Enhancing Producer Returns: United Potato Growers of America

Shermain D. Hardesty

United Potato Growers of America was formed in 2005 to stabilize and increase grower prices. As a federation of regional cooperatives, it has implemented voluntary supply-control measures to better match potato supplies with demand in the U.S. fresh potato market.

United Potato Growers of America (UPGA) members produce approximately 70 percent of the nation's fresh market potatoes.

Facing prospects for continuing depressed market prices, Idaho potato growers formed a cooperative, the United Potato Growers of Idaho, in November 2004. Its leaders then quickly mounted efforts to broaden the development of supply-management programs into other major potato-producing states; several regional cooperatives were formed. In March 2005 the United Potato Growers of America (UPGA) was created as a federation of these regional cooperatives to enhance the profitability of U.S. potato growers. Its mission statement reads: "We bring order and stability to the North American potato growing industry and increase our member potato growers' economic potential by the effective use of cooperative principles."

As of November 2007, UPGA had ten member cooperatives that include growers from California, Colorado, Idaho, Kansas, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, Oregon, Texas, Washington, and Wisconsin. These members produce approximately 70 percent of the nation's fresh-market potatoes. One of its members is a California cooperative, Kern Produce Shippers Association. Another member, United Potato Growers of Canada, represents 96 percent of Canadian potato acreage; it was formed in 2006 with support from UPGA. As a foreign entity, it participates with UPGA through a memorandum of understanding and through at-large individual memberships.

As described below, UPGA operates as an "enhanced" information-sharing cooperative. It has implemented an information-based strategy to control supplies in order to restore orderly marketing conditions. There are three main components of UPGA's volume control program:

• ***Planting controls***
All member cooperatives have developed acreage-reduction programs. UPGA members are randomly audited to verify compliance with adopted planting guidelines.

• ***Market data reporting and analysis***
UPGA maintains an online data reporting system where members report shipments and prices received. Seven years of data have been used to predict the effect of shipments on future prices.

• ***Product flow controls***
Transitions between seasons are managed by balancing storage volumes and new crop estimates in order to protect fresh crop values.

UPGA establishes a floor price for the marketing season. Based on its analysis of the impact of weekly shipment volumes on prices, UPGA develops weekly target shipment volumes and uses volume controls to keep prices above its floor price.

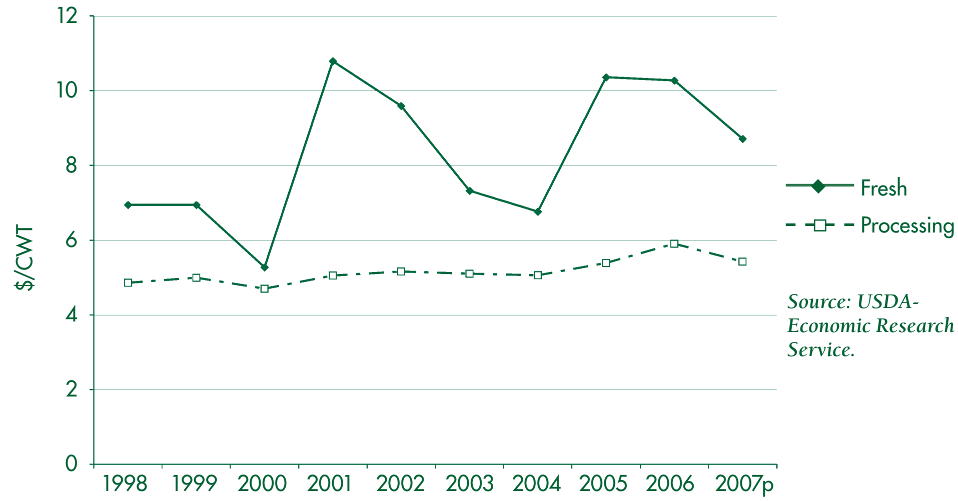
UPGA's chief operating officer, Buzz Shahan, describes the members' weekly conference calls as a "market conversation." As a young organization, UPGA provides a classic demonstration of the power of producer collaboration through the cooperative structure to increase and stabilize grower returns. The economic factors underlying this effort are examined below. To better understand the framework surrounding UPGA, a brief overview of the U.S. potato industry is provided first.

Overview of U.S. Potato Industry

Idaho is the nation's leading producer of potatoes, with 29 percent of total production in 2006. Nine other states—Washington, Wisconsin, North Dakota, Colorado, Minnesota, Oregon, Maine, Montana, and California—produced an additional 59 percent of the U.S. potato crop. Nationally, yields have soared, rising from 231 hundredweight (cwt.) per acre in 1971 to 393 cwt. per acre in 2006.

Between 1971 and 1996, per capita consumption of potatoes rose from 117.8 lbs. to 145.0 lbs.; much of this growth was attributable to sales of french fries in the fast food sector. Since then, per capita potato consumption declined to 130.2 lbs. in 2006. Only 19 percent of potatoes were processed in 1959; by 2005, potato consumption had shifted significantly into processed forms with 56 lbs. per capita used annually for frozen potatoes, 45 lbs. for

Figure 1: Annual Average Prices Received by Potato Growers



Source: USDA-Economic Research Service.

fresh potatoes, 17 lbs. for potato chips, and 16 lbs. for dehydrated products.

Potatoes can be marketed interchangeably in both the fresh and processing markets because of their physical characteristics and storability. Fresh-market potatoes are sold mostly on the open market; typically, the residual supply is sold to dehydrators. Processing potatoes, such as Russet Burbanks, are usually contracted to commercial fryers before planting. These contracts specify the potato variety, volume, and price based on quality requirements. The Potato Marketing Association of North America represents producers in their bargaining negotiations with processors; its member bargaining associations include producers from Washington, Southern Idaho, North Dakota, Wisconsin, Minnesota, Maine, and several Canadian provinces.

Under normal market conditions, prices are highest in the fresh-market (Figure 1). Since 1980, real prices (in deflated 2000 dollars) declined from \$12.12 to \$5.04 per cwt. in 2006. Joseph Guenthner, an agricultural economist at the University of Idaho, determined that Idaho fresh growers averaged a loss of \$2.67 per cwt. on their production in 2000, when fresh (nominal) market prices averaged \$5.27 per cwt. Such poor market conditions forced producers to seek ways to improve prices.

Economic Factors Underlying UPGA's Programs

There are several economic factors underlying UPGA's programs. Consolidation in the grocery, foodservice, and food manufacturing sectors has contributed extensively to growers' loss of market power. According to Guenthner, three processors—Lamb Weston, McCain, and Simplot—represented 83 percent of the total frozen potato market in 2000, compared to a 55 percent market share for the top three processors in 1980. In the grocery sector, the top three firms had a 28 percent market share in 2003.

Given the highly concentrated nature of the potato processing industry, individual potato growers and shippers have less market power than their large customers. The Capper Volstead Act provides authority for farmers to join together in cooperative associations to gain countervailing market power without violating antitrust laws, as long as they do not unduly enhance prices. Cooperatives enable producers who are facing imperfect markets to regain market power by collaborating with, rather than competing against, each other when dealing with processors and other customers.

Due to their declining numbers, it has become easier for potato growers to organize themselves. For example, the number of potato farms in Idaho decreased from 1,435 to 818 between 1997 and 2002, while average acreage increased from 229 to 445 acres.

Information is critical for efficient economic markets. As noted by UPGA's chief operating officer, "Information changes behavior." The improved information flow that UPGA has developed enables producers to allocate their production resources more efficiently and to better understand the potential impact of their shipments on current and future market prices. Furthermore, better information allows buyers and sellers to make transactions with less product waste and lower costs for capital and labor.

The interrelated nature of various potato market sectors makes the improved information flow even more valuable. For example, UPGA's planting guidelines assist seed potato producers in determining how much they need to grow. The cooperative structure facilitates this improved information flow.

The inelastic demand for numerous staple commodities, including potatoes, has been well documented. This concept is essential to UPGA's use of supply controls. When demand for a commodity is inelastic, restricting supply is a classic economic tool used to raise grower prices and revenues. This is possible because the resulting percentage increase in price is greater than the percentage decrease in quantity sold, resulting in an overall increase in grower revenues.

UPGA's Volume Controls

Since demand for potatoes is inelastic, UPGA has been able to implement four types of volume control mechanisms to enhance producers' revenues.

By imposing acreage limitations, UPGA is controlling production volumes. Members are randomly audited to verify compliance with these controls.

UPGA is utilizing market flow controls (pro-rates) during season transitions to ensure that oversupplies in the market do not put downward pressure on current and future prices. The effectiveness of these controls is strengthened by the inclusion of the United Potato Growers of Canada in UPGA; Canada historically has been an important supplier in the U.S. fresh potato market.

Market allocation programs are used to limit product volumes to primary markets and to coordinate the flow of the balance of the supplies into secondary markets. UPGA is collaborating with growers, processors, and industry organizations involved in all of the major U.S. potato market sectors—fresh, frozen, chip, dehydrated, and seed. It has already convinced dehydrators to contract for most of their potatoes, rather than gambling on culls diverted from the fresh market. Such efforts enable UPGA to better control overall potato plantings.

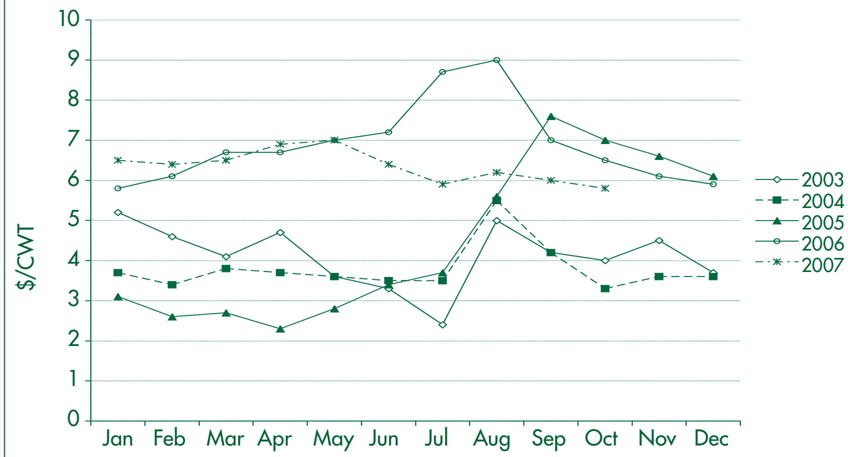
Establishing more rigorous grades and standards reduces potential market supplies and can increase buyers' willingness to pay higher prices due to improved product quality. Some UPGA member cooperatives have increased minimum size requirements for fresh market potatoes.

Conclusions

UPGA quickly developed and implemented an information-based supply management program. The results of its efforts are displayed in Figure 2. Monthly average prices received by Idaho growers in the fresh market are higher and noticeably more stable than before UPGA's implementation of supply controls in Fall 2005.

Because it is a voluntary organization, UPGA has to contend with the "free rider" problem; nonmember producers benefit from the higher and more stable prices achieved without having to reduce their acreage and control their sales flows. UPGA's leadership is addressing the "free rider" problem by impressing upon nonmembers the need for compliance with UPGA's controls and the significant additional benefits that could be derived by all producers from such cooperation. It is also seeking to broaden its membership to other important fresh-market states, such as Maine.

Figure 2: Grower Price Received: Idaho Fresh Market Potatoes



Source: USDA-National Agricultural Statistics Service

It should be noted that federal marketing orders can be utilized to impose volume controls on all growers, although they cannot be used for the purpose of setting floor prices. However, cooperatives in several industries have engaged in legal price setting and then utilized marketing orders as a complementary tool to subject all growers to mandatory volume regulations, thus eliminating the "free rider" problem.

Supply management through enhanced information sharing is a powerful economic tool for increasing returns to agricultural producers. The cooperative structure is an accepted organizational structure for implementing such programs. For over thirty years, central California lettuce producers have operated an information-sharing cooperative; its members agree to sell all of their lettuce at prices within the limits of floor and ceiling prices set by the cooperative. When market prices plummeted after California's citrus marketing orders were eliminated, industry leaders organized themselves into a cooperative to legally share information and regain market power. Recently, UPGA has shared its experiences with egg and mushroom producers. It is likely that producers of other agricultural commodities will also explore using joint action by forming information-sharing cooperatives to improve their market conditions.

Shermain D. Hardesty is a Cooperative Extension economist in the Department of Agricultural and Resource Economics and serves as the director of the University of California Small Farm Program. She can be contacted by e-mail at shermain@primal.ucdavis.edu.

For additional information, the author recommends:

Guenthner, Joseph F. Gaining Market Power Through Grower Consolidation, Intellectual Property Rights and Human Capital. http://www.fchorizons.com/uploads/guentherRP.pdf.