

A New World Industry Initiative in an Old World Market: The Economics of California Olive Oil Quality Standards

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Abstract

The United States is increasing its share in global production of olive oil along with other “New World” producers. Recently, the state of California, where most of the olive oil in the US is produced, approved new regulations governing the grades of olive oil, labeling, methods of testing and traceability standards. This research report evaluates the potential costs of compliance with the new regulations and analyzes their economic impact on marketing of olive oil. The results indicate that if the compliance costs are passed on to the consumer, it may result in the decline of olive oil sales by less than one percent.

Keywords: olive oil regulations, compliance costs, grades and standards

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Introduction

The global consumption of olive oil began to increase in the 1990s beyond the traditional European markets as consumers worldwide became more aware of the nutritional and health benefits of olive oil. Though the EU still produces 75 percent of the World's olive oil, an increasing share is accounted for by so-called "New World" producing countries, specifically the United States, Australia, Argentina, and Chile (see Table 1). On the consumption side, the EU is the largest consumer followed by the US, which is also the biggest importer of olive oil whose imports constitute about 37 percent of the world imports in 2013 (See Figure 1 and 2). The US domestic olive oil production meets less than 2 percent of the domestic demand. But, the production of olive oil has grown substantially in the United States over the past decade, and total olive plantings have risen as well, driven by new super high-density groves intended for production of olive oil (Warnert 2011). While olive trees can be grown in the warmer parts of the United States, and an estimated 99 percent of total U.S. olive oil production presently comes from California, mostly the state's Central Valley.

The California Department of Food and Agriculture (CDFA) has recently approved new standards on the labeling, grading and testing of olive oil in California (Pierson, 2014). For a long time, as there was no regulatory enforcement of grading standards in the U.S. market, there existed a financial incentive to misrepresent lower-priced, lower-grade olive oils as higher grade ones. Added to that, the lack of proper definitions for various grades of olive oils and lack of a list of acceptable testing methods and proper traceability guidelines led to the situation where consumers have difficulty making informed choices. The new regulations are designed to improve the competitiveness of olive oil produced in California by ensuring the quality of the olive oil produced locally. This study evaluates the potential costs of compliance with the new standards on growers and handlers along with the potential effects on sales of California olive oil of any associated retail price increase. The analysis presented is based on a preliminary assessment drawn from ongoing research at the Center for Agricultural Business, Fresno.

New Olive Oil Regulations Approved by California

The new olive oil standards only apply to California handlers of olives that are processed into olive oils, refined-olive oils and olive-pomace oils in the amount of 5,000 gallons or more during a given period (CDFA, 2014). Olive oils will be graded based a set of quality parameters and limits established for each parameter. Some of the standards like the benchmark for free fatty acidity in extra virgin olive oil are much stricter than the international standards. The stricter standards are supposed to provide advantages to olive oil produced in California as it is considered to be of superior quality than imported olive oils.

The new regulations also include a list of prohibited food additives that cannot be mixed with olive oils. Along with these, the new regulations specify the acceptable methods that can be used to determine the characteristics of olive oils, refined olive oils and olive pomace oils. The new regulations also prohibit the usage of terms like "Pure", "Lite", "Extra Lite", among other terms on the labels. A list of acceptable grade designations has been provided in the new regulations. The new labeling standards also include specifications about how producers may voluntarily provide additional information regarding the year of harvest, varietal names, shelf life, extraction

process, etc. The new labels will also have the lot number clearly specified which provides traceability related information to the handlers.

The new regulations and standards are put in place to ensure the quality of oil produced from olives in California, enhance the continued growth of olive oil production through greater consumer and trade confidence in the consistent, high quality of California olive oils, and provide the producers, handlers, buyers and consumers of California oil with reliable and trustworthy information concerning the quality and grade of the product (CDFA 2014).

Methodology

This study addresses the estimated costs to producers to comply with the new regulations and the potential effect of those costs on the marketing of California olive oil. The study also analyzes the potential effects on sales of California olive oil of any associated retail price increase. The analysis has been performed making some assumptions based upon the information provided by the University of California Cooperative Extension's report on sample costs for production of bottled olive oil in the north and central coasts of California for 2011 (Vossen et al. 2011). In this example we assume that a typical olive oil farm will produce on average about 1211 bottles (375 ml) per acre (based on a yield of 3 tons/acre of olives and 40 gallons of oil per ton of olives). Given a producer's price of \$7.50 per bottle, the revenue per acre is calculated to be approximately \$9082.

The impact of the associated cost of compliance is dependent on where in the value chain the additional cost is absorbed. If the increased costs are passed on to the producer in the form of a lower price for their olives the results are declining producer revenues per acre. If the increased costs were passed on to the consumer as increased prices, the impact would presumably be observed in the change in sales of California olive oil. In this study we use established estimates of price elasticity of demand to determine the potential impact of a cost of compliance transfer in the form of an increased retail price. Results of a previous study of the price transmission of regulatory costs increases suggest that some combination of producer and consumer price adjustment occurs (Yoram, Sunding and Berkman 2007). Any effects resulting from the cost to comply with the new standards would be likely be shared between the two sectors.

Results and Discussion

Industry sources indicate the compliance costs for new regulations will be 10-13 cents per 375 ml bottle of olive oil. Assuming average production and the midpoint of the industry estimated costs of compliance the additional costs would amount to \$145 per acre (about 1.6% of the projected revenue per acre). Given a retail price of a bottle of 375 ml olive oil of \$10, the cost of compliance would be equivalent to approximately 1.2% of the retail price.

Price elasticity of demand for olive oil is calculated as 0.257 (Xiong, Sumner and Matthews 2014), consistent with the assumption that olive oil consumption is less sensitive to price changes compared to general cooking oil in the US whose price elasticity of demand is about 0.5 (Yen, Kan and Su, 2002). Applying the price elasticity of demand for olive oil and the estimated

1.2 percent increase in retail price due to compliance costs, it is expected that the quantity of sales may decline by less than half a percent (0.31 percent).

As our analysis estimates that the impact of new regulations on olive oil sales is expected to be minimal, we will monitor sales of olive oil following the implementation of the new regulations to determine if the marketability of California produced olive oil improves, reflecting success in distinguishing itself from imported olive oils.

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