United States and World Olive Oil Industry

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Prehearing Brief and Statement of the U.S. Olive Oil Industry in USITC Investigation No. 332-537

Olive Oil: Conditions of Competition between U.S. and Major Foreign Supplier Industries

First Edition

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Introduction

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This report was prepared to assist the U.S. olive oil growers and processors to prepare to participate in the U.S. International Trade Commission's Section 332 Fact-Finding Investigation of the global competitiveness of the U.S. olive oil commercial industry for the period from 2008 to 2012. The USITC study is in response to a request by the House Committee on Ways and Means. Specifically, the Committee asked that the Commission prepare a report analyzing the competitive conditions for the U.S. olive oil industry and principal supplier industries. The Committee asked that the USITC's report provide the following:

- An overview of the commercial olive oil industry in the United States and major supplier countries, including production of olives for olive oil processing, planted acreage and new plantings, processing volumes, processing capacity, carry-over inventory, and consumption;
- Information on the international market for olive oil, including U.S. and foreign supplier imports and exports of olive oil in its various forms, olive oil trade between the European Union and North African countries, and a history of the tariff treatment and classification of olive oil in the United States and major supplier countries;
- A qualitative and, to the extent possible, quantitative assessment of the role of imports, standards and grading, prices, and other factors on olive oil consumption in the U.S. market; and

- A comparison of the competitive strengths and weaknesses of the commercial olive production and olive oil processing industries in the major producing countries and the United States, including factors such as industry structure, input production costs and availability, processing technology, product innovation, government support and other government intervention, exchange rates, and pricing and marketing regimes, plus the steps each respective industry is taking to increase its competitiveness.

Olive Oil

The USITC's investigation will focus on olive oil in its various forms such as Extra Virgin Olive Oil, Virgin Olive Oil, Pure Olive Oil, Olive Pomace Oil and Lite Oil.[1] Olive oil can also be defined in the Harmonized Tariff Schedule (HTS) under subheadings 1509.10, 1509.90, and 1510.00. Government agencies use the HTS to define the product. Many countries have their own set of subheadings under these general HTS numbers.

Extra virgin olive oil has a free acidity level of less than 0.8 grams per 100 grams and is produced without the use of any chemicals or solvents. Virgin olive oil has a free acidity level of less than 2 grams per 100 grams and regular olive oil has a free acidity level of less than 1 gram per 100 grams. Regular olive oil is a blend of refined and virgin oils; refined oils have a free acidity level of less than 0.3 grams per 100 grams.[2]

Olive harvesting depends greatly on climate and variety. Olives harvested too early in the season produce bitter, pungent oil with a bright green color while olives harvested later have a ripe flavor and sweet taste. Olives harvested before they begin to

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[1] Only olive oil that falls under HTS subheadings 1509.10, 1509.90, and 1510.00 are included in this report.

[2] International Olive Council, International Olive Council Glossary, *available at* http://www.internationaloliveoil.org/glosario_terminos/index.

fall off the trees provide the best olives for olive oil producing.[3] In the United States, the ideal harvest period is usually between September and November depending on the region, climate and the olive. Green olives are harvested early, usually in September.[4] Olive oil is stored in stainless steel tanks or glass containers for up to two years at low temperatures.[5]

Olive Oil Quality Standards

There are many different quality and purity standards of olive oil throughout the world. Such olive oil standards are established by governments, such as the European Union and the United States, by independent national bodies, such as Standards Australia, or by international organizations such as the Codex Alimentarius Commission, which may be conducted by its Codex Committee on Fats and Oils (CCFO). Methods for testing and tasting olive oil products are also offered by several bodies, including the American Oil Chemist Society, the German Society for Fat Science, the Association of Official Agricultural Chemists (AOAC), the European Committee for Standardization and the International Organization for Standardization.

However, the most influential international standard setting organization is the International Olive Council (IOC), which was established by the United Nations in 1959 to help unify the olive oil and olive industry and to balance production and consumption of olive products. The IOC, which was originally called the International Olive Oil

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[3] United States Department of Agriculture, Grading Manual for Olive Oil and Olive Pomace Oil, (May 2012) at p. 3, *available at* http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5098497.

[4] United Nations Conference on Trade and Development (UNCTAD), Agricultural Products – Olive, (March 17, 2011) *available at* http://www.unctad.info/en/Infocomm/Agricultural_Products/Olive/Crop/.

[5] International Olive Council, Glossary.

Council, has a broad mission that includes setting international product standards, as well as research and development and promoting international olive oil trade.[6]

IOC membership is open to both countries and intergovernmental groups of countries and its producer members account for 95 percent of world olive oil production, with most of its member countries located in the Mediterranean region.[7] Since 2005, IOC membership voting has been based on participation shares that are allocated to members according to the average olive oil production, average olive oil exports, average table olive production, and average table olive exports.[8] When a vote is required to make a decision, the IOC requires that 50 percent of members accounting for 82 percent of the participation shares vote in favor to adapt the decision.[9] Given the structure of the organization and how it conducts voting, the IOC is dominated by the European Union (EU), its largest member from where the vast majority of olive oil and olives are produced and exported. The EU currently holds 68.9 percent of the participation shares in January 2012.[10]

The most recent update to the IOC olive oil standard was released in November of 2011. The IOC does not have an enforcement body so it is up to the members to apply the standards in their international trade and encourage the same standards in their internal trade.[11] This aspect of IOC membership has allowed members to have different internal standards, which is important amongst countries of the EU.

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[6] International Olive Council, Mission Statement, (November 2012), *available at* http://www.internationaloliveoil.org/estaticos/view/100-mission-statement.

[7] European Union, Action Plan for the EU Olive Oil Sector, (June 18, 2012), at p. 7, *available at* http://ec.europa.eu/agriculture/olive-oil/action-plan_en.pdf.

[8] United Nations, International Agreement on Olive Oil and Table Olives, 2005, (Geneva 2005) at Art. 8, available *at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:302:0047:0047:en:PDF.

[9] Ibid. at Art. 9, § 2.

[10] Ibid. at Annex A.

[11] Ibid. at Art. 35.

The majority of EU member countries are also members of the IOC and thus there are many similarities in the IOC and EU standards. However, some key differences are that the EU standard misses an entire olive oil grade, ordinary virgin, and bans the use of words like "pure" or "extra light" for the refined olive oil blend. These are significant differences in the context of olive oil marketing.

In June of 2012, the EU released its action plan for the olive oil sector. This action plan addressed a number of different areas, including quality and control. In the action plan, the EU recognized the growing concerns of current testing methods and quality standards but did not make any substantive changes on these issues and stated that any changes should only be done following intensive scientific research.[12] The action plan set goals for areas requiring improvement such as quality controls, consumer protection, and improved labeling.[13]

The Codex Alimentarius Commission (Codex) was formed in 1963 as a means to establish international food standards, guidelines, and codes of practice in order to promote safety, quality, and fairness in the international food trade.[14] Codex's current olive oil standards were established in 1981 and were last modified in 2009.[15] Codex decisions are reached by consensus.

The United States Standards for Grades of Olive Oil and Olive-Pomace Oil was published by the U.S. Department of Agriculture (USDA) on October 25, 2010. This was

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[12] European Union, Action Plan, at p. 3.

[13] Ibid, at p. 2.

[14] Codex Alimentarius, International Food Standards, (November 2012), *available at* http://www.codexalimentarius.org.

[15] Codex Alimentarius, Standard for Olive Oils and Olive Pomace Oils, (2009), *available at* http://www.codexalimentarius.org/standards/list-of-standards/en/?no_cache=1.

the first revision of the U.S. olive oil standard since 1948.[16] The USDA standards define the different grades of olive oil and olive-pomace oil using chemical and sensory parameters that are similar to those of the IOC. However, these standards are voluntary, which means that producers may choose to opt out of seeking certification by the USDA as "U.S. Extra Virgin Olive Oil."

Standards Australia, an independent non-profit organization, published its standard for olive oils and olive-pomace oils on July 20, 2011.[17] Australia, which previously did not have an olive oil standard, began the formal process in late 2009, and it was approved after almost 800 stakeholder and public submissions.[18] The adopted standard defines extra virgin olive oil and outlines the difference between natural and refined grades of olive oil. It provides labeling requirements and sets out testing methods for quality and authenticity. It also establishes "best before" date guidelines. The standard also regulates the use of certain words on labels, such as "pure," "light," "lite," and "extra lite." Despite being "voluntary," the Australian standard can be referred to by government authorities in matters relating olive oil quality and authenticity. Since its introduction it has been progressively adopted and used as a product specification by major retailers in Australia.

The Australian standard has the most variation from the other standards. Perhaps the largest difference in the Australian standard comes with the addition of two new

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[16] United States Department of Agriculture, United States Standards for Grades of Olive Oil and Olive-Pomace Oil, (Effective October 25, 2010) at Intro, *available at* http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELDEV3011889.

[17] Standards Australia, "AS 5264-2011 Olive oils and olive-pomace oils," (July 20, 2011) at Title Page, *available at* (purchase only): http://infostore.saiglobal.com/store2/Details.aspx?ProductID=1478754.

[18] Standards Australia, Media Release "Australian First: Landmark Olive Oil Standard Approved," July 20, 2011, *available at* http://www.standards.org.au/OurOrganisation/News/Documents/110720%20Olive%20Oil%20Standard%20MR.pdf.

testing methodologies: 1,2-diacylglycerol (DAGs) and pyropheophytins (PPP) .[19] The PPP test is used, amongst other things, to prevent labeling deodorized and/or deteriorated oils as extra virgin. The DAGs test is used to control aging, complement the PPP test to detect substandard virgin oils and supports the results obtained by taste panel tests. Both tests are good indicators of freshness and overall quality, which makes the Australian standard the most stringent international standard in the world today.

Tables 1 and 2 below outline the names and basic standards for olive oil standards set forth by the aforementioned standard setting entities. In Table 2, it should be noted that generally all olive oil quality standards are minimum standards and do not cover different grades, labeling requirements, etc. The standards listed are for all types of olive oil except when indicated for extra virgin (EVOO) and virgin (VOO) olive oil. These standards are below the natural quality of freshly produced olive oil. In addition, like many other products, olive oil has a shelf-life, a period of progressive loss of quality, which will eventually result in the failure to meet such quality standards. While there are many similarities between all of the olive oil standards, the following are some of the significant differences and items of note including:

- The Codex standards generally apply in consideration of WTO matters.
- Both the EU standard and the Australian standard prohibit confusing terms such as "pure" and "light" as front label descriptors for refined olive oil blends whereas the IOC standard and others are silent on this matter. While not allowed in the EU such confusing terms are common on olive oils in the United States. Such terms were common in Australia but since the advent of the Australian standard, they are being phased out.

[19] Standards Australia, "Australian Standard," at Ch. 13.21& 13.22.

- The Australian standard emphasizes the difference between natural and refined olive oils.
- The standards for purity differ in their consideration of the minor chemical components of olive oil. Both the U.S. and Australian standards attempt to address this by acknowledging the natural variation in these components brought about by variety and climate interactions. The deficiencies of the Codex standard, and others, such as IOC and EU, have led to technical barriers to trade.
- All of the standards for purity attempt to deal with the widespread problems of fraud in the olive oil trade by characterizing olive oil and offering tests for blends with lower grades of olive oil or other vegetable oils with varying degrees of effectiveness. The Australian standard is the most up-to-date and effective in this regard.
- EU member states can (and some do) apply their own laws prohibiting the production of blends of olive oil with other oils but cannot prohibit the import of such blends.
- There are differences in how the different grades of olive oil are defined not only chemically but also by name. In Table 1, the various names of different olive oil grades are given. These names add to the confusion caused by the varying standards. No two standards are identical in their classification of olive oil, which can lead to trade issues between the varying standards.

Table 1: Olive Oil Grades

United States	IOC	EU	Australia	Codex
- U.S. Extra Virgin Olive Oil	- Extra Virgin Olive Oil	- Extra Virgin Olive Oil	- Extra Virgin Olive Oil	- Extra Virgin Olive Oil
- U.S. Virgin Olive Oil	- Virgin Olive Oil	- Virgin Olive Oil	- Virgin Olive Oil	- Virgin Olive Oil
- U.S. Virgin Olive Oil Not Fit for Human Consumption without Further Processing	- Ordinary Virgin Olive Oil	- Lampante Virgin Olive Oil	- Lampante Olive Oil	- Ordinary Virgin Olive Oil
- U.S. Olive Oil	- Lampante Virgin Olive Oil	- Refined Olive Oil	- Refined Olive Oil	- Refined Olive Oil
- U.S. Refined Olive Oil	- Refined Olive Oil	- Olive Oil- composed of refined olive oils and virgin olive oils	- Olive Oil – composed of refined and virgin (or extra virgin) olive oils	- Olive Oil
- U.S. Olive-Pomace Oil	- Olive Oil	- Olive Pomace-Oil	- Olive-Pomace Oil – composed of refined olive pomace oils and virgin (or extra virgin) olive oils	- Olive Pomace-Oil
- U.S. Refined Olive-Pomace Oil	- Olive Pomace-Oil	- Refined Olive-Pomace Oil	- Refined Olive-Pomace Oil	- Refined Olive-Pomace Oil
- U.S. Crude Olive - Pomace Oil	- Refined Olive-Pomace Oil	- Crude Olive-Pomace Oil	- Crude Olive-Pomace Oil	
	- Crude Olive-Pomace Oil			

Table 2: Extra Virgin and Virgin Olive Oil Grade Standards Comparison

Ingredients	United States	IOC	EU	Australia	Codex
Total Sterol Content (mg/kg)	≥ 1000	≥ 1000	≥ 1000	≥ 1000	≥ 1000
Wax Content (mg/kg)	≤ 250	≤ 250	≤ 250	≤ 250	≤ 250
Stigmastadienes Content (mg/kg)	≤ 0.15	≤ 0.10	≤ 0.10	≤ 0.10	≤ 0.10
Trans Fatty Acid Content	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05
Content of 2-glyceryl monopalmitate (%)	C16:0 ≤ 14%; 2P ≤ 0.9% C16:0 >14%; 2P ≤ 1.0%	C16:0 ≤ 14%; 2P ≤ 0.9% C16:0 >14%; 2P ≤ 1.0%	C16:0 ≤ 14%; 2P ≤ 0.9% C16:0 >14%; 2P ≤ 1.0%	≤ 1.5 %	C16:0 ≤ 14%; 2P ≤ 0.9% C16:0 >14%; 2P ≤ 1.0%
Fatty Acid Composition					
Arachidic Acid (%)	≤ 0.6	≤ 0.6	≤ 0.6	≤ 0.6	≤ 0.6
Behenic Acid	≤ 0.2	≤ 0.2	≤ 0.2	≤ 0.2	≤ 0.2
Gadoleic Acid (Eicosenoic)	≤ 0.4	≤ 0.4	≤ 0.4	≤ 0.5	≤ 0.4
Heptadecanoic Acid	≤ 0.3	≤ 0.3	≤ 0.3	≤ 0.3	≤ 0.3
Heptadecenoic Acid	≤ 0.3	≤ 0.3	≤ 0.3	≤ 0.4	≤ 0.3
Lignoceric Acid	≤ 0.2	≤ 0.2	≤ 0.2	≤ 0.2	≤ 0.2
Linoleic Acid (C18:2)	3.5-21.0	3.5-21.0	3.5-21.0	2.5-22.0	3.5-21.0
Linolenic Acid (C18:3)	≤ 1.5	≤ 1.0	≤ 1.0	≤ 1.5	N/A
Myristic Acid	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05
Oleic Acid	55.0-83.0	55.0-83.0	55.0-83.0	53.0-85.0	55.0-83.0
Palmitoleic Acid	0.3-3.5	0.3-3.5	0.3-3.5	0.3-3.5	0.3-3.5
Palmitic Acid	7.5-20.0	7.5-20.0	7.5-20.0	7.0-20.0	7.5-20.0
Stearic Acid	0.5-5.0	0.5-5.0	0.5-5.0	0.5-5.0	0.5-5.0
Sterol Composition (% of total sterols)					
Brassicasterol	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1
Campesterol	≤ 4.5	≤ 4.0	≤ 4.0	≤ 4.8	≤ 4.0
Cholesterol	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
Delta – 7 Stigmastenol	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
Apparent beta-sitosterol	≥ 93.0	≥ 93.0	≥ 93.0	≥ 92.5	≥ 93.0
Sigmasterol	< Campesterol	< Campesterol	< Campesterol	≤ 1.9	< Campesterol
Trace Metals					
Iron (mg/kg)	≤ 3.0	≤ 3.0	N/A	≤ 3.0	≤ 3.0
Copper (mg/kg)	≤ 0.1	≤ 0.1	N/A	≤ 0.1	≤ 0.1
Quality Criteria					
Free fatty Acid Content (% m/m)	≤ 0.8 (EVOO) ≤ 2.0 (VO)	≤ 0.8 (EVOO) ≤ 2.0 (VO)	≤ 0.8 (EVOO) ≤ 2.0 (VO)	≤ 0.8 (EVOO) ≤ 2.0 (VO)	≤ 0.8 (EVOO) ≤ 2.0 (VO)
Peroxide Value (mo/kg)	≤ 20 (EV/VO)	≤ 20 (EV/VO)	≤ 20 (EV/VO)	≤ 20 (EV/VO)	≤ 20 (EV/VO)

Table 2: Extra Virgin and Virgin Olive Oil Grade Standards Comparison Continued

Ingredients	United States	IOC	EU	Australia	Codex
***Ultraviolet* (UV) Absorbance**					
232 nm	≤ 2.5 (EVOO) ≤ 2.6 (VO)	≤ 2.5 (EVOO) ≤ 2.6 (VO)	≤ 2.5 (EVOO) ≤ 2.6 (VO)	≤ 2.5 (EVOO) ≤ 2.6 (VO)	≤ 2.5 (EVOO) ≤ 2.6 (VO)
270 nm	≤ 0.22 (EVOO) ≤ 0.25 (VO)	≤ 0.22 (EVOO) ≤ 0.25 (VO)	≤ 0.22 (EVOO) ≤ 0.25 (VO)	≤ 0.22 (EVOO) ≤ 0.25 (VO)	≤ 0.22 (EVOO) ≤ 0.25 (VO)
Delta K	≤ 0.01	≤ 0.01	≤ 0.01	≤ 0.01	≤ 0.01
Moisture and volatile matter (% m/m)	≤ 0.2	≤ 0.2	N/A	≤ 0.2	≤ 0.2
Insoluble Impurities	≤ 0.1	≤ 0.1	N/A	≤ 0.1	≤ 0.1
Organoleptic Analysis					
Median of Defect	=0 (EVOO) 0≤Md≤2.5 (VO)	=0 (EVOO) 0≤Md≤3.5 (VO)	=0 (EVOO) 0≤Md≤3.5 (VO)	=0 (EVOO) 0≤Md≤2.5 (VO)	=0 (EVOO) 0<Md<2.5 (VO)
Median of Fruitiness	>0	>0	>0	>0	>0
Color	Yellow to Green	N/A	N/A	N/A	Yellow to Green
PPP (%)	N/A	N/A	N/A	≤ 17 (EVOO)	N/A
DAG	N/A	N/A	N/A	≥ 35 (EVOO)	N/A
Max difference between actual and theoretical ECN 42 triacylglycerol content	≤ .2 (EVOO/VO)	≤ .2 (EVOO/VO)	≤ .2 (EVOO/VO)	≤ .2 (EVOO) ≤ .3 (VO)	≤ .2 (EVOO/VO)
Erythrodiol and uvaol content (% total sterols)	≤ 4.5	≤ 4.5	≤ 4.5	≤ 4.5	≤ 4.5
Halogenated Solvents	Maximum content 0.1 mg/kg of each solvent Maximum content of ALL solvents 0.2mg/kg	Maximum content 0.1 mg/kg of each solvent Maximum content of ALL solvents 0.2mg/kg	Maximum content 0.1 mg/kg of each solvent Maximum content of ALL solvents 0.2mg/kg	N/A	Maximum content 0.1 mg/kg of each solvent Maximum content of ALL solvents 0.2mg/kg
Heavy Metals (Lead, Arsenic)	0.1 mg/kg	0.1 mg/kg	N/A	Comply with *Australia New Zealand Foods Standards Code*	0.1 mg/kg
Pesticide Residues	Comply with U.S. Environmental Protection Agency	Comply with Codex	N/A	Comply with *Australian New Zealand Food Standards Code*	Comply with Codex
Unsaponifiable matter (g/kg)	≤ 15	≤ 15	N/A	N/A	≤ 15

Note: Highlighted areas signifies there is a difference between the standards

Olive Oil Fraud

Olive oil is one of the most common victims of food fraud in the world today. Food fraud has been defined as "collective term that encompasses the deliberate substitution, addition, tampering or misrepresentation of food, food ingredients of food packaging, or false or misleading statements made about a product for economic gain."[20] In a recent study released by the Journal of Food Science, olive oil was the most commonly referenced adulterated food in scholarly journals from 1980 to 2010. It is also the third most frequently referenced food fraud in the media over the same period.[21]

There have also been cases in which authorities have had to remove fraudulent olive oil from the stream of commerce. In 2007, more than 10,000 cases of olive oil from storage facilities in New York and New Jersey were seized by FDA investigators and U.S. Marshals. In this case, tins that were labeled as extra virgin olive oil were found to contain a mixture of soybean oil and very low quality olive-pomace oil.[22]

In a study performed by UC Davis, using samples collected in March 2010, more than half of the "extra virgin" olive oils tested failed to meet IOC and USDA olive oil standards. The olive oils failed to meet the standards for "extra virgin" for one or more of the following reasons:

- Oxidation due to exposure to elevated temperatures, light, and/or aging;
- Adulteration with cheaper refined olive oil; or,

[20] Jeffrey C. Moore, John Spink, and Markus Lipp, "Development and Application of a Database of Food Ingredient Fraud and Economically Motivated Adulteration from 1980 to 2010," Journal of Food Science 771 no. 4 (2012) at R118.

[21] Ibid. at R121.

[22] Diane Orson, "Connecticut Puts the Squeeze on Olive Oil Fraud," National Public Radio, (December 18, 2008).

- Poor quality oil made from damaged and overripe olives, processing flaws, and/or improper storage. [23]

The frequency of failed test, which detected defective flavors such as musty and rancid oils, was more frequent with imported olive oils, where sixty-nine percent of the samples tested failed, as compared to a failure rate of only ten percent for California olive oil samples.[24] Of the imported olive oil samples that failed the sensory standards, thirty-one percent failed the IOC/USDA standards for ultraviolet (UV) absorbance.

The report also found that the IOC and the USDA chemistry standards were less successful in detecting defective extra virgin olive oils with 83 percent of the samples that failed the sensory testing also failing the German/Australian 1,2-diacylglycerol (DAGs) standard, and 52 percent failing the German/Australian pyropheophytins (PPP) standard. Two additional samples that had originally passed the sensory testing failed the DAGs and PPP tests. The report suggested that the IOC/USDA include the German/Australian 1,2-diacylglycerol (DAGs) and pyropheophytins (PPP) standards in order to be more effective at detecting and enforcing olive oil quality standards. The IOC/USDA chemistry standards detected defective extra virgin olive oils in 31 percent of the cases, while the German/Australian DAGs and PPP standards detected defective extra virgin olive oils in 86 percent of the cases.[25]

This study was followed up a year later with another round of quality testing. This time, UC Davis evaluated fewer brands but more samples from each brand. These results showed that of the five top-selling imported "extra virgin" olive oil brands sold in the United States, 73 percent of the imported samples failed the IOC sensory standards for extra virgin olive oils and 11

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[23] E.N. Frankel, R.J. Mailer, C.F. Shoemaker, S.C. Wang, J.D. Flynn, Tests Indicate that Imported "Extra Virgin" Olive Oil Often Fails International and USDA Standards, (UC Davis Olive Center, July 2010) at p. 2, *available at* http://olivecenter.ucdavis.edu/news-events/news/files/olive%20oil%20final%20071410%20.pdf.

[24] Ibid.

[25] Ibid. at p. 3.

percent of the top-selling premium brand samples failed, while none of the Australian and California samples failed.[26] Seventy-one percent of the five top-selling imported brands failed the DAGs test and 50 percent failed the PPP test, while all the California brands passed the DAGs test and 89 percent of the samples passed the PPP test. The Italian premium brand failed the DAGs and PPP tests in about one-third of the samples. [27]

These studies raise many questions regarding the fairness of the market. The majority of imported olive oil brands often have lower prices than domestically produced products with the imported premium brands selling at a higher price point. Consumers make decisions regarding which olive oil to purchase based on many reasons including price, quality, and name recognition.[28] In a consumer study performed by UC Davis, they found that a large number of consumers buy imported olive oil believing that it is of a higher quality.[29] The results from the two standards/quality tests of extra virgin olive oil showed that more than half of imported olive oils fail to meet the quality standards of both the IOC and USDA.[30] This is not to mention the additional issues, such as food allergy related issues, that could result from consumption of fraudulent products.

Consumer Reports recently held an extra virgin olive oil tastes test that reinforced the results of the quality tests performed by UC Davis. Consumer Reports purchased 138 bottles of extra virgin olive oil from twenty-three manufactures. The producing countries represented were U.S.,

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[26] E.N. Frankel, R.J. Mailer, S.C. Wang, C.F. Shoemaker, J.-X. Guinard, J.D. Flynn, N.D. Sturzenberger, Evaluation of Extra-Virgin Olive Oil Sold in California, (UC Davis Olive Center, April 2011) at p. 2, *available at* http://olivecenter.ucdavis.edu/files/report%20041211%20final%20reduced.pdf

[27] Ibid.

[28] Claudia Delgado, Jean-Xavier Guinard, "How do consumer hedonic ratings for extra virgin olive oil relate to quality ratings by exports and descriptive analysis ratings?" Journal of Food Quality and Preference 22 (2011) at p. 222.

[29] Ibid. at p. 224.

[30] Frankel, Evaluation of Extra-Virgin Olive Oil, (2011) at p. 2.

Argentina, Greece, Chile, and Italy.[31] California olive oils far out performed the other olive oils. The only two brands that received an "Excellent" ranking were from California and three of the six that were ranked "Very Good" were also from California. Surprisingly, more than half of all of the tested olive oils were reported to have tasted fermented or stale.[32]

The Chemistry Expert Group of the International Olive Council issued a rebuttal publication in regards to the UC Davis study. The statement referenced several areas in which the study did not follow the correct protocol to be statistically viable. The Chemistry Expert Group raised issues involving the small sampling size, unknown storage conditions, chemical testing methods, and sensory analyses of the study.[33] UC Davis later made a statement of its own in support of its findings. In the statement, UC Davis stated that its sample size was in fact larger statistically than sample sizes used by the IOC, UC Davis explained how the sample was stored and shipped, and UC Davis stated that the questioned testing methodologies are good measures to test the quality of olive oil. UC Davis did also state that this was just one report but stressed the importance of further investigation due to the fact that similar studies with similar results have been performed in Uruguay, Spain, Germany and Australia.[34]

This is not the only report to find labeling or adulteration issues. The Consumers and Users Organization (La Organización de Consumidores y Usuarios or OCU) of Spain released a study that resulted in similar findings. The organization performed chemical test on 40 different olive oils, 36 extra virgin and six virgin, and found that nine brands labeled their olive oil as extra

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[31] Consumer Reports, Extra-Virgin Olive Oil, (September 5, 2012) *available at* http://consumerreports.org/cro/magazine/2012/09/how-to-find-the-best-extra-virgin-olive-oil/index.htm

[32] Ibid.

[33] The Chemistry Expert Group, Statement Issued by the Chemistry Expert Group of the International Olive Council on the Report Produced by the UC Davis Olive Centre, (International Olive Council, November 11, 2010) at p. 1, *available at* http://www.internationaloliveoil.org/news/view/468-year-2010/30-statement-issued-by-the-chemistry-expert-group-of-the-ioc-on-the-report-produced-by-the-uc-davis-oli.

[34] Lori Zanteson, "Davis Olive Center Responds to IOC Criticism of Report," The Olive Oil Times, (2010) *available at* http://www.oliveoiltimes.com/olive-oil-business/north-america/davis-olive-center-responds-ioc-criticism/12855.

virgin when it was in fact virgin. The test also found that two brands had labeled lampante olive oil, which is not fit for consumption, as extra virgin. The report made the point that although the mislabeling of olive oils, in this instance, did not pose any health risks, it did cheat the consumers. It is also noted that extra virgin olive oil sells for more than one Euro per liter as compared to virgin olive oil.[35]

The pricing of altered or mislabeled olive oils not only cheats the consumer but also producers. In a study performed by UC Davis, consumers who purchased domestically produced olive oil were mainly motivated by indirect product attributes and consequences such as personal connections. The majority of consumers who purchased and consumed imported extra virgin olive oil were motivated primarily by the price more than any other reason.[36] The price differential hinders domestic olive oil producers from competing when imported olive oils are consistently priced lower.

[35] The Consumers and Users Organization (La Organización de Consumidores y Usuarios, OCU), Extra Virgin Olive Oil: Which is better? (Aceite de olive virgen extra: ¿cuál es el major?), (October 24, 2012) *available at* http://www.ocu.org/alimentacion/alimentos/informe/aceite-oliva .

[36] Metta Santosa, Jean-Xavier Guinard, "Means-end Chains analysis of extra virgin olive oil purchase and consumption behavior," Journal of Food Quality and Preference 22 (2011) at p. 315.

World Olive Oil Information

World Olive Oil Production

There are about 23 million acres of olives in the world, which produce approximately 1.4 million MT of table olives and 14.5 million MT of olives used for producing olive oil.[37] On average, 2.9 million MT of olive oil were produced annually from 2008-11 (Table 3).[38] The number of acres of olive groves and olive oil production has increased steadily since 2008. Most of the world's olive oil is produced from countries bordering the Mediterranean Sea. The largest producers, Spain, Italy, and Greece, together produced 68 percent of the world's olive oil in 2011. The Middle East, North Africa and other European countries accounted for another 31 percent while the United States, Australia, and a few South American countries accounted for one percent of the world's olive oil production in 2011.[39] Spain's percentage of the total production actually increased from 2008 to 2011 going from 38.7 percent to 43.5 percent (Table 3).

Table 3: World Olive Oil Production

	Production				Share of Total	
Country	2008	2009	2010	2011	2008	2011
	Metric Tons				Percent	
Spain	1,030,000	1,401,500	1,389,600	1,347,400	38.6	43.5
Italy	540,000	430,000	440,000	440,000	20.2	14.2
Greece	305,000	320,000	300,000	310,000	11.4	10.0
Syria	130,000	150,000	180,000	200,000	4.9	6.5
Tunisia	160,000	150,000	120,000	180,000	6.0	5.8
Turkey	130,000	147,000	160,000	180,000	4.9	5.8
Morocco	85,000	140,000	130,000	120,000	3.2	3.9
Australia	15,000	18,000	18,000	19,000	0.6	0.6
United States	3,000	3,000	3,000	6,000	0.1	0.2
Other	271,500	214,000	277,900	295,600	10.1	9.5
Total	2,669,500	2,973,500	3,018,500	3,098,000	100	100

Source: International Olive Oil Council

[37] Paul Vossen, "Olive Oil: History, Production, and Characteristics of the World's Classics Oils," HortScience Vol. 42(5) (August 2007) at p. 1094, *available at* http://hortsci.ashspublications.org/content/42/5/1093.full.pdf.

[38] International Olive Council, World Olive Oil Figures, (November 2011), *available at* http://www.internationaloliveoil.org/estaticos/view/131-world-olive-oil-figures.

[39] Ibid.

World Olive Oil Consumption

The world consumed on average about 3 million MT of olive oil per year from 2008 to 2011 (Table 4).[40] For the most part, the countries that produce the most olive oil also consume the most. Of the top five producing countries, four are also among the top five largest consumers of olive oil: Spain, Italy, Greece, and Syria. The U.S. is one of only a few countries that consume a significantly higher amount than it produces. The U.S. ranked third in olive oil consumption in 2011 consuming 277,000 MT accounting for approximately 9 percent of the world's consumption. Italy consumes the most olive oil at an average of 676,000 MT per year with Spain second, consuming an average of 555,000 MT per year (Table 4).[41] Of the countries listed, the majority of them produce a sufficient amount of olive oil to meet their consumption demands. Tunisia, however, produced about four times more than it consumed in 2011 while the United States only produced two percent of its consumption demands. Italy was the only country of the principal producing countries to consume more than it produced.[42]

Table 4: World Olive Oil Consumption

	Consumption				Share of Total	
Country	2008	2009	2010	2011	2008	2011
	Metric Tons				Percent	
Italy	710,000	675,700	660,000	660,000	25.1	21.4
Spain	533,600	539,400	555,400	592,700	18.8	19.3
United States	256,000	258,000	275,000	277,000	9.0	9.0
Greece	229,000	228,500	230,000	228,000	8.1	7.4
Syria	110,000	120,500	128,500	150,500	3.9	4.9
Turkey	108,000	110,000	115,000	125,000	3.8	4.1
Morocco	70,000	90,000	90,000	85,000	2.5	2.8
Australia	37,000	44,000	44,000	45,000	1.3	1.5
Tunisia	21,000	30,000	30,000	40,000	0.7	1.3
Other	756,900	805,900	856,100	875,300	26.8	28.3
Total	2,831,500	2,902,000	2,984,000	3,078,500	100	100

Source: International Olive Oil Council

[40] Ibid.
[41] Ibid.
[42] Ibid.

World Olive Oil Trade

Olive oil trade is a multi-billion dollar industry. The total number of exports ranged in value between $5.2 billion and $6.3 billion from 2008 to 2010 (Table 5).[43] On average, more than 1.5 million MT of olive oil is exported annually. Spain and Italy are by far the top exporters of olive oil. Spain exported more than 907,000 MT, valued at over $2.5 billion, of olive oil in 2011, while Italy exported more than 380,000 MT, valued at over $1.5 billion (Table 5).[44] Olive oil imports provide similar numbers but with some different countries. The top importers are easily Italy and the United States. Italy imported more than 600,000 MT, valued at over $1.5 billion, of olive oil in 2011, while the United States imported close to 280,000 MT, valued at over $900 million (Table 6).[45] U.S. exports may seem high because included are both domestically produced and foreign olive oils. For example, the United States exported 7,802 MT of olive oil in 2011 but only produced 6,000 MT. About one-half of U.S. olive oil exports are believed to be transshipments of foreign produced olive oil (Table 7).[46]

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[43] United Nations, Comtrade Database, *available at* http://comtrade.un.org/db/.
[44] Ibid.
[45] Ibid.
[46] Ibid.

Table 5: World Olive Oil Exports

Country	2008	2009	2010	2011
	Quantity (*metric tons*)			
Spain	702,308	718,907	907,745	N/A
Italy	336,121	326,845	380,544	402,283
Tunisia	182,518	152,586	116,713	N/A
Greece	96,041	107,949	108,062	N/A
Morocco	5,554	4,500	25,650	N/A
Turkey	19,389	31,527	20,032	13,963
Syria	45,214	19,161	17,515	N/A
United States	7,122	6,058	7,120	7,802
Australia	4,169	6,956	5,501	6,913
Other	96,486	143,724	117,707	N/A
World	1,494,922	1,518,213	1,706,589	N/A
	Value (*$1,000 US dollars*)			
Spain	$2,845,378	$2,272,060	$2,588,889	N/A
Italy	$1,715,796	$1,413,601	$1,544,995	$1,722,553
Tunisia	$648,052	$416,833	$321,237	N/A
Greece	$380,503	$339,928	$313,969	N/A
Morocco	$15,199	$13,408	$60,505	N/A
Turkey	$77	$100	$68	$52
Syria	$147,496	$65,739	$65,499	N/A
United States*	$24,150	$19,644	$20,397	$25,362
Australia	$19,581	$29,649	$21,790	$22,525
Other	$542,908	$586,024	$538,188	N/A
World	$6,339,140	$5,156,986	$5,475,537	N/A

Source: United Nations Comtrade Database

* Note: Export data includes exports of domestic and foreign goods.

Table 6: World Olive Oil Imports

Country	2008	2009	2010	2011
	Quantity (*metric tons*)			
Italy	517,266	497,201	611,505	625,213
United States	266,965	277,159	277,561	292,926
Spain	75,985	71,940	65,708	N/A
Australia	23,951	31,170	36,414	41,399
Greece	2,817	6,087	8,578	N/A
Morocco	6,637	16,916	2,522	N/A
Tunisia	2,062	3,794	610	N/A
Syria	269	1,512	92	N/A
Turkey	99	31	29	90
Other	672,931	660,057	752,633	N/A
World	1,568,982	1,565,867	1,755,652	N/A
	Value (*$1,000 US dollars*)			
Italy	$1,894,935	$1,402,485	$1,594,093	$1,681,586
United States	$1,106,609	$954,008	$933,978	$996,699
Spain	$232,362	$152,764	$135,606	N/A
Australia	$104,638	$122,945	$138,233	$118,058
Greece	$11,364	$13,606	$17,727	N/A
Morocco	$23,694	$47,970	$6,940	N/A
Tunisia	$5,454	$7,006	$1,193	N/A
Syria	$834	$3,565	$275	N/A
Turkey	$125	$52	$82	$269
Other	$2,999,905	$2,550,295	$2,730,085	N/A
World	$6,379,920	$5,254,696	$5,558,212	N/A

Source: United Nations Comtrade Database

Table 7: Breakdown of U.S. Exports by Domestic and Foreign produced

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Domestic Exports	3,879	3,357	3,706	4,218
Re-Exports	3,243	2,701	3,414	3,584
Total Exports	7,122	6,058	7,120	7,802
	Value (*$1,000 US dollars*)			
Domestic Exports	$10,610	$8,831	$8,170	$12,179
Re-Exports	$13,540	$10,813	$12,227	$13,183
Total Exports	$24,150	$19,644	$20,397	$25,362

Source: United Nations Comtrade Database

European Union Olive Oil Industry

Production and Consumption

European Union (EU) member countries supply most of the world's olive oil. Spain tops the list as the EU's largest olive oil producer, followed by Italy then Greece.[47] EU countries are responsible for 76 percent of world production[48] and 61 percent of world consumption as of 2011.[49] In Spain, 21 percent of farms specialize in olives; Greece, 29 percent; and Italy, 21 percent.[50]

Spain

Spain averaged 1.4 million MT of olive oil production in the last three years (Table 3), with Andalusia responsible for approximately 80 percent of that total (while holding 60 percent of the acreage).[51] Spain has 4.9 million acres of olive groves for the sole purpose of producing olive oil in 2010.[52] Spain's olive orchards are typically larger and more productive than olive orchards in Italy and Greece.[53]

Italy

Until the last few decades, Italy was the largest producer of olive oil and remained so until recently when Spain began to expand its olive acreage. Italy has about 2.74 million acres of

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[47] Paul Spencer, "Despite Winter Kill, Modest Rebound in EU-27 Rapeseed Production," USDA Foreign Agricultural Service (GAIN Report E70016, 12 April 2012) at p. 33, *available at* http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Oilseeds%20and%20Products%20Annual_Vienna_EU-27_4-5-2012.pdf

[48] Food and Agriculture Organization, "FAOSTAT," United Nations (September 18, 2012), *available at* http://faostat3.fao.org/home/index.html#VISUALIZE_BY_DOMAIN.

[49] International Olive Council, World Olive Oil Figures.

[50] Spencer, Modest Rebound in EU-27 at p. 33.

[51] Yolanda Montegut, et al, "The Singularity of Agrarian Cooperatives Management: Cooperatives Positioning in the Olive Oil Sector in Spain," International Journal on Business Management Vol. 6, (June 2011) at p. 17, *available at* http://www.ccsenet.org/journal/index.php/ijbm/article/download/10806/7664.

[52] Eurostat, "Olive Plantations: Number of farms and areas by agricultural size of farm and size of plantation area," European Commission (2010), available at http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home.

[53] Directorate-General for Agriculture and Rural Development, "Economic Analysis of the Olive Sector," European Commission, (July 2012) at p. 8,*available at* http://ec.europa.eu/agriculture/olive-oil/economic-analysis_en.pdf.

to the production olives for olive oil[54] with around 6,180 mills.[55] Ninety-five percent of Italian olives are produced for oil, with the remaining five percent are produced for table consumption.[56] Italy produced an average of about 536,046 MT a year of olive oil accounting for about 18 percent of the world's olive oil during the years of 2008 and 2010 (Table 3).[57] The bulk of the production, about 90 percent, comes from the regions of Southern Italy, principally: Sicily, Calabria, and Puglia.[58] On average, Italy consumes around 700,000 MT of olive oil per year, normally producing about one-half of its total annual demand. Italy supplies 55 percent of U.S. olive oil imports but a percentage of the olive oil has its origin from other olive oil producing countries.[59]

Greece

Greece has around 1.42 million acres producing olives for olive oil production, making it the country with the fourth largest amount of olive acreage.[60] Greece has around 150 million olive trees[61] with more olive varieties than any other country.[62] Greece is the third largest world producer of olive oil, producing approximately 310,000 MT of olive oil per year from 2008 to 2011 (Table 3).[63] More than 80 percent of olive oil production is of extra virgin olive oil.[64] Greece averages about 11 percent of the world's olive oil production annually, with one-half of

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[54] Eurostat, "Olive Plantations."

[55] Prosodol, Production of olive oil in the Mediterranean (Prodzione di olio di olive nel bacino del Mediterraneo), (In Italian, 2011), *available at* http://www.prosodol.gr/?q=it/node/205.

[56] Barmore, Cyndi. "Olive Oil Update", USDA FAS Gain Report (July 6, 2010) at p. 2, *available at* http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Olive%20Oil%20Update_Rome_Italy_7-6-2010.pdf.

[57] Food and Agriculture Organization, "FAOSTAT."

[58] Prosodol, Production of olive oil in the Mediterranean.

[59] United States Olive Oil Imports, Schramm, Williams & Associates, Inc.

[60] Eurostat, "Olive Plantations."

[61] Ornella Bettini, "Greece Olive Oil 2012," FAS – GAIN Report, (March 10, 2012) at p. 2, *available at* http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Greece%20Olive%20Oil%202012_Rome_Greece_6-8-2012.pdf.

[62] Prosodol, Production of olive oil in the Mediterranean.

[63] International Olive Council, World Olive Oil Figures.

[64] Bettini, "Greece Olive Oil 2012," at p. 1.

the annual production exported. The main growing areas in Greece are Peloponnese, with 65 percent of production, Crete, the Aegean, and the Ionian Islands.[65]

Exports and Imports

Spain

Spain is the largest exporter of olive oil in the world. It averages around 776,000 MT of exports a year. Spain had an exceptional year in 2010, exporting more than 900,000 MT of olive oil; valued at over $2.5 billion (Table 8).[66] Italy is the principal market for Spanish exports, averaging over 360,000 MT of imports a year. The United States receives about 57,000 MT a year making it the fourth largest importer of Spanish olive oil (Table 8).[67] Spain exports more than 12 times more olive oil than it imports annually. Spain averaged about 71,000 MT of imports a year during 2008-11, with most of its olive oil imports coming from Portugal, Italy, Tunisia, and Morocco (Table 9).[68]

Table 8: Spanish Exports by Principal Market

Market	2008	2009	2010	2011
	Quantity (*metric tons*)			
Italy	322,403	321,693	436,469	N/A
France	75,296	69,577	82,518	N/A
Portugal	77,296	76,378	79,544	N/A
United States	52,275	51,501	68,632	N/A
United Kingdom	28,998	31,857	36,050	N/A
Other	146,040	167,902	204,532	N/A
World	702,308	718,907	907,745	N/A
	Value (*$1,000 U.S. dollars*)			
Italy	$1,170,015	$903,105	$1,109,840	N/A
France	$317,734	$233,417	$197,948	N/A
Portugal	$302,263	$208,605	$214,834	N/A
United States	$214,582	$171,456	$217,854	N/A
United Kingdom	$118,693	$104,257	$105,087	N/A
Other	$722,091	$651,220	$743,326	N/A
World	$2,845,378	$2,272,060	$2,588,889	N/A

Source: United Nations Comtrade Database

[65] Ibid at p. 2.
[66] United Nations, Comtrade Database.
[67] Ibid.
[68] Ibid.

Table 9: Spanish Imports by Principal Sources

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Portugal	12,090	22,921	17,441	N/A
Italy	13,276	23,660	14,750	N/A
Tunisia	35,157	9,136	9,965	N/A
Morocco	1,351	1,888	7,325	N/A
Other	14,111	14,335	16227	N/A
World	75,985	71,940	65,708	N/A
	Value (*$1,000 U.S. dollars*)			
Portugal	$33,611	$47,318	$38,252	N/A
Italy	$34,738	$57,102	$32,858	N/A
Tunisia	$121,433	$25,176	$25,070	N/A
Morocco	$2,553	$2,170	$16,283	N/A
Other	$40,027	$20,998	$23,143	N/A
World	$232,362	$152,764	$135,606	N/A

Source: United Nations Comtrade Database

Italy

Italy is the second largest global exporter of olive oil, averaging around 360,000 MT of exports annually during 2008-11 (Table 10). In 2011, Italy exported over 400,000 MT valued at about $1.72 billion.[69] The United States is by far Italy's top export country importing more than 120,000 MT in 2011. Germany was the next largest importer but received significantly less at about 45,000 MT in 2011.[70] Italy is also the largest importer of olive oil, averaging around 560,000 MT a year in imports (Table 11). In 2011, Italy imported over 625,000 MT of olive oil valued at around $1.68 billion.[71] The top two exporters to Italy in 2011 were Spain, with 446,281 MT, and Greece, with 115,000 MT in 2011 (Table 11).[72]

[69] Ibid.
[70] Ibid.
[71] Ibid.
[72] Ibid.

Table 10: Italian Exports by Principal Markets

Market	2008	2009	2010	2011
	Quantity (*metric tons*)			
United States	119,707	106,410	116,032	126,130
Germany	36,515	37,703	41,147	45,039
United Kingdom	21,818	19,672	20,896	19,476
France	22,855	24,851	29,165	32,744
Canada	17,679	17,603	25,143	23,871
Other	117,548	120,606	148,162	155,023
World	336,121	326,845	380,544	402,283
	Value (*$1,000 U.S. dollars*)			
United States	$600,953	$457,031	$481,630	$539,574
Germany	$209,242	$182,650	$185,625	$213,934
United Kingdom	$109,118	$84,468	$82,896	$81,699
France	$113,727	$108,332	$123,356	$146,229
Canada	$90,750	$73,816	$96,965	$99,070
Other	$592,006	$507,304	$574,523	$642,046
World	$1,715,796	$1,413,601	$1,544,995	$1,722,553

Source: United Nations Comtrade Database

Table 11: Italian Imports by Principal Sources

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Spain	319,060	318,002	444,393	446,281
Greece	78,664	93,557	101,069	115,002
Tunisia	101,953	72,248	52,217	40,974
Morocco	334	1,507	4,457	8,429
Portugal	1,798	1,955	3,172	6,502
Other	15,458	9,933	6,197	8,024
World	517,266	497,201	611,505	625,213
	Value (*$1,000 U.S. dollars*)			
Spain	$1,174,225	$895,575	$1,160,527	$1,205,278
Greece	$282,059	$264,297	$251,371	$298,848
Tunisia	$373,864	$201,689	$144,325	$112,519
Morocco	$1,123	$4,548	$10,407	$20,279
Portugal	$6,379	$6,765	$9,351	$20,684
Other	$57,285	$29,611	$18,112	$23,976
World	$1,894,935	$1,402,485	$1,594,093	$1,681,586

Source: United Nations Comtrade Database

Greece

Greece is the third largest global exporter of olive oil. It averaged around 104,000 MT a year during 2008-11, with the majority of exports going to Italy (Table 12).[73] In 2010, Greece exported 108,000 MT of olive oil valued at $314 million. Of those total exports, 74,000 MT,

[73] Ibid.

valued at $180 million, went to Italy; about 3,500 MT were exported to the United States.[74] Greece's imports are significantly lower, averaging about 5,800 MT annually from 2008 to 2010 (Table 13).

Table 12: Greece Exports by Principal Markets

Market	2008	2009	2010	2011
	Quantity (*metric tons*)			
Italy	62,761	70,952	73,807	N/A
Germany	4,841	4,457	7,033	N/A
United States	3,547	3,747	3,477	N/A
Canada	2,324	2,365	2,548	N/A
Australia	876	1,282	1,305	N/A
Spain	6,161	9,342	4,051	N/A
Other	15,531	15,804	15,841	N/A
World	96,041	107,949	108,062	N/A
	Value (*$1,000 U.S. dollars*)			
Italy	$236,397	$204,795	$179,953	N/A
Germany	$24,462	$22,891	$27,634	N/A
United States	$19,077	$16,699	$16,339	N/A
Canada	$13,224	$11,014	$11,243	N/A
Australia	$4,877	$5,588	$5,558	N/A
Spain	$11,996	$9,170	$4,381	N/A
Other	$70,471	$69,771	$68,861	N/A
World	$380,504	$339,928	$313,969	N/A

Source: United Nations Comtrade Database

Table 13: Greece Imports by Principal Sources

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Italy	1,763	4,282	3,167	N/A
Spain	846	1,052	3,300	N/A
Other	208	753	2,111	N/A
World	2,817	6,087	8,578	N/A
	Value (*$1,000 U.S. dollars*)			
Portugal	$6,007	$9,682	$6,415	N/A
Italy	$3,228	$2,808	$8,133	N/A
Other	$2,129	$1,116	$3,179	N/A
World	$11,364	$13,606	$17,727	N/A

Source: United Nations Comtrade Database

[74] Ibid.

EC and Member States Government Programs

European Commission Programs

The European Commission operates under the Common Agricultural Policy (CAP), which provides federal support to olive growers and olive oil processors for domestic purposes.[75] In 2003, the EC reformed its direct support to farmers by introducing the Single Payment Scheme (SPS).[76] Previously, direct support was directly linked to specific productions, such as olive oil. The SPS was designed to decouple direct support from any one particular production and instead, make direct support a single annual payment based on the value of the payment entitlements held by the farmer. The objective of the SPS is to give farmers the freedom to produce according to market demands while guaranteeing them a more stable income, independent for what and how much they produce. The payment entitlements are allocated to active farmers that meet specific requirements.[77] The SPS went into effect in 2005 and member states were given until 2012 make the full transition.[78] Member states have flexibility in applying the SPS and the exact details of implementation vary from one member state to another.

The SPS makes it harder to determine exactly where and how much the direct supports are benefiting specific industries such as olive oil. Many olive growers in the EU grow a variety of crops on their fields, making it hard to calculate the exact amount going to their olive production. That does not mean that the olive growers and olive oil producers are not receiving direct support from the EC. In 2010, the EU gave close to €30 billion to member states involved with the SPS program. For 2011 and 2012, the budget allocated over €30 billion to SPS

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[75] European Commission, "Council Regulation No 73/2009," Official Journal of the European Union (January 19, 2009) *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:030:0016:0016:EN:PDF.

[76] European Commission, "Council Regulation No 1782/2003," Official Journal of the European Union (September 29, 2003) at Title III, *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:270:0001:0069:EN:PDF.

[77] Ibid at Art. 33.

[78] Ibid at Intro.

payments.[79] EC Regulation 73/2009 gives a better picture as to how this money is being distributed. The regulation stipulates a maximum subsidy allocation for each member state. From 2009 to 2012, Spain's maximum subsidy allocation averaged approximately €5 billion, Italy's maximum subsidy allocation averaged approximately €4.15 billion, and Greece's maximum subsidy allocation averaged approximately €2.4 billion (Table 14).[80] As stated before, the transition to a single payment scheme was a slow transition. Many countries were allowed to receive direct payment subsidies on certain commodities. Spain and Cyprus are the only two countries that still receive aid specifically for olive groves. Spain currently receives over $134 million in aid annually for its olive groves, in addition to the direct support Spain receives from SPS; Spain currently has the third largest maximum subsidy allocation in the EU, followed by Italy.[81]

Apart from the single payment scheme, the EC still provides other forms of direct government aid. The EC's General Budget shows additional direct aid going to olive groves under title 5: Agriculture and rural development; however, the actual recipients of this direct aid are unclear, but in 2009[82] and 2010,[83] the budgets showed that more than €97 million was given. However, the appropriated amounts for 2011 and 2012 are dramatically lower showing approximately €3 million.[84] Additional funds were also given under what the EC defines as interventions in agricultural markets. In total, more than €53 million were given in the form of

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[79] European Union, "General Budget of the European Union for the financial year 2012", Official Journal of the European Union, June 15 2011, at Ch. 05 03, *available at* http://eur-lex.europa.eu/budget/data/DB2012/EN/SEC03.pdf.

[80] European Commission, "Council Regulation No 73/2009," at Annex IV

[81] Ibid at Annex XII.

[82] European Union, "General Budget of the European Union for the financial year 2011," Official Journal of the European Union, (15 March 2011) at Ch. 05 03 02, *available at* http://eur-lex.europa.eu/budget/data/DB_2011/EN/GenRev.pdf.

[83] European Union, "General Budget 2012," at Ch. 05 03 02.

[84] Ibid.

governmental aid in agricultural markets to the European olive oil industry in 2010.[85] The appropriations for 2011 and 2012 are on track to being about the same as 2010. The majority of the money spent on olive oil under interventions in agricultural markets was on quality improvement. In 2010, more than €45 million were given to the olive oil industry for quality improvement while the appropriations for 2011 and 2012 were €48 million.[86]

Table 14: European Common Agricultural Policy Maximum Subsidy Allocation

Country	2009	2010	2011	2012
	Ceiling Totals(*EUR million*)			
Austria	727.6	722.4	718.8	715.5
Belgium	583.2	575.4	570.8	569.0
Cyprus				49.1
Czech Republic				825.9
Denmark	987.4	977.3	968.9	964.3
Estonia				92.0
Finland	550.0	544.5	541.4	539.2
France	8,064.4	7,943.7	7,876.2	7,846.8
Germany	5,524.8	5,445.2	5,399.7	5,372.2
Greece	2,561.4	2,365.1	2,358.9	2,343.8
Hungary				1,204.5
Ireland	1,283.1	1,272.4	1,263.8	1,255.5
Italy	4,345.9	4,147.9	4,121.0	4,117.9
Latvia				133.9
Lithuania				346.7
Luxembourg	35.6	35.2	35.1	34.7
Malta				5.1
Netherlands	836.9	829.1	822.5	830.6
Poland				2,787.1
Slovakia				357.9
Slovenia				131.5
Spain	5,018.3	5,015.5	4,998.3	5,010.3
Sweden	733.1	726.5	721.1	717.5
United Kingdom	3,373.1	3,345.6	3,339.6	3,336.1

Source: Council Regulation (EC) No 73/2009 Annex IV

In 2008, the European Union established common rules for agricultural markets for specific commodities including olive oil.[87] In particular, these rules concern public intervention

[85] Ibid at Ch. 05 02 06.

[86] Ibid.

[87] European Commission, "Regulation No. 1234/2007," Official Journal of the European Union (October 22, 2007), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:299:0001:0001:EN:PDF.

in the markets, quota and aid schemes, marketing and production standards, and trade with countries outside the EU. The common organization of agricultural markets redefined the role of the EU in market intervention in particular storage aid for olive oil. According to Council Regulation 1234/2007, the EU can provide aid for PSA's if there are serious disturbances on the market in a certain region or if the average price for one or more products are reported to being lower than the predetermined prices during a period not less than two weeks (Table 15).[88]

In October 2010, private storage aid for up to 100,000 MT of virgin olive oil for six months was awarded to Spain.[89] This was provided to about 500,000 producers and 1,700 mills.[90] The original proposal requested private storage for 200,000 MT of olive oil for eight months. Producers would have received $1.87 per ton per day, which would have cost the EU a total of $18.7 million.[91] However, because only 44,338 MT were stored, the price of virgin olive oil in Spain again dropped below the desired price point, forcing more storage subsidies in February.[92] In 2011, the EC opened private storage aid (PSA) twice for virgin olive oil. In February 2011, they again voted to store 100,000 MT of olive oil with a subsidy of $26.5 million for 150 days.[93] In May 2011, the EC approved another proposal to store an additional 100,000 MT of olive oil, an offer that was available to all members of the EU producer countries namely Spain, Italy, Greece, France, Cyprus, Malta, Portugal, and Slovenia.[94] According to the General Budget of the EU, the EC gave almost €8 million to olive oil producers to store olive oil in 2010.

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[88] Ibid at Art. 33.

[89] Julie Butler, "Spanish Watchdog says Private Storage Aid Potentially Anti-Competitive," Olive Oil Times (April 17, 2011), *available at* http://www.oliveoiltimes.com/olive-oil-business/europe/spanish-watchdog-private-storage-anti-competitive/14851.

[90] Ibid.

[91] Ibid.

[92] Ibid.

[93] Spencer, Modest Rebound in EU-27, at p. 33.

[94] Agriculture and Rural Development Press Release, "Two Private Storage Aid Tenders to Be Opened for Olive Oil," European Commission (May 21, 2012), *available at* http://ec.europa.eu/agriculture/newsroom/79_en.htm.

The exact amounts for 2011 and 2012 are not known but they are predicted to be about the same level as 2010. [95]

On September 30, 2012, the Olive Oil Agency of Spain issued a news release stating how much carry over stock they had of olive oil from 2011. Spain had 690,800 MT of olive oil in stock, an increase of 46 percent from last season; of that total, 519,300 MT are being stored in mills, a 54 percent increase from the previous year, and 171,500 MT are being stored in packing plants, refineries and other operators. The European Commission had approved 102,300 MT of virgin and extra virgin olive oil for private storage; therefore, lowering the available volume of olive oil in Spain to 588,500 MT. [96]

Table 15: EU Private Storage Aid

Type of Olive Oil	Lowest Average Price (€/MT)
Extra Virgin Olive Oil	1,779
Virgin Olive Oil	1,710
Lampante Olive Oil	1,524

Source: EC Regulation 1234/2007

Yet another source of governmental aid can be found in producer organizations (POs). The EU has established producer organizations to assist in the distribution and marketing of products and promote their higher quality. [97] Recognized POs are allowed to set up funds to help finance their operational programs. Funding for these programs is given by contributions of its members and by EU financial assistance. The EU financial assistance is usually limited to 50 percent of the total fund, but it may be increased to 60 percent in specific cases. Where producers have not formed organizations, national governments may provide funding, which

[95] European Union, "General Budget 2012," at Ch. 05 02 06.

[96] The Olive Oil Agency, "Market Information of Olive Oil and Table Olives (In Spanish)," Spain's Ministry of Agriculture, Food and Environment, (September 30, 2012) *available at* http://aplicaciones.magrama.es/pwAgenciaAO/Noticias.aao?opcion_seleccionada=80&idioma=ESP&numPagina=80&idnoticia=164.

[97] European Commission, "Fruit and Vegetables: Producer Organizations," Agriculture and Rural Development, accessed November 09, 2012 *available at* http://ec.europa.eu/agriculture/fruit-and-vegetables/producer-organisations/index_en.htm.

may be partially reimbursed by the EU.[98] In certain regions, transitional support is also given to encourage producers to form producer groups (PGs), to cover administration costs and the investments needed to attain recognition as producer organizations. The funding for these groups may be partially reimbursed by the EU. It ceases once the PG is recognized as a PO.[99]

The EU also has the same relationship with professional organizations. Like producer organizations, the EU will finance up to 50 percent of the cost of an approved professional organization program.[100] The professional organizations send their proposal to their member state who then forwards it on to EC. These programs primarily deal with providing information on or promoting products and food on the EU single market and in countries outside the EU. On November 14, 2012, the EC issued a news release stating that it would give €2.59 million to a Greek professional organization.[101]

Member states are responsible for managing most of the CAP funds they receive, including verifying farmer's claim for direct payments. The EC carries out regular audits and can claim back funds if the states cannot prove the funds were spent properly. In April of 2011, the EC claimed back €70.96 million from Spain for irregularities in payments for harvests from 2003-2006.[102] The EC also claimed back €137.23 million from Greece for ineligible expenditure and major shortcomings in the olive cultivation Geographical Information System (GIS) and on-the-spot controls.[103] On September 7, 2012, the EC again issued a press release announcing that the CAP will recover its funds given to member nations for non-compliance with EU rules or

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[98] Ibid.

[99] Ibid.

[100] European Commission – Press Release, €27.15 Million EU Support for the Promotion of Agricultural Products in the European Union and in Third Countries (November 14, 2012) available at http://europa.eu/rapid/press-release_IP-12-1211_en.htm.

[101] Ibid.

[102] European Commission – Press Release, Commission to recover €530 million of CAP expenditure from the Member States (April 15, 2011), *available at* http://europa.eu/rapid/press-release_IP-11-476_en.htm.

[103] Ibid.

inadequate control procedures on agricultural expenditures involving olive oil. Italy was charged with €28 million for deficiencies in calculation of entitlements and for deficiencies in integration of the olive oil sector into Single Payment Scheme (SPS) for the years 2007 to 2010.[104] The auditing report that determined Italy's non-compliance stated that Italy was only partially compliant with the requirements of SPS; namely, protection of the environment, public health, animal and plant health, animal welfare and to the maintenance of agricultural land in good agricultural and environmental condition.[105] In February 2012, Italy was also charged €21.5 million for the weakness in the controls of mills and compatibility of yields for olive oil in respect of financial years 2005-2006.[106]

Member States Government Programs

Member states in the EC still maintain their own set of programs to assist certain crops when needed.[107] Every member country was given a maximum subsidy allocation amount that they could give to their agricultural sectors. From 2009 to 2012, Spain could allocate about €5 billion, Italy could allocate about €4.2 billion, and Greece could allocate €2.2 billion (Table 16).[108] In addition, member countries were allowed to direct a certain amount to commodities of their choosing for improvement purposes. For 2010 and 2011, Italy allocated €9 million each

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[104] European Commission – Press Release, Commission to recover € 215 million of CAP expenditure from the Member States (September 7, 2012), *available at* http://europa.eu/rapid/pressReleasesAction.do?reference=IP/12/944&format=HTML&aged=0&la\nguage=EN&guiLanguage=en.

[105] European Commission, "Commission Implementing Decision," Official Journal of the European Union (September 6, 2012) at p. 6, *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:244:0011:0026:EN:PDF.

[106] European Commission – Press Release, Commission to recover € 54.3 million of CAP expenditure from the Member States (February 16, 2012), *available at* http://europa.eu/rapid/pressReleasesAction.do?reference=IP/12/142&format=HTML&aged=0&language=EN&guiLanguage=en.

[107] European Commission, Regulation No. 73/2009.

[108] Ibid. at Annex VIII.

year to the improvement of the quality of its olive oil industry, while Greece allocated €10 million each year.[109]

Table 16: Maximum National Subsidy Allocations by Country

Country	2009	2010	2011	2012
	Ceiling Totals (*EUR 1,000*)			
Austria	745,561	745,235	745,235	751,606
Belgium	614,179	611,805	611,805	614,855
Bulgaria	287,399	336,041	416,372	499,327
Cyprus	31,670	38,928	43,749	49,146
Czech Republic	599,622	654,241	739,941	832,144
Denmark	1,030,478	1,030,478	1,030,478	1,049,002
Estonia	60,500	71,603	81,703	92,042
Finland	566,801	565,520	565,520	570,548
France	8,407,555	8,420,822	8,420,822	8,521,236
Germany	5,770,254	5,771,977	5,771,977	5,852,908
Greece	2,380,713	2,211,683	2,214,683	2,232,533
Hungary	807,366	947,114	1,073,824	1,205,037
Ireland	1,342,268	1,340,521	1,340,521	1,340,869
Italy	4,143,175	4,207,177	4,227,177	4,370,024
Latvia	90,016	105,368	119,268	133,978
Lithuania	230,560	271,029	307,729	346,958
Luxembourg	37,518	37,536	37,646	37,671
Malta	3,752	4,231	4,726	5,137
Netherlands	853,090	853,090	853,090	897,751
Poland	1,877,107	2,192,294	2,477,294	2,788,247
Slovakia	240,014	280,364	316,946	355,242
Slovenia	87,942	103,389	117,406	131,537
Spain	4,858,043	5,091,044	5,108,650	5,282,193
Sweden	763,082	763,082	763,082	770,906
United Kingdom	3,985,895	3,975,916	3,975,973	3,988,042

Source: Council Regulation (EC) No 73/2009 Annex VIII

In June 2011, the Andalusia government approved €40 million in short-term loans so the producers were not selling below costs.[110] Andalusia is Spain's primary source of its olive oil. Andalusia's Minister of Agriculture and Fisheries has stated that she would fight to ensure that the current level of EC subsidies continue after 2013. Andalusia received about $1.18 billion in overall subsidies from the EC in 2010. These CAP payments are around 40 percent of the

[109] Ibid. at Art. 68.

[110] EFEAGRO, Olive Oil Will Receive an Injection of 40 Million Euros (El aceite de oliva recibirá una inyección de 40 millones de euros), (June 16, 2012), *available at* http://81.25.115.131/especiales/la-agroalimentacion-en-andalucia/el-aceite-de-oliva-recibira-una-inyeccion-de-40-millones-de-euros/20-16-1551003-53.html.

income of olive oil producers.[111] In addition to the aid from the EC, the Spanish government also provides aid to its olive oil industry. In a 2012 session of the Spanish House of Representatives, the Minister of Agriculture, Food, and Environment, Arias Cañete, stated that the Spanish government is currently aiding the olive oil industry by €1.03 billion or about $1.33 billion, equivalent to about €468 or about $604 per hectare.[112]

EU Action Plan

On June 18, 2012, the European Commission issued an action plan for the EU olive oil sector. In the action plan, the Commissioner of Agriculture and Rural Development, Dacian Cioloş, stated that the structure of the industry is preventing olive producers from achieving the full value of their production. The action plan was designed to create a more balanced market by focusing on improving the quality and control of the olive oil industry, primarily through improving both the public image of the EU olive oil industry and consumer protection and information, and strengthen the industry through CAP reforms and stakeholders.[113] In order to improve in these areas, the action plan suggests ways to improve in the following key areas:

- Quality and control;
- Restructuring the sector;
- Structure of the industry;
- Promotion;
- International Olive Council; and
- Competition with countries outside the EU.[114]

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[111] Ibid.

[112] La Moncloa, Arias Cañete, Spain's Minister of Agriculture, stresses "The Failure of the Socialist Government's Negotiations on the Oil Sector." (February 22, 2012). *available at http://www.lamoncloa.gob.es/serviciosdeprensa/notasprensa/ministerioagriculturaalimentacionmedioambiente/2012/ntpr20120222_aceite.htm*.

[113] European Union, "Action Plant," at p. 2.

[114] Ibid.

Trade Practices

EU import tariffs for olive oil are significantly higher than U.S. olive oil tariffs. EU olive oil tariffs range between $1.41 and $2.05/kg net wt. (Table 17). While these duties are applied generally to all non-EU countries, several key Mediterranean producers of olive oil have reduced or no tariff when exporting to Europe.

Table 17: EU Olive Oil Tariff Rates

HTS #	Tariff Rate
1509.10	
EU	
1509.10.10	$1.57/kg net wt
1509.10.90	$1.59/kg net wt
1509.90	
EU	
1509.90	$1.72/kg net wt
1510.00	
EU	
1510.00.10	$1.41/kg net wt
1510.00.90	$2.05/kg net wt

Sources: U.S. International Trade Commission and the Official Journal of the European Communities
Note: European Tariff rate has been converted into dollars using the exchange rate of $1 to €0.783.

Morocco, Euro-Mediterranean Agreement, gradually received increased marketing access through the reduction of tariff beginning in March 2000. Later, under the opuses of the EU-Morocco Association Council, the two further liberalized agriculture trade eliminating all import duties on olive oil from Morocco.[115]

Euro-Mediterranean Agreement, which includes Tunisian exports of olive oil, provides duty-free access from Tunisia to the EU in the form of a tariff rate quota (TRQ) of 56,700MT of olive oil (HS 1509.10.10 and 1509.10.90).[116] The access to export duty-free under the TRQ is

[115] European Commission, "Council Decision 2012/497/EU," Official Journal of the European Union (March 8, 2012), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:241:0002:0003:EN:PDF.

[116] European Commission, "Commission Regulation (EC) No 1918/2006," Official Journal of the European Union, (December 20, 2006), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:365:0084:0085:EN:PDF.

managed through and import licensing system. The licensing system limits what can be imported for each month of the year, beginning January 1 of each year. The following is the monthly import limit, which cannot exceed 56,700MT for duty-free access in any given year:

- 1,000 ton for each month of January and February;
- 4,000 ton for the month of March;
- 8,000 ton for the month of April;
- 10,000 ton for each month from May to October.

Turkey, like Morocco, also has an Association Council, EC-Turkey Association Council. In 2006, the association chose to liberalize market access for certain agriculture products. As such, olive oil under HS 1509.10.10 and 1509.10.90 has a duty of $1.41/kg and $1.43/kg, respectively.[117] For olive oil under the HS 1509.90, the duty rate was reduced to $1.63/kg. The agreement of the council equates to 10 percent reduction for HS 1509.10 and a 5 percent reduction for HS 1509.90 from the general duty listed in Table 15 above. In addition to the reduced duty for olive oil imports from Turkey, Europe has provided Turkey with 100MT in quota tariff rate of 7.5 percent.[118]

Trade Disputes

Mexico has enacted countervailing duties against the importation of EU olive oil claiming that the European Commission's subsidies on olive oil create an unfair trade advantage. In 2005, Mexico investigated and proved that the European Commission's subsidies on olive oil were creating an unfair advantage for EU olive oil competing against Mexico's domestically

[117] European Commission, "Commission Regulation (EC) No 2008/97," Official Journal of the European Union (October 9, 1997), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1997:284:0017:0019:EN:PDF.

[118] European Commission, "Commission Regulation (EC) No 1712/2006," Official Journal of the European Union (November 20, 2006), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:321:0007:0010:EN:PDF.

produced olive oil.[119] Mexico placed countervailing duties to help level the playing and give its domestic product a chance. In 2006, the EU filed a trade dispute with the WTO on the countervailing duties imposed by Mexico. The WTO dispute panel, which included China, Japan, Norway, and the United States, concluded that Mexico was in fact in violation of three provisions of the WTO Subsidies and Countervailing Measurers Agreement (SCM). Those provisions were that the Mexican investigation exceeded the set time limit of 18 months, that Mexico failed to disclose sufficient non-confidential summaries, and finally, that Mexico was wrong to use trade data gathered over nine-month intervals, rather than full year statistics, when determining the level of injury it had suffered because of EU subsidies. Mexico lost the case solely on procedural issues. Mexico's findings on the unfair trade advantage of the EC's subsidies were never officially disputed.[120]

Cost of Production

Spain

Types of Cultivations

Spanish olive growers utilize two different cultivation types in their olive production: Traditional and high density. Traditional cultivation consists of orchards where the olive trees are placed several feet apart. These fields usually have a density of about 80 to 100 trees per hectare.[121] They are also usually found in rain fed areas, although some of them are now irrigated. They have a medium to low yield of olives of approximately 2,000 to 4,000 kg per hectare. The average tree age of these orchards is about 25 years. There are two types of

[119] Diario Oficial de la Federación, Final Resolution of the Investigation for Subsidized Prices for Imported Olive Oil (Resolución final de la investigación por subvención de precios sobre las importaciones de aceite de oliva virgin) (August 1, 2005), *available at* http://dof.gob.mx/nota_detalle.php?codigo=2088419&fecha=01/08/2005.

[120] WTO Rules against Mexico in Olive Oil Dispute with EU, International Centre for Trade and Sustainable Development (September 10, 2008), *available at* http://ictsd.org/i/news/bridgesweekly/29043/.

[121] Aproximación a los Costes del Cultivo del Olivo (Approximate Cost of Olive Cultivation), Asociación Española de Municipios Del Olivo (Spanish Association of Olive Communities), (Córdoba, June 2010) *available at* http://www.aemo.es/get.php?pathext=descargas/Costes_AEMO.pdf.

traditional orchards: those that can be harvest mechanically and those that cannot. High-density orchards have a very high density of trees per hectare; usually between 200 to 2,000 trees per hectare. They typically are irrigated and produce a higher yield of olives than traditional orchards, averaging between 8,000 and 12,000 kg per hectare.[122] These fields use modern harvesting machines to help them harvest. These fields can be even further divided into two groups: High density (200 – 600 trees/ha) and Super-high density (1,000 – 2,000 trees/ha).[123]

The type of cultivation has a dramatic impact on the price of production and, perhaps surprisingly, the most cost effective means of cultivation is used much less frequently in Spain. The most common type of field found in Spain is the traditional harvested mechanically.[124] In 2009, Spain had 1,280,000 hectares of this type of field (Table 18), which accounted for more than half of the total olive orchards in Spain.[125] High-density fields only accounted for about a quarter of the orchards and the traditional non-mechanically harvested orchards for the other quarter (Table 18).[126]

Table 18: Olive Orchard Types in Spain, 2009

Cultivation System	Land (*Hectares*)	Percentage of total land (*Percent*)
Traditional no Mechanization (TNM)	575,000	24
Traditional Mechanization (TM)	1,280,000	52
High Density (HD)	550,000	22
Super-High Density (SHD)	45,000	2
Total	2,450,000	100

Source: Asociación Española de Municipios Del Olivo (Spanish Association of Olive Communities)

First Year Costs for High-Density and Super-High Density Orchards

All newly planted orchards are either high density or super-high density. Super-high density orchards cost more in the first year but will eventually produce more olives in future

[122] Ibid.
[123] Ibid.
[124] Ibid.
[125] Ibid.
[126] Ibid.

years. The total cost of the first year for high-density orchards is €3,396 (Table 19), while the total cost of the first year for super-high density orchards is €8,677 (Table 20).[127]

Table 19: Implantation Costs of a High-Density for First-Year Orchard in Spain, 2009

Operations	Cost (€/Ha)
Preparation of the Land	148.9
Plantation of the Olives **[plantation of?]**	816.20
Installation of the Irrigation System	1,950.00
Total Initial Investment	2,915.10
Operations Cost for the First Year	481.30
Total Cost per Ha for the First Year	3,396.40

Source: Asociación Española de Municipios Del Olivo (Spanish Association of Olive Communities)

Table 20: Implantation Costs of a Super-High Density Orchard for the First Year in Spain, 2009

Operations	Cost (€/Ha)
Preparation of the land	150
Plantation of the olives	4,000
Installation of the irrigation system	2,300
Olive Tree	1,100
Total initial investment	7,550
Operations cost fist year	1,127
Total cost per Ha for the first year	8,677

Source: Asociación Española de Municipios Del Olivo (Spanish Association of Olive Communities)

Cost of production

There is a significant difference in production costs for older versus newer orchards. Once, the orchard has matured, most of the cost of production goes toward maintenance of the land and harvesting the crop. In 2009, the high-density irrigated orchards had the lowest cost per kg of olive oil, averaging €1.29 per kg of olive oil, followed by super-high density, averaging €1.32 per kg of olive oil (Table 21).[128] The traditional orchards have considerably higher costs of production, averaging about €1.97 per kg of olive oil for irrigated crops and can be higher depending if the orchards are mechanically harvested or irrigated (Table 21).[129] From this information, it is surprising that the traditional cultivation system is still the most frequently used in Spain.

[127] Ibid.
[128] Ibid.
[129] Ibid.

Table 21: Total Cost of Olive Oil Production in Spain, 2009

Cultivation System	Total Cost per Hectare (€)	Average Production of Olive (kg)	Cost of Olive Oil per KG
Traditional no Mechanization	1,023	1,750	3.06 €
Traditional Mechanization Non-irrigated	1,448	3,500	2.20 €
Traditional Mechanization Irrigated	2,197	6,000	1.97 €
High Density Non-irrigated	1,528	5,000	1.66 €
High Density Irrigated	2,305	10,000	1.29 €
Super-High Density	2,366	10,000	1.32 €

Source: Asociación Española de Municipios Del Olivo (Spanish Association of Olive Communities)

High density provides the lowest cost per kg of olive and thus per kg of olive oil. The average cost of production for irrigated High Density Olive Orchards was further broken down by years (Table 22) and maintenance cost per hectare (Table 23).[130] High Density orchards take a large amount of investments before any profit can be made. The initial investment is around €10,752 per Ha. The first year that produces a profit is not until year 3.

[130] Valseco, Modern High-Density Olive Cultivation (Olivar Moderno Cultivo Intensivo), (August 2009) available at http://www.valseco.com/descargas/OLIVO_ES.pdf.

Table 22: Average Cost for Irrigated High Density Olive Orchard in Spain, 2009

Income: High Density Olive Orchard w/ Arbequina and Chiquita varieties	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6-9
Expected Production per tree	-	-	-	6	7	8	9
Expected Production per Ha	-	-	-	7,500	8,750	10,000	11,250
Total Expected Production	-	-	-	187,500	218,750	250,000	281,250
Predicted Sale Price (Euros/Kg)	0.45	0.45	0.45	0.45	0.45	0.45	0.45
Value of the Harvest (Euros)	-	-	-	84,375	98,438	112,500	126,563
Total Revenue of Production Sales	-	-	-	**84,375**	**98,438**	**112,500**	**126,563**

Investment (Euros)	
Projects and Studies	**105**
Study and Design	60
S.I.S. Soil Study	
Standard Soil Study	45
Irrigation Installation	**2,500**
Overhead Irrigation Install	
Surveys and water Harvest	
Pump set	
Filtration Head	
Fertirrigation	
Planting	**Euros per Ha**
Preparatory Work	250
Organic Amendment	120
Preparing the ground, Refined	50
Plant Tagging	438
Opening the Grooves	438
Plant Vitro >50 cm	2,813
Protector	375
Tutors	975
Planting and Staking work	2,688
Average price per Ha	**8,147**
Total Investments	
Total investment per Ha	**10,752**
Total Investment	**268,800**

Maintenance Expenses							
Total Maintenance Cost	-	39,375	39,375	39,375	50,625	50,625	50,625
Balance:							
Income-maintenance costs-investments	**268,800**	**39,375**	**39,375**	45,000	47,813	61,875	75,938
Income – expenses per hectare	**10,752**	**1,575**	**1,575**	1,800	1,913	2,475	3,038

Source: Valseco

Table 23: Average Maintenance Cost of Irrigated High Density Olive Orchard in Spain, 2009

Euros/Ha	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6-9
Pesticides, fertilizers, herbicides and fert.	325	325	325	325	325	325
Irrigation Facilities Maintenance	125	125	125	125	125	125
Pruning and Trellising Training	255	255	255	255	255	255
Tillage	180	180	180	180	180	180
Clearing and Shredding the Prunings	120	120	120	120	120	120
Energy Consumption and Irrigation Canon	495	495	495	495	495	495
Direction and Technical Assistance	75	75	75	75	75	75
Nutritional Management	-	-	-	150	150	150
Harvesters and Harvesting Costs	-	-	-	300	300	300
Total Maintenance Costs per Ha	**1,575**	**1,575**	**1,575**	**2,025**	**2,025**	**2,025**
Total Maintenance Costs	**39,375**	**39,375**	**39,375**	**50,625**	**50,625**	**50,625**

Source: Valseco

Middle East and North Africa Olive Oil Industries

Production

Morocco

Like Spain, Italy and Greece, Morocco's mild winters and warm, dry summers make it ideal for growing olives. The majority of the olives are grown in the north, primarily along the coastline.[131] Morocco's presence in the world olive oil market has been growing dramatically over the last decade and it is now the world's seventh largest producer (Table 3).[132] Morocco has around 1.8 million acres currently in production and is predicted to have around 3.2 million acres by 2020. It is estimated that this increase in acreage will enable Morocco to produce about 300,000 MT a year by 2020.[133]

Morocco's olive oil production is largely done by a small number of large-scale processors who process and package olive oil for the domestic and export markets. These processors source olives from their own olive trees and through contracts with multiple olive producers. The majority of Moroccan olive oil producers incur a large time lapse between harvest and processing. The processing plants are either a great distance away from olive orchards, or since all the olives are harvested at the same time, there is a long wait for the farmers to have their olives processed into oil. Morocco largest source of new investment is projected for the processing side. The Millennium Challenge Corporation (MCC) and the Plan Maroc Vert are currently working to encourage new investors to build larger processing plants

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[131] Millennium Challenge Corporation, Invest in Morocco: Your Investment Opportunity Moroccan Olive Oil, (September 26, 2012) at p. 5, *available at* http://www.mcc.gov/documents/investmentopps/bom-morocco-english-oliveoil.pdf.

[132] International Olive Council, World Olive Oil Figures.

[133] Millennium Challenge Corporation, Invest in Morocco, at p. 5.

close to olive orchards.[134] The MCC, a U.S. governmental aid entity, has given Morocco $169 million for olive oil development.[135]

Syria

Olive oil production has doubled over the last decade in Syria, mainly because of a governmental policy in reclaiming lands.[136] The total area of land dedicated to olive production has increased dramatically. As of 2008, Syria had around 1.48 million acres with around 64 million productive trees.[137] Syria produced around 165,000 MT of olive oil annually during 2008-11 (Table 3).[138] Olive oil production has steadily increased since 2008. Total olive production varies from year to year due to alternate bearing phenomena. In Syria, statistics indicate that productivity per tree decreases about 50 percent in seasonal years.[139] Olive production in Syria is centered in southern and western regions where Aleppo ranks first followed by, Idleb, Dar'a, Rural Damascus and Lattakia. Olive oil has been produced in small but increasing amounts in middle and southern regions of Syria and is rarely produced in Eastern provinces. Despite the current political turmoil, Syria production of olives and olive oil has not diminished. Syria is expecting to produce a record high of over 200,000 MT of olive oil.[140]

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[134] Ibid. at p. 8.

[135] On May 8, 2009, in response to a Freedom of Information Act request (FOIA 09-14), the Millennium Challenge Corporation acknowledged that $169,506,825 of Moroccan Compact funds to stimulate economic growth through investments were obligated for rain-fed olive, almond, and fig tree intensification and expansion. 55,000 hectares were tasked for intensification and rehabilitation, of which 45,000 hectares was olive trees. An additional 120,000 hectares was tasked for the expansion of fruit tree production of which 100,000 hectares was designated for olive trees.

[136] Mohammad Ali Mohammad, "Commodity Brief No 11: Trade in Olive Oil in Syria," National Agricultural Policy Center, (January 2009) at p. 5, *available at* http://www.napcsyr.org/dwnld-files/divisions/tpd/pubs/comd_brf/en/11_cbrf_ooli_mm_en.pdf.

[137] Ibid.

[138] International Olive Council, World Olive Oil Figures.

[139] Mohammad Ali Mohammad, "Commodity Brief No 11," at p. 5.

[140] Arieh O'Sullivan, "Bumper Olive Crop Expected in Syria," The Jerusalem Post, (November 05, 2011).

Tunisia

Tunisia has about 75 million olive trees growing on over one-third of Tunisia's arable land, around 4.2 million acres, making the olive crop the main domestic source of edible oils.[141] The harvest of the olive crop usually starts in early November and lasts until January.[142] Olive oil production plays a key role in the Mediterranean country's economy, employing more than 300,000 farmers and providing income to an estimated one million Tunisians.[143] In 2011, Tunisia produced around 180,000 MT of olive oil (Table 3). Tunisian production was down to 120,000 MT in 2010 due primarily to poor weather conditions.[144] However, Tunisia's olive oil production in 2011 was back to projected levels.[145]

Turkey

Olives play a dominate role in the agricultural economy and culture of Turkey. There is olive cultivation in about 45 percent of the country, which is primarily located along the Aegean Sea coast.[146] Turkey has close to 2 million acres of olive trees and has increased the number of acres every year since 2001.[147] Around 70 percent of the olives harvested are used to produce olive oil.[148] There are over 850 olive oil factories in Turkey[149] that produce on average 140,000

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[141] Youssef Chahed, "2012 Oilseeds and Products Annual: Tunisia," Foreign Agricultural Service (February 2, 2012) at p. 2, *available at* http://gain.fas.usda.gov/Recent percent20GAIN percent20Publications/Oilseeds percent20and percent20Products percent20Annual_Tunis_Tunisia_2-22-2012.pdf.

[142] Ibid.

[143] Ben Wedeman. Liguid Gold: Olive Oil the Tunisian Way, CNN. February 4, 2010, *available at* http://articles.cnn.com/2010-02-04/world/tunisian.oil_1_hand-picked-olives-liquid-gold-tunisiancapital?_s=PM:WORLD

[144] International Olive Council, World Olive Oil Figures.

[145] Chahed, "2012 Oilseeds and Products Annual: Tunisia," at p. 2.

[146] Umut Egitimici, "Rediscovering the Origins of Olive Oil in Turkey," The Olive Oil Times, (accessed on September 26, 2012), *available at* http://www.oliveoiltimes.com/olive-oil-basics/world/rediscovering-olive-oil-in-anatolia-turkey/4136.

[147] Turkish Statistical Institute, Agricultural Land and Forest Area Report, (accessed on September 26, 2012), *available at* http://www.turkstat.gov.tr.

[148] Egitimici, "Rediscovering the Origins of Olive Oil in Turkey."

[149] Ibid.

MT of olive oil a year.[150] In 2010, Turkey produced 160,000 MT of olive oil making it the fifth largest olive oil producer in the world (Table 3).[151] Turkey produced about 5 to 6 percent of the world's olive oil production during 2008-11 and consumed about four percent of global consumption in 2011.[152]

Exports and Imports

Morocco

Morocco is the fifth largest world exporter of olive oil (Table 5). Moroccan exports jumped from 4,500 MT in 2009 to over 25,000 MT in 2010 (Table 24).[153] The large increase in olive oil exports was mainly due to exports to the United States. About one-half of the olive oil exported by Morocco in 2010 (around 13,000 MT) went to the U.S. (Table 24).[154] Moroccan imports of olive oil fluctuate dramatically from 2008 to 2010 (Table 25). In 2009, Morocco imported close to 17,000 MT, but the following year imports dropped to 2,500 MT (Table 25).[155] This dramatic change can be attributed to an increase in domestic production of olive oil, which allowed Morocco to utilize its supply of domestically produced olives for processing into olive oil.

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[150] International Olive Council, World Olive Oil Figures.
[151] Ibid.
[152] Egitimici, "Rediscovering the Origins of Olive Oil in Turkey."
[153] United Nations, Comtrade Database.
[154] Ibid.
[155] Ibid.

Table 24: Moroccan Olive Oil Exports by Principal Markets

Markets	2008	2009	2010	2011
	Quantity (*metric tons*)			
United States	2,779	1,718	13,277	N/A
Italy	-	1,509	5,703	N/A
United Kingdom	1,353	539	5,273	N/A
Netherlands	895	387	521	N/A
Other	527	347	876	N/A
World	5,554	4,500	25,650	N/A
	Value (*$1,000 U.S. dollars*)			
United States	$9,112	$3,848	$32,864	N/A
Italy	-	$4,350	$12,815	N/A
United Kingdom	$2,415	$2,000	$10,615	N/A
Netherlands	$1,975	$1,686	$1,709	N/A
Other	$1,697	$1,524	$2,502	N/A
World	$15,199	$13,408	$60,505	N/A

Source: United Nations Comtrade Database

Table 25: Moroccan Olive Oil Imports by Principal Sources

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Tunisia	4,145	9,895	15	N/A
Spain	2,287	6,806	2,244	N/A
Turkey	146	123	15	N/A
Italy	55	92	246	N/A
Other	3	1	2	N/A
World	6,636	16,917	2,522	N/A
	Value (*$1,000 U.S. dollars*)			
Tunisia	$14,299	$27,883	$54	N/A
Spain	$8,534	$19,250	$6,010	N/A
Turkey	$618	$464	$51	N/A
Italy	$239	$357	$811	N/A
Other	$4	$15	$14	N/A
World	$23,694	$47,969	$6,940	N/A

Source: United Nations Comtrade Database

Syria

Syria mainly exports to other countries in the Middle East, with its main partners being Saudi Arabia and Lebanon. Syria exported 27,300 MT per year on average during 2008-10 (Table 26).[156] In 2008, Syria exported over 45,000 MT, but exports dropped dramatically in

[156] Ibid.

2009 and 2010, in part because of a decline in exports to Spain and Italy.[157] Syria imports very little olive oil with the majority of its imports in 2009 and 2010 from Tunisia (Table 27).[158]

Table 26: Syrian Olive Oil Exports by Principal Markets

Market	2008	2009	2010	2011
	Quantity (*metric tons*)			
Saudi Arabia	7,907	2,785	3,626	N/A
Kuwait	1,836	1,215	1,809	N/A
Jordan	3,440	3,655	1,453	N/A
Iran	2,505	1,054	1,445	N/A
United Arab Emirates	2,934	1,797	1,262	N/A
Other	26,591	8,654	7,920	N/A
World	45,214	19,161	17,515	N/A
	Value (*$1,000 U.S. dollars*)			
Saudi Arabia	$32,268	$10,065	$13,661	N/A
Kuwait	$6,020	$4,157	$6,820	N/A
Jordan	$10,628	$12,373	$5,497	N/A
Iran	$6,589	$3,404	$5,466	N/A
United Arab Emirates	$11,897	$7,054	$4,773	N/A
Other	$80,094	$28,684	$29,283	N/A
World	$147,496	$65,739	$65,499	N/A

Source: United Nations Comtrade Database

Table 27: Syrian Olive Oil Imports by Principal Sources

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Tunisia	-	1,489	63	N/A
Other	269	23	29	N/A
World	269	1,512	92	N/A
	Value (*$1,000 U.S. dollars*)			
Tunisia	-	$3,542	$204	N/A
Other	$834	$23	$71	N/A
World	$834	$3,565	$275	N/A

Source: United Nations Comtrade Database

Tunisia

Tunisia is currently the third largest world exporter of olive oil (Table 5). In 2010, Tunisia exported more than 116,000 MT of olive oil (Table 28).[159] Historically, Tunisia exports went mostly to Italy and Spain. In 2010, however, the U.S. became the largest market for

[157] Ibid.
[158] Ibid.
[159] Ibid.

Tunisian exports, and the amounts exported to Spain and Italy decreased dramatically.[160] Tunisia imports small volumes of olive oil, primarily from Italy (Table 29). In 2010, Tunisia imported 610 MT of Italian olive oil but did not import from any other countries.[161] This is a substantial decrease in imports from 2009, when Tunisia imported 3,800 MT of olive oil.

Table 28: Tunisian Olive Oil Exports by Principal Markets

Market	2008	2009	2010	2011
	Quantity (*metric tons*)			
United States	28,270	37,055	25,590	N/A
Spain	41,724	9,858	11,416	N/A
Italy	93,644	70,581	5,607	N/A
France	4,761	4,363	5,607	N/A
Switzerland	1,106	4,530	2,085	N/A
Other	13,012	26,198	66,409	N/A
World	182,518	152,586	116,713	N/A
	Value (*$1,000 U.S. dollars*)			
United States	$104,156	$102,461	$72,181	N/A
Spain	$137,308	$26,196	$27,869	N/A
Italy	$332,870	$184,173	$17,921	N/A
France	$20,021	$14,833	$17,921	N/A
Switzerland	$3,773	$13,024	$6,048	N/A
Other	$49,924	$76,147	$179,298	N/A
World	$648,052	$416,833	$321,237	N/A

Source: United Nations Comtrade Database

Table 29: Tunisian Olive Oil Imports, by Principal Sources

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Italy	1,719.42	3,710.83	610.33	N/A
Other	342.92	83.24	-	N/A
World	2,062.34	3,794.07	610.33	N/A
	Value (*$1,000 U.S. dollars*)			
Italy	$4,586,390	$6,692,080	$1,193,340	N/A
Other	$867,227	$314,151	-	N/A
World	$5,453,617	$7,006,231	$1,193,340	N/A

Source: United Nations Comtrade Database

[160] Ibid.
[161] Ibid.

Turkey

Since 2008, Turkey has exported on average about 21,000 MT of olive oil annually.[162] Turkey's two most important export markets are Japan and the United States (Table 30). Turkish imports of olive oil are minimal amounting to less than 100 MT annually from 2008 to 2011 (Table 31). In 2008, the main exporter of olive oil to Turkey was Morocco.[163] After falling drastically in 2009-10, Turkish imports, primarily from Egypt and Iraq, rose to approximately 90 MT.[164]

Table 30: Turkish Olive Oil Exports by Principal Markets

Market	2008	2009	2010	2011
	Quantity (*metric tons*)			
Japan	2,173	2,014	2,433	1,978
United States	3,536	8,206	3,879	1,379
Australia	956	1,077	852	224
Canada	2,285	1,211	577	132
Italy	1,822	5,351	1,521	84
Other	8,617	13,668	10,770	10,166
World	19,389	31,527	20,032	13,963
	Value (*$1,000 U.S. dollars*)			
Japan	$9,627	$7,646	$9,422	$7,767
United States	$12,845	$25,082	$12,040	$5,081
Australia	$4,030	$3,660	$2,905	$740
Canada	$9,838	$4,084	$1,948	$616
Italy	$4,978	$14,464	$3,767	$178
Other	$35,886	$45,442	$37,972	$37,885
World	$77,204	$100,376	$68,054	$52,267

Source: United Nations Comtrade Database

[162] Ibid.
[163] Ibid.
[164] Ibid.

Table 31: Turkish Olive Oil Imports by Principal Sources

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Egypt	-	-	-	37
Iraq	-	-	-	24
Netherlands	2	6	4	1
Morocco	97	-	-	-
Other	0	25	25	28
World	99	31	29	90
	Value (*$1,000 U.S. dollars*)			
Egypt	-	-	-	$84
Iraq	-	-	-	$57
Netherlands	$14	$39	$23	$7
Morocco	$109	-	-	-
Other	$2	$13	$59	$120
World	$125	$52	$82	$269

Source: United Nations Comtrade Database

Common Fund for Commodities

The Common Fund for Commodities (CFC) is an international organization established under the framework of the United Nations. It collaborates with other organizations to provide commodity financing in developing and least developed countries. The CFC works mainly with small- and medium-sized enterprises and collaborates with the IOC to provide and distribute funds.

The CFC has conducted several olive oil projects in recent years working primarily working with developing countries in the Mediterranean. Each project involves multiple countries as recipients of the aid. The CFC pays for a portion of the projects and the rest of the funding has to be provided by the recipient countries. These projects are designed to improve the country's olive oil industry in areas such as irrigation, recycling of olive pomace on agricultural land, and genetic and economic research to improve the country's olive crop.[165] A recent project, announced on October 2, 2012, is intended to improve economic valorization, i.e.,

[165] Common Fund for Commodities, Projects, *available at* http://www.common-fund.org/projects/?tx_cfc_projects percent5Bcommodity percent5D=65&tx_cfc_projects percent5Bcountry percent5D=&tx_cfc_projects percent5Bmap percent5D=0&cHash=03a25f7325a13660b74b9069f761fad1.

to enhance the price, value, or status through governmental aid, of olive genetic resources. Algeria, Egypt, Morocco, and Tunisia are countries receiving aid as part of this project. The total cost of the project will be $1.7 million. The CFC will provide $900,000 for this project while the rest of the funding will come from the recipient countries (Table 32).[166]

Table 32: Common Fund for Commodities Funding

Country	Number of Projects	Total Aid Value *($1,000 U.S. dollars)*
Morocco	6	$1,588
Tunisia	5	$1,188
Syria	3	$892

Source: Common Fund for Commodities (CFC)

[166] Ibid.

New World Producing Countries

Australia

As of 2006, Australia has more than 2,000 processors of olive oil. Experts forecast Australia's production will peak in 2015 at 40,000 MT.[167] Australia's olive oil is mainly produced in the State of Victoria.[168] Ninety-five percent of the olive oil produced in Victoria is extra virgin, and some estimates suggest that 90 percent of Australia's olive oil is produced by 10 percent of the industry's growers.[169] Australia produced 19,000 MT in 2011, which accounted for 0.6 percent of the world's total olive oil production (Table 3).[170] That same year, Australia consumed roughly 45,000 MT of olive oil (Table 4).[171]

Australia exports only about 5,000 MT a year with the United States and Italy being the top two importers of Australian olive oil (Table 33).[172] In contrast, Australia imports more than 32,500 MT a year on average (Table 34).[173] In 2011, Australia imported more than 41,000 MT.[174] The top exporters of olive oil to Australia are the three leaders in Europe: Spain, Italy, and Greece. In 2011, Spain exported more than 26,000 MT into Australia while Italy exported over 12,000 MT.[175]

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[167] Australia's Department of Primary Industries, Victorian Olive Oil Industry Overview (April 2006), at Ch. 5, *available at* http://www.dpi.vic.gov.au/agriculture/horticulture/fruit-nuts/orchard-management/olive-oil-industry.
[168] Ibid. at Ch. 2.2.
[169] Ibid. at Ch. 2.2.
[170] International Olive Council, World Olive Oil Figure.
[171] Ibid.
[172] United Nations, Comtrade Database.
[173] Ibid.
[174] Ibid.
[175] Ibid.

Table 33: Australian Olive Oil Exports by Principal Markets

Market	2008	2009	2010	2011
	Quantity (*metric tons*)			
United States	2,230	2,657	1,726	2,182
Italy	945	2,541	859	3,103
China	476	634	686	785
Spain	37	715	1,684	374
New Zealand	129	149	180	207
Other	353	259	365	262
World	4,169	6,956	5,501	6,913
	Value (*$1,000 U.S. dollars*)			
United States	$10,378	$13,404	$5,936	$7,689
Italy	$3,561	$9,258	$2,735	$6,791
China	$2,393	$2,746	$4,157	$4,055
Spain	$244	$2,048	$6,246	$995
New Zealand	$618	$673	$1,099	$1,139
Other	$2,386	$1,520	$1,617	$1,856
World	$19,581	$29,649	$21,790	$22,525

Source: United Nations Comtrade Database

Table 34: Australian Olive Oil Imports by Principal Sources

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Spain	13,496	18,673	24,677	26,322
Italy	8,053	9,412	9,037	12,343
Greece	1,013	1,486	1,355	1,515
Turkey	969	1,050	899	295
Lebanon	52	88	159	367
Other	369	460	287	557
World	23,951	31,170	36,414	41,399
	Value (*$1,000 U.S. dollars*)			
Spain	$60,250	$74,957	$92,969	$73,291
Italy	$33,492	$36,198	$34,961	$35,956
Greece	$5,305	$6,474	$5,616	$6,032
Turkey	$3,918	$3,732	$3,068	$752
Lebanon	$166	$309	$526	$677
Other	$1,507	$1,275	$1,093	$1,350
World	$104,638	$122,945	$138,233	$118,058

Source: United Nations Comtrade Database

U.S. Olive Oil Industry

Production and Consumption

Overall demand for olive oil in the United States is increasing. Since 2001, demand for olive oil has grown almost by 100 MT.[176] In 2011, Americans consumed roughly 280,000 MT of olive oil (Table 4).[177] California, which produces most of the olive oil in the United States, produced about 6,000 MT in 2011 equating to about 2 percent of total U.S. consumption (Table 3).[178]

The United States imports about 98 percent of its olive oil, primarily from Italy and Spain, which accounts for 42 percent and 25 percent of the olive oil consumed domestically, respectively.[179] The United States accounted for 9 percent of total world consumption (Table 4) and 0.2 percent of world production in 2011.[180]

In 2009, there were 25,000 acres of olive orchards in California devoted to the production of olive oil.[181] Due to the increase in demand, U.S. growers are increasing their plantings of olive oil trees. For example, between 2007 and 2011 U.S. olive oil acreage (bearing) increased from 31,217 to 41,500 acres for an increase of 33 percent.[182] During this period, U.S. olive oil production rose from 2,000 MT to 6,000 MT.[183]

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[176] International Olive Council, World Olive Oil Figures.
[177] Ibid.
[178] Ibid.
[179] Ibid.
[180] Ibid.
[181] California Olive Oil Council, 2010 California Olive Oil Industry Survey Statistics (August 2010), *available at* http://www.oliveoiltimes.com/general/2010-california-olive-oil-industry-survey-statistics/9673
[182] National Agricultural Statistics Service, Quick Stats, *available at* http://quickstats.nass.usda.gov/?source_desc=CENSUS#D66490BE-E5CB-3843-AE9E-2472E2ABF8D3
[183] International Olive Council, World Olive Oil Figures.

Imports and Exports

The United States is the second largest world importer of olive oil in the world, importing more than 292,000 MT of olive oil valued at over $996 million in 2011 (Table 6), and accounting for 9.7 percent of the global production.[184] The leading world importing country in 2011 was Italy, which imported on average twice as much annually as the United States. Italy exports accounted for over one-half of all U.S. olive oil imports totaling over 147,000 MT in 2011 (Table 35).[185] In 2011, 100,000 MT of imports from Italy were either extra virgin or virgin olive oil (Table 36). The second largest supplier of U.S. importer of olive oil was Spain followed by Morocco and Tunisia. Spain is responsible for 23 percent of U.S. olive oil imports.[186] However, this number could be low because most of the Italian exports to the United States contain a large amount of olive oil from Spain.[187] U.S. exports have not changed very much in quantity since 2008 (Table 5), and in 2011, the U.S. exported 7,802 MT of domestic and foreign olive oil, primarily to Canada (Table 37).[188]

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[184] United Nations, Comtrade Database.

[185] Ibid.

[186] United States Olive Oil Imports, Prepared by Schramm, Williams & Associates, Inc. using data from the U.S. Department of Commerce (May 2011).

[187] Tom Mueller, Extra Virginity: The Sublime and Scandalous World of Olive Oil, (W.W. Norton & Company, Ld., 2012) at Ch. 2.

[188] United Nations, Comtrade Database.

Table 35: U.S. Olive Oil Imports by Principal Sources

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Italy	153,270	151,353	144,676	147,865
Spain	59,578	58,403	72,894	67,487
Morocco	2,895	1,740	11,892	25,574
Tunisia	28,329	36,085	27,037	24,646
Greece	4,219	4,944	4,375	4,568
Others	18,674	24,634	16,687	22,786
World	266,965	277,159	277,561	292,926
	Value (*$1,000 U.S. dollars*)			
Italy	$665,989	$554,446	$517,915	$546,540
Spain	$229,026	$186,782	$224,462	$208,505
Morocco	$9,915	$4,020	$29,682	$66,116
Tunisia	$106,393	$104,586	$84,358	$76,938
Greece	$20,560	$20,454	$18,702	$19,351
Others	$74,726	$83,720	$58,858	$79,249
World	$1,106,609	$954,008	$933,978	$996,699

Source: United Nations Comtrade Database

Table 36: U.S. Olive Oil Imports from Italy by Grade

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Virgin*	98,462	97,173	95,554	100,355
Other	54,808	54,180	49,122	47,510
Total	153,270	151,353	144,676	147,865
	Value (*$1,000 U.S. dollars*)			
Virgin*	$463,267	$386,905	$371,271	$405,268
Other	$202,722	$167,541	$146,644	$141,272
Total	$665,989	$554,446	$517,915	$546,540

Source: United Nations Comtrade Database

* Note: Data Include Extra Virgin olive oil and Virgin olive oil

Table 37: U.S. Olive Oil Exports by Principal Markets*

Market	2008	2009	2010	2011
	Quantity (*metric tons*)			
Canada	3,198	2,780	2,328	3,260
Mexico	502	482	669	176
Italy	537	63	328	351
Others	3,422	2,796	4,122	4,367
World	7,122	6,058	7,120	7,802
	Value (*$1,000 U.S. dollars*)			
Canada	$11,880	$10,020	$8,418	$11,514
Mexico	$1,326	$1,333	$1,079	$501
Italy	$1,520	$213	$738	$1,076
Others	$10,944	$8,291	$10,900	$13,348
World	$24,150	$19,644	$20,397	$25,362

Source: United Nations Comtrade Database

* Note: Data include exports of domestic and foreign olive oil

Government Programs

U.S. olive growers and olive oil processors benefit from few government programs. The U.S. government provides agricultural technology extension services to many crops including olives through a system administered by USDA's National Institute of Food and Agriculture (NIFA) (formerly known as the Cooperative State Research, Education, and Extension Service). NIFA provides funding for agricultural research and development.

Some Federal and California state programs and policies control the primary source of water for California Central Valley and Sacramento agricultural crops including olives. Although not an olive oil industry specific program, the cost and availability of water is integral to the growing of olives and processing of olive oil in California. Increasing demand for fresh water by non-agricultural users is already placing additional pressure on the availability of water for olive processing and growing industries. Some of the water is from federal or state water systems and some acreage is supplied by well water.

Climatic variations that lead to fluctuations in water availability coupled with issues over environmental protection regulation and an increasing state population will likely continue to affect the cost and availability of water to the olive oil industry in California. Other U.S. olive oil producing states (i.e., Florida, Texas, and Georgia) are less restricted by availability as they depend on wells and rainfall for their water supply.

Members of the U.S. olive oil industry are drafting language for the institution of a domestic marketing order. If the marketing order is approved by the USDA Secretary and supported by the olive oil growers through a referendum, the marketing order program will focus on mandatory domestic olive oil standards for U.S. olive oil processors.

Regulatory Compliance

The U.S. olive oil industry must comply with a number of state and federal regulations relating to environmental protection and food safety. Environmental protection regulations mainly involve pesticide and wastewater treatment. The overall impact of regulatory compliance includes not only the direct cost of meeting local, state, or federal regulations, but also the cost of securing third party review and evaluation of production processes throughout the complete grower-through-processor chain of production.

Trade Practices

The primary U.S. trade practice affecting the olive oil industry is import tariffs. Current tariffs on olive oil are $0.05/kg on contents and containers under 18 kg, while content and containers over 18 kg are dutiable at $0.034/kg.[189] Compared to the EU, U.S. import tariffs on olive oil are low (Table 38).

Table 38: U.S. Olive Oil Tariff Rates*

HTS #	Tariff Rate
1509.10	
U.S.	
1509.10.20	$0.05/kg on contents and container under 18 kg
1509.10.40	$0.034/kg over 18 kg
1509.90	
U.S.	
1509.90.40	$0.034/kg over 18 kg
1510.00	
U.S.	
1510.00.20	Free
1510.00.40	$0.05/kg on contents and container under 18 kg
1510.00.60	$0.034/kg over 18 kg

Sources: U.S. International Trade Commission

[189] U.S. International Trade Commission, Harmonized Tariff Schedule of the United States (2012) Supplement 1 (Rev. 1), *available at* http://hts.usitc.gov/.

U.S. Generalized System of Preferences Program

According to the office of the United States Trade Representative, the Generalized System of Preferences program (GSP) provides duty-free importation of designated articles when imported from designated beneficiary developing countries. GSP is designed to promote economic growth in the developing world by providing preferential duty-free entry for designated articles. Olive oil is among the designated products that are allowed to enter the U.S. duty-free under the GSP program. Table 39 below lists the major GSP designated exporters of olive oil to the U.S. In should be noted that in 2011 GSP designated countries exporting olive oil to the U.S. represented 8.5 percent of the total value and 9.2 percent of the volume of all U.S. imported olive oil.

Table 39: U.S. Olive Oil Import for GSP Beneficiary Countries

Source	2008	2009	2010	2011
	Quantity (*metric tons*)			
Tunisia	28,329	36,085	26,637	24,646
Turkey	3,443	7,503	6,319	1,105
Lebanon	808	855	720	839
West Bank	891	41	65	119
Jordan	7	1	18	119
Egypt	242	95	20	0
Others	76	4	55	76
Total	33,796	44,584	33,834	26,904
	Value *($1,000 U.S. dollars)*			
Tunisia	103,667	99,655	80,844	74,664
Turkey	13,644	23,138	19,123	4,379
Lebanon	3,172	3,376	2,628	3,047
West Bank	1,439	430	813	1,354
Jordan	14	8	56	1,120
Egypt	873	284	87	0
Others	251	31	221	333
Total	123,060	126,922	103,772	84,897

Source: United States International Trade Commission

Input Costs and Availability/Cost Structure

The U.S. olive oil industry generally is at a competitive disadvantage to foreign competitors regarding input costs, particularly labor. The United States has the highest processing wage rate ($14.74 per hour)[190] and the second highest field wage rate ($11.15 per hour)[191] among major global producers. Declining availability of inputs, including labor, and water is also an issue, both for the growing and processing sectors.

Processing Technology

U.S. olive oil processors operate highly efficient plants using state-of-the-art equipment and the most advanced production processes available. Most of these processors operate at or near full production capacity throughout the 6 to 8 week harvest season. Several domestic processors invested in their production facilities. In an effort to increase and sustain competitiveness, olive oil processors have opened new, state-of-the-art, processing plants.

Product Innovation

Product innovations allow olive oil processors, wholesalers, and retailers to capture a larger market segment, not only through new product lines, but also through the expansion of existing lines. With olive oil, many new products have new ingredients added or new packaging.

As with most olive oil processing, U.S. processors are concentrating most production in bottling and product lines to those container sizes (retail) and styles of bottles with the greatest market demand that generate the greatest sales revenue. However, companies may incur

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[190] Bureau of Labor Statistics, National Occupational Employment and Wage Estimates., United States Department of Labor, (May 2011) *available at* http://www.bls.gov/oes/current/oes_nat.htm#45-0000.

[191] Ibid.

significant development and marketing costs in introducing new products, even when generating increased revenues.

Exchange Rates

The position of the U.S. dollar vis-à-vis values of currencies of major foreign suppliers to the U.S. market indirectly affects the prices at which all products may be sold in the U.S. market. Since 2008, the U.S. dollar has fluctuated relative to the currency value in Europe and is regarded to be weak compared to the Euro. This contributes to higher prices for products from those countries being sold in the U.S. market and sustains market prices for U.S. olive oil.

Country of Origin Marking

There is a strict difference between "labeling" and "marking" of food containers under U.S. federal law, even though the two terms are often used interchangeably. "Labeling" is a term used by the U.S. Food and Drug Administration for nutritional purposes, and "marking" is a term used by U.S. Customs and Border Protection to determine what and from where the products are. Section 304 of the Tariff Act of 1930 provides that imported olive oil containers be marked in a conspicuous place in a legible, indelible and permanent way so that an ultimate purchaser can determine the country of origin.[192] This allows a purchaser/consumer to choose between domestic and foreign olive oil products based on the label's contents. U.S. consumers are finding foreign olive oil in containers that are labeled with information that does not comply with the law – such as "Imported from Italy" or in some cases "Product of Italy." With reference to "Imported from Italy" marking, the marking should read "Product of Italy" if the olive oil is strictly from olive oil produced in Italy. With reference to the "Product of Italy" the marking is

[192] 19 U.S.C. § 1304 – Marking of Imported Articles and Containers.

appropriate only if the olive oil comes from olives grown in Italy and processed into olive oil in Italy.

Mislabeling the country of origin on bottles of olive oil provides sellers a distinct advantage over competitors for obvious reasons. Consumers purchase olive oil for several reasons, the most important of which are product quality, ethnic preference, and country of origin. If the olive oil container is marked with one country, but the olive oil is from a different country, not only is the consumer deceived but the competition has an advantage over the marketer who is complying with the law. Further, the use of lower quality olive oil than what the label stipulates may result in lower costs to prepare such olive oil and subsequently lower prices in the market.