UNIVERSITY OF CALIFORNIA, DAVIS

UPDATE

Agricultural and Resource Economics

The Beef Industry in Crisis

by Steven C. Blank

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The cattle industry in the United States is struggling to adjust to the changing conditions in the beef market. In general, the national cattle herd is shrinking in response to declining cattle prices and rising production costs. The resulting profit squeeze continues to pressure the existence of many producers in California and across the country.

The American cattle herd has been declining in numbers for the past quarter of a century. This trend is in direct contrast to the continuous growth in total cattle inventories prior to the 1970s, shown in Figure 1 on page 2. The expansion in cattle numbers ended in about 1975, reaching a peak of 140.2 million. Over the last 25 years the downward trend for the American cattle herd signals that a significant shift in market conditions has occurred during the period. The current inventory of 98.5 million is expected to shrink further as the 21st century begins. California is following the national trend, but slowly. The state's herd has decreased from 4.7 million to 4.6 million head over the past decade.

Why the Decline in Cattle Production?

The simple answer to this complicated question is that profits are being squeezed out of American cattle markets. Cattle prices across the country have trended downward during the past decade. During the same period, the prices of inputs purchased by cattle producers have been volatile. For example, prices for corn purchased as supplemental feed for cattle have shown how sensitive they can be to variable production totals. From 1995 to 1996 corn prices more than doubled due to the short corn supplies in 1996, and then quickly returned to 1995 price levels as corn production increased in subsequent years.

The net effect of declining cattle prices and increasing costs of

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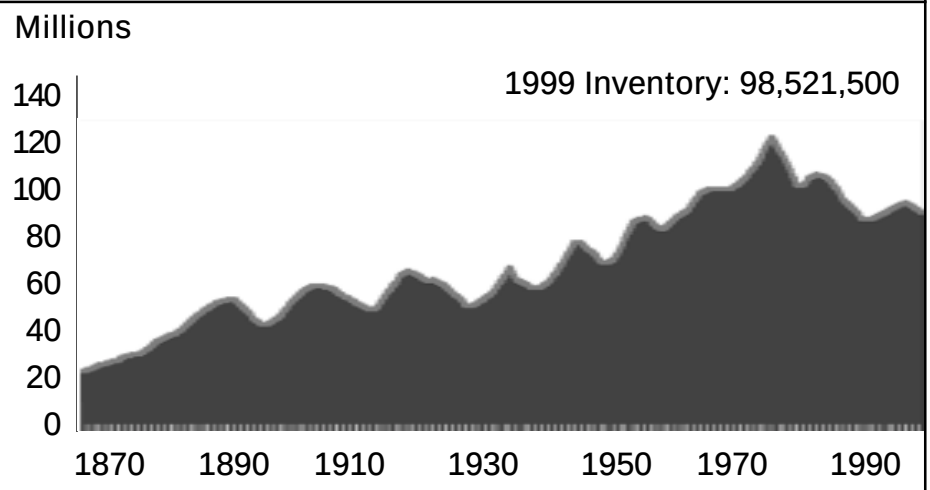
Figure 1. January 1 U.S. Cattle Inventory 1867 - 1999



Source: USDA

inputs purchased by cattle producers has been declining profits. Figure 2 (on page 10) shows that over the past decade, costs of inputs purchased by American cattle producers have increased about 12% while the prices received for cattle have dropped about 10%. This trend is not a recent phenomenon. Cattle prices have fallen in real terms (adjusted into purchasing power by accounting for inflation) to a current level that is about one-third of the price that cattle producers received in 1950.

In California, the past decade began with up-trending steer and heifer prices, reaching a peak of $79.40 per hundredweight average for 1993, before plummeting to an average of $52.50/cwt for 1996. Monthly average prices for steer and heifers got as low as $44.50 during May 1996. That was the lowest average price (not adjusted for inflation) received by cattle producers in over 30 years. By April 1999, steer and heifer prices in California had rebounded only to $63/cwt, which was $2.30/cwt below the national average.

Why the Decline in Cattle Prices?

In the competitive market for cattle, prices have been trending downward because of both supply and demand factors. Although the multi-year "cattle cycle" that is visible in Figure 1 is expected to remain a feature of the cattle market, prices will generally continue their downward spiral until supplies better match demand.

The "cattle cycle" is a phenomenon of the biological nature of cattle production and of producers' reactions to market prices. Throughout history, producers' natural tendency to want to expand profits led them to expand production, thus increase the size of their herds. Over the few years that it takes to raise and breed additional cows to increase the number of calves, steers and heifers available to feedlots, cattle markets slowly react to the increasing supplies by offering lower prices. Eventually, the lower prices cause cattle producers to have low, or negative, profits on sales so they have no incentive to expand herds further. In fact, the economics of cattle production mean that liquidating some part of a herd is the best response to low prices. This action of reducing herd sizes means that more cattle are being sent to markets for a few years, thus increasing the downward pressure on prices. As a result of falling prices, cattle producers continue to reduce the size of their herds, adding even more downward pressure on prices. After some number of years, ranging from 4 to 16 in the past, producers have reduced herds to a level such that the supply is reaching markets is less than consumers want at the prevailing (low) prices, so market prices begin to be bid up slowly. As cattle producers see the rising market prices, they have an economic incentive to expand their production again. This begins another "cattle cycle". Figure 1 shows the many cycles the industry has experienced over the last 125 years. As long as this joint biological-market phenomenon continues, cattle prices will cycle as well.

Added to the intermediate-term effects of the cattle cycle, American cattle markets are currently also suffering from the effects of adjusting to a long-term shift in cattle supplies. A global market has developed for beef. This means that supplies from America now must compete with foreign imports of beef. Boxed beef and other technical developments make it possible for foreign suppliers to deliver their beef to American markets at competitive prices. For example, half of the beef now sold in Burger King hamburgers across the U.S. comes from Australia. The expansion of foreign beef imports into the United States and the increased foreign competition facing American cattle producers trying to export their products to markets in places

Beef—continued on page 10

Cost and Return Studies for California Commodities: Past and Present

by Pete Livingston

At first glance, farm costs of production seem easy to evaluate. Farmers use inputs and services for growing their crop, and their expenses are determined and added together to arrive at a total cost to grow the commodity. At many land grant universities and state agricultural colleges agricultural economics students learn to conduct a cost study during their course work as part of the basic understanding of farm management.

Cost studies have been calculated and distributed by UC Cooperative Extension for years. In fact, the earliest cost studies in the archives go back to 1931 for walnuts grown in Stanislaus County. Walnuts cost a whopping $25.80 per ton to produce in 1931. Sixty seven years later it cost $1,476 to produce a ton of walnuts, and an acre of walnuts today produces four times the tonnage it did in 1931.

Many crops that were studied in previous years, such as peanuts, flax and hops, are no longer grown in commercial quantities in California. Rabbits, which are still raised commercially in San Diego and Sutter counties, were the subject of several cost-of-production studies from the thirties through the 1950s, but there have been no new studies done since 1977.

Not only has the mix of crops grown in California changed, but so have the production methods. In early studies the cost of horse work was calculated along with trucks and tractors. For example, in 1938 it cost growers 7.5 to 15 cents per hour to use a two-horse team in the field.

Tractors and implements used in the 1930s and 40s were small in comparison to today's behemoths. Tractors used for primary tillage back then were of the 10-35 horsepower range. Fuel cost growers $0.17 per gallon for gasoline and diesel was $0.05 per gallon. Cultivation of field crops was left mainly to manual labor or horse drawn cultivators.

In 1938 wage rates were generally $0.30 per hour. Today a basic field laborer making the minimum wage costs the grower about $7.71 per hour with taxes and benefits included. Experienced tractor drivers and irrigators may receive $9.50 to $12.00 per hour.

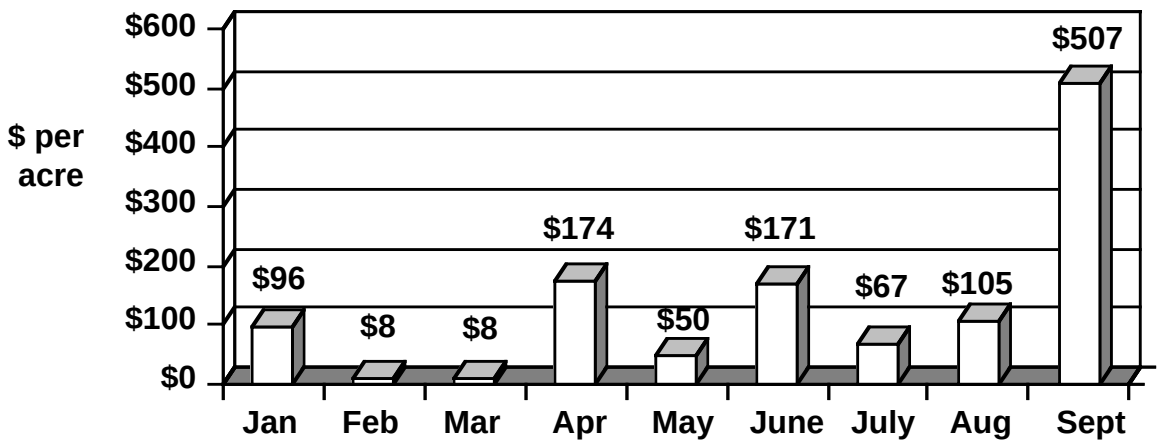
Up until the 1980s, cost studies were computed with calculators (slide rules before that) typewritten into their final form, and mimeographed for distribution. Now computers are used for calculations.

A production cost study begins with a meeting among UC farm advisors, farmers and a research staff person from the Department of Agricultural and Resource Economics (DARE). Farmers and advisors provide the DARE staff person with production details, such as what operations are performed and what month they occur, materials used for cultural practices, such as seeds, pesticides, and fertilizers, and what, if any, custom services are hired, such as spraying and harvesting.

This information is then entered into a computer program called *Budget Planner*, developed by Dr. Karen Klonsky, that calculates costs and returns based on

Figure 1. Cover Illustrations from Archived UC Cooperative Extension Cost and Return Studies

Figure 2. Monthly Production Costs for Walnuts Southern San Joaquin Valley



Source: Klonsky, K., et al., "Sample Costs to Establish and Produce Walnuts, " Department of Agricultural and Resource Economics, UC Davis

standardized economic and engineering formulas. The narrative section of the study is compiled from the information gathered at the initial data collection meeting and is written in collaboration with the participating farm advisors. The draft of the study is sent out to contributing advisors and selected growers for review and is rewritten based on comments they make. The finished study is sent to all of the covered counties and the DARE files for release to the public.

Demand for the studies is high. During the past nine years an average of over 10,000 cost studies per year have been distributed by the DARE and the County Cooperative Extension offices. Copies of the studies are also available at the DARE library and Shields Library at UC Davis and the Giannini library at UC Berkeley. More than 100 current budgets are available.

Modern technology has made the cost studies more readily accessible than ever. Many of the newer cost studies are available on the internet as downloadable files. The cost study index and downloadable files are available online at:

www.agecon.ucdavis.edu/outreach/crop/cost.htm

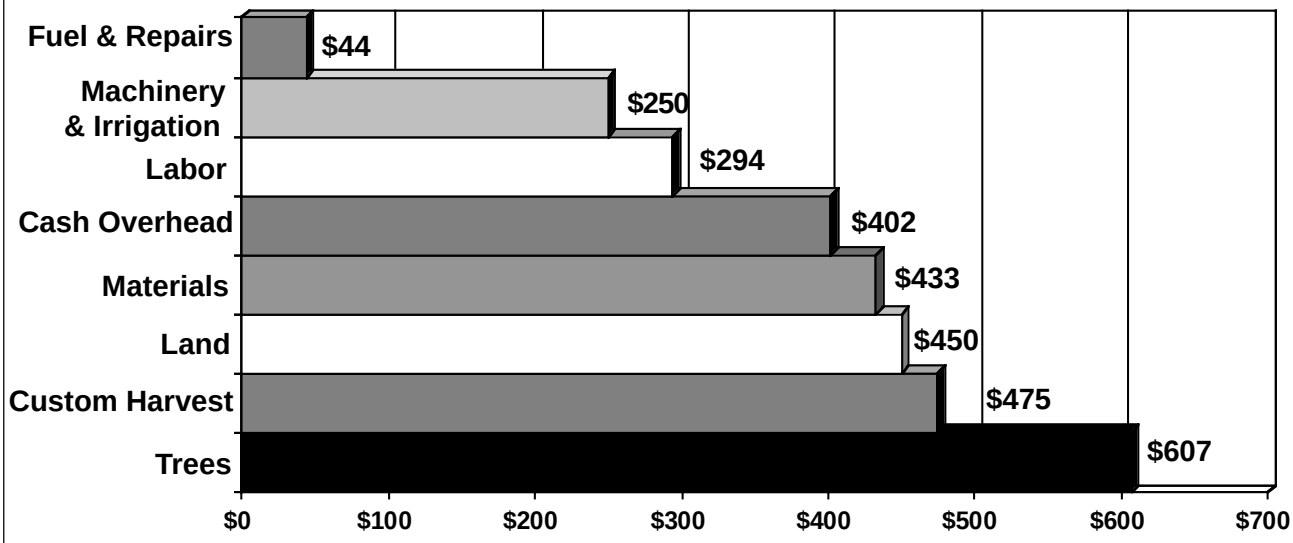
Over 3,400 cost studies have been maintained and acquired and are archived at the DARE library and the Biological and Agricultural library in Shields Library at UC Davis. One acquisition of several hundred old budgets came from a retired bank loan officer who had kept them in his farm's old water tower. All of the archived studies are available by request.

Clients for the studies have traditionally been, and still are, farmers and lending institutions. Many growers examining new enterprises look over cost studies to see if they might fit their operation and available resources. Bankers and other lenders consider the studies to be an accurate estimation of production costs and returns, provided by a neutral third party, and gauge a loan request using them.

Users come from all over. When the 1998 pecan study was finished, it was reported in the *Pecan South* magazine and requests for the study came from Georgia, Alabama and Mississippi. Growers from Mexico, Chile, Brazil, Australia, New Zealand, Namibia, Guatemala, Zimbabwe, France, England, Egypt and South Africa have requested copies of California studies. The pistachio study seems to be the most popular at present.

While the traditional clientele still actively use the reports, many others have found added uses for them. Federal and state agencies have used the studies as informational resources to develop policies for pesticide regulations, water use, particulate matter

Figure 3. Annual Costs per acre to Produce Walnuts - 1998
Southern San Joaquin Valley



Source: Klonsky, K., et al., "Sample Costs to Establish and Produce Walnuts, " Department of Agricultural and Resource Economics, UC Davis

pollution, immigration labor requirements, federal water projects and natural resource protection. Agricultural industry groups have also used the data in crop budgets in their efforts to support maintenance and special use of certain pesticides and to lobby for various legislative changes. Some studies have been used by both producer groups and processors in negotiations over contract prices of commodities. The studies are also used by insurance companies, lawyers, advocacy groups, land use planners, assessors, consultants, and auditors.

Finally, the studies are useful as an input into further research. Researchers from universities in many other states request studies for research on crops grown in their state. For example, in 1992 when Hurricane Andrew devastated Florida, avocado groves were completely wiped out. Florida's Cooperative Extension service had not done an avocado cost study in many years and the industry could not determine whether it was reasonable to replant the orchards in the current market. California's 1992 avocado study was used to help assess whether to replant or not.

Even though California remains the most productive and diversified agricultural state in the U.S., not all crops are grown here, nor do we have cost studies for all of the crops that we produce. A sample of those available can be viewed on page 6 and the complete list of current studies is posted on the Web site listed below. However, if you are looking to find out what it costs to grow coffee, bananas, soybeans, breadfruit, macadamia nuts, pineapples or cranberries, you will have to look beyond California.

www.agecon.ucdavis.edu/outreach/crop/cost.htm

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Sample of Available Cost and Return Studies

UC Davis Department of Agricultural and Resource Economics

Commodity	County/Region	Year	Production Conditions
Alfalfa	Sacramento Valley	98	E&P, hay, fall planted
Almonds	San Joaquin Valley North	98	E&P, flood irrigation
Apples	Sonoma	94	Sprinkler irrigation
Artichokes	Imperial	95	Direct seeded
Asparagus	Imperial	95	Fresh market, 8-10 yr stand
Barley	San Luis Obispo	95/96	Dryland, conventional tillage
Beans	San Joaquin Valley	98	Large Lima
Beans	San Luis Obispo	95/96	Garbanzo
Beef	San Luis Obispo	98	Cow-calf, Morro Bay
Broccoli	Imperial	95	Fresh market
Cabbage	Imperial	95	Fresh market
Cantaloupe	Imperial	95	Fall
Carrots	Imperial	95	Cello packed
Cauliflower	Imperial	95	Fresh market
Cherries	San Joaquin Valley North	99	E&P, Sweet
Corn	San Joaquin Valley	99	Field
Cotton	Riverside-Palo Verde Valley	97	Upland varieties
Cotton	San Joaquin Valley	99	40 inch Rows
Cotton	San Joaquin Valley North	95	Organic
Cucurbit Seed	Sacramento Valley	95	Rented land
Grapes	Lake County	98	E&P, Wine, Sauvignon Blanc
Grapes	Sierra Nevada Foothills	96	E&P, 28 acre wine variety
Grapes/Table	San Joaquin Valley	98	Thompson Seedless
Grapes/Raisin	San Joaquin Valley South	99	Best management practices
Grapes/Raisin	San Joaquin Valley South	97	Organic
Lettuce	Coachella Valley	96	Loose leaf
Melons	Imperial	95	Mixed
Mixed Veg.	Central Coast	94	Organic
Okra	Riverside	95/96	Furrow irrigated
Olive Oil	North Coast	99	E&P, Mission variety
Olives	San Joaquin Valley South	97	Manzanillo
Onions	Imperial	95	Processing
Oranges	South Coast	97	Organic, fresh market
Peaches	Sacramento, San Joaquin	98	E&P, Cling
Pears	Lake	97	Green Bartlett/sprinkler irrigation
Pecans	Tulare	98	E&P, flood irrigation
Peppers, chili	Riverside-Coachella Valley	95/96	Drip irrigated
Peppers	San Benito & Santa Clara	97	Bell
Pistachios	San Joaquin Valley	96	E&P, low-volume irrigation
Potatoes	Kern	95	Rented land
Prunes	San Joaquin Valley South	97	E&P, French, low-volume irrigation
Rice	Sacramento Valley	98	Multiple crop rotation
Safflower	Yolo	96	Irrigated
Strawberries	Santa Cruz/Monterey	96	40 Acres, winter planting
Tomatoes	Imperial	95	Processing
Tomatoes	Sacramento Valley	94	Organic, processing
Tomatoes	Yolo County	97	Processing
Walnuts	Sacramento Valley	98	Organic, sprinkler irrigation
Walnuts	San Joaquin Valley South	95	E&P, English
Watermelon	Imperial	95	Rented land
Wheat	San Luis Obispo	95/96	Dryland, conventional tillage

Studies in italics are available for downloading from our Web site. Others may be purchased for $1.00 by calling the UC Davis ARE Department at **530-752-1515.** For a complete list of over 125 available cost and return studies, visit our Web site at:

www.agecon.ucdavis.edu/outreach/crop/cost.htm

Evaluating the Effects of Nutrition Education

by

Julian M. Alston, James A. Chalfant and Jennifer S. James

The Dairy Council of California (DCC), funded by the dairy industry, provides materials for nutrition education to schools throughout California. These materials are used by teachers to educate students about topics such as the basic food groups, the recommendations for daily servings from each group on the USDA's Food Pyramid, and how to choose a balanced diet. An interesting question is whether nutrition education has any effect on students' food consumption patterns, and, if it does, whether the changes observed make investing in such educational materials profitable from an industry point of view.

In a recent study, we examined the effects of one component of the DCC's program, the *Exercise Your Options* (*EYO*) unit that is provided to middle schools in the State of California. We looked at the effects of this program on the consumption of all food groups, and then did a benefit-cost analysis to determine the profitability of the program to the dairy industry. Because the DCC is funded by assessments paid by producers and processors in the dairy industry, our analysis focused on servings of dairy products, but we found that nutrition education had a positive effect on diets across several food groups. This article summarizes our results.

The Design of Our Experiment

Food records were completed by students in over one hundred California classrooms ranging from sixth through eighth grades. These classrooms were selected by DCC regional managers to cover a range of income levels, ethnic groups, and regions of the state, and to cover urban, rural and suburban areas. Thus, the students in our sample are representative of all of California.

Each food record consists of a diary completed by a student. They reported all foods consumed in the prior 24 hour period, along with portions. The records were completed with assistance by either the teacher or a DCC staff person, to help the students describe portion sizes accurately.

Figure 1. USDA Food Pyramid (Servings per Day)

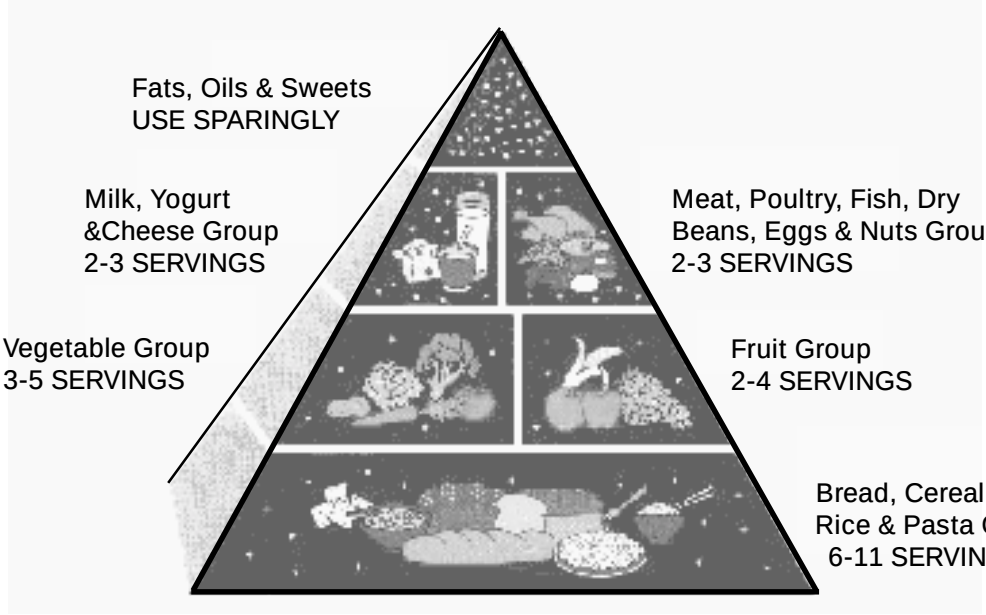

Table 1. Percentage Changes in Daily Servings of Food Groups

	----------EYO Group----------			----------Control Group----------		
Food Group	Record 1 to Record 2	Record 2 to Record 3	Record 1 to Record 3	Record 1 to Record 2	Record 2 to Record 3	Record 1 to Record 3
Dairy	18.36	-6.67	10.37	0.68	-1.15	-0.47
Meats	9.61	-2.59	6.77	3.60	7.14	10.84
Fruits	31.36	-22.86	0.78	16.16	-12.84	1.95
Vegetables	26.33	0.31	26.71	6.87	-1.55	5.22
Grains	4.59	0.34	4.94	-0.72	2.78	2.00
Extras	-6.16	2.04	-4.28	1.92	-6.61	-4.83
Sodas	-11.57	-2.69	-13.90	-12.39	-10.01	-21.04

Three sets of food records were completed in each classroom: one before the *EYO* program, one immediately after, and one approximately one month later. The difference between servings of each food group between records 1 and 2 provides a measure of the short-run effects of the program, and the difference between records 1 and 3 provides a longer-term measure of the program's effects. To ensure that we did not measure the effects of some other influence on the students' eating patterns, such as the change in season, some of the food records were obtained from classrooms that did not receive the *EYO* program. Any differences in behavior between the *EYO* classrooms and this control group could then reasonably be attributed solely to the *EYO* program itself.

Table 1 shows the results. Between record 1, before learning about nutrition, and record 2, just after learning about nutrition, the *EYO* group increased its average daily servings of dairy products by over 18 percent. Between records 2 and 3, there was a decrease in servings of dairy products of 6.67 percent, representing a net increase, between record 1 and record 3, of 10.37 percent. The control group, meanwhile, showed a slight increase in dairy servings between record 1 and record 2, and a slightly larger decrease between records 2 and 3, for a net decrease of roughly one-half of one percent over the record 1 to record 3 interval. Similar changes toward a healthier diet can be seen for the other food groups.

An estimate of the effects of the *EYO* program is the difference between these two groups' changes in eating patterns. For dairy servings, that difference is around 11 percent (10.37 – (-0.47)), which is roughly one-fifth of a serving per day. This may seem like a relatively small increase, but the recommended number of servings of dairy products on the USDA's Food Pyramid is 2 to 3, and the mean number of servings from all record 1 diaries was 1.79, so the magnitude of the *EYO* effect is reasonably large, relative to the starting point.

Calculating the Profitability of the Program

Our longer paper contains a detailed description of the calculation of the benefits of the program to the dairy industry. The net benefit from the investment in nutrition education depends, first of all, on the duration of the *EYO* effect. If the program were to increase consumption of dairy products only during the time when the unit is covered in school, it would not be profitable. Based on our results from the third food record, the effect does appear to last for some time after the program. The longer it lasts, the more profitable the program.

It is also the case that the profitability of the program depends on *how* the increase in servings occurs. Because of the workings of the state milk marketing order, increasing fluid milk consumption is profitable for the industry. We did not conduct a separate analysis of the composition of the change in dairy servings, and instead calculated the benefits of the program for the full range of possible outcomes, from an extreme assumption that all of the increase was in the form of fluid milk, to the opposite extreme where none was fluid milk.

A final decision concerned how to estimate the change in consumption that occurred during the *EYO* unit itself. Because we did not observe consumption each day during the unit, only before and after, we had to make some assumptions about what happened in the interim. Table 2 shows the ratio of benefits to the dairy industry to the cost of the program for what we termed in our paper the intermediate case, in which we assumed that the short-run change began at the beginning of the *EYO* program. The rows of the table correspond to different assumptions about how much of the change in dairy servings was in the form of fluid milk, and the columns correspond to various assumptions about the persistence of the effect. Any combination leading to benefits greater than costs (a benefit-cost ratio greater than one) represents a profitable investment for the dairy industry.

Profitable combinations are shaded in table 2. If all of the increase in dairy servings turned out to be in the form of fluid milk, the program was profitable after only two months. To still be profitable, the effects have to last longer as the percentage in the form of fluid milk decreases.

Conclusion

In summary, the *Exercise Your Options* program did affect the eating patterns of the children who were taught the program. The profitability of the program for the dairy industry depends on the magnitude of the initial effect on consumption, the persistence of the effect, and the composition of the increase in consumption of dairy products. The *EYO* program clearly has had a number of other beneficial effects, both in terms of education and in terms of increased consumption of other healthy foods.

There are many public benefits of improved nutrition on the part of children, such as reductions in illness, improved school attendance and, perhaps, better ability to learn, and improved health later in life. These benefits are examples of public goods, whose value is difficult to quantify. Moreover, a characteristic of public goods is that there is no reason to expect them to be funded solely by private industry groups, even though those groups may value both the public goods and the goodwill they may bring. However, if nutrition education leads to an increase in the demand for a specific food, the producers or processors of that food may well find nutrition education to be a profitable investment.

This article is adapted from the recent article, "Doing Well by Doing a Body Good: An Evaluation of the Industry-Funded Nutrition Education Program Conducted by the Dairy Council of California," published by the authors in Agribusiness, *Vol. 15(3): 371-392, 1999.*

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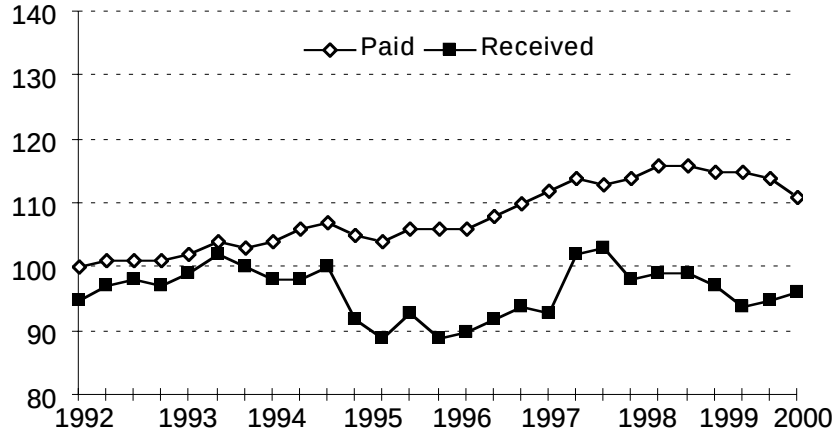
Table 2. Private Benefit-Cost Ratios for *EYO* Program Under Various Assumptions

% increase in	Months of EYO Effects Persistence											
Fluid Milk	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
100	0.59	**1.01**	**1.26**	**1.42**	**1.51**	**1.57**	**1.61**	**1.63**	**1.65**	**1.65**	**1.66**	**1.66**
90	0.54	0.91	**1.14**	**1.28**	**1.36**	**1.42**	**1.45**	**1.47**	**1.48**	**1.49**	**1.49**	**1.50**
80	0.48	0.81	**1.01**	**1.13**	**1.21**	**1.26**	**1.29**	**1.31**	**1.32**	**1.32**	**1.33**	**1.33**
70	0.42	0.71	0.88	0.99	**1.06**	**1.10**	**1.13**	**1.14**	**1.15**	**1.16**	**1.16**	**1.16**
60	0.36	0.60	0.76	0.85	0.91	0.94	0.97	0.98	0.99	0.99	**1.00**	**1.00**
50	0.30	0.50	0.63	0.71	0.76	0.79	0.80	0.82	0.82	0.83	0.83	0.83

Beef—*cont'd from page 2*

like Europe and Japan have both added to the downward pressure on prices received for American cattle. The timing of the technological advances that created the global market for beef, thus increasing total supplies available to American markets, is readily apparent in Figure 1. Since the mid-1970s, the trend in total American cattle production has been downward (despite the continuing cycles) due to downward pressure on prices from increased foreign supplies in the global market. This trend is likely to continue for the foreseeable future as the livestock sectors of less-developed nations expand.

Figure 2. Livestock Farm Index: Prices Received and Prices Paid - All Items, U.S., By Quarter
Percent (1990-92 = 100)



Source: USDA

One reason that global livestock production is expected to expand is that consumers buy more meat (including red and white meat products) as their incomes improve, and the improvements in the economies of many less-developed nations in recent decades are expected to continue into the next century. Eastern Europe and Asia, in particular, offer good prospects for expanded beef sales. The question for American cattle producers is whether or not they will be able to compete profitably in those growing markets. The problem is "commodity prices are global, but production costs are local." American producers have higher land, labor and other costs of production than producers in many less-developed nations, thus our cattle producers face a stiff challenge to profitably serve those distant markets.

On the demand side, beef has suffered somewhat in its recent competition with white meat. Consumers in America, in particular, are eating more chicken, turkey and fish, causing them to buy less beef per person. In some other countries (especially less developed nations), beef consumption per capita is still below American levels and may grow with income levels. Both economic and health factors influence consumers' consumption of red and white meats.

Consolidation is Painful

The beef cattle industry and American agriculture, in general, are going through a painful consolidation. Just like the consolidations going on in the banking and other industries, the cattle industry is experiencing a reduction in the number of individual firms because there is not enough profit to support all the firms operating at present. It is a painful process for those cattle producers who are being displaced by the market. In some places in California, cattle ranches can be converted into the production of other agricultural commodities, like tree and vine crops, but in other locations the list of profitable agricultural alternatives is limited. This means that the total number of cattle ranches and the total volume of cattle production are both likely to decrease over the next decade or more.

At some point, global cattle supplies and demand will stabilize, causing prices to stabilize in general. As the market finds its new (although ever-shifting) equilibrium, producers who can make a profit at the new price level will survive. However, no one knows where the market price will stabilize.

In the meantime, American cattle producers are being challenged to find production and marketing strategies that will maintain or improve their profit margins. Production costs per unit are already relatively low for cattle producers in California. Our industry is already very efficient, thus it may be difficult to further reduce production costs per head of cattle. Therefore, increased marketing activities hold the best promise for improving profit margins. It is also likely that group marketing efforts, rather than individual producer efforts, hold the most promise for success. The California Cattlemen's Association and livestock advisors in county offices of the University of California's Cooperative Extension Service are all working to find new marketing methods for groups of producers. With increased participation of cattle producers, these groups may be able to make the beef industry consolidation process a profitable one for California ranchers.

ARE Faculty Profile

Steven C. Blank is a Cooperative Extension economist in the Department of Agricultural and Resource Economics at UC Davis. He specializes in financial management, risk analysis, futures and options markets, and management methods. After growing up around California agriculture, Blank completed a B.A. in business at California State University, Stanislaus. He went to the east coast to complete an M.B.A. at the University of Massachusetts. Steve then returned west, going to the University of Hawaii to receive both his M.S. and Ph.D. in agricultural economics, specializing in marketing and price analysis.

Before completing his education, Dr. Blank worked in varied industry positions early in his career, including time as a commodity futures broker, an assistant manager of a large department store, and a business consultant for the Small Business Administration.

He has held faculty positions at California Polytechnic State University - San Luis Obispo, South Dakota State University and the University of Arizona. Steve came to UC Davis in January 1988, initially as a visiting associate professor in the ARE department. He took the job of Extension Economist in 1990, conducting research and continuing to teach both on and off campus. In 1996, he took on the additional position of Academic Assistant to the Vice Provost at UC Davis. In this administrative role, Steve focuses on academic personnel and planning issues across the campus.

His international experience ranges from heading a research section of the Australian government for two years to various short research and consulting assignments on every continent.

Dr. Blank has authored or co-authored over 200 publications, including three books. His most recent book, *The End of Agriculture in the American Portfolio*, (Westport, CT: Greenwood Publishing Group, Quorum Books, 1998) continues to receive much favorable attention. For example, the national Farm Bureau Federation praised the book in its review, as did farmers from Washington state while testifying before the U.S. Senate Agriculture Committee. The book explains many of the diverse economic pressures facing agricultural producers in the United States. Dr. Blank continues to receive invitations to speak on the subject and, during Fall 1999, will address professional groups from Nova Scotia to San Francisco.

Dr. Blank's current research agenda covers varied topics. Examples include a project with UC Davis agricultural engineering faculty studying the effects of harvest mechanization on selected crops, and another study with UC agronomists that evaluates the yield-versus-quality tradeoff with alfalfa growers. He also has ongoing projects focusing on financial and risk management in agriculture.

Steve Blank
UC Extension Economist
and
Academic Assistant to the
Vice Provost - Academic Personnel

When he is not in one of his two campus offices, Steve is often on the road as required by his statewide Cooperative Extension position. He regularly travels throughout the state working with various producer and agribusiness groups. He can occasionally be found on the golf course. "I learned in business school that a lot of business gets done on the links," he notes.

Steven C. Blank is a UC Extension economist in the ARE department and the academic assistant to the vice provost at UC Davis. He can be reached by telephone at (530) 752-0823, or by e-mail at: sblank@primal.ucdavis.edu.

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