

Marketing a Mediterranean Diet: Some Issues and Opportunities

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The popular Mediterranean diet features many products that are produced extensively in California. Some California commodity groups are already emphasizing links to the diet through promotion and research efforts.



Movement toward a Mediterranean diet has significant economic implications for California agriculture, especially the fruit, vegetable, and nut sectors.

Photo courtesy of UC Regents

The Mediterranean diet is a commonly used term denoting tasty cuisine, healthful eating, and a healthy lifestyle. The popular press in the United States has featured articles on the components of the Mediterranean diet, including the healthful effects of moderate consumption of wine, especially red wine; the health benefits of substituting plant-based oils, especially olive oil, for animal fats; and increased fruit, nut, and vegetable consumption. While consumers have responded to articles and news stories about the Mediterranean diet, most have only a vague idea of the overall diet framework.

The existence of some confusion should not be surprising. Many books about the Mediterranean diet have been written. For example, a quick search of the Amazon.com Website for books on the Mediterranean diet brought up a list of 1,569 entries. The titles included diet books, cookbooks, and books on wine, omega-3 fats, diet and disease (arthritis, cancer, diabetes, heart disease, hypertension, allergies and asthma), diet and longevity, weight loss, and many other topics. Organizations that include the Oldways Preservation and Exchange Trust, the Foundation for the Advancement of the Mediterranean Diet, the Mayo Clinic, and the Harvard University School of Public Health have published diet pyramids modeled after the U.S. Department of Agriculture's (USDA's) pyramids.

A brief examination of a world map reveals some 21 countries bordering the Mediterranean Sea, including those typically associated with a Mediterranean lifestyle such as Spain, France, Italy, Greece, and Turkey, Northern African, Middle Eastern and Balkan countries. Major differences in culture, ethnic backgrounds, religion, and climate guarantee significant dietary differences both between and within countries. As noted in the American Heart Association (AHA) Website, there is no one "Mediterranean" diet. The Mediterranean diet, as typically presented, appears to be inspired by traditional diets in Southern Italy, Greece, and Spain. A pyramid illustrating the Oldways Preservation and Exchange Trust version of the Mediterranean diet is on the next page.

The AHA outlines the common Mediterranean dietary pattern as having the following characteristics:

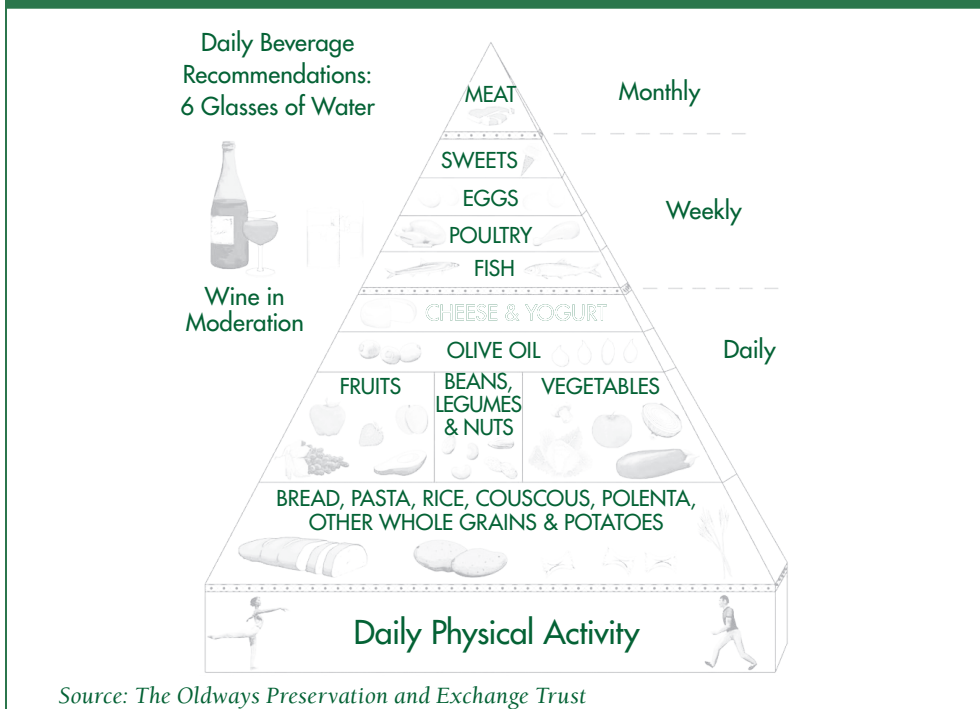
- High consumption of fruits, vegetables, bread and other cereals, potatoes, beans, nuts, and seeds is a primary focus of the plan
- Olive oil is an important monounsaturated fat source
- Dairy products, fish, and poultry are consumed in small to moderate amounts and little red meat is eaten
- Eggs are consumed zero to four times a week
- Wine is consumed in small to moderate amounts.

Diet Impacts

Health problems related to food consumption are described as being in a "crisis stage" in the United States and many other countries. Widespread obesity is obvious in our society. Not so obvious are the health problems directly linked to obesity and diet, including heart disease, stroke, diabetes, various forms of cancer, maladies associated with aging, and numerous quality-of-life problems. Health professionals, government officials, and others concerned with the enormous costs associated with current consumption patterns are promoting policies and programs to improve diets and health outcomes.

Movement toward a Mediterranean diet, and similar consumption patterns based on other dietary plans has significant economic implications for California agriculture, especially the fruit, vegetable, and nut sectors. Buzby, Wells, and Vocke estimated the potential implications if Americans change their consumption patterns to meet the USDA's 2005 dietary guidelines for Americans. They estimate that if Americans were to fully meet 2005 guidelines, they would need to increase daily fruit consumption by 132 percent

Figure 1. The Traditional Healthy Mediterranean Diet Pyramid



(from 0.9 cups to 2.0 cups per day) and vegetable consumption by 31 percent (from 1.9 to 2.5 cups per day). There would also be shifts within the vegetable category from starchy vegetables to legumes and dark green and orange vegetables. These shifts would require that annual U.S. harvested fruit acreage increase from 3.5 to 7.6 million acres and that annual U.S. harvested vegetable acreage increase from 6.5 to 15.3 million acres.

Rickard and Gonsalves examined the economic effects that compliance with seven different dietary plans would have for 50 of the highest value crop markets in California agriculture, many of which are specialty crops. Dietary plans offered as alternatives to the USDA food guidelines include the Harvard model, the Mayo Clinic model, the Mediterranean diet model, the DASH model, and the Atkins Diet model, among others. Rickard and Gonsalves found that six of the seven diets they examined would generate additional revenue for most of the specialty crops grown in California. The lone exception was the Atkins Diet, which resulted in decreased revenue for 41 of the 50

crops. The Harvard model generated the most additional revenue for 38 of the 50 crops but the Mediterranean diet increased revenue nearly as much as the Harvard model. It is interesting to note that estimated changes in gross revenue for each crop vary by diet plan. For example, estimated gross revenue for romaine lettuce increases 67.3 percent for the Harvard plan and 28.0 percent for the DASH model; revenue for carrots increases 45.6 percent for the Harvard plan, 30.8 percent for the Mediterranean diet, and 17.4 percent for the USDA's My Pyramid model.

Individual Product Recommendations

Consumers make individual product-purchase decisions with the overall diet composed of the sum of purchase and preparation decisions. The popularity of health claims placed on food products provides evidence that many consumers include health considerations when making purchase decisions. There is limited evidence, however, that the majority of consumers most in need of diet modification are following an overall diet plan such

as those presented by the popular diet pyramids. One can hypothesize that consumers are interested in benefits derived from their food consumption. In addition, they will choose to consume particular food products and commodities based on known benefits and choose to not consume particular food products and commodities based on known or supposed dangers. Using this model, guiding consumers toward consumption of a Mediterranean diet would be best accomplished by conducting nutrition and medical research on individual food products and commodities and emphasizing the consumption of individual diet components through use of a diet logo or similar device. Some U.S. producer organizations are already funding nutrition and medical research for their individual products with interesting results and partnering with health organizations. Following is a brief summary of research and promotion programs being conducted by four large California commodity organizations: the California Walnut Commission, the Almond Board of California, the California Avocado Commission, and the California Strawberry Commission.

Commodity Nutrition and Health Research

The California Walnut Commission (CWC) was one of the first U.S. commodity groups to fund health and nutrition research when it decided to counter diet recommendations urging consumers to reduce or constrain consumption of nuts because of their high oil content. In 1990 the CWC funded its first project with researchers at Loma Linda University on the protective effects of nut consumption on the risk of coronary heart disease. The Almond Board of California (ABC) established a nutrition research program and nutrition subcommittee in 1995 to review the scientific validity of proposals and recommend

studies for funding. During 1997, the California Avocado Commission (CAC) made a strategic change to proactively communicate the nutritional benefits of avocados through national public relations and outreach efforts. The California Strawberry Commission (CSC) began funding nutrition research proposals in 2003 and now issues an annual request for proposals. This research has already yielded results that are being used in the CSC advertising and promotion programs.

The CWC, which has the longest ongoing health and nutrition research program, began with studies on the relationships between walnut consumption and risk from coronary heart disease and cholesterol levels. The examination of relationships between walnut consumption and heart health continued with a combination of epidemiological and clinical studies conducted by leading universities in the United States, France, New Zealand, Spain, Norway, and Japan that were published in medical, nutrition, and science journals. These studies indicate that walnuts reduce LDL cholesterol and heart disease risk, that the fatty acids in walnuts improve the function of arteries, that consuming walnuts reduces cell adhesion molecules and enhances the circulatory system, and that omega-3 fatty acids in walnuts reduce inflammation in arteries. More recent studies indicate that melatonin in walnuts protects against cancer and heart disease and that omega-3s reduce blood pressure, arterial inflammation, and the stickiness of platelets. Additional studies have shown that walnuts have antidepressant-like effects, that they can help in weight management, and that consumption of walnuts is protective for people with Type 2 diabetes. Also, the form of vitamin E found in walnuts might halt the growth of prostate and lung-cancer cells. Walnuts have high concentrations of antioxidants, which help the body ward off life-threatening maladies such



The California Walnut Commission, which has the longest ongoing health and nutrition research program, began with studies on the relationships between walnut consumption and the risk from coronary heart disease and cholesterol levels.

Photo courtesy of the California Walnut Commission

as cancer, heart disease, and diabetes, as well as debilitating ailments such as arthritis, osteoporosis, and Alzheimer's disease. Research funded by the other three commodity groups has resulted in reports on the health and nutritional benefits of consuming almonds, avocados, and strawberries.

The CWC used its research results to secure a qualified health claim for walnuts from the U.S. Food and Drug Administration (FDA) in 2003. The final wording for the claim, issued in 2004, states:

“Supportive but not conclusive research shows that eating 1.5 ounces per day of walnuts as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease. See nutrition information for fat content.”

The ABC also submitted research results for almonds as part of a nut-industry submission to the FDA. In 2003 the FDA also approved a qualified health claim for almonds (and other nuts) that states:

“Scientific evidence suggests but does not prove that eating 1.5 ounces per day of almonds as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease.”

The CSC has a stated goal of assembling the research support necessary to secure approval of a health claim for strawberries from the FDA and the CAC is in the process of determining information needed and the feasibility of submitting a qualified health claim for avocados and heart health.

The nutrition and health research and promotion programs funded by the ABC, the CAC, the CSC, and the CWC have other important similarities and differences. Each commodity group has formed a nutrition or scientific-advisory committee that includes well-known and knowledgeable nutritionists and medical researchers to provide ideas and advice on research areas, nutrition-based programs, and outreach efforts. Each commodity also maintains an Internet Website that provides detailed information on the nutrition and health

benefits of consumption of the commodity. While the research thrusts for the four groups are similar, their advertising and promotion strategies differ. The ABC first emphasized public relations for its health message and then shifted almost all advertising and promotion to a health message. The CSC has focused all consumer communications on a health message since initiation of its program in 2003. The CAC continues to use only public relations for its health message to consumers but targets health and nutritional professionals with promotional materials. The CWC emphasizes public relations for dissemination of its health message but has also included an advertising health message in several export markets (Spain, Italy, and Germany). Overall, consumer and media interest in diet and health issues appears to assure cost-effectiveness for public relations programs. For example, the ABC increased public relations expenditures to \$1 million during 1998/1999, but estimated that the advertising value equivalency of exposures related to the health benefits of consuming almonds increased to \$7 million. The CWC estimates that publicity generated as a result of the FDA ruling on the qualified health claim for walnuts generated more than 70 million impressions by the end of the 2003/04 crop year from news stories, magazine articles, and associated publicity on diet and health. Media impressions attributed to the CWC public relations program in the United States increased from a little more than one billion in 2001/02 to more than two billion in 2004/05. The cost per million impressions decreased from \$0.59 in 2001-02 to \$0.37 in 2004-05. Partnering by the ABC, the CAC, and the CWC with organizations such as the AHA, provides product exposure in diets offering particular benefits such as heart-healthy diets, healthy food choices for diabetics, or weight-control diets. The funds allocated to nutrition

research by each organization tend to add to total research rather than substitute for traditional research on production and postharvest problems.

Concluding Comments

Health and disease problems related to food consumption are motivating consumers around the world to choose diets that promote healthy outcomes. These same problems are motivating governments and others with a desire for a healthier population to try to improve human diets. The Mediterranean diet, based on historic research of consumption patterns in Crete and Italy that may no longer be descriptive of existing diet patterns, is associated with good health, longevity, and reduced heart disease. The Mediterranean diet has received a large amount of favorable publicity in the United States, but there is no one Mediterranean diet.

While different organizations and individual authors have presented a variety of diets labeled as Mediterranean, foods included in the diet, as commonly presented, are accepted as likely to lead to healthful outcomes. There appears to be a market for a Mediterranean-type diet if properly defined and marketed. Success will depend on proper selection of “target” markets together with imaginative and effective product development and positioning. Careful examination of the effectiveness of relying on a diet pyramid versus promoting the healthful aspects of individual foods that are included in the pyramid is needed. There is an opportunity for a well-organized and properly funded organization with excellent leadership to successfully market a Mediterranean-type diet and improve health outcomes in target markets around the world. It will require vision, commitment, time, and a marketing orientation.

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For more information, the author recommends the following:

Buzby, Jean C., Hodan Farah Wells, and Gary Vocke. *Possible Implications for U.S. Agriculture From Adoption of Select Dietary Guidelines*. USDA Economic Research Service, ERR-31, November 20, 2006, 35 pages. Available at: www.ers.usda.gov/publications/err31/

Rickard, Brad and Jana Gonsalves. *Examining Potential Changes in Nutrition Recommendations and Implications for Specialty Crops in California*. Report Prepared for the California Institute for the Study of Specialty Crops, California Polytechnic State University, San Luis Obispo, April 30, 2006. Available at: <http://cissc.calpoly.edu/research/49946FinalReport.pdf>