to hogs may produce low-fat pork. Also, processors stand to benefit from using low-cost agricultural commodities, by converting them into products with specific traits using specialized processing techniques. An example of this approach is provided by Archer Daniels Midland, which purchases regular corn to produce lysine.

Globalization

The third major issue facing U.S. agriculture is that it is increasingly active in and exposed to global markets. An important reason for the U.S. presence in global markets is that there is an imbalance between agricultural productivity increases and the ability of domestic consumers to absorb agricultural products. For example, U.S. dairy production is increasing at a rate of 1% per year, while the domestic consumption of dairy products is increasing by 0.5%. A related reason for the increased global focus of U.S. agriculture is the potential existence of lucrative markets for U.S. products. While globalization opens up new markets, it also exposes U.S. agriculture to increased competition and gives rise to a new set of risk management options within the food and fiber system.

Changes in Government Policy

The fourth challenge to U.S. agriculture is caused by changes in government policies. Direct financial support to the farm sector by the federal government is set to decrease due to budget pressures, changing demographics, exposure to international markets, and shifts in political representation. Government involvement is shifting away from farm program payments towards other areas within the food and fiber system-including food safety, natural resource conservation and environmental issues, national and international market regulation and programs, and rural areas in general.

In addition to a shift of government involvement from production agriculture to other stages of the food system, agriculture is affected by government deregulation in railroad transportation, the banking industry, telecommunications, and the electric power industry. The changing role of the government in agriculture is likely to contribute to increased volatility in agricultural commodity markets, providing room for a new set of rules and regulations and further requiring a new set of risk management strategies on the farm and in agribusinesses.

Summary and Conclusions

Agriculture and its related industries are undergoing many changes. At the farm level, biotechnology, global product markets, environmental concerns, and reduced government programs are changing agricultural production and marketing. Processors, faced with food safety issues, foreign competition, and proprietary issues, have changed their product procurement and processing. Distributors and retailers, utilizing new information and communications technology, are attempting to eliminate inefficiencies throughout the food supply chain.

The transformation taking place in the food and fiber system has important implications for all individuals working in agriculture and its associated industries. As Barr pointed out: "The entire food chain from input provider to farmer to consumer is in transformation, and some layers will disappear. Under these conditions, the highest risks and the lowest margins are placed upon the weakest participants in the chain!"

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(Dairy Riding High....Cont'd from p.1)

cheese, sour cream, and dips. Exports have increased. With reduced barriers brought about by the NAFTA treaty, exports of dairy products to Mexico increased from $110 million dollars in 1996 to $160 million in 1997.

Prior to 1985, high price supports for fat caused butterfat to accumulate in government warehouses. (The government had over 220 million lbs of butter in storage on Dec. 31, 1993.) Butter use dropped from about 18 lbs per person per year prior to WWII to 4.5 lbs by 1980. With the passage of the 1985 and 1996 farm bills, the butterfat problem was cured by lowering the support price for butter. That, coupled with new studies that said margarine was not any healthier than butter, and a desire for a natural product, helped people reacquire a taste for butter. (By October 1998, government owned butter was only 8,000 pounds.)

The rise in milk prices is due, to a great extent, to poor weather conditions in California. California, the biggest dairy state in the nation, had a cold wet spring and was wet much of the summer. This stressed cows and they were not able to produce as expected. Also, Pacific Northwest and Mountain States had lower than desired quality feed, which reduced production there. The Southeast and Southwest had extremely hot weather this summer, which stressed cows more than normal.

Changing Conditions

However, conditions are changing. The high milk price and low feed prices have induced dairies, especially in the West, to expand. On September 30, cow numbers were 7,000 head more than they were on July 31 and 5,000 more than they were on September 30, 1997. The replacement of El Nino with El Ninia could have a significant impact on dairies. Some forecasters say El Ninia will result in more favorable conditions for California and the Southwest and extra cold and wet winter for the central region of the country. If so, it will mean not only lower milk prices, but higher production costs for the Midwest. If California and the Southwest have more favorable conditions this winter and spring with El Ninia, production could rebound rapidly.

Butter prices at the CME spot auction have fallen for 9 consecutive weeks, dropping $1.4850 from $2.8100 in September to $1.3250 a pound on November 20. Extremely high prices have caused some industrial users (e.g. bakers) to reformulated their recipes to use butter substitutes. It will take a while to get these users back. Others were saved from switching when lower cost imported butter became available. Many retail buyers have also switched to substitutes and restaurants are less eager to serve butter.

Since cream prices are determined primarily by butter prices, lower butter prices mean lower cream prices, which in turn means lower milk prices. Midwestern cream prices have dropped from a range of $3.6530-$3.8080 per pound of butterfat in mid-September to $1.9250-$2.2750 in mid-November. The relationship between the price of cream and the price of butter is stated in "multiples," which is the price of cream divided by the CME cash price for butter. In some areas, cream prices have fallen from 138% of the Grade AA butter price to a price equal to it. Midwestern cream multiples have decreased from 130-140 in early August to 110-128 in mid-November.

The cheese market is still very strong and will likely remain good into January. But, when the spring flush comes-don't be surprised if cheese prices, and milk prices, fall like they did after reaching record high levels in 1996.

Milk supply in the Southeast has gone from short to almost long. This means less Midwestern and Northeastern milk going to the Southeast for fluid consumption and more going into cheese vats. More cheese means lower prices; lower cheese prices mean lower milk prices.

Conclusions

What should a dairy producer do? Basically, start preparing for rougher times ahead. This includes reducing debt, accumulating liquid financial assets to help carry one through periods when total revenues fall short of total expenses, and developing a marketing strategy to capture profitable prices, when they occur.

For those who have not developed a marketing plan, it is not too early to start. This includes examining the potential benefits of cash forward contracts, minimum price contracts, hedging and use of options. We know prices will not stay where they are. They may even go higher, but a realistic evaluation tells us that the risk of a price decline is much greater than the likely benefits of additional price increases. Now is the time to start protecting income while one can lock in record high prices through March 1999. A good marketing plan takes time to think through and set up. It involves asking a lot of "what if?" questions and having a plan to respond to each possibility. It will be a lot harder to do some creative marketing if prices drop back to $10 or $11/ cwt, although they are not expected to get that low in 1999.

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ECONOMICS DEPARTMENT
South Dakota State University Phone: (605) 688-4141
Box 504A Fax: (6050 688-6386
Brookings, SD 57007-0895 E-mail: StoverP@mg.sdstate.edu

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