An **Egg Economics Update**

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**The Cholesterol Controversy Has Now Completed a Full Circle of Debate**

“These findings suggest that consumption of up to 1 egg per day is unlikely to have substantial overall impact on the risk of Chronic Heart Disease (CHD) or stroke among healthy men and women. The apparent increased risk of CHD associated with higher egg consumption among diabetic participants warrants further research.”

*Dr. Frank B. Hu, MD and associates, Harvard University Medical School*  
*Journal of the American Medical Association (JAMA)*  
*April 21, 1999*

The article said while decreasing egg consumption “has been widely recommended to lower blood cholesterol levels and prevent CHD, epidemiological studies (connecting) egg consumption to risk of CHD are sparse.”

The article cited nutritional benefits from egg consumption, pointing to eggs’ nutrient profile, which includes protein, minerals and vitamins, as well as properties that raise high density lipoproteins that actually help protect against CHD.

The authors concluded by proposing that healthy men and women may eat an egg per day without a health risk.

Dr. Donald McNamara, executive director of the American Egg Board’s Egg Nutrition Center said the research “is really the culmination of a growing body of published data indicating that egg consumption” doesn’t have an independent cause-and-effect relationship to CHD.

McNamara said the Harvard research should encourage nutritional policy-makers to re-examine dietary recommendations intended to reduce CHD because “severely restricting nutritious foods, such as eggs, actually can do more harm than good in most cases, especially for nutritionally vulnerable groups like children and older Americans. “We hope this study will once and for all exonerate the egg.”

(This article is a summary of a report which appeared in the May 3, 1999 issue of Feedstuffs by Rod Smith, Feedstuffs Staff Editor.)
The Cholesterol wars - The 1950’s To the Present

(The following article was written by Don Bell for the Centennial Edition of the Poultry Tribune, September 1995.)


“A review of the Cholesterol Controversy in the United States” by A.W. Jasper, 1992, summarized many of the relevant events in the cholesterol wars of the last 40+ years. The following comments were abstracted from this paper:

“in the mid-1950's, we began to hear rumblings about the possibility that eggs may have a deleterious effect on peoples' hearts, even to the extent of being a direct cause of atherosclerosis. This claim generally was made in muted tones, and the word ‘cholesterol’ was not mentioned often among the general population. Most of the discussion took place among the professional medical profession. Dr ---- a heart surgeon, was quoted as saying that he spent much of his time ‘scraping scrambled eggs out of arteries.’

“in 1958, the Poultry And Egg National Board (the forerunner of the American Egg Board), decided to fund a research project to determine consumer attitudes towards eggs and poultry meat. About this time, per capita egg consumption began a significant decline.

“In the 1970's many in the egg industry believed that it had been on the defensive long enough and the ‘National Commission on Egg Nutrition’ (NCEN) was established, made up of key egg industry leaders. NCEN would serve as a foundation for bringing all cholesterol research to light, whether favorable or not and to combat anything negative directed at the egg industry.”

Following a series of full page advertisements by NCEN (1973) in New York newspapers stating ‘There is absolutely no scientific evidence that eating eggs, even in quantity, will increase the risk of heart attack. There is considerable evidence that the opposite is true.’, a complaint was filed asking for 1) a cease and desist order, 2) corrective advertising under which NCEN would be required to run advertisements explaining to consumers how they had been misled (by industry advertising), and 3) use of FTC injunctive powers to stop the advertising. The FTC’s final order declined to say which body of medical opinion was correct or which view was superior. What NCEN was required to
say in future advertisements was that there is “contrary” opinion. In other words, if NCEN ventured into the area of opinion, it must publish a disclaimer.

Jasper continues: “The Egg Nutrition Center (ENC) was created in 1984 by the egg industry to provide scientifically accurate information on egg nutrition and accompanying health issues. The Center is a cooperative project of the American Egg Board, the United Egg Producers, and the Canadian Egg Marketing Agency. Located in Washington, D.C., the Egg Nutrition Center communicates regularly with industry, government, the media, and the health and nutrition communities.

“Because of the continuing controversy, the American Egg Board, working closely with the Egg Nutrition Center, has made a long-term commitment to research on cholesterol.” In 1988, largely through the efforts of the ENC, the long standing cholesterol content standard for eggs was challenged. For years the USDA standard for the cholesterol content of a large egg was reported to be 274 milligrams. Through ENC efforts, and with the cooperation of egg producers across the country, a large sample of eggs was sent to a USDA approved laboratory and tested. Tests indicated that a large egg had only 213 milligrams of cholesterol - 22% less than previously thought. The Egg Nutrition Center immediately brought this information to the attention of the American Heart Association and adjustments were made in their recommendations (from 3 eggs to 4 eggs per week) to reflect the new data. interestingly, this event appears to coincide with the “leveling” off of per capita egg consumption in the United States.

**How Do We Assess the Damages Done to the US Egg Industry by the Prolonged Debate About Eggs and Their Relationship to Human Health?**

We all know that egg consumption has dropped by an estimated 125 eggs per person during the 1955 to 1999 period. We know that much of this was due to the “cholesterol scare”, but we recognize that changing life styles and family breakfast routines have also contributed to this decline in egg consumption. If only 50 eggs were associated with the cholesterol question, its net effect would have resulted in:

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(45 \text{ years}) \times (\text{an average reduction of } 25 \text{ eggs}) \times (\text{an average population of } 215 \text{ million people}) \times (\text{a farm gate value of } \$0.48 \text{ cents per dozen.})
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242 \text{ billion eggs (20 billion dozen)}
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$10 \text{ billion in lost revenues}
\]

This is a very conservative estimate and does not represent the total costs to our industry. Literally thousands of individual egg producers were forced out of business as a result of reduced demand for their products. The public suffered too for the reasons stated earlier. They were deprived of the wholesomeness and nutritional benefits of eggs and were forced to substitute higher priced foods in their place.
Per Capita Egg Consumption - 1945 to 1999

Egg consumption estimates have just been updated by the USDA (April, 1999). The 1999 large flock size has resulted in an adjustment of 3.6 eggs upwards from the numbers we quoted just last month in the April issue of this newsletter. Today, the exciting fact is that egg consumption has turned around and has increased at the rate of 3.65 eggs per person per year since 1995. The current estimate for 1999 is 249.1 eggs - the highest since 1987 - and the numbers have increased each year since 1995. Table 1 reflects these changes.

Table 1. Per Capita Egg Consumption - 1945 to 1999

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
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<td>1975</td>
<td>277</td>
<td>1996</td>
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<tr>
<td>1970</td>
<td>315</td>
<td>1995</td>
<td>235</td>
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Source: USDA Economic Research Service

Thanks to the Many Individuals and Associations Who Have Battled Successfully to Reinstate Eggs Into the Diets of the American Consumer

There are many who have disputed the unfounded charges against eggs over the past 50 years and our hats are off to them. They fought a difficult battle, they went to court, they funded research, and they succeeded to exonerate eggs from the charges being made against them. Research of the type conducted at Harvard and countless other institutions have supported what was said long ago - there is simply no evidence that egg consumption was associated with CHD and stroke in healthy individuals. Blanket campaigns which recommended reductions in egg consumption for the general population were excessive in their effect and extremely damaging to the U.S. egg industry. Eventually, science won the argument and the scare of the issue has subsided.

The Challenge For the Next Century

The industry still has to work hard to solve the continuing decline in egg consumption associated with the trend away from traditional breakfasts. The annual increase in new product development, meals away from home, and more convenient egg products has been the backbone of maintaining and increasing total egg consumption. This will continue to allow our industry to grow in the future. Those who've worked so skillfully to get us where we are today can not sit back and claim victory - they must go out and continue to sell their research to their peers who still refuse to be convinced despite the overwhelming evidence.

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