

**REPORT TO THE ORGANIC TRADE ASSOCIATION**

**Preliminary Analysis of USDA's  
Organic Trade Data: 2011 to 2014**

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## **SECTION 1: Introduction and Major Themes**

### **Introduction**

This report represents a qualitative and quantitative analysis of the data for organic products contained in the U.S. Department of Agriculture's (USDA) Global Agricultural Trade System (GATS). Data for trade in organic products were first added to this system by the USDA in 2011.

The U.S. International Trade Commission publishes and maintains the U.S. Harmonized Tariff Schedule, which serves as the statistical reference point for trade data. The structure of the tariff schedule is based on the international Harmonized Commodity Description and Coding System (HS), administered by the World Customs Organization in Brussels. New code requests can be submitted to the Office of Tariff Affairs and Trade Agreements of the U.S. International Trade Commission. However, the granting of a new code generally requires \$1 million in annual U.S. trade and multiple trading partners.

As of January 2015, there are 38 export and 38 import HS codes. For the purpose of this study, a number of the products are so closely related that it makes sense to aggregate them to a single product. For example, red, white, and sparkling wine imports can be aggregated to a single "wine" category. In 2011, the USDA GATS contained export data for 23 different organic products and import data for 10 different aggregated organic products with HS codes. Taking into account newer HS codes, this report reflects aggregated export and import data for 26 different organic products exported from the U.S., and 21 different organic products imported into the U.S. This set represents codes with at least one full year of reported data.

Exports: The USDA GATS data cover organic products representing over \$550 million in exports for 2014. This figure compares to more than \$5.9 billion in non-organic exports for the same 26 products. More generally, the USDA reports that all agricultural exports were valued at \$150.5 billion in 2014. In dollar value, organic apples, lettuce, grapes, spinach and strawberries are the top five organic exports.

Imports: Organic products in the USDA GATS data represent over \$1.2 billion in imports for 2014. This figure compares to more than \$18 billion in non-organic imports for the same 21 products. More generally, the USDA reports that all agricultural imports were valued at \$111.7 billion in 2014. Organic coffee, soybeans, olive oil, bananas, and wine are the top organic imports.

Note that the organic export and import figures do not capture all international trade for organic products. Instead, the data presented here represent only the portion of trade recorded by the U.S. government through the Harmonized Tariff Schedule System.

## Highlights and Major Themes

Two major themes emerge when analyzing the USDA GATS data for organic products:

### 1. *Strong Growth In Organic Exports:*

- ❑ Annual growth rates were estimated for the 22 organic export products. Nineteen of these products (i.e., all but three) show positive growth in organic exports.
- ❑ Among the top ten exports, the product with the highest growth rate is organic apples (41% annual growth).
- ❑ Also among the top ten exports, organic strawberries have the second highest annual growth rate (25%).
- ❑ Ranked 18<sup>th</sup> in terms of export value, cherry tomatoes have the highest annual growth rates (75%).
- ❑ Ranked 2<sup>nd</sup>, 12<sup>th</sup>, and 15<sup>th</sup>, (non-head) lettuce, oranges, and cherry exports experienced declines instead of growth.
- ❑ Among the top ten exports, spinach and carrot exports have the highest shares of organic exports relative to total exports. Spinach has a 33% organic share of total spinach exports, and carrots is next with a 23% organic share.
- ❑ Organic cherry tomatoes--the 18<sup>th</sup> ranked organic export--has a 75% organic share.

### 2. *Mixed Results for Imports, Including Some Declines*

- ❑ Annual growth rates were estimated for 16 of the 21 organic import products. Ten of these 16 have positive growth rates for organic imports
- ❑ Six organic imports, including four of the top five, have negative growth rates.
- ❑ Among the top 15 imports, the products with the highest annual growth rates are organic almonds (134% annual growth), ginger (97% annual growth), and yellow corn (86% annual growth).
- ❑ Top 15 imports with the largest declining rates are organic wine (-51% annual growth) and organic bananas (-31% annual growth).
- ❑ Among the top ten imports, almond imports have the highest share of organic imports relative to total almond imports. Almonds have a 53% organic share of imports; yellow corn is next with a 33% organic share; and soybeans are third with a 31% organic share.

These themes are discussed in more detail in the two main sections of this report, Sections 2 and 3. For the most part, these themes are supported with tables and figures.

## Strong Growth in Exports

In 2011, the USDA GATS added export data for 23 different organic products, and since then three more products were added. Although 12 new organic export codes were approved as additions to the Harmonized Tariff Schedule in fall 2014, data collection for those codes just began in January 2015 and therefore they are not included in this study. Table 1 lists these 26 products ranked by 2014 export values. For each product, except where data problems prevent it, the table also presents the estimated annual growth rates for the organic exports. Technical details on how the growth rates are estimated can be found in Appendix E. Table 2 lists the product-by-product share of organic exports relative to total (organic plus non-organic) exports.

**Table 1: Total Organic Exports (millions of \$), ranked by 2014 values**

Product	2011	2012	2013	2014	Est. Annual Growth Rate
1. Apples	46.2	99.8	141.7	116.3	40.76%
2. Lettuce (Not Head)	85.2	80.9	83.6	73.3	-4.24%
3. Grapes Fresh	60.0	39.8	59.0	64.3	16.35%
4. Spinach	20.9	26.0	33.4	37.8	22.26%
5. Strawberries	15.8	18.4	27.7	30.7	25.02%
6. Carrots	22.7	22.6	24.6	26.5	6.35%
7. Cauliflower	18.0	24.0	16.8	24.6	7.51%
8. Coffee Roast (Not Decaf)	15.2	24.3	21.7	23.1	12.86%
9. Tomato Sauce	22.0	12.0	15.0	19.7	3.45%#
10. Pears (and Quince)	8.9	21.6	19.0	18.4	14.43%
11. Cult Blueberries	16.4	13.7	15.3	17.2	10.47%#
12. Oranges	14.2	13.7	11.0	14.6	-5.41%#
13. Broccoli	9.9	13.6	15.7	14.5	14.82%
14. Lemons	6.3	6.1	7.9	12.7	19.41%
15. Cherries	30.6	6.4	8.8	11.6	-43.38%# missing values
16. Onion Sets	2.2	3.5	8.5	10.3	missing values
17. Celery	7.1	6.6	7.5	10.1	12.33%
18. Cherry Tomato	1.1	2.3	3.2	6.1	75.32%
19. Peppers	2.0	2.5	3.7	5.0	37.04%
20. Tomato Other	2.7	3.1	2.9	4.3	12.63%
21. Grapefruit	-	1.6	1.6	3.1	missing values
22. Potatoes	1.6	1.8	1.8	2.9	24.75%
23. Cabbage	-	1.1	3.5	2.7	missing values
24. Head Lettuce	1.9	2.3	2.5	2.3	6.45%
25. Roma Plum Tomato	1.2	1.2	1.5	1.2	0.01%
26. Cucumbers	-	0.0	0.0	0.0	missing values
<b>Total</b>	<b>412.0</b>	<b>447.9</b>	<b>537.6</b>	<b>553.1</b>	

Notes:

#: not statistically significant results

“Missing values”: Estimation problems were encountered due to excessive zeros or missing data points.

Data Source: USDA Foreign Agricultural Service's Global Agricultural Trade System (GATS)

**Table 2: Organic Exports' Share of Total Exports (%)**

<b>Product</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
1. Apples	5%	9%	13%	11%
2. Lettuce (Not Head)	23%	23%	21%	19%
3. Grapes Fresh	8%	5%	6%	7%
4. Spinach	29%	31%	33%	33%
5. Strawberries	4%	5%	7%	8%
6. Carrots	17%	19%	20%	23%
7. Cauliflower	14%	19%	12%	18%
8. Coffee Roast (Not Decaf)	2%	3%	3%	3%
9. Tomato Sauce	11%	6%	6%	8%
10. Pears (and Quince)	5%	10%	9%	8%
11. Cult Blueberries	17%	12%	13%	16%
12. Oranges	3%	3%	2%	3%
13. Broccoli	9%	10%	12%	11%
14. Lemons	5%	5%	5%	6%
15. Cherries	7%	1%	2%	3%
16. Onion Sets	16%	14%	24%	27%
17. Celery	9%	8%	8%	12%
18. Cherry Tomato	9%	25%	25%	42%
19. Peppers	2%	3%	4%	6%
20. Tomato Other	2%	2%	2%	3%
21. Grapefruit	-	1%	1%	3%
22. Potatoes	1%	1%	1%	2%
23. Cabbage	-	4%	8%	7%
24. Head Lettuce	2%	2%	2%	2%
25. Roma Plum Tomato	6%	9%	12%	11%
26. Cucumbers	-	0%	0%	0%
<b>Average (across 23 products tracked from 2011)</b>	<b>9%</b>	<b>10%</b>	<b>11%</b>	<b>12%</b>
<b>Average (across 26 products tracked from 2012)</b>		<b>9%</b>	<b>10%</b>	<b>11%</b>

## Mixed Results for Imports, Including Some Declines

In 2011, the USDA GATS added import data for only ten different organic products. By 2014, the list expanded and now totals 21 organic imported products. Actually, the total number of products in the raw GATS data is much higher, but the raw data break wine, coffee, and olive oil into a large number of disaggregated products. Table 3 lists these 21 products ranked by 2014 import values and includes the estimated annual growth rates for 16 organic imports. Table 4 lists the product-by-product share of organic imports relative to total (organic plus non-organic) imports.

**Table 3: Total Organic Imports (millions of \$), ranked by 2014 values**

Product	2011	2012	2013	2014	Est. Annual Growth Rate
1. Coffee	526.1	282.9	253.3	332.5	-13.20%#
2. Soybeans	41.8	90.2	110.2	183.6	57.34%
3. Olive Oil	0	0	165.8	156.3	-9.93%#
4. Bananas	0	0	258.8	121.6	-30.56%#
5. Wine	0	0	255.7	121.3	-51.13%
6. Honey	0	11.2	13.2	46.0	89.37%
7. Almonds	0	0	16.7	40.4	133.84%
8. Mangoes	0	0	100.7	38.5	-73.03%
9. Avocados	17.2	13.1	18.9	37.1	37.74%
10. Yellow Dent Corn	0	0	36.6	35.7	85.68%
11. Tea	37.2	34.8	42.1	31.2	-2.80%#
12. Apples	5.7	12.1	14.9	29.8	29.81%
13. Rice	24.4	25.4	30.1	24.0	2.06%#
14. Bell Peppers	8.0	9.3	18.1	19.4	38.64%
15. Ginger	0	0	9.6	19.0	97.07%
16. Durum Wheat (Not Seed)	0.7	9.5	16.0	16.4	missing values
17. Pears	3.7	4.0	6.0	11.5	missing values
18. Blueberries	2.9	3.5	6.0	6.2	missing values
19. Flaxseed	0	0	2.4	5.5	191.48%
20. Garlic	0	0	1.4	2.7	missing values
21. Quinces	0	0.2	0	0.07	missing values
<b>Total</b>	<b>667.7</b>	<b>496.3</b>	<b>1,376.7</b>	<b>1,278.9</b>	

Notes:

#: not statistically significant results

“Missing values”: Estimation problems due to excessive zeros or missing data points.

Data Source: USDA Foreign Agricultural Service's Global Agricultural Trade System (GATS)



**Table 4: Organic Imports' Share of Total Imports (%)**

Product	2011	2012	2013	2014
1. Coffee	7%	4%	5%	6%
2. Soybeans	46%	48%	32%	31%
3. Olive Oil	-	-	22%	20%
4. Bananas	-	-	13%	6%
5. Wine	-	-	6%	3%
6. Honey	-	3%	3%	8%
7. Almonds	-	-	49%	53%
8. Mangoes	-	-	26%	10%
9. Avocados	2%	2%	2%	2%
10. Yellow Dent Corn	-	-	19%	33%
11. Tea	21%	20%	21%	18%
12. Apples	4%	7%	7%	12%
13. Rice	4%	5%	5%	4%
14. Bell Peppers	2%	2%	3%	3%
15. Ginger	-	-	14%	16%
16. Durum Wheat Not Seed	0%	5%	6%	6%
17. Pears	4%	5%	5%	9%
18. Blueberries	1%	1%	1%	1%
19. Flaxseed	-	-	4%	9%
20. Garlic	-	-	2%	4%
21. Quinces	-	5%	5%	9%
<b>Average (across 10 products tracked from 2011)</b>	9%	10%	9%	9%
<b>Average (across 21 products tracked from 2013)</b>			12%	13%

## **SECTION 2: Exports of Organic Products, Product-by-Product**

This section describes the top 15 organic export products, paying particular attention to growth and quarterly effects that help quantify some potential seasonality in the data. Annual growth rates are estimated by fitting an exponential function to the monthly data, recovering the estimated monthly growth rate, and converting it to an annual growth rate. In addition, the fitted equation includes indicator variables for each quarter of the year, thereby allowing us to see if there are statistically significant quarterly effects. More details on the econometric model can be found in Technical Appendix E.

These product-by-product reports on organic exports also include information, when available, on the export of non-organic product counterparts. Thus, the estimated growth rate of organic products is compared to the growth rate of their non-organic counterparts, and the export destinations for organic products are compared to the export destinations for their non-organic counterparts.

Labeling for the tables and figures follows the following scheme: “**E.1.a**” represents exports (E) of the number 1 ranked organic export, with “a” denoting the first table or figure of a series. In addition, graphs depicting monthly exports are in different colors to remind readers that the report has moved on to another product. Often the color of the graph is meant to remind readers of the product – for example, red for apples and dark green for broccoli.

## 1. ORGANIC APPLE EXPORTS

Apples have been the U.S.'s leading organic export since 2012, and this export exhibits strong growth.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic apple exports is estimated to be 39.75%. Table E.1.a shows that this annual growth rate is substantially higher than the growth rate for non-organic apple exports, which we estimate to be only 3.21% per year. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. For organic apples, exports in the third quarter of each year (months 7 to 9) are significantly lower than those from the first quarter, which is the reference quarter. A cyclical pattern is noticeable in Figure E.1.a, the graph of monthly organic exports, where the third-quarter figures are generally below the general trend line.

**Table E.1.a: Total Organic and Non-Organic Apple Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Apples	2011-Q1 to 2014-Q4	2.89%	Yes	<b>39.75%</b>	Yes: Q3 is significantly lower
Non-Organic apples	2011-Q1 to 2014-Q4	0.26%	Yes	<b>3.21%</b>	Yes: Q2 and Q3 are significantly lower

**Figure E.1.a: Monthly Organic Apple Exports, with Exponential Trend Line**

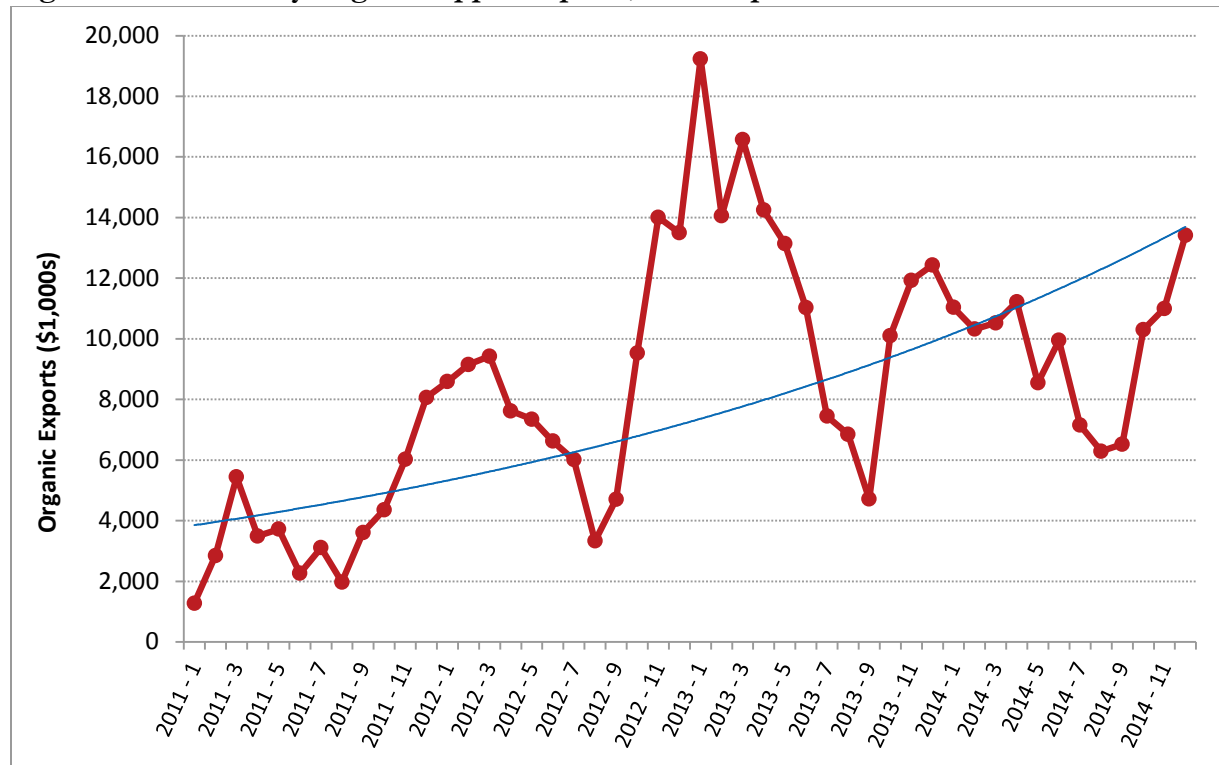


Table E.1.b shows the growth of organic apple exports over the four-year period juxtaposed with total apple exports (both organic and non-organic) over the same period. The organic export share rises dramatically from 2011 to 2013, and then declines modestly in 2014.

**Table E.1.b: Organic and Total Apple Exports (Thousands of \$)**

	2011	2012	2013	2014
Organic Apples Export	46,181	99,822	141,736	116,262
Total Apples Export	941,713	1,072,671	1,106,973	1,077,576
Organic Apple Exports' Share of Total	5%	9%	13%	11%

**Country of Destination**

Organic apple export destination countries are dominated by Mexico and Canada. Figure E.1.b shows the destination countries for those countries receiving more than 1% of the total U.S. organic apple exports. Mexico's share averages 69% over the four-year period; Canada's averages 19.5%.

**Figure E.1.b: Organic Apple Export Destinations, by Share**

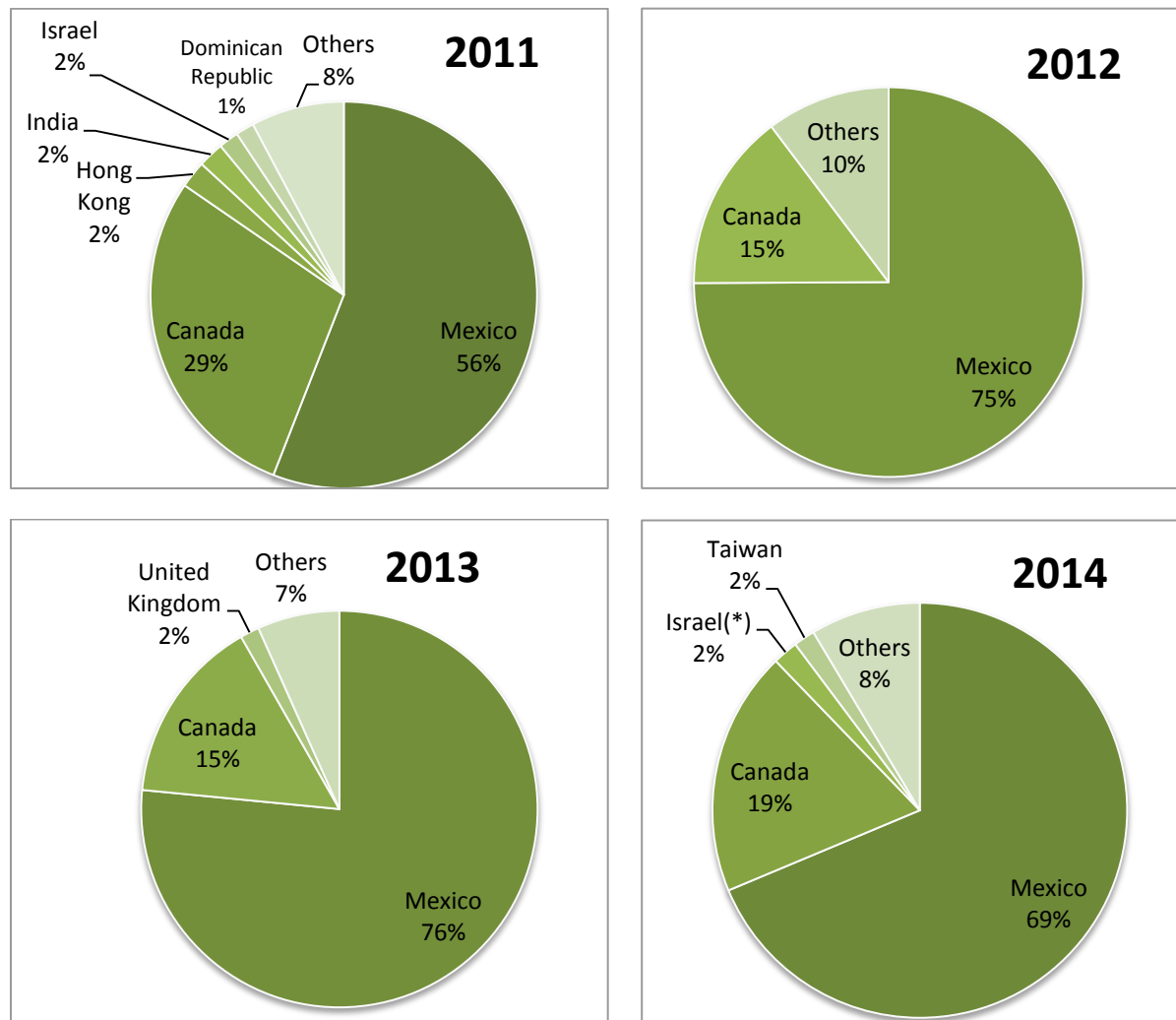


Table E.1.c shows the level of exports to the top destination countries for organic apples for all four years of data. Table E.1.d, which shows the same information for non-organic apples, is presented as a basis for comparison. Again, it is clear that Mexico and Canada dominate organic (and non-organic) apple exports. One result that stands out from comparing the two tables is that by 2014, the share of organic apple exports to Mexico has risen to about 30% of all apples exported to Mexico. The tables also show that organic exports to India increased substantially in the 2013-2014 period, while non-organic exports to India decreased in the same period. Lastly, two E.U. countries, the United Kingdom and Finland, make the list of top organic apple export destinations but not for non-organic apples.

**Table E.1.c: Organic Apple Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014	Organic % of Exports (2014)
1. Mexico	25,835	74,789	108,480	79,866	30%
2. Canada	13,234	14,768	21,547	22,195	11%
3. Israel	773	1,478	733	2,296	22%
4. Taiwan	128	670	452	1,940	2%
5. United Kingdom	418	1,462	2,208	1,229	10%
6. India	995	372	1,418	1,219	2%
7. United Arab Emirates	0	0	30	947	2%
8. Guatemala	0	0	329	946	10%
9. Finland	96	611	1,056	902	84%
10. Colombia	210	123	151	782	4%
Totals	<b>41,689</b>	<b>94,273</b>	<b>136,404</b>	<b>112,322</b>	

**Table E.1.d: Non-Organic Apple Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Mexico	173,743	209,696	223,588	186,995
2. Canada	154,011	178,321	191,744	176,792
3. Taiwan	76,407	84,347	82,140	88,905
<b>4. India</b>	80,746	96,334	<b>68,569</b>	66,955
5. United Arab Emirates	31,452	38,415	57,787	59,513
6. Vietnam	17,937	16,597	32,616	54,039
<b>7. Indonesia</b>	64,987	64,884	<b>41,029</b>	49,977
<b>8. Hong Kong</b>	70,584	62,925	<b>45,272</b>	43,051
9. Saudi Arabia	22,092	15,991	21,257	28,006
10. Thailand	24,628	24,504	24,292	21,777
11. Dominican Republic	11,974	15,307	12,953	16,935
<b>12. Colombia</b>	14,154	15,699	<b>9,654</b>	16,635
13. Malaysia	12,124	14,473	14,762	15,759
Totals	<b>754,839</b>	<b>837,493</b>	<b>825,663</b>	<b>825,339</b>

**Conclusions:** In general, organic apple exports appear to exhibit strong growth overall as well as a fairly consistent cycle where the level of exports is highest in the November-to-March range and lowest in the August-to-September range. The year 2013 appears to be a particularly strong year for organic exports, maybe an abnormally strong year. The overall decline in organic apple exports from 2013 to 2014 may be attributable to a corresponding decline in exports to Mexico.

## 2. ORGANIC LETTUCE (NOT HEAD) EXPORTS

Non-head lettuce has been the U.S.'s second leading organic export since 2012. However, exports of organic non-head lettuce are declining, on average.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic lettuce exports is estimated to be – 4.24%. Table E.2.a also shows that non-organic lettuce had positive growth during the same time period. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant for organic lettuce: the second quarter of each year has significantly higher exports than that from the first quarter, which is the reference quarter. A cyclical pattern is not generally noticeable in Figure E.2.a, the graph of monthly organic exports.

**Table E.2.a: Total Organic and Non-Organic Lettuce (Not Head) Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Lettuce (Not Head)	2011-Q1 to 2014-Q4	<b>-0.361%</b>	Yes	<b>-4.24%</b>	Yes: Q2 is the highest
Non-Organic Lettuce (Not Head)	2011-Q1 to 2014-Q4	0.318%	Yes	3.88%	No

**Figure E.2.a: Monthly Organic Lettuce (Not Head) Exports, with Exponential Trend Line**

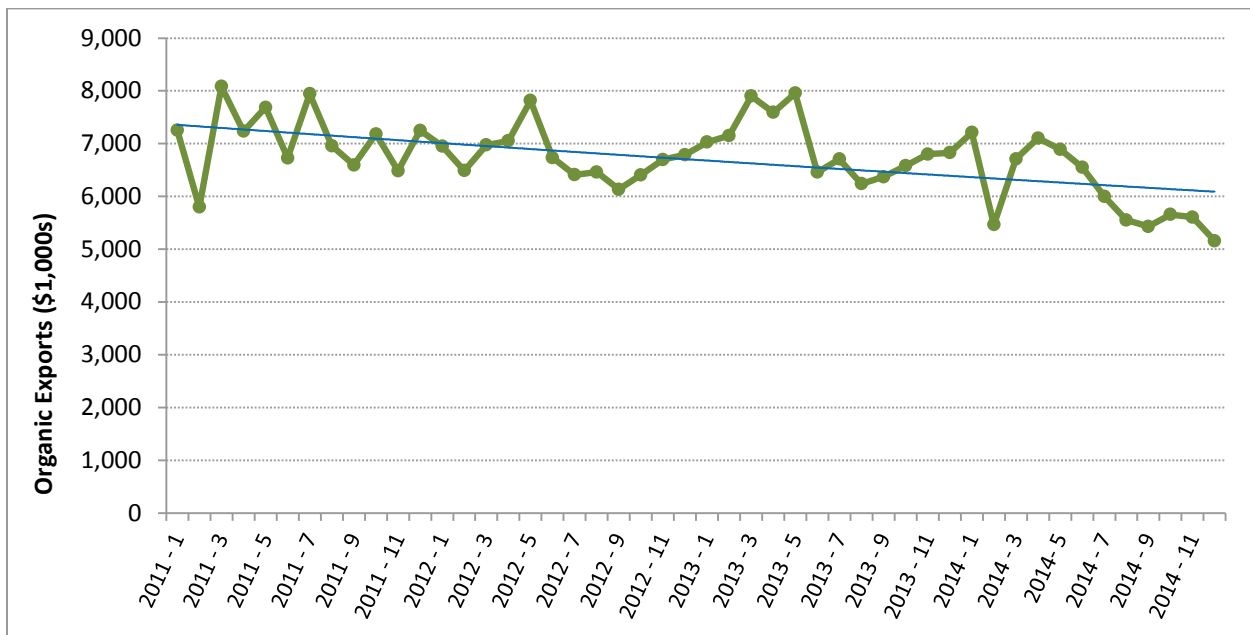


Table E.2.b shows the growth of organic non-head lettuce exports over the four-year period juxtaposed with total non-head lettuce exports (both organic and non-organic) over the same period. The organic export share declines modestly from 23% in 2011 and 2012 to 19% in 2014.

**Table E.2.b: Organic and Total Apple Exports (Thousands of \$)**

	2011	2012	2013	2014
Organic Lettuce (Not Head) Export	85,197	80,909	83,606	73,326
Total Lettuce (Not Head) Export	363,574	356,009	388,985	380,004
Share of Organic Export	23%	23%	21%	19%

**Country of Destination**

Figure E.2.b clearly shows that Canada is the dominant destination for organic lettuce.

**Figure E.2.b: Organic Lettuce (Not Head) Export Destinations, by Share**

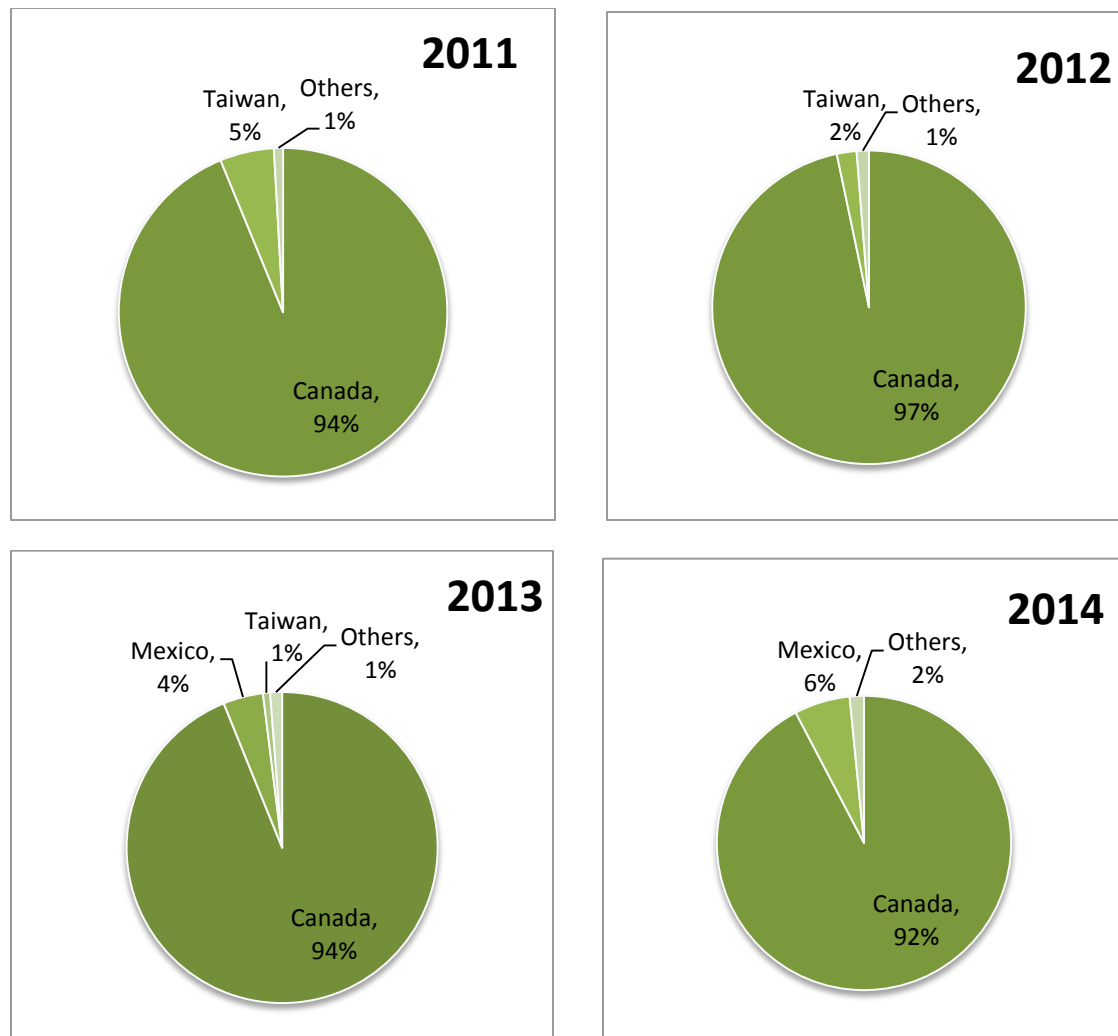




Table E.2.c shows country-by-country exports of organic lettuce over the four-year period. Again we see that Canada is the prominent destination. However, exports to Mexico increased greatly over the four-year period, while exports to Taiwan diminished greatly.

**Table E.2.c: Organic Lettuce (Not Head) Exports by Destination Country (values in \$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	79,907	78,241	78,488	67,696
2. Mexico	99	132	3,471	4,488
3. Korea, South	248	327	0	266
4. Netherlands Antilles	0	0	159	259
5. Hong Kong	4	0	103	153
6. Japan	79	290	312	141
7. Trinidad and Tobago	152	169	221	136
8. Barbados	0	0	40	97
9. Taiwan	4,529	1,649	620	34
<b>Totals</b>	<b>85,018</b>	<b>80,808</b>	<b>83,414</b>	<b>73,270</b>

Canada is also the prominent destination for non-organic lettuce, as shown in Table E.2.d. Exports of non-organic lettuce to Taiwan grew (instead of declining).

**Table E.2.d: Non-Organic Lettuce (Not Head) Exports by Destination Country (values in \$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	266,159	253,408	279,917	276,474
2. Taiwan	2,663	3,406	4,835	11,358
3. Mexico	3,552	5,830	6,319	5,570
4. Bermuda	20	1,952	2,531	2,832
5. Hong Kong	1,061	1,916	2,038	1,845
6. Bahamas, The	1,160	1,096	1,687	1,811
7. Korea, South	412	3,181	2,914	1,615
<b>Totals</b>	<b>275,027</b>	<b>270,789</b>	<b>300,241</b>	<b>301,505</b>

**Conclusions:** In general, organic non-head lettuce exports have declined modestly since data collection began in 2011. Because Canada is the primary destination by far, the overall numbers mirror Canada's exports numbers, which are also declining.

### 3. ORGANIC GRAPES EXPORTS

Exhibiting strong growth, grapes have been the U.S.’s third leading organic export since 2012.

#### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic grapes exports is estimated to be 16.3%. Table E.3.a shows that this annual growth rate is about 30% higher than the growth rate in non-organic grapes exports, which we estimate to be 12.4% per year. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. For organic grapes exports, the fourth quarter of each year has significantly higher exports than the reference quarter. A cyclical pattern is noticeable in Figure E.3.a, the graph of monthly organic exports, where the fourth-quarter figures are generally above the general trend line.

**Table E.3.a: Total Organic and Non-Organic Grapes Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Grapes	2011-Q1 to 2014-Q4	1.270%	Yes	16.3%	Yes: Q4 is the highest
Non-Organic Grapes	2011-Q1 to 2014-Q4	0.978%	Yes	12.4%	Yes: Q4 is the highest

**Figure E.3.a: Monthly Organic Grapes Exports, with Exponential Trend Line**

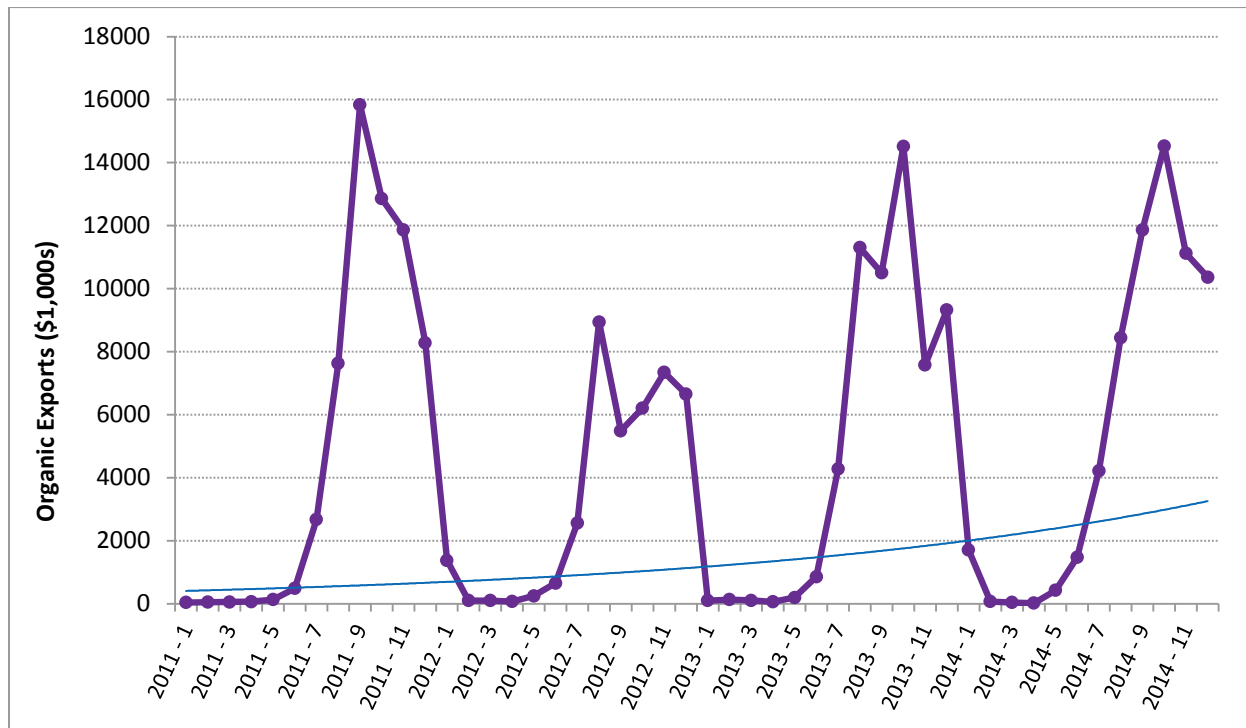


Table E.3.b shows the growth of organic grape exports over the four-year period juxtaposed with total grape exports (both organic and non-organic) over the same period. The organic export share dips from 8% in 2011 to 5% in 2012, and then rises back to 7% by 2014.

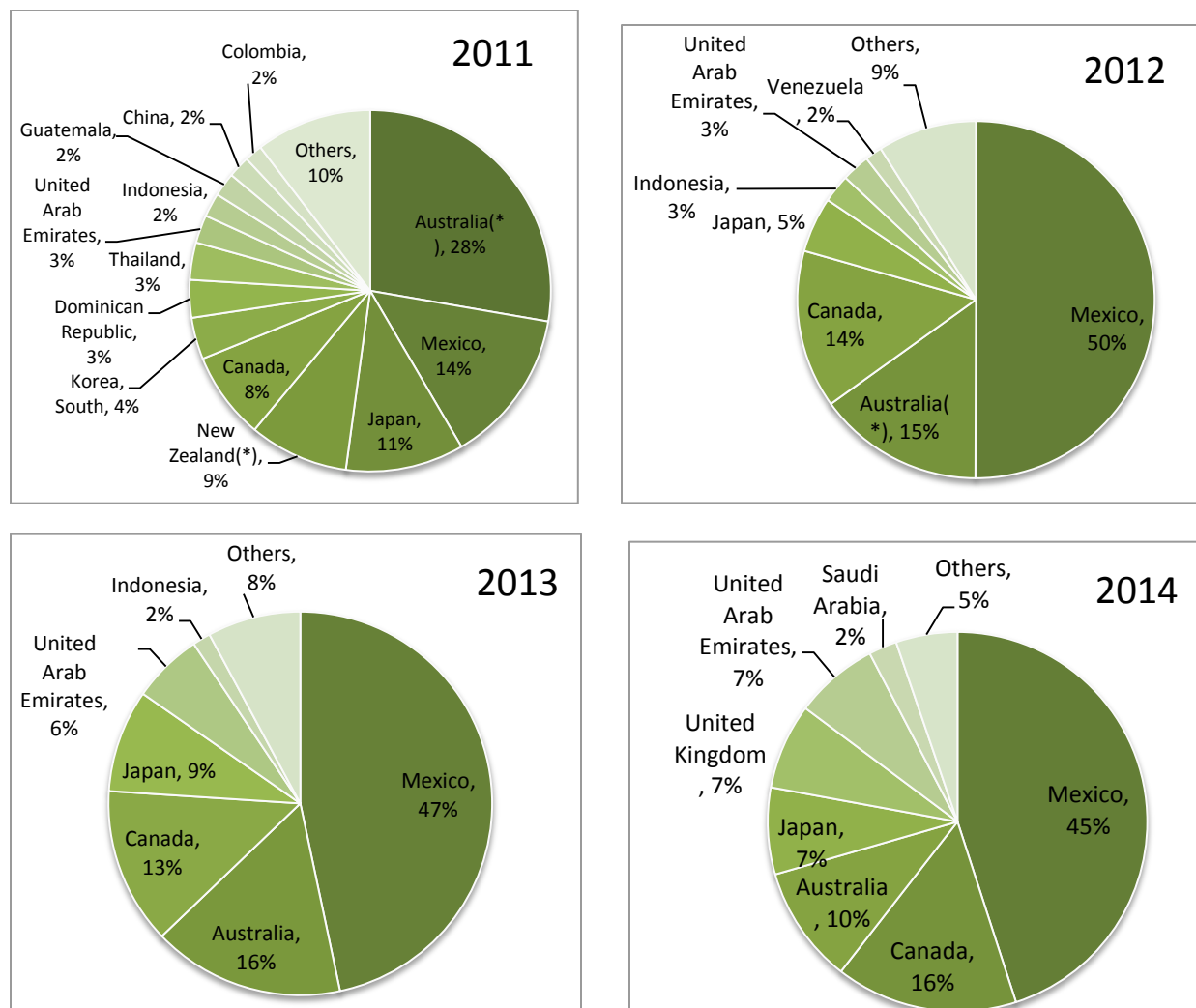
**Table E.3.b: Organic and Total Grapes Exports (values in \$1,000s)**

	2011	2012	2013	2014
Organic Grapes Exports	60,007	39,784	59,001	64,319
Total Grapes Exports	719,407	799,572	912,475	875,479
Share of Organic Exports	8%	5%	6%	7%

**Country of Destination**

As shown in Figure E.3.b, Mexico, Australia and Canada are major destinations for organic grapes. In 2014, the United Kingdom became the first E.U. country to receive organic grape exports from the U.S. totaling 1% or more.

**Figure E.3.b: Organic Grapes Export Destinations, by Share**



Tables E.3.c and E.3.d juxtapose organic and non-organic grape exports by destination country. Note that Mexico and Canada swap rankings, with Mexico ranking first for organic exports and Canada ranking first for non-organic exports. Also note that exports to the United Kingdom grew dramatically from 2013 to 2014.

**Table E.3.c: Organic Grapes Exports by Destination Country with Shares Greater than 1% (values in \$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Mexico	8,311	19,914	27,542	28,951
2. Canada	4,690	5,699	7,785	9,975
3. Australia(*)	16,637	5,982	9,533	6,427
4. Japan	6,353	1,991	5,109	4,753
5. United Kingdom	189	352	165	4,699
6. United Arab Emirates	1,503	1,010	3,508	4,592
7. Saudi Arabia	849	79	351	1,547
<b>Totals</b>	<b>38,532</b>	<b>35,027</b>	<b>53,993</b>	<b>60,944</b>

**Table E.3.d: Non-Organic Grapes Exports by Destination Country with Shares Greater than 1% (values in \$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	193,475	213,996	211,322	214,645
2. Hong Kong	86,254	76,125	138,050	97,159
3. Mexico	56,868	56,881	60,697	62,242
4. Australia(*)	18,148	43,054	40,563	47,513
5. Philippines	27,438	38,325	44,093	41,314
6. Indonesia	36,792	41,553	23,927	36,694
7. Malaysia	19,223	26,438	32,127	30,359
8. Taiwan	16,740	21,297	30,052	29,940
9. Singapore	13,896	15,888	26,533	24,628
10. Korea, South	11,496	15,798	17,581	24,287
11. China	22,270	23,937	38,152	23,026
12. Vietnam	15,790	17,708	21,053	19,665
13. New Zealand(*)	11,748	16,190	15,157	19,190
14. Thailand	23,835	22,587	20,159	17,643
15. Japan	13,616	24,852	22,683	17,504
16. United Kingdom	5,782	8,259	16,191	12,385
<b>Totals</b>	<b>573,371</b>	<b>662,888</b>	<b>758,340</b>	<b>718,194</b>

**Conclusions:** In general, organic grape exports are highly cyclical and, on average, show modest growth over the four-year period. This modest growth seems to be fueled by the slow but steady growth in organic exports to Mexico and Canada, the two main destination countries. Exports to other destinations, such as Australia and Japan, have either declined or been mixed.

## 4. ORGANIC SPINACH EXPORTS

Spinach has been the U.S.’s fourth leading organic export since 2012, and this export exhibits strong growth.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic spinach exports is estimated to be more than 22%. Table E.4.a shows that this annual growth rate is substantially higher than the growth rate in non-organic spinach exports, which we estimate to be only 14% per year. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. A cyclical pattern is noticeable in Figure E.4.a, the graph of monthly organic exports, where the third-quarter figures are generally below the general trend line. The overall growth in organic spinach exports is quite apparent in Figure E.4.a.

**Table E.4.a: Total Organic and Non-Organic Spinach Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Spinach	2011-Q1 to 2014-Q4	1.689%	Yes	22.3%	Yes: Q2 is the highest; Q4 is the lowest
Non-Organic Spinach	2011-Q1 to 2014-Q4	1.114%	Yes	14.2%	Yes: Q3 is the lowest

**Figure E.4.a: Monthly Organic Spinach Exports, with Exponential Trend Line**

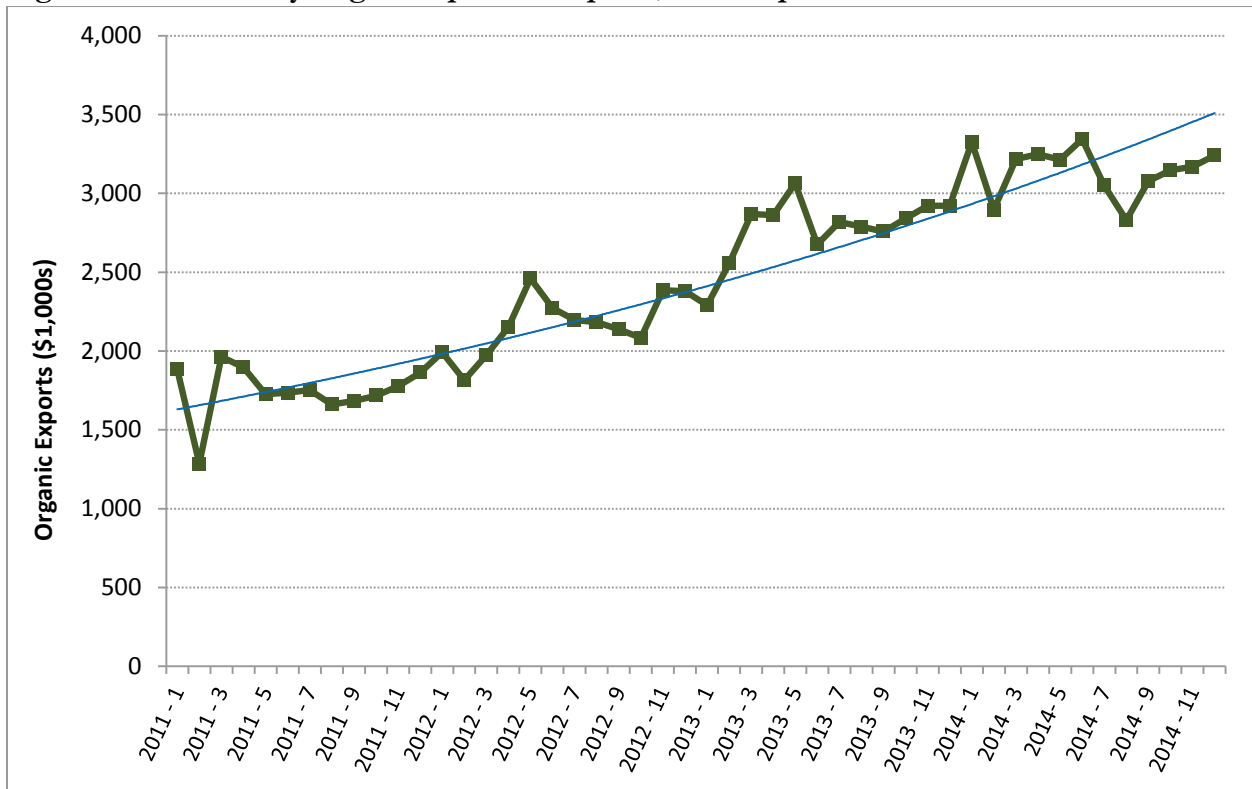


Table E.4.b shows the growth of organic spinach exports over the four-year period along with total spinach exports (both organic and non-organic) over the same period. The organic export share rises modestly throughout the period from 29% to 33%.

**Table E.4.b: Organic and Total Spinach Exports (Thousands of \$)**

	2011	2012	2013	2014
Organic Spinach Export	20,943	26,033	33,368	37,758
Total Spinach Export	73,440	82,858	100,661	115,205
Share of Organic Export	29%	31%	33%	33%

**Country of Destination**

Organic spinach export destination countries are dominated by Canada and Mexico. Figure E.4.b shows the destination countries for those countries receiving more than 1% of the total U.S. organic spinach exports. In 2011 and 2012, all organic spinach exports went to Canada; by 2013 and 2014, slightly more than 4% and 6% of exports went to Mexico.

**Figure E.4.b: Organic Spinach Export Destinations, by Share**

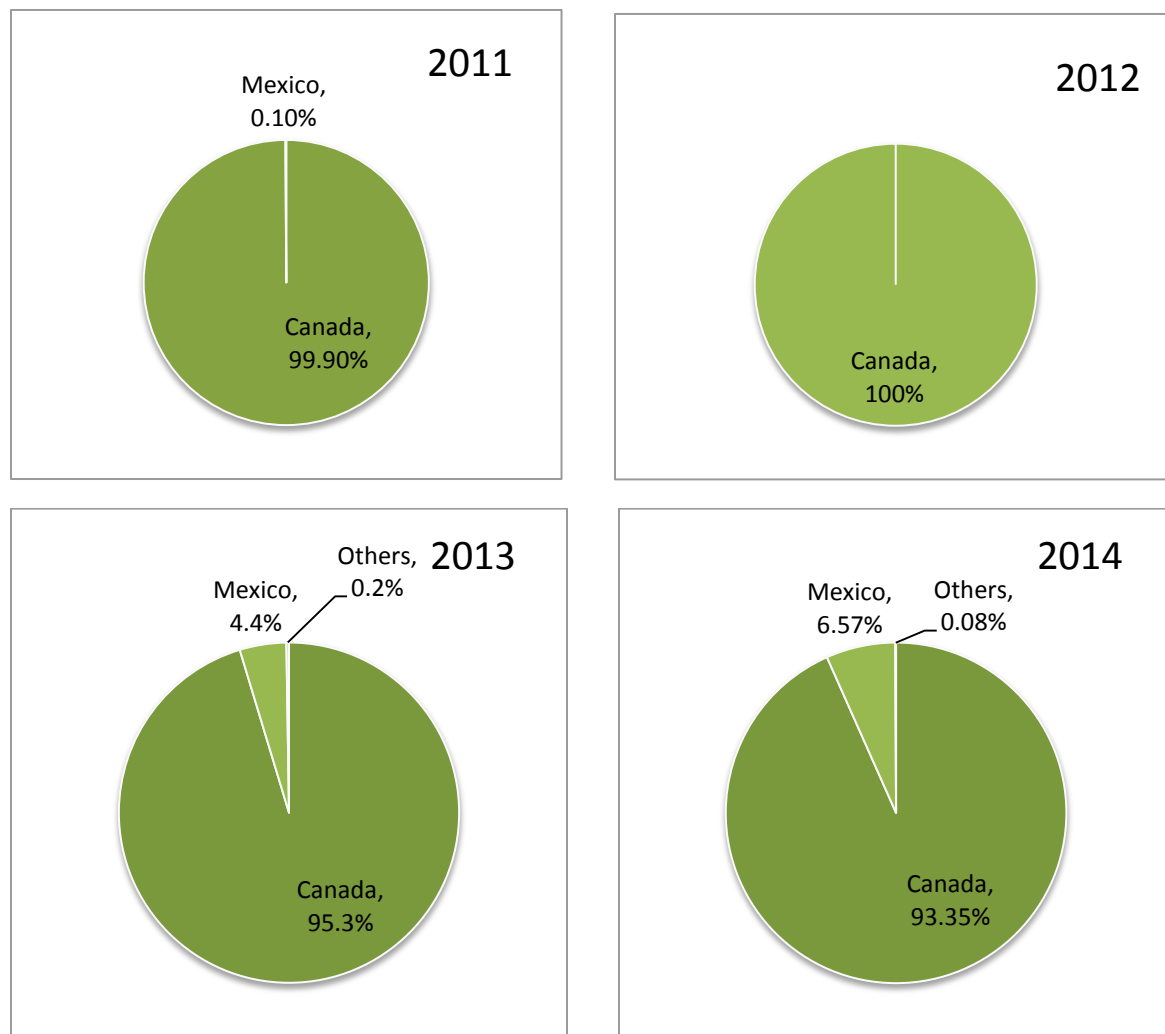


Table E.4.c shows the level of exports to the top destination countries for organic spinach for all four years of data. Table E.4.d, which shows the same information for non-organic spinach, is presented as a basis for comparison. Again, it is clear that Canada and Mexico dominate organic (and non-organic) spinach exports.

**Table E.4.c: Organic Spinach Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	20,923	26,033	31,808	35,248
2. Mexico	20	0	1,478	2,482
<b>Totals</b>	<b>20,943</b>	<b>26,033</b>	<b>33,286</b>	<b>37,730</b>

**Table E.4.d: Non-Organic Spinach Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	52,327	56,431	66,609	75,974
2. Mexico	99	245	407	1,178
<b>Totals</b>	<b>52,426</b>	<b>56,676</b>	<b>67,016</b>	<b>77,152</b>

**Conclusions:** In general, organic spinach exports appear to exhibit strong and steady growth. This export is perhaps unique in that organic and non-organic spinach are exported to two and only two major destinations – Canada and Mexico. Another notable conclusion involves the organic’s share of spinach exports: Nearly half of all spinach exported to Canada, the top destination, is organic.

## 5. ORGANIC STRAWBERRY EXPORTS

Strawberries have been the U.S.'s fifth leading organic export since 2013; in 2011, they were the tenth leading organic export.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic strawberry exports is estimated to be 25%. Table E.5.a shows that this annual growth rate is substantially higher than the growth rate for non-organic strawberry exports, which we estimate to be only 3% per year. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. For organic strawberry exports, the second quarter has significantly higher exports than during the reference quarter. A cyclical pattern is noticeable in Figure E.5.a, the graph of monthly organic exports, where the second-quarter figures are generally above the general trend line.

**Table E.5.a: Total Organic and Non-Organic Strawberry Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Strawberries	2011-Q1 to 2014-Q4	1.878%	Yes	25.02%	Yes: Q2 is the highest
Non-Organic Strawberries	2011-Q1 to 2014-Q4	0.251%	Yes	3.05%	Yes: Q2 is the highest; Q4 is the lowest

**Figure E.5.a: Monthly Organic Strawberry Exports, with Exponential Trend Line**

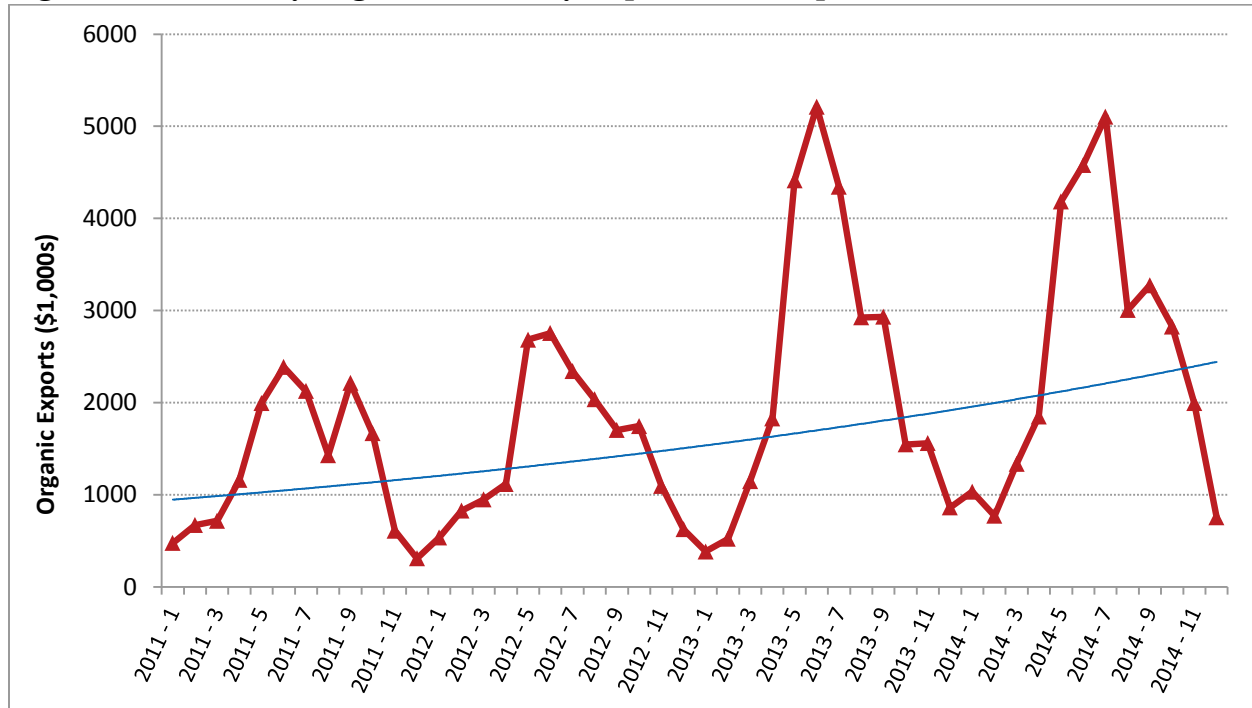




Table E.5.b shows the growth of organic strawberry exports over the four-year period juxtaposed with total strawberry exports (both organic and non-organic) over the same period. The organic export share rises modestly throughout the four-year period.

**Table E.5.b: Organic and Total Strawberry Exports (Thousands of \$)**

	2011	2012	2013	2014
Organic Strawberries Export	15,770	18,423	27,682	30,716
Total Strawberries Export	360,005	386,503	412,390	405,282
Share of Organic Export	4%	5%	7%	8%

**Country of Destination**

By a wide margin, Canada is the primary destination for organic strawberry exports. Figure E.5.b shows that Canada receives 71% and 86% of the U.S.’s organic strawberries between 2011 and 2014. The share of organic strawberries exported to the United Kingdom increased from near zero in 2011 to 6% by 2014.

**Figure E.5.b: Organic Strawberry Export Destinations, by Share**

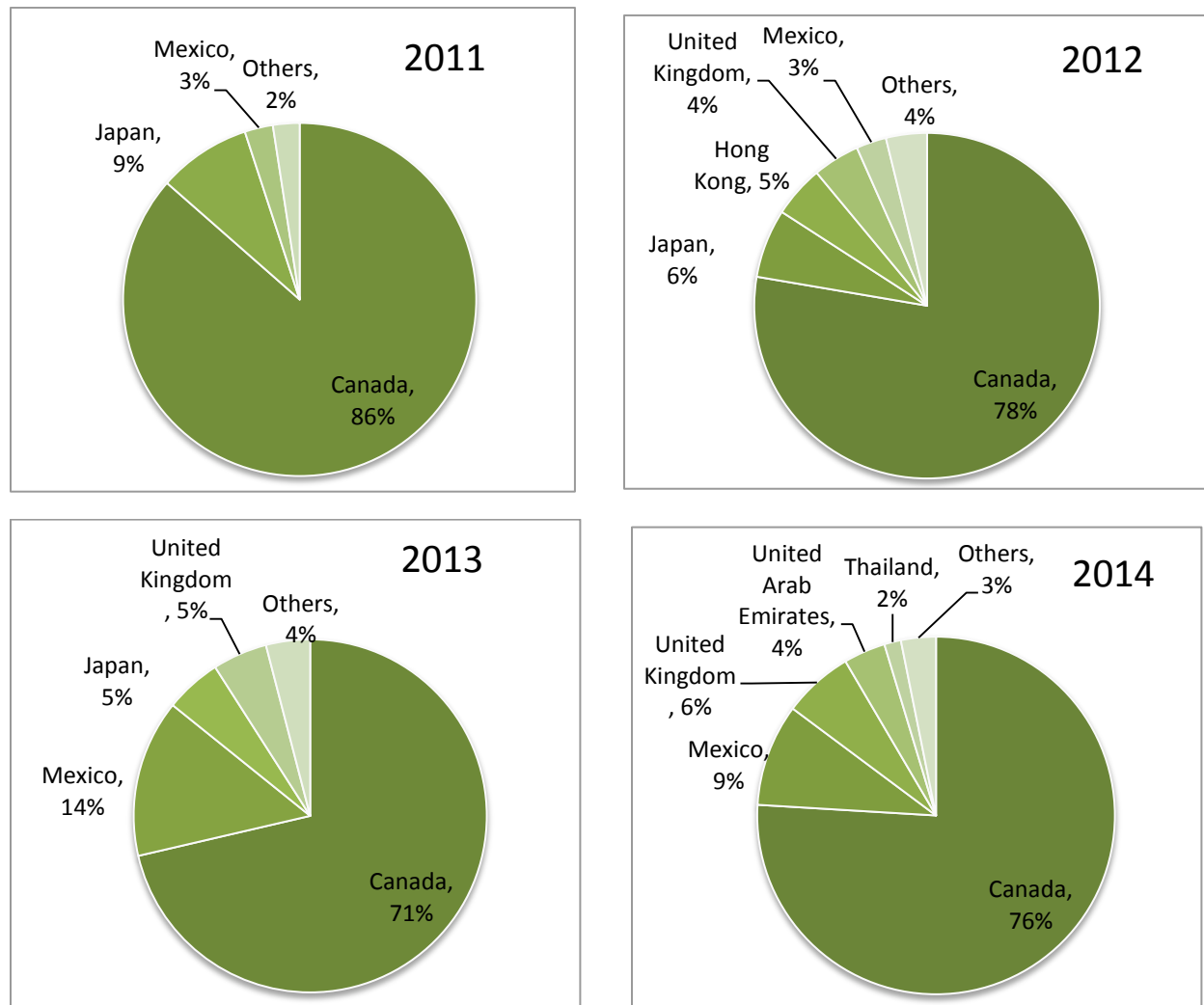


Table E.5.c shows the level of exports to the top destination countries for organic strawberries for all four years of data. Table E.5.d, which shows the same information for non-organic strawberries, is presented as a basis for comparison. Again, it is clear that Canada dominates organic (and non-organic) strawberry exports. One notable result is that exports to the United Kingdom, while small relative to Canada, grew dramatically throughout the four-year period.

**Table E.5.c: Organic Strawberry Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	13,632	14,308	19,752	23,329
2. Mexico	408	519	3,994	2,841
3. United Kingdom	166	806	1,387	1,948
4. United Arab Emirates	18	31	284	1,164
5. Thailand	0	6	0	463
<b>Totals</b>	<b>14,224</b>	<b>15,670</b>	<b>25,417</b>	<b>29,745</b>

**Table E.5.d: Non-Organic Strawberry Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	295,085	308,312	315,068	295,045
2. Mexico	12,204	14,809	22,942	26,991
3. Japan	21,732	24,008	23,009	24,568
4. United Arab Emirates	2,885	7,390	6,538	7,702
5. Saudi Arabia	59	1,045	2,995	5,349
6. United Kingdom	3,569	1,590	3,036	4,236
<b>Totals</b>	<b>335,534</b>	<b>357,154</b>	<b>373,588</b>	<b>363,891</b>

**Conclusions:** In general, organic strawberry exports appear to exhibit strong growth overall as well as a fairly consistent cycle where the level of exports is highest in the May-to-July range and lowest in the December-to-February range. The year 2013 appears to be a particularly strong year for organic strawberry exports, maybe an abnormally strong year. For example, organic exports to Canada, the top destination, rose close to 40% from 2012 to 2013. On the other hand, non-organic exports to Canada rose by about 22% for the same time frame.

## 6. ORGANIC CARROT EXPORTS

The fourth-most exported organic product in 2011, carrots became the sixth-most exported organic product in 2014.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic carrot exports is estimated to be 6.35%. Table E.6.a shows that this annual growth rate is substantially higher than the growth rate for non-organic carrot exports, which we estimate to have declined by 6% per year. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. For organic carrot exports, the third quarter of each year has significantly lower exports than the reference quarter. A cyclical pattern is noticeable in Figure E.6.a, the graph of monthly organic exports, where the third-quarter figures are generally below the general trend line. More generally, Figure E.6.a shows a modest overall growth trend.

**Table E.6.a Total Organic and Non-Organic Carrot Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Carrots	2011-Q1 to 2014-Q4	0.51%	Yes	6.35%	Yes: Q3 is the lowest
Non-Organic Carrots	2011-Q1 to 2014-Q4	-0.52%	Yes	-6.12%	Yes: Q2 is the highest; Q3 is the lowest

**Figure E.6.a: Monthly Organic Carrot Exports, with Exponential Trend Line**

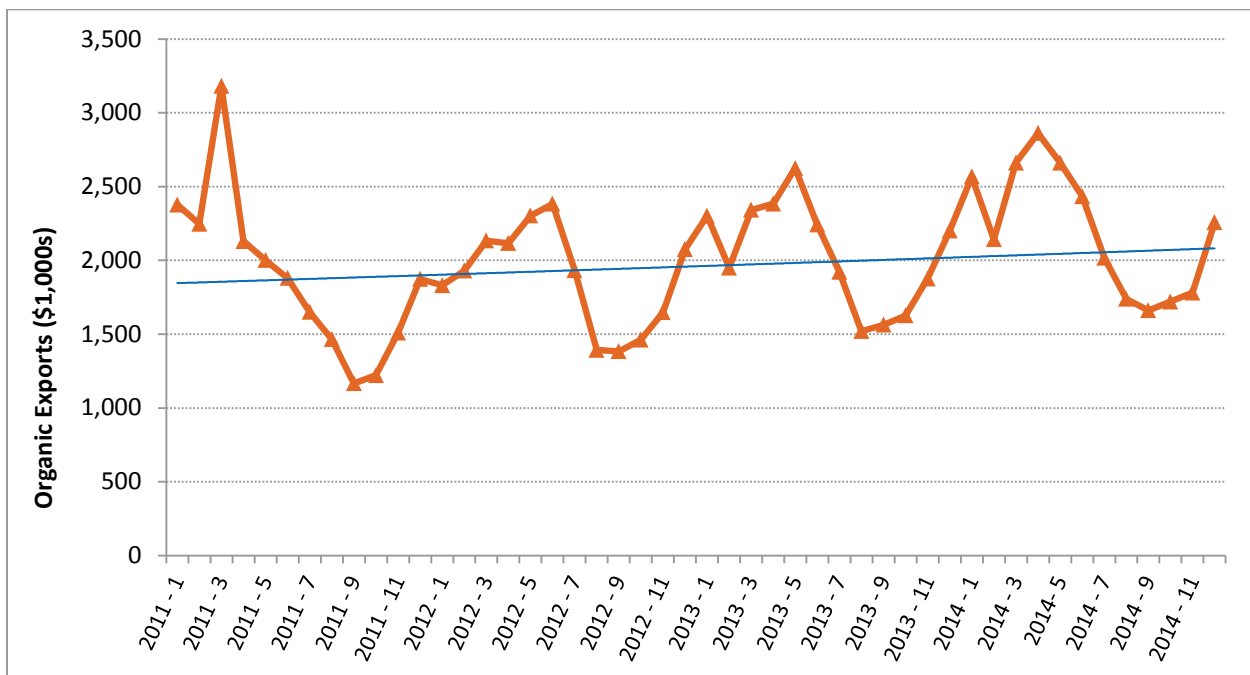


Table E.6.b shows the relatively steady growth of organic carrot exports over the four-year period juxtaposed with total carrot exports (both organic and non-organic) over the same period. The organic export share rises from 17% to 23% throughout the 2011 to 2014 period.

**Table E.6.b: Organic and Total Carrot Exports (\$1,000s)**

	2011	2012	2013	2014
Organic Carrots Exports	22,701	22,590	24,555	26,507
Total Carrots Exports	132,262	119,868	121,987	115,881
Share of Organic Exports	17%	19%	20%	23%

**Country of Destination**

By a wide margin, Canada is the primary destination for organic carrots exports. As shown in Figure E.6.b, Canada's share of exports ranges from 94% to 98% over the four-year period.

**Figure E.6.b: Organic Carrot Export Destinations, by Share**

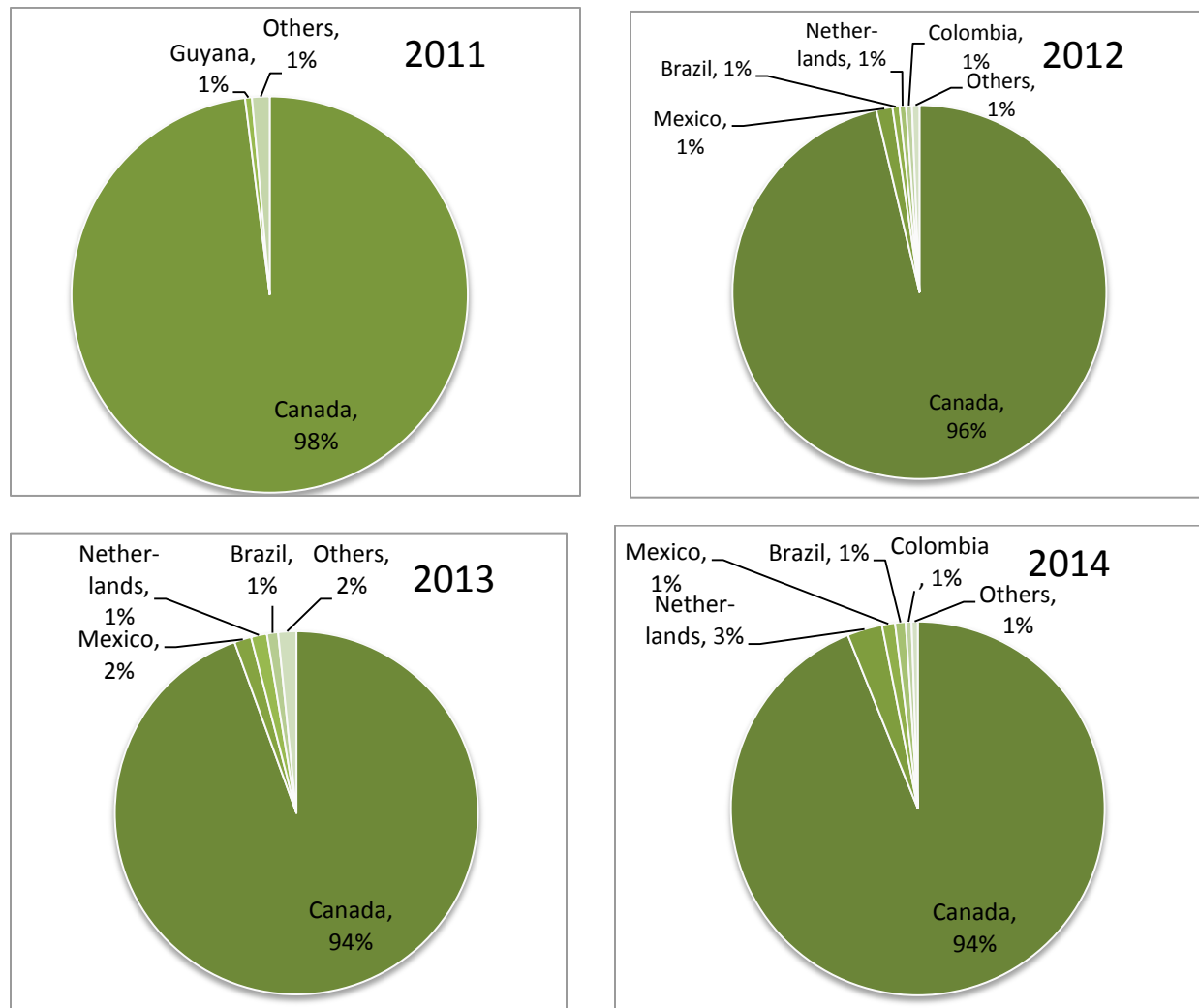


Table E.6.c shows the level of exports to the top destination countries for organic carrots for all four years of data. Table E.6.d, which shows the same information for non-organic carrots, is presented as a basis for comparison. Again, it is clear that Canada is by far the leading destination for organic and non-organic carrot exports.

**Table E.6.c: Organic Carrots Exports by Destination Country (\$1,000s)**

<b>Country (2014 ranking)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
1. Canada	22,251	21,750	23,190	24,886
2. Netherlands	60	124	346	803
3. Mexico	61	315	374	300
4. Brazil	25	138	245	241
5. Colombia	86	115	108	134
<b>Totals</b>	<b>22,483</b>	<b>22,442</b>	<b>24,263</b>	<b>26,364</b>

**Table E.6.d: Non-Organic Carrots Exports by Destination Country (\$1,000s)**

<b>Country (2014 ranking)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
1. Canada	99,246	88,052	88,216	81,773
2. Mexico	3,448	3,596	3,502	4,125
3. United Arab Emirates	317	589	614	497
<b>Totals</b>	<b>103,011</b>	<b>92,237</b>	<b>92,332</b>	<b>86,395</b>

**Conclusions:** In general, organic carrot exports appear to exhibit steady growth overall. Digging a little deeper, we see that organic carrot exports to Canada increase steadily since 2012, while non-organic exports to Canada show a modest decrease in 2014.

## 7. ORGANIC CAULIFLOWER EXPORTS

Cauliflower has been a top-ten organic export since 2011, and shows steady, modest growth.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic cauliflower exports is estimated to be 7.5%. Table E.7.a shows that this annual growth rate is substantially higher than the growth rate in non-organic cauliflower exports, which we estimate to be only 2.5% per year. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. For organic cauliflower exports, the second quarter of each year has significantly higher exports than the reference quarter. A cyclical pattern is noticeable in Figure E.7.a, the graph of monthly organic exports, where the second-quarter figures are generally above the general trend line.

**Table E.7.a: Total Organic and Non-Organic Cauliflower Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Cauliflower	2011-Q1 to 2014-Q4	0.61%	Yes	7.51%	Yes: Q2 is the highest
Non-Organic Cauliflower	2011-Q1 to 2014-Q4	0.20%	Yes	2.46%	Yes: Q3 is the lowest

**Figure E.7.a: Monthly Organic Cauliflower Exports, with Exponential Trend Line**

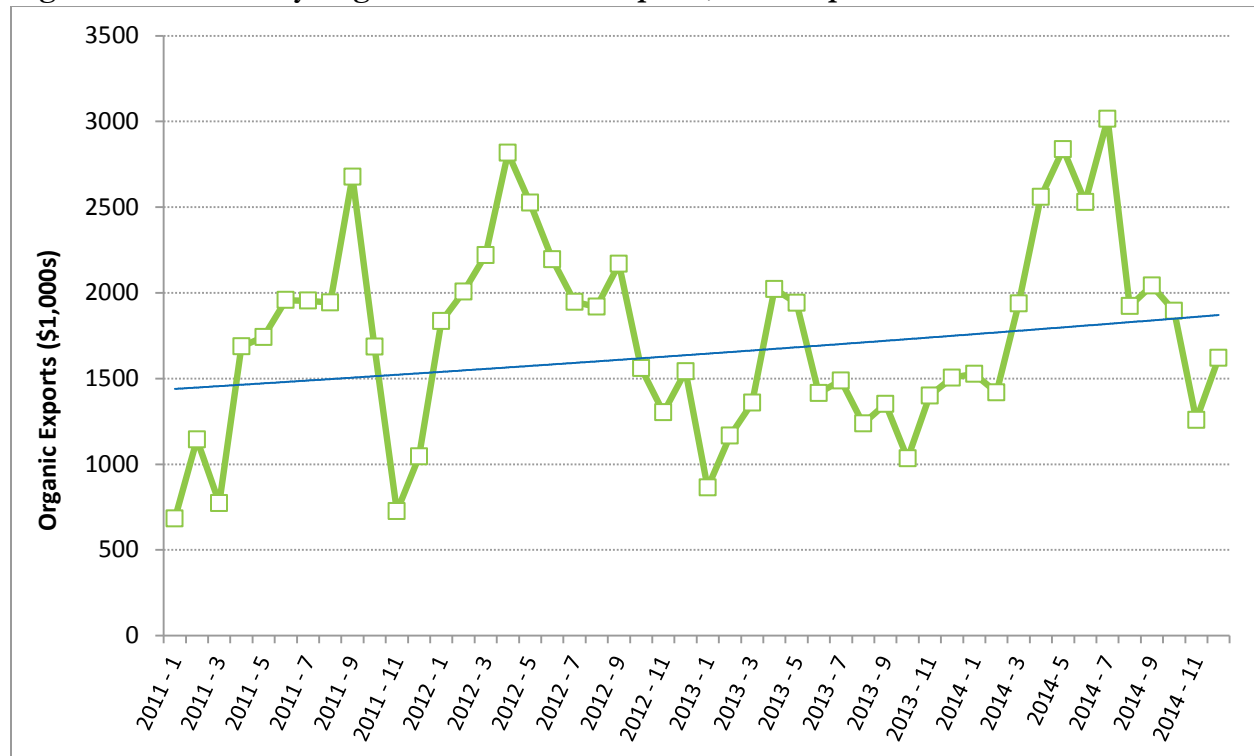


Table E.7.b shows the growth of organic cauliflower exports over the four-year period juxtaposed with total cauliflower exports (both organic and non-organic) over the same period. The organic export share rises, falls, and rises again from 2011 to 2014.

**Table E.7.b: Organic and Total Cauliflower Exports (\$1,000s)**

	2011	2012	2013	2014
Organic Cauliflower Exports	18,013	24,034	16,781	24,558
Total Cauliflower Exports	124,811	126,392	139,857	135,458
Share of Organic Exports	14%	19%	12%	18%

**Country of Destination**

Japan followed by Canada are the primary destination countries for organic cauliflower exports. Figure E.7.b shows the destination countries for those countries receiving more than 1% of the total U.S. organic cauliflower exports.

**Figure E.7.b: Organic Cauliflower Export Destinations, by Share**

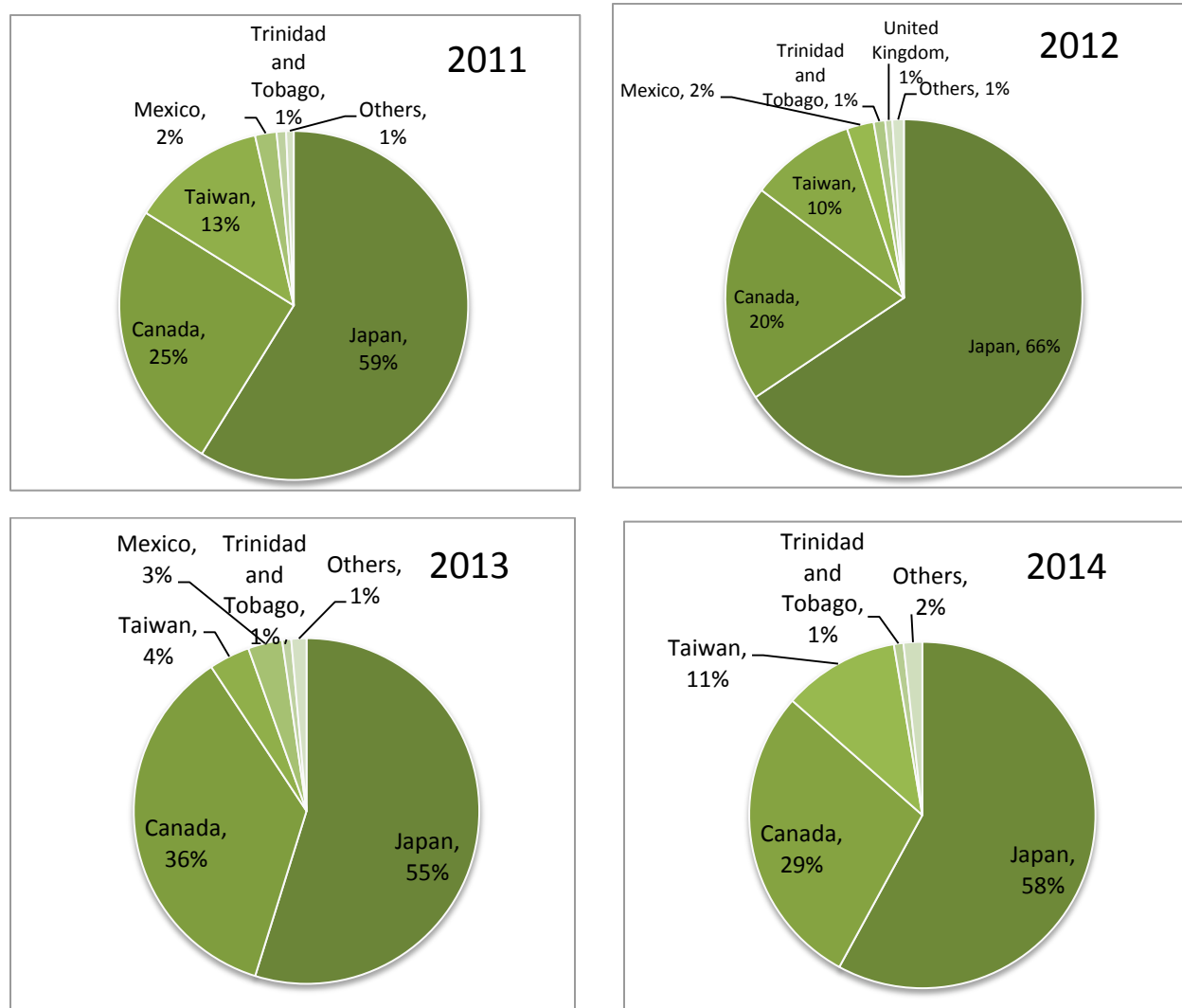


Table E.7.c shows the level of exports to the top destination countries for organic cauliflower for all four years of data. Table E.7.d, which shows the same information for non-organic cauliflower, is presented as a basis for comparison. Note that Japan and Canada swap top rankings: Japan is the top destination for organic exports, while Canada is the top destination for non-organic exports. Also note that organic exports to Japan and Taiwan seem unusually low in 2013.

**Table E.7.c: Organic Cauliflower Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Japan	10,597	15,770	9,198	14,237
2. Canada	4,517	4,734	6,023	7,005
3. Taiwan	2,256	2,291	643	2,673
4. Trinidad and Tobago	158	249	142	219
<b>Totals</b>	17,528	23,044	16,006	24,134

**Table E.7.d: Non-Organic Cauliflower Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	88,994	78,676	100,095	91,042
2. Japan	11,212	16,274	14,257	10,349
3. Taiwan	2,922	3,482	3,815	5,171
4. Mexico	3,148	1,900	1,574	1,563
5. Panama	24	98	675	822
6. Trinidad and Tobago	79	384	757	765
<b>Totals</b>	106,379	100,814	121,173	109,712

**Conclusions:** In general, organic cauliflower exports appear to exhibit steady, modest growth. Exports in 2013 seem unusually low, and the country-by-country data show that unusually low exports to Japan and Taiwan might be responsible. At its peak, organic cauliflower makes up a fairly high share--19%--of all cauliflower exports.



## 8. ORGANIC ROASTED COFFEE EXPORTS

Roasted coffee is the U.S.'s eighth leading organic export, and like most other products in the top ten, organic coffee exports exhibit strong growth.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic coffee exports is estimated to be just under 13%. Table E.8.a shows that this annual growth rate is substantially higher than the growth rate in non-organic coffee exports, which we estimate to be decreasing by 2.5% per year. The table summarizes the monthly and annual growth rates estimated with an exponential growth model. Figure E.8.a shows monthly exports over the time period, often fluctuating but generally rising.

**Table E.8.a: Total Organic and Non-Organic Coffee Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Coffee	2011-Q1 to 2014-Q4	1.01%	Yes	12.86%	No
Non-Organic Coffee	2011-Q1 to 2014-Q4	-0.21%	No	-2.50%	Yes: Q4 is the highest

**Figure E.8.a: Monthly Organic Coffee Exports, with Exponential Trend Line**

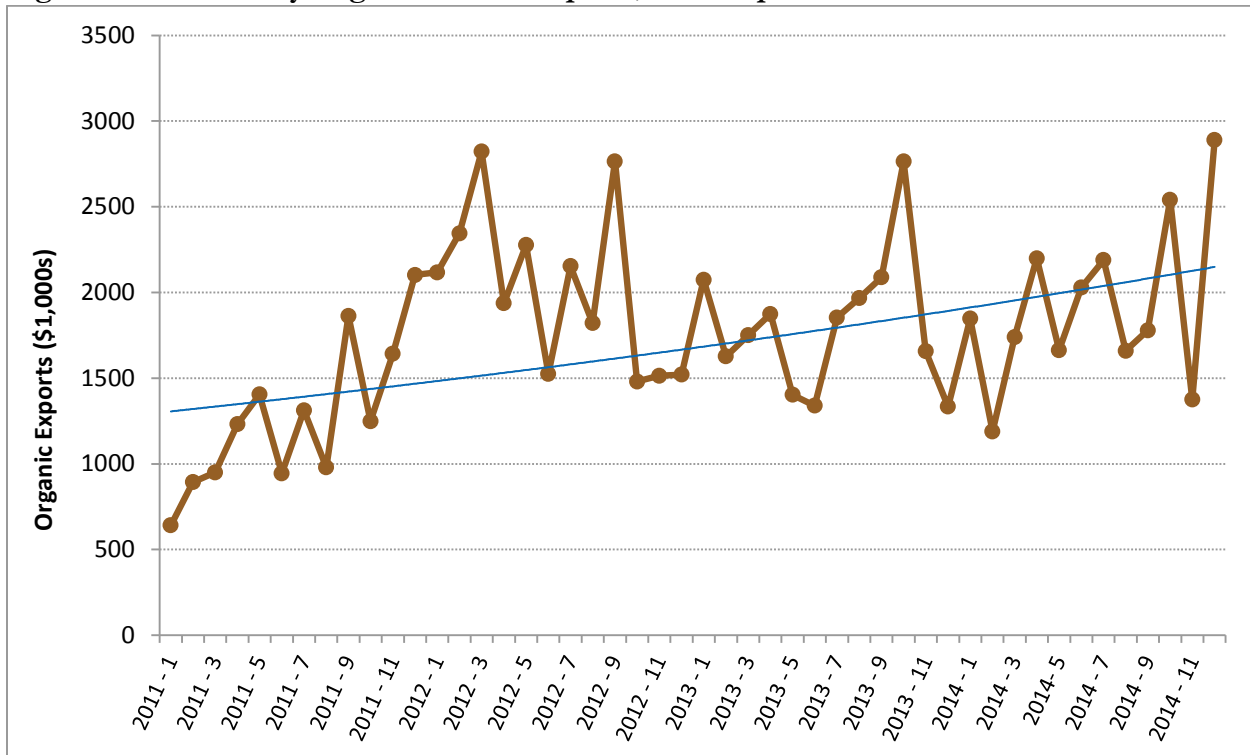


Table E.8.b shows the growth of organic coffee exports over the four-year period juxtaposed with total coffee exports (both organic and non-organic) over the same period. The organic export share of coffee is fairly small, ranging from 2% to 3%.

**Table E.8.b: Organic and Total Coffee Exports (\$1,000s)**

	2011	2012	2013	2014
Organic Coffee Exports	15,214	24,276	21,730	23,096
Total Coffee Exports	749,217	834,347	743,240	721,092
Share of Organic Exports	2%	3%	3%	3%

**Country of Destination**

Mexico overtook Canada as the number one destination for organic coffee exports in 2013. Figure E.8.b shows the destination countries for those countries receiving more than 1% of the total U.S. organic coffee exports.

**Figure E.8.b: Organic Coffee Export Destinations, by Share**

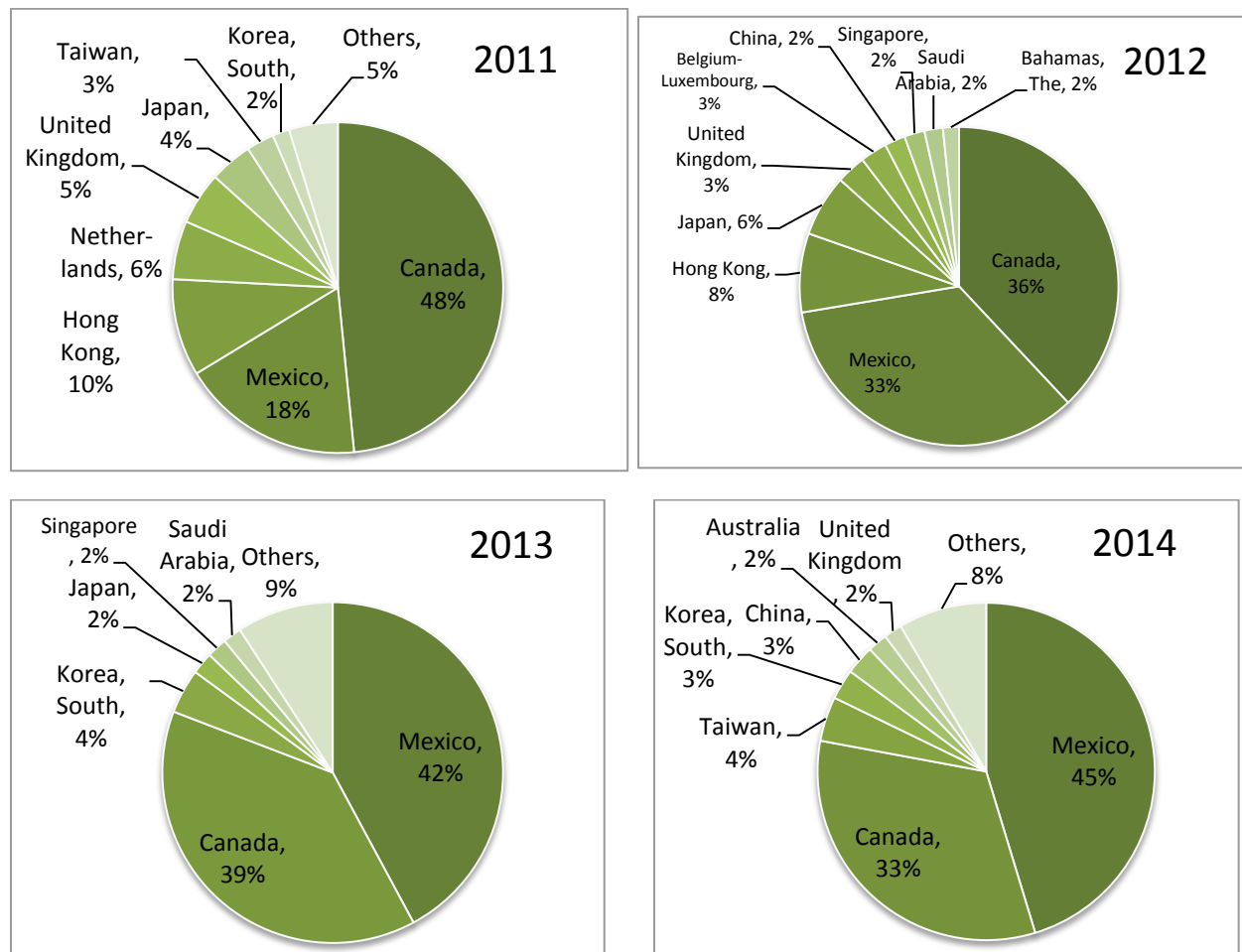


Table E.8.c shows the level of exports to the top destination countries for organic coffee for all four years of data. Table E.8.d, which shows the same information for non-organic coffee, is presented as a basis for comparison. Examined together, the two tables show the low amount of organic coffee exports relative to non-organic coffee exports. Non-organic exports to Canada are huge; whereas organic exports to Canada are quite modest. Note that 2012's total for the top seven destinations (\$18.3 million) is well short of the total (\$24.3 million) from Table E.8.b above. This discrepancy would seem to suggest that the difference stems from lots of exports to small-destination countries.

**Table E.8.c: Organic Coffee Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Mexico	2,720	7,978	9,157	10,464
2. Canada	7,367	8,827	8,407	7,535
3. Taiwan	414	35	137	987
4. Korea, South	251	315	920	670
5. China	0	487	166	645
6. Australia(*)	7	0	291	439
7. United Kingdom	781	695	137	403
<b>Totals</b>	<b>11,540</b>	<b>18,337</b>	<b>19,215</b>	<b>21,143</b>

**Table E.8.d: Non-Organic Coffee Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	555,439	621,483	537,880	551,523
2. Japan	46,673	72,513	62,465	48,441
3. Korea, South	31,127	34,795	39,099	25,164
4. Singapore	14,049	16,893	18,561	11,522
5. Taiwan	7,206	9,991	9,042	11,240
<b>Totals</b>	<b>654,494</b>	<b>755,675</b>	<b>667,047</b>	<b>647,890</b>

**Conclusions:** In general, organic coffee exports appear to exhibit strong growth. However, the organic share of all coffee exports is quite low. Finally, 2012 seemed to be an unusually strong year for organic coffee exports to countries outside the top seven destinations.

## 9. ORGANIC TOMATO SAUCE EXPORTS

Tomato sauce is the U.S.’s ninth leading organic export in 2014.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic tomato sauce exports is estimated to be 3.45%. Table E.9.a shows that this annual growth rate is half the growth rate in non-organic tomato sauce exports, which we estimate to be over 7% per year. Thus, tomato sauce is one of the few products investigated where the non-organic export growth rate is higher than the organic export growth rate. Figure E.9.a, the graph of monthly organic exports, shows that tomato sauce exports generally decreased through 2011, then gradually rose for the rest of the time period.

**Table E.9.a: Total Organic and Non-Organic Tomato Sauce Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Tomato Sauce	2011-Q1 to 2014-Q4	0.283%	No	3.45%	No
Non-Organic Tomato Sauce	2011-Q1 to 2014-Q4	0.580%	Yes	7.19%	Yes: Q2 is the lowest

**Figure E.9.a: Monthly Organic Tomato Sauce Exports, with Exponential Trend Line**

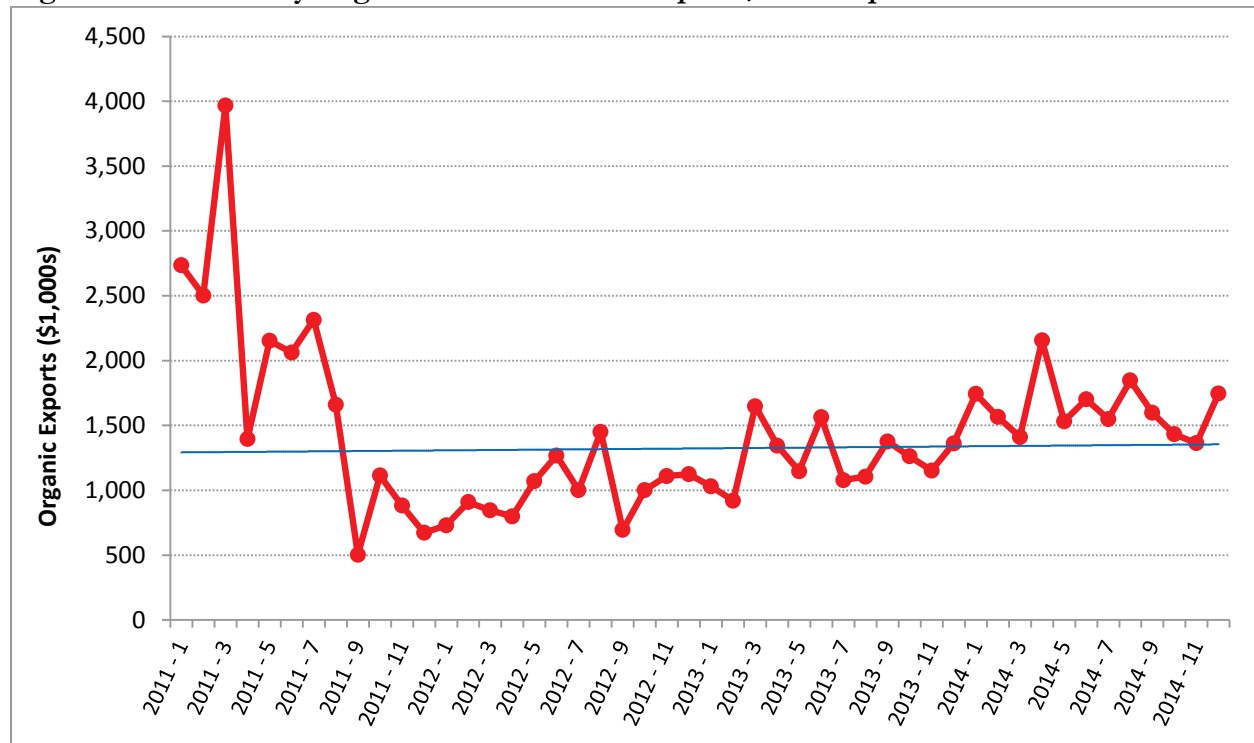


Table E.9.b shows the growth of organic tomato sauce exports over the four-year period juxtaposed with total tomato sauce exports (both organic and non-organic) over the same period. The organic export share declined from 2011 to 2012 and 2013, and then increased modestly in 2014.

**Table E.9.b: Organic and Total Tomato Sauce Exports (\$1,000s)**

	2011	2012	2013	2014
Organic Tomato Sauce Exports	21,959	12,011	14,991	19,646
Total Tomato Sauce Exports	200,282	215,693	231,769	239,296
Share of Organic Exports	11%	6%	6%	8%

**Country of Destination**

By a wide margin, Canada is the primary destination for organic tomato sauce exports. Figure E.9.b shows the destination countries for those countries receiving more than 1% of the total U.S. organic tomato sauce exports. One European Union country, the United Kingdom, appears as an export destination for the first time in 2014.

**Figure E.9.b: Organic Tomato Sauce Export Destinations, by Share**

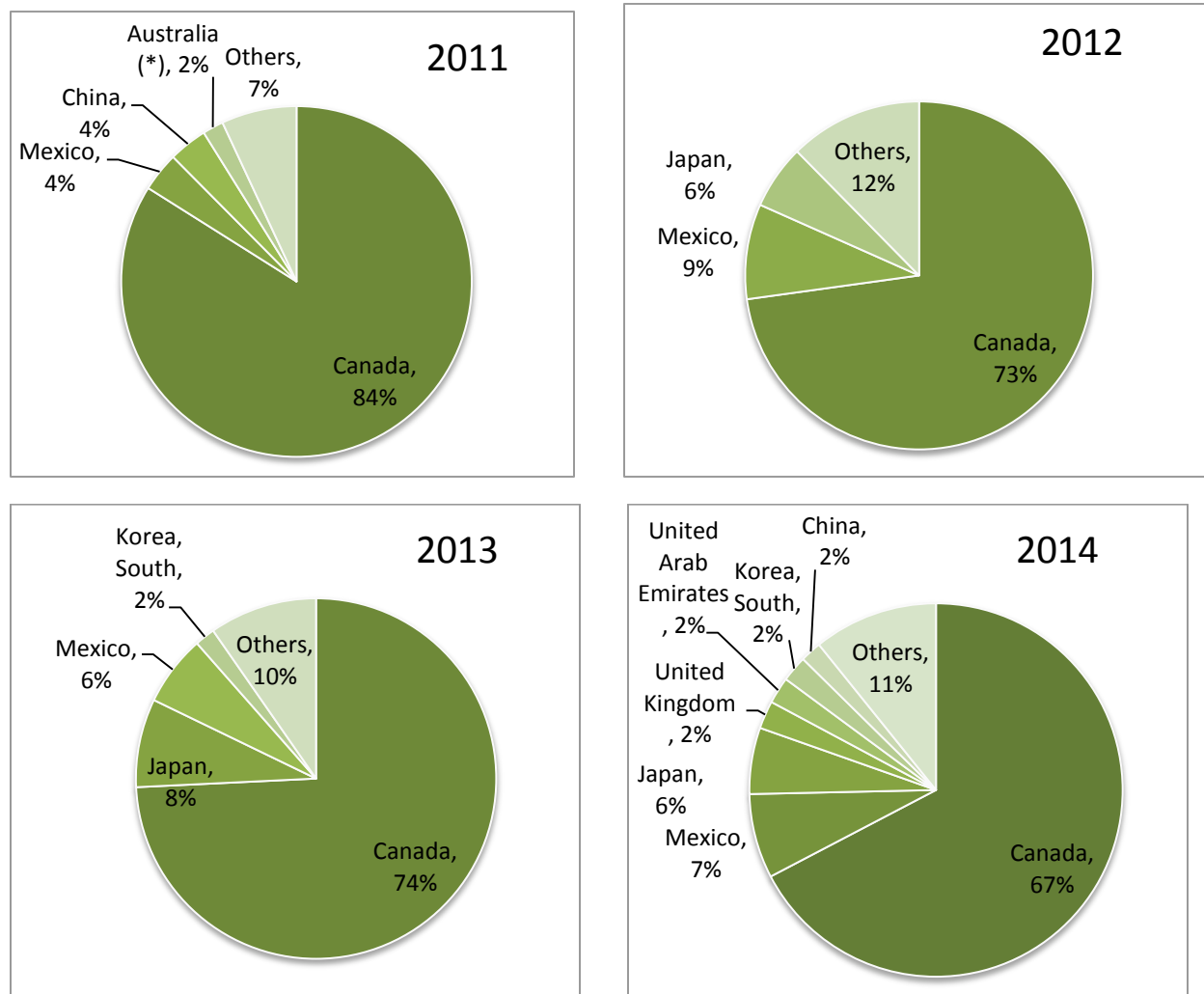


Table E.9.c shows the level of exports to the top destination countries for organic tomato sauce for all four years of data. Table E.9.d, which shows the same information for non-organic tomato sauce, is presented as a basis for comparison. The top three destination countries, Canada, Mexico, and Japan, are the same for both organic and non-organic tomato sauce exports. Exports to Canada dropped by more than half from 2011 to 2012.

**Table E.9.c: Organic Tomato Sauce Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	18,429	8,751	11,128	13,226
2. Mexico	795	1,063	949	1,438
3. Japan	95	718	1,190	1,129
4. United Kingdom	179	54	126	474
5. United Arab Emirates	201	90	0	453
6. Korea, South	134	117	272	443
7. China	782	106	124	360
<b>Totals</b>	20,615	10,899	13,789	17,523

**Table E.9.d: Non-Organic Tomato Sauce Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	137,847	145,482	148,892	152,689
2. Mexico	9,599	10,914	15,321	15,233
3. Japan	5,906	10,203	13,408	14,255
<b>Totals</b>	153,352	166,599	177,621	182,177

**Conclusions:** In general, organic tomato sauce exports appear to exhibit modest growth overall, and it is one of the only products with stronger growth in its non-organic counterpart. Organic tomato sauce exports might have seen stronger growth if not for a dramatic drop in exports to Canada from 2011 to 2012.

## 10. ORGANIC PEARS EXPORTS

Pears round out the top ten leading organic exports. Organic pear exports grew dramatically from 2011 to 2012, with growth slowing after that.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic pear exports is estimated to be 14.4%. Table E.10.a shows that this annual growth rate is substantially higher than the growth rate for non-organic pear exports, which we estimate to be only 0.6% per year (and is not statistically different from zero). The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. Figure E.10.a, which shows monthly exports, depicts some very large swings. Exports at the end of 2012/beginning of 2013 appear to be unusually high, as do exports in September 2014.

**Table E.10.a: Total Organic and Non-Organic Pear Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Pears	2011-Q1 to 2014-Q4	1.130%	Yes	<b>14.4%</b>	Yes: Q2 is the lowest, Q4 is the highest
Non-Organic Pears	2011-Q1 to 2014-Q4	0.046%	No	<b>0.6%</b>	Yes: Q2 is the lowest, Q4 is the highest

**Figure E.10.a: Monthly Organic Pear Exports, with Exponential Trend Line**

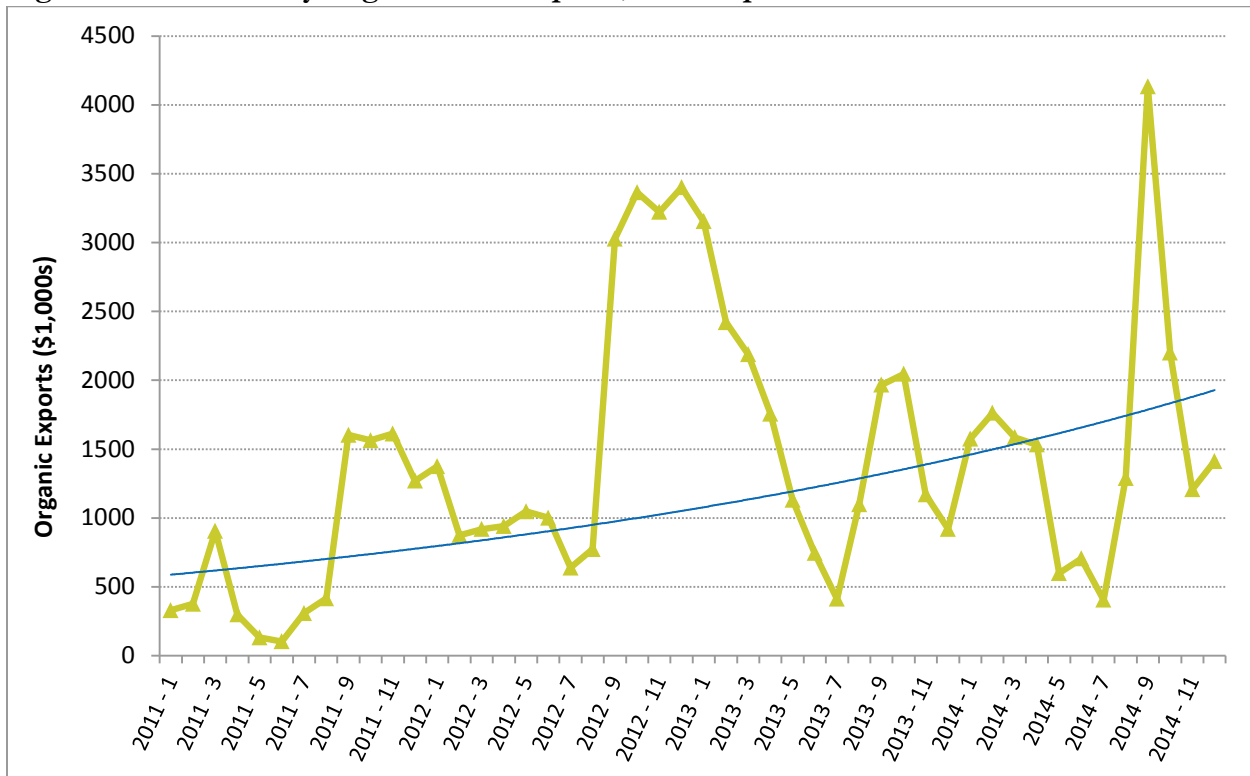


Table E.10.b shows the growth of organic pear exports over the four-year period juxtaposed with total pear exports (both organic and non-organic) over the same period. The organic export share rises dramatically from 2011 to 2012, and then declines modestly in 2013 and 2014.

**Table E.10.b: Organic and Total Pear Exports (\$1,000s)**

	2011	2012	2013	2014
Organic Pears Exports	8,923	20,589	19,012	18,406
Total Pears Exports	179,037	209,319	216,083	216,843
Share of Organic Exports	5%	10%	9%	8%

**Country of Destination**

Mexico and Canada are the primary export destinations for organic pears. Mexico’s share of exports ranges from 67% to 81% over the 2011-2014 period. Canada’s share ranges from 14% to 21%. Figure E.10.b shows the destination countries for those countries receiving more than 1% of the total U.S. organic pear exports.

**Figure E.10.b: Organic Pear Export Destinations, by Share**

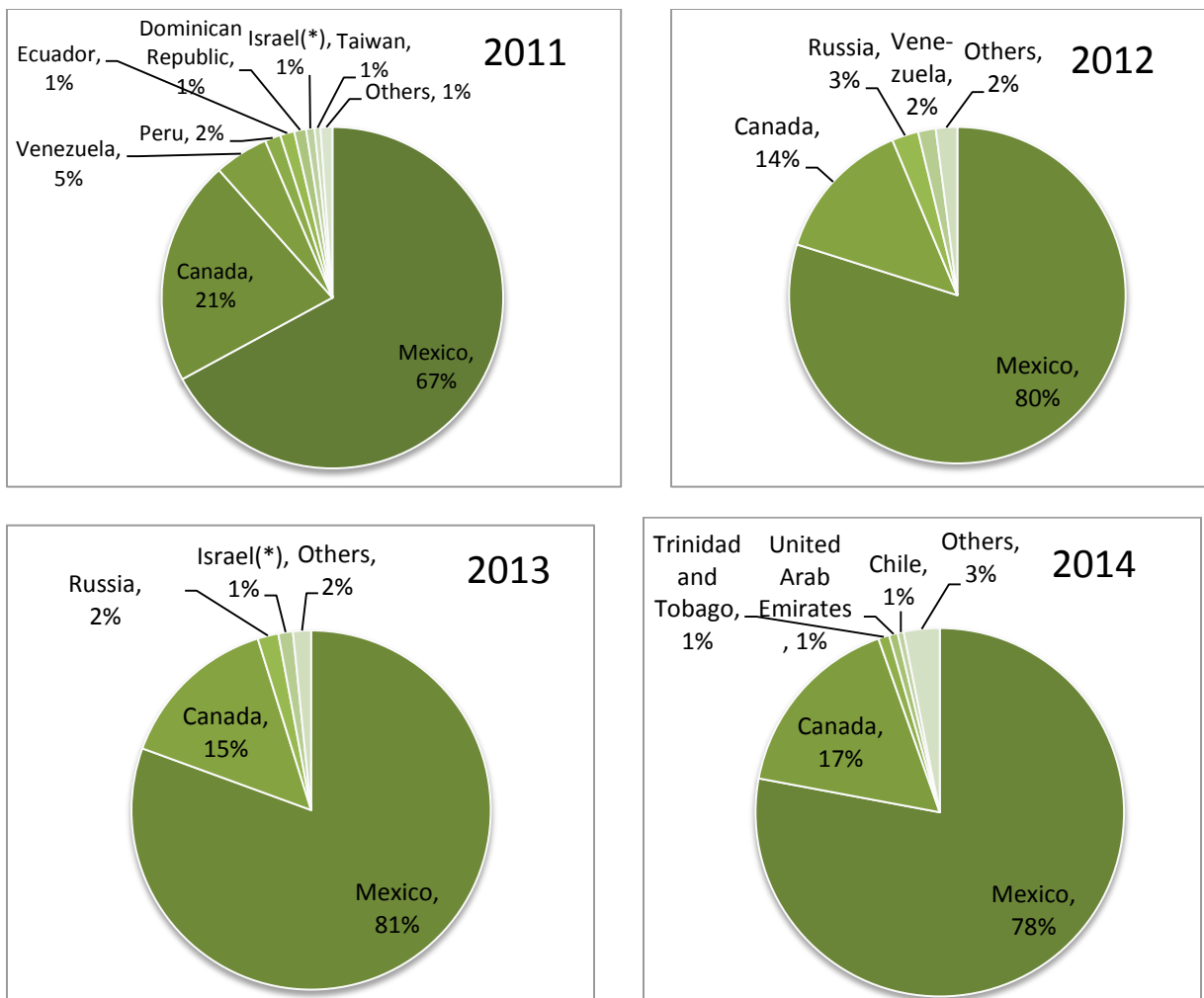




Table E10.c shows the level of exports to the top destination countries for organic pear for all four years of data. Table E.10.d, which shows the same information for non-organic pear, is presented as a basis for comparison. Note that organic exports to Mexico decline after 2012, whereas non-organic exports to Mexico increase each year.

**Table E.10.c: Organic Pear Exports by Destination Country (\$1,000s)**

<b>Country (2014 ranking)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
1. Mexico	5,987	16,445	15,322	14,346
2. Canada	1,906	2,842	2,781	3,064
3. Trinidad and Tobago	457	526	356	178
4. United Arab Emirates	134	349	249	139
5. Chile	120	82	57	99
<b>Totals</b>	<b>8,604</b>	<b>20,244</b>	<b>18,765</b>	<b>17,826</b>

**Table E.10.d: Non-Organic Pear Exports by Destination Country (\$1,000s)**

<b>Country (2014 ranking)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
1. Mexico	52,770	72,968	79,352	86,569
2. Canada	47,781	55,308	52,857	54,514
3. Colombia	6,250	5,968	5,481	9,382
4. United Arab Emirates	3,974	5,033	6,421	8,120
5. Brazil	15,630	10,825	5,388	5,072
6. India	3,386	3,668	3,628	3,968
7. Hong Kong	4,013	3,312	3,892	3,281
8. China	140	44	2,732	3,260
<b>Totals</b>	<b>133,944</b>	<b>157,126</b>	<b>159,751</b>	<b>174,166</b>

**Conclusions:** In general, organic pear exports appear to exhibit strong but fluctuating growth over the four-year period. Because exports to Mexico dominate all exports, the decline in exports to Mexico after 2012 has affected the overall growth of this export.

## 11. ORGANIC BLUEBERRY EXPORTS

The U.S. exported approximately \$17.2 million of organic cultivated blueberries in 2014, and this organic export has seen steady growth during the 2011 to 2014 period.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic blueberry exports is estimated to be 10.5%; however, the monthly growth rate estimated from the exponential growth model is not statistically different from zero. Nonetheless, Table E.11.a shows that the annual growth rate for non-organic blueberries is substantially lower, actually declining over time at an estimated rate of 9.5% per year. Blueberry exports are found to have quarterly effects, with the second quarter exports significantly higher than the reference quarter. Figure E.11.a echoes this finding, and shows a highly cyclical export pattern, with strong peaks at the end of the second quarter and export values near zero during the fourth and first quarters of each year.

**Table E. 11.a: Total Organic and Non-Organic Blueberry Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Blueberries	2011-Q1 to 2014-Q4	0.83%	No	10.5%	Yes: Q2 is the highest
Non-Organic Blueberries	2011-Q1 to 2014-Q4	-0.83%	Yes	-9.5%	Yes: Q2 is the highest

**Figure E.11.a: Monthly Organic Blueberry Exports, with Exponential Trend Line**

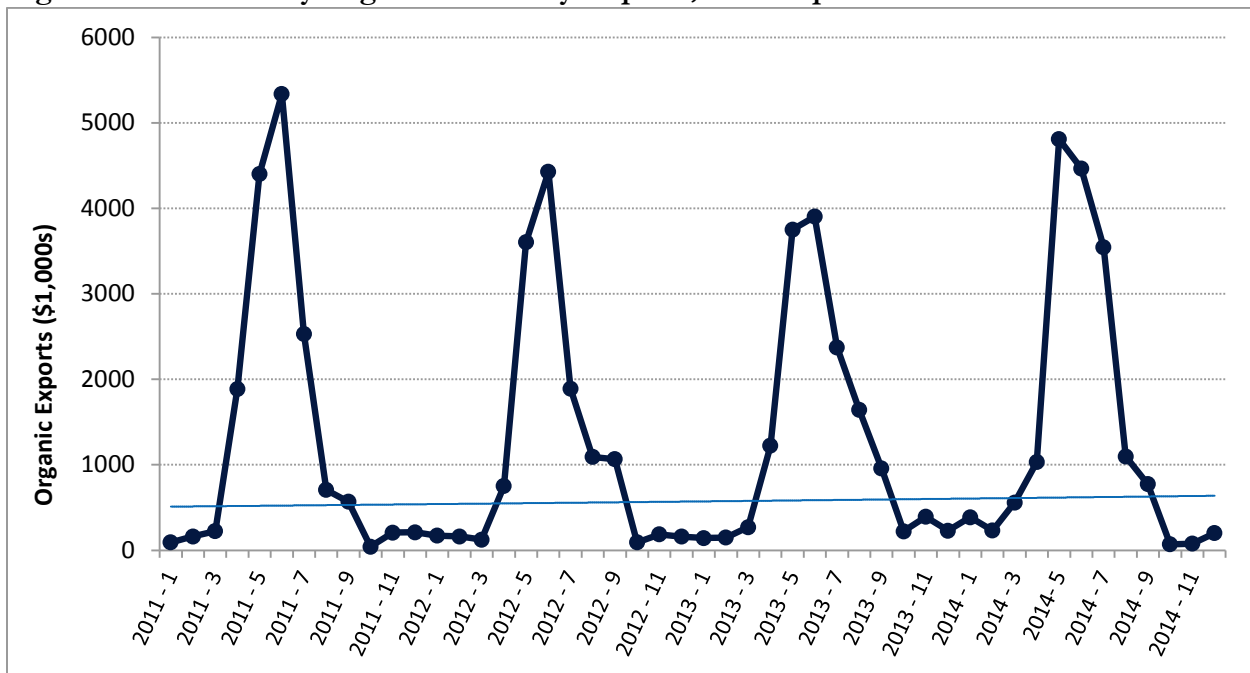


Table E.11.b shows the growth of organic blueberry exports over the four-year period juxtaposed with total blueberry exports (both organic and non-organic) over the same period. The organic export share was strongest in 2011, dropped in 2012, and then rose in 2013 and 2014.

**Table E.11.b: Organic and Total Blueberry Exports (\$1,000s)**

	2011	2012	2013	2014
Organic Blueberries Exports	16,369	13,733	15,261	17,247
Total Blueberries Exports	96,448	113,328	115,030	105,447
Share of Organic Exports, %	17%	12%	13%	16%

**Country of Destination**

Organic blueberry export destination countries are dominated by Canada. Figure E.11.b shows the destination countries for those countries receiving more than 1% of the total U.S. organic blueberry exports. Canada’s share of exports averages almost 92% over the four-year period.

**Figure E.11.b: Organic Blueberry Export Destinations, by Share**

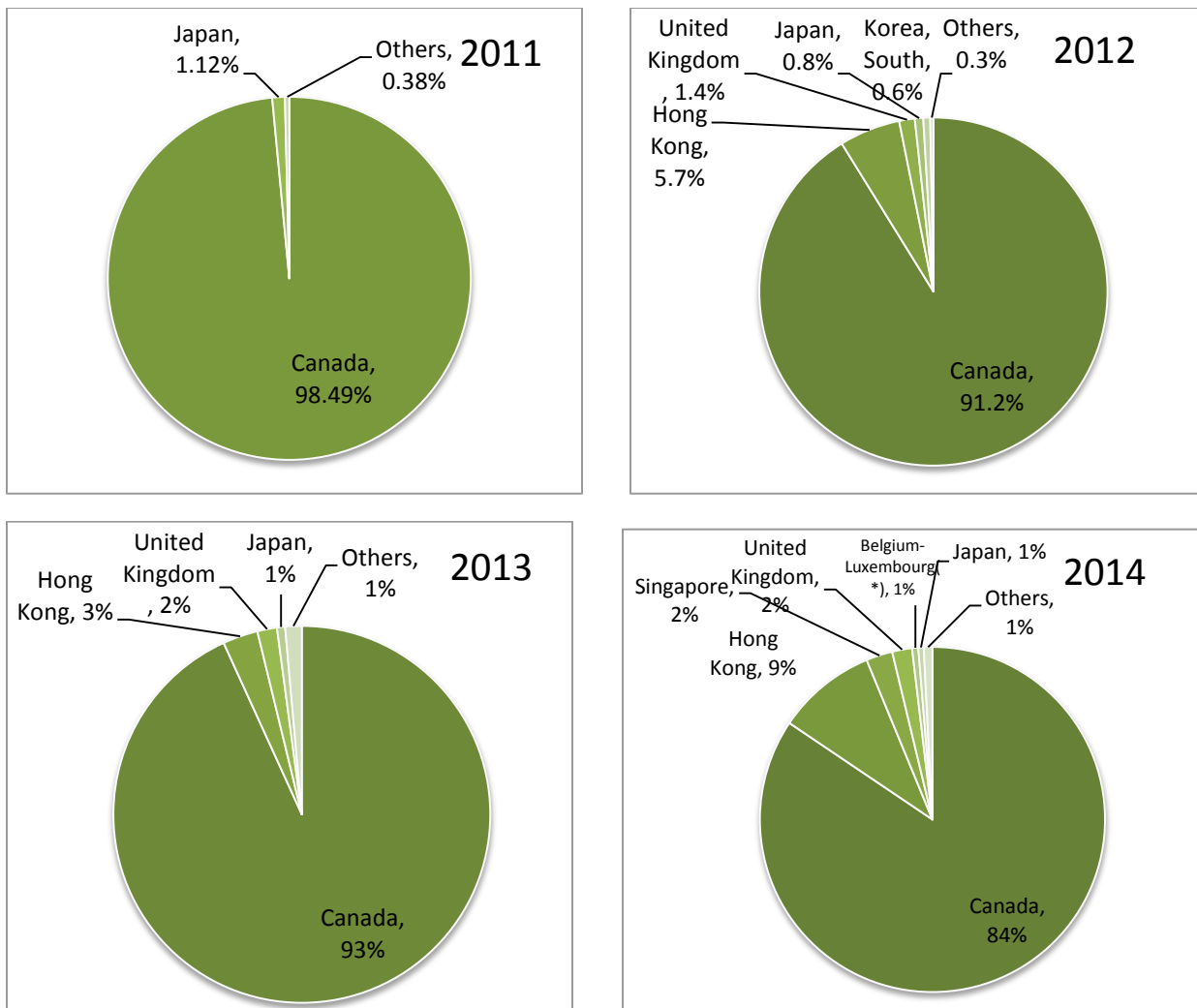


Table E.11.c shows the level of exports to the top destination countries for organic blueberries for all four years of data. Table E.11.d, which shows the same information for non-organic blueberries, is presented as a basis for comparison. Again, it is clear that Canada is by far the primary destination for organic (and non-organic) blueberry exports.

**Table E.11.c: Organic Blueberry Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	16,121	12,524	14,225	14,564
2. Hong Kong	11	778	460	1,609
3. Singapore	0	0	0	427
4. United Kingdom	0	199	257	321
5. Belgium-Luxembourg(*)	0	0	0	100
6. Japan	184	107	106	87
<b>Totals</b>	<b>16,316</b>	<b>13,608</b>	<b>15,048</b>	<b>17,108</b>

**Table E.11.d: Non-Organic Blueberry Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	69,895	87,012	85,753	72,530
2. Hong Kong	6,306	6,113	4,584	5,074
3. Mexico	227	1,520	1,156	2,309
4. Australia(*)	1,017	1,696	1,866	2,124
5. Philippines	913	570	1,454	1,899
6. Indonesia	1,028	969	1,642	1,403
<b>Totals</b>	<b>79,386</b>	<b>97,880</b>	<b>96,455</b>	<b>85,339</b>

**Conclusions:** Organic blueberry exports are highly cyclical, with large amounts of exports occurring between April and August of each year. Despite this cycle, organic blueberry exports appear to generally exhibit strong growth overall. Exports to Canada dominate all other exports, and the amount exported to Canada dropped substantially from 2011 to 2012.

## 12. ORGANIC ORANGE EXPORTS

The U.S. exported more than \$14 million of organic oranges in 2014. The value of organic orange exports declined from 2011 to 2012 and 2013, but then rebounded in 2014.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic orange exports is estimated to be  $-5.4\%$ ; however, the monthly growth rate estimated from the exponential growth model is not statistically different from zero. Table E.12.a shows that this annual growth rate is substantially virtually identical to the estimated growth rate in non-organic orange exports. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. A cyclical pattern is noticeable in Figure E.12.a, the graph of monthly organic exports, where months in the third and fourth quarters are generally below the general trend line.

**Table E.12.a: Total Organic and Non-Organic Orange Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Oranges	2011-Q1 to 2014-Q4	-0.462%	No	-5.41%	Yes: Q3 is the lowest
Non-Organic Oranges	2011-Q1 to 2014-Q4	-0.461%	No	-5.40%	Yes: Q3 is the lowest

**Figure E.12.a: Monthly Organic Orange Exports, with Exponential Trend Line**

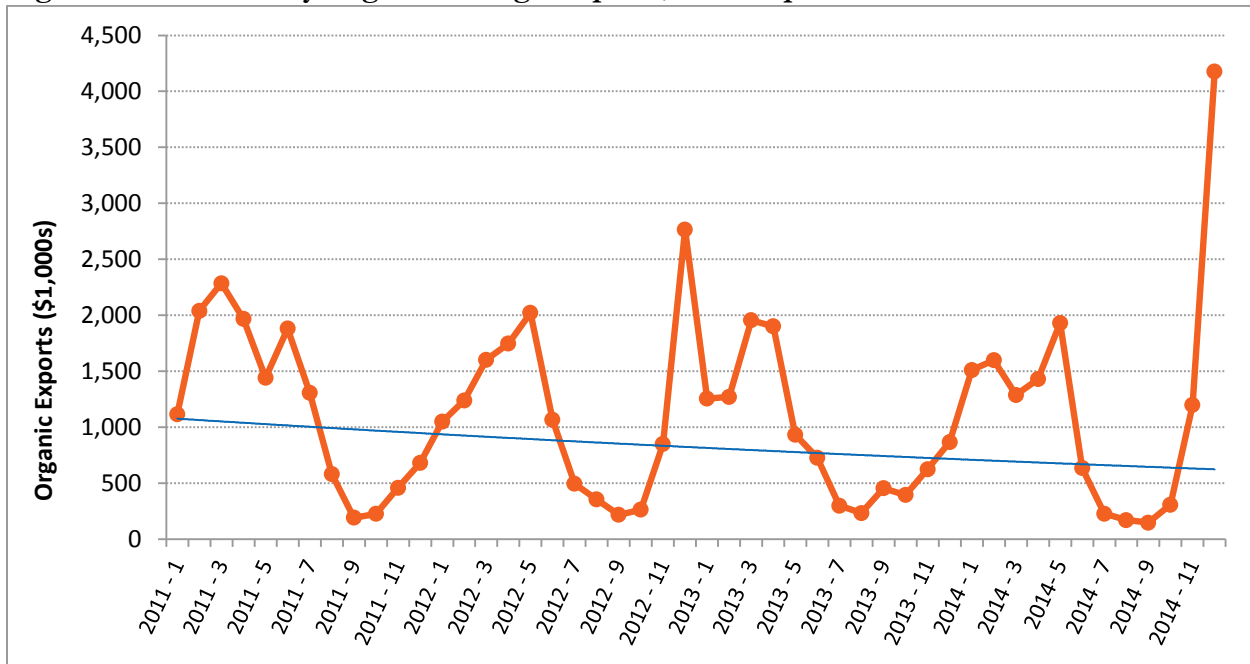


Table E12.b shows the growth of organic orange exports over the four-year period juxtaposed with total orange exports (both organic and non-organic) over the same period. The organic export share, at 2% or 3%, is quite low relative to non-organic orange exports.

**Table E.12.b: Organic and Total Orange Exports (\$1,000s)**

	2011	2012	2013	2014
Organic Oranges Exports	14,186	13,677	10,926	14,631
Total Oranges Exports	516,935	546,321	508,596	477,597
Share of Organic Exports, %	3%	3%	2%	3%

**Country of Destination**

Figure E.12.b shows Canada as the primary destination for organic orange exports; however, Asian countries such as Japan, Korean, Malaysia, and others are common destination countries as well.

**Figure E.12.b: Organic Orange Export Destinations, by Share**

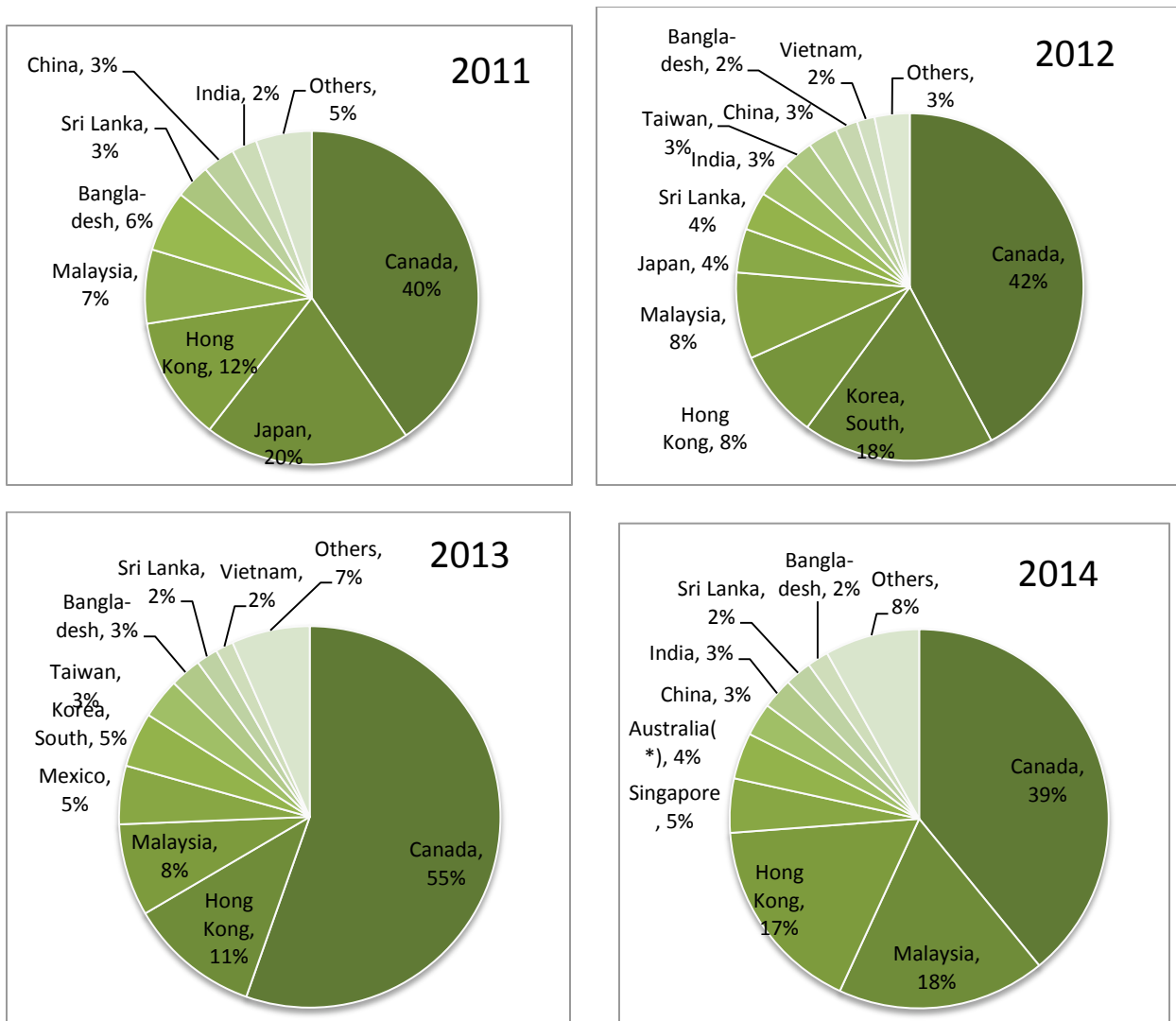


Table E.12.c shows the level of exports to the top destination countries for organic oranges for all four years of data. Table E.12.d, which shows the same information for non-organic oranges, is presented for a basis for comparison. Organic exports to Canada rose slightly throughout the four-year period.

**Table E.12.c: Organic Orange Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	5,736	5,775	6,054	5,718
2. Malaysia	1,017	1,099	855	2,602
3. Hong Kong	1,703	1,130	1,219	2,478
4. Singapore	6	12	137	676
5. Australia(*)	0	45	121	577
6. China	442	378	162	413
7. India	347	453	107	385
8. Sri Lanka	482	491	199	333
9. Bangladesh	842	283	289	265
<b>Totals</b>	10,575	9,666	9,143	13,447

**Table E.12.d: Non-Organic Orange Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	134,768	126,833	133,067	128,124
2. Korea, South	80,615	149,182	95,561	100,637
3. Japan	80,195	100,506	82,714	67,782
4. Hong Kong	63,927	48,755	64,724	67,015
5. Australia(*)	15,435	13,468	19,496	17,620
6. Malaysia	23,105	18,258	19,446	13,959
7. Singapore	13,783	11,557	11,657	11,303
8. China	32,434	25,321	21,938	8,278
9. Vietnam	791	880	2,517	7,621
10. New Zealand(*)	7,007	6,734	8,590	7,380
11. Taiwan	6,152	5,881	8,174	7,108
<b>Totals</b>	458,212	507,375	467,884	436,827

**Conclusions:** In general, organic orange exports appear to exhibit weak or declining growth, although the highly cyclical nature of exports may be masking some of the growth. The very last month of export data, December 2014, shows unusually high exports. Perhaps this “extra” amount was sent to Malaysia, which received an unusually high amount of exports in 2014.

### 13. ORGANIC BROCCOLI EXPORTS

The U.S. exported close to \$15 million of organic broccoli in 2014, and this organic export has seen strong, steady growth during the 2011 to 2014 period.

#### Monthly Export Data and Market Growth

Based on four years (48 months) of export data, the annual growth rate for organic broccoli exports is estimated to be 14.8%. Table E.13.a shows that this annual growth rate is substantially higher than the growth rate in non-organic broccoli exports, which we estimate to be only 3% per year. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. For organic broccoli, exports during months in the third and fourth quarters are significantly higher than the general trend line.

**Table E.13.a: Total Organic and Non-Organic Broccoli Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Broccoli	2011-Q1 to 2014-Q4	1.16%	Yes	14.8%	Yes: Q2 is the highest
Non-Organic Broccoli	2011-Q1 to 2014-Q4	0.25%	Yes	3.0%	Yes: Q2 is the highest

**Figure E.13.a: Monthly Organic Broccoli Exports, with Exponential Trend Line**

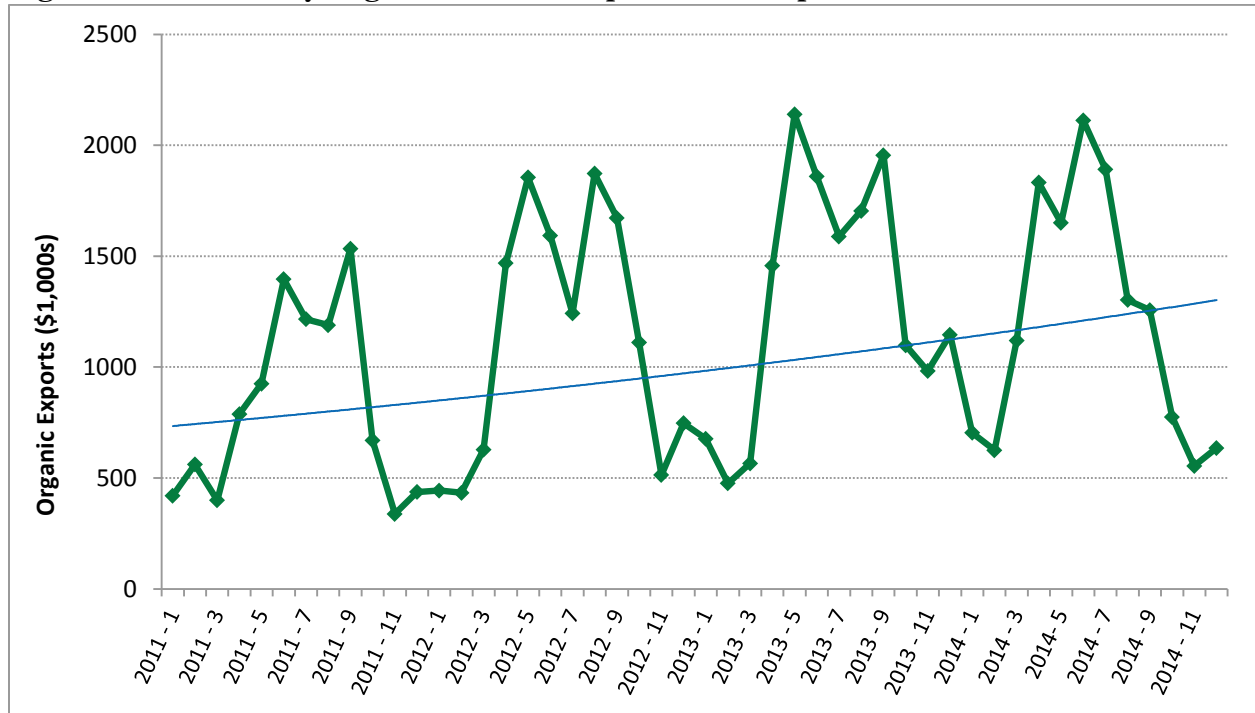




Table E13.b shows the growth of organic broccoli exports over the four-year period juxtaposed with total broccoli exports (both organic and non-organic) over the same period. The organic export share for broccoli is ranges from 9% to 12% from 2011 to 2013, and then declined slightly.

**Table E.13.b: Organic and Total Broccoli Exports (\$1,000s)**

	2011	2012	2013	2014
Organic Broccoli Exports	9,874	13,576	15,649	14,457
Total Broccoli Exports	115,660	132,508	133,630	132,432
Share of Organic Exports, %	9%	10%	12%	11%

**Country of Destination**

Taiwan is the primary destination for organic broccoli exports. Its share of all exports averages around 50%. Canada and Japan are the second and third ranked destinations, with their order switching over the four years of data. Figure E.13.b shows the destination countries for those countries receiving more than 1% of the total U.S. organic broccoli exports.

**Figure E.13.b: Organic Broccoli Export Destinations, by Share**

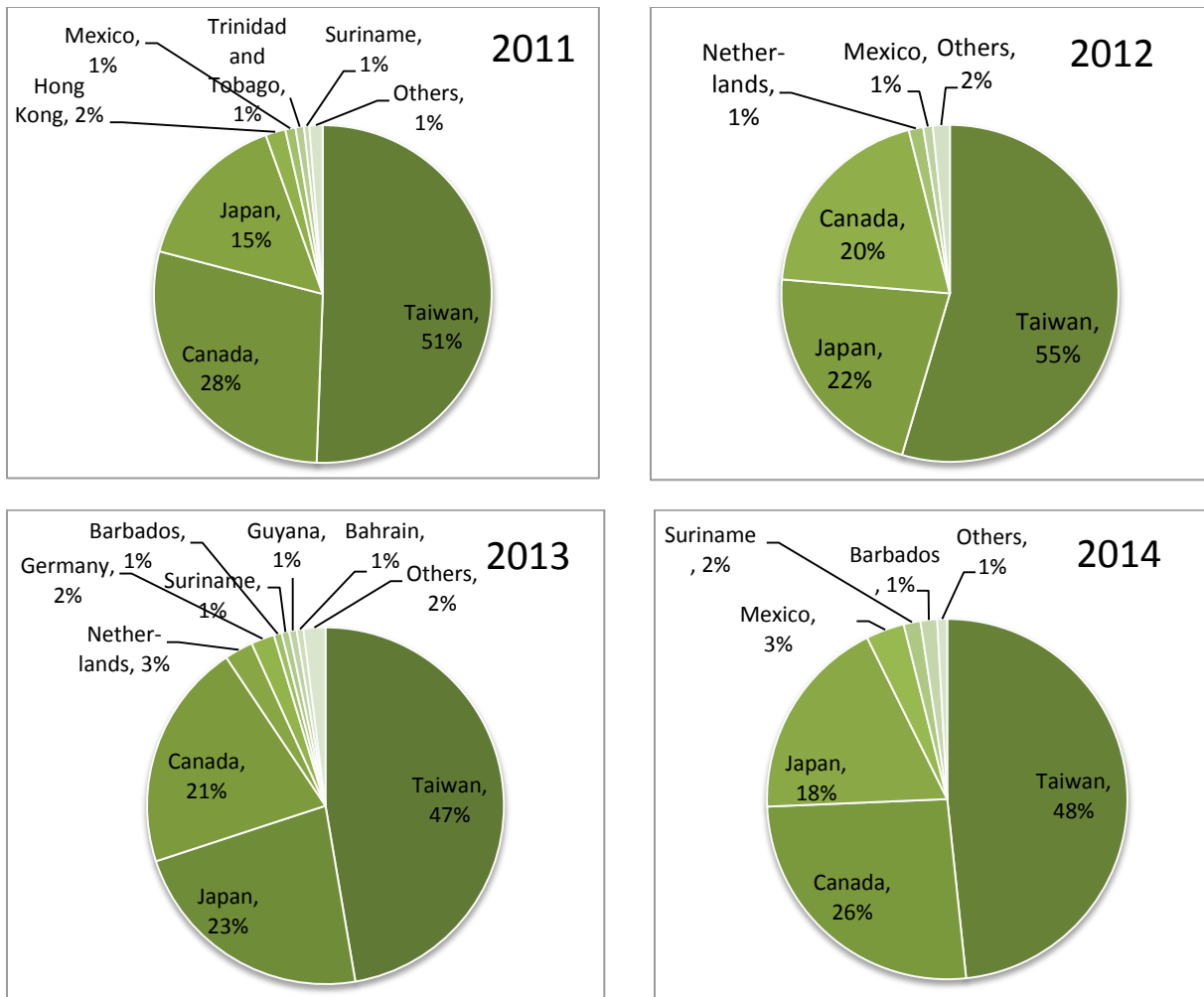


Table E.13.c shows the level of exports to the top destination countries for organic broccoli for all four years of data. Table E.13.d, which shows the same information for non-organic broccoli, is presented as a basis for comparison. These tables reveal that organic broccoli exports to Taiwan were actually higher than non-organic broccoli exports to Taiwan.

**Table E.13.c: Organic Broccoli Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Taiwan	4,995	7,413	7,403	6,987
2. Canada	2,813	2,681	3,232	3,761
3. Japan	1,526	2,951	3,542	2,651
4. Mexico	97	124	71	498
5. Suriname	50	45	108	218
6. Barbados	37	13	111	215
<b>Totals</b>	<b>9,518</b>	<b>13,227</b>	<b>14,467</b>	<b>14,330</b>

**Table E.13.d: Non-Organic Broccoli Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	65,015	71,916	81,495	82,032
2. Japan	34,421	38,698	29,284	32,604
3. Taiwan	5,115	5,518	4,494	1,460
4. Mexico	780	1,103	1,177	967
<b>Totals</b>	<b>105,331</b>	<b>117,235</b>	<b>116,450</b>	<b>117,063</b>

**Conclusions:** In general, organic broccoli exports appear to exhibit strong growth overall as well as a fairly consistent cycle where exports are highest between May and September. Taiwan is a key export market, and exports there rose dramatically from 2011 to 2012, but declined modestly after that.

## 14. ORGANIC LEMON EXPORTS

The U.S. exported approximately \$12.7 million of organic lemons in 2014, and this organic export has seen strong growth during the 2011 to 2014 period.

### *Monthly Export Data and Market Growth*

Based on four years (48 months) of export data, the annual growth rate for organic lemon exports is estimated to be 19.4%. Table E.14.a shows that this annual growth rate is slightly lower than the growth rate in non-organic lemon exports, which we estimate to be 21.4% per year. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. For organic lemon exports, the third quarter of each year has significantly lower exports than the reference quarter. A cyclical pattern is noticeable in Figure E.14.a, the graph of monthly organic exports, where exports in third-quarter months are generally below the general trend line.

**Table E.14.a: Total Organic and Non-Organic Lemon Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Lemons	2011-Q1 to 2014-Q4	1.49%	Yes	19.4%	Yes: Q3 is the lowest
Non-Organic Lemons	2011-Q1 to 2014-Q4	1.63%	Yes	21.4%	Yes: Q3 is the lowest

**Figure E.14.a: Monthly Organic Lemon Exports, with Exponential Trend Line**

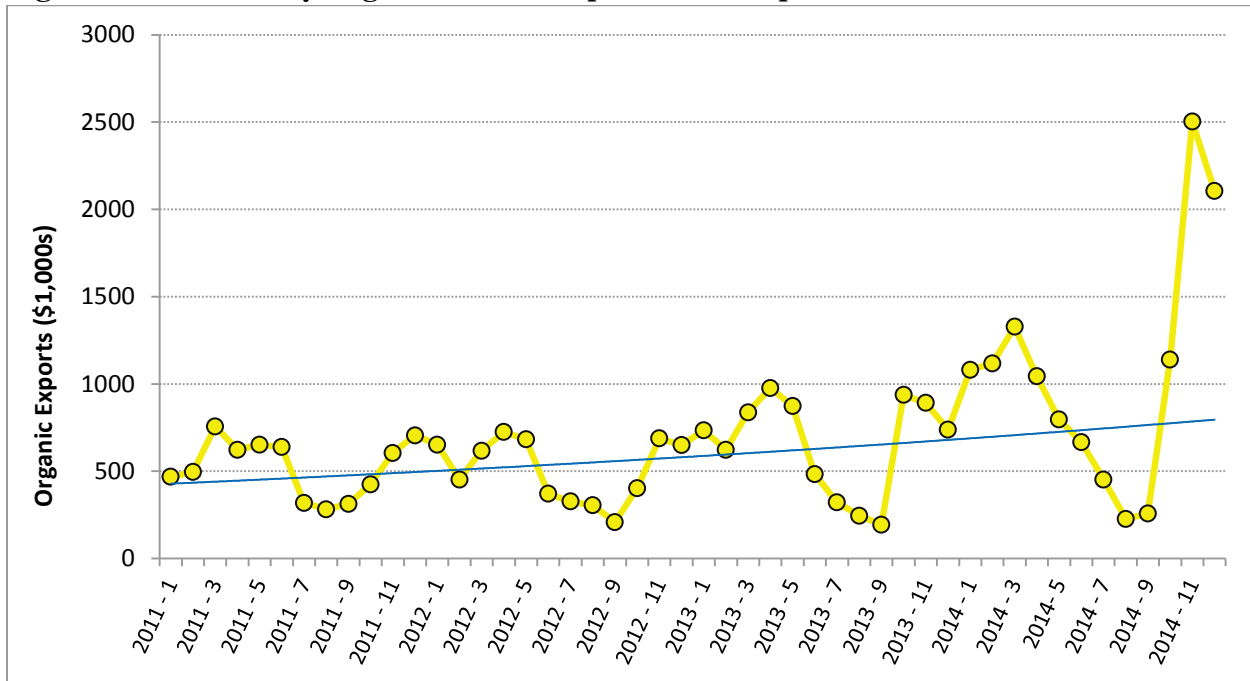


Table E.14.b shows the growth of organic lemon exports over the four-year period juxtaposed with total lemon exports (both organic and non-organic) over the same period. The organic export share has not grown much over the period, increasing from 5% in 2011-2013 up to 6% in 2014.

**Table E.14.b: Organic and Total Lemon Exports (\$1,000s)**

	2011	2012	2013	2014
Organic Lemons Exports	6,285	6,085	7,860	12,722
Total Lemons Exports	115,028	125,200	170,867	222,115
Share of Organic Exports, %	5%	5%	5%	6%

**Country of Destination**

Canada is the primary destination for organic lemon exports; however, its export share has declined from around 80% in the 2011-2013 period to 60% in 2014. Hong Kong's share of organic lemon exports rose to 10% in 2014. Figure E14.b shows the destination countries for those countries receiving more than 1% of the total U.S. organic lemon exports.

**Figure E.14.b: Organic Lemon Export Destinations, by Share**

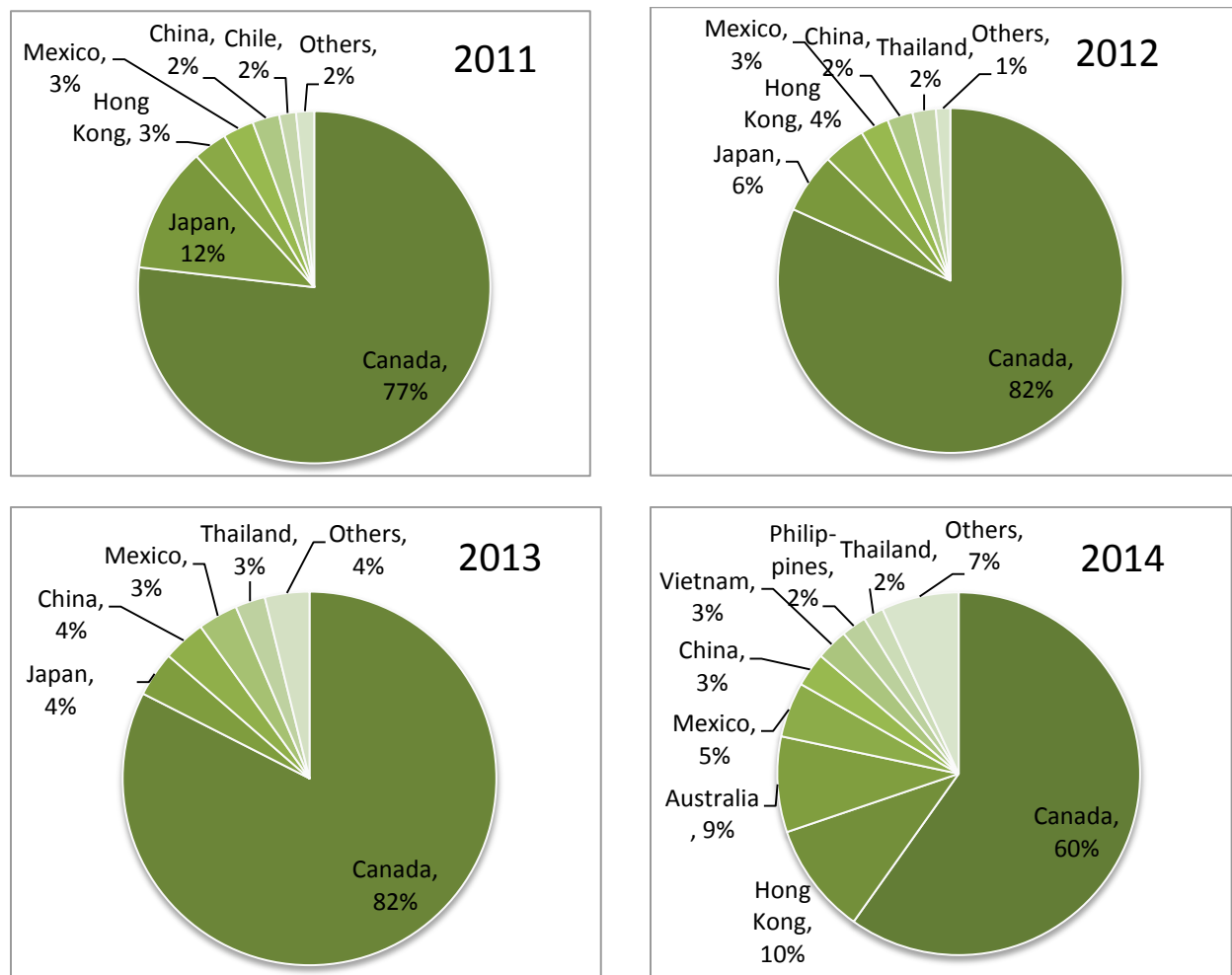


Table E14.c shows the level of exports to the top destination countries for organic lemons for all four years of data. Table E14.d, which shows the same information for non-organic lemons, is presented as a basis for comparison. Despite the decrease in the share of organic exports, the level of organic lemon exports to top destination Canada rose during the 2011-2014 period. The year 2014 also saw a large increase in the amount of organic lemons exported to Australia, which had been a major destination for non-organic lemons.

**Table E.14.c: Organic Lemon Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	4,826	4,976	6,481	7,610
2. Hong Kong	196	242	81	1,268
3. Australia(*)	48	23	62	1,084
4. Mexico	179	162	271	625
5. China	156	146	291	385
6. Vietnam	0	0	0	358
7. Philippines	0	0	0	284
8. Thailand	0	133	204	230
<b>Totals</b>	5,405	5,682	7,390	11,844

**Table E.14.d: Non-Organic Lemon Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Japan	44,144	46,909	57,831	62,931
2. Canada	33,528	35,262	42,410	46,011
3. Hong Kong	2,877	4,598	10,358	32,883
4. Korea, South	8,876	15,484	23,889	24,991
5. Australia(*)	6,111	7,026	13,208	13,356
6. China	4,094	3,877	6,537	10,652
7. Chile	3,147	1,336	2,582	4,902
<b>Totals</b>	102,777	114,492	156,815	195,726

**Conclusions:** In general, organic lemon exports appear to exhibit strong growth overall. However, it is one of the few organic exports whose growth underperforms its non-organic counterpart. Both organic and non-organic lemon exports were particularly strong in 2014. Unusually high exports to Hong Kong that year may be partially responsible for this result.

## 15. ORGANIC CHERRY EXPORTS

The U.S. exported more than \$11 million of organic cherries in 2014. After a decrease in exports from 2011 to 2012, this organic export has seen steady growth during after 2012.

### *Monthly Export Data and Market Growth*

Estimating the average monthly or annual growth rate for organic cherries has proved difficult due to the large number of months that have zero exports. Based on only those months with positive organic cherry exports, our estimate for the average monthly growth rate, -4.6%, is not statistically different from zero. Table E.15.a shows this result and the corresponding annual growth rate. It also shows that the estimated annual growth rate for non-organic cherries is also strongly negative: -7.2% per year. Figure E.15.a, the graph of monthly organic exports, shows the prevalence of zero exports for months in fourth and first quarters of the year.

**Table E.15.a: Total Organic and Non-Organic Cherry Exports, Growth Rate and Quarterly Effects**

Exports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Cherries	2011-Q1 to 2014-Q4	-4.63%	No	-43.4%	No
Non-Organic Cherries	2011-Q1 to 2014-Q4	-3.80%	Yes	-37.2%	Yes: Q2 is the highest

**Figure E.15.a: Monthly Organic Cherry Exports, with Exponential Trend Line**

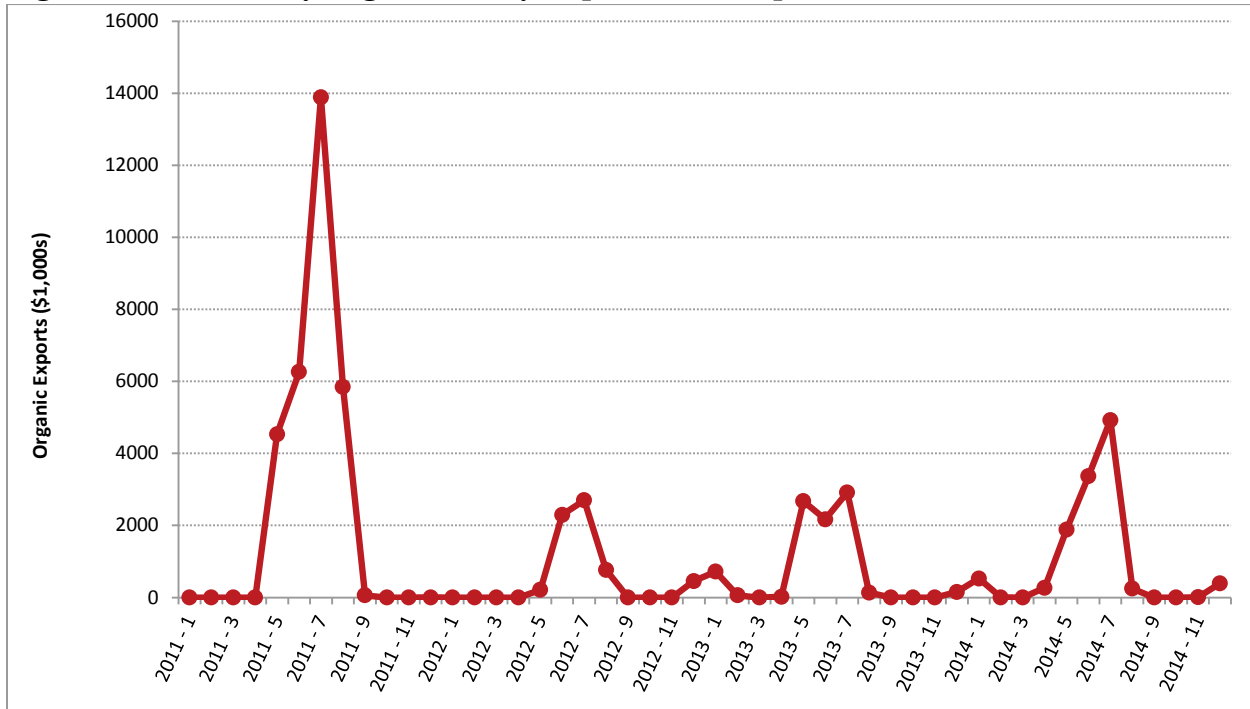


Table E.15.b shows the progression of organic cherry exports over the four-year period juxtaposed with total cherry exports (both organic and non-organic) over the same period. These figures show that 2011 is a bit of an anomaly, with organic cherry exports much higher that year than in the following years.

**Table E.15.b: Organic and Total Cherry Exports (\$1,000s)**

	2011	2012	2013	2014
Organic Cherries Exports	30,597	6,431	8,844	11,623
Total Cherries Exports	414,761	498,597	410,189	452,690
Share of Organic Exports, %	7%	1%	2%	3%

*Country of Destination*

Canada was the primary destination for organic cherry exports in 2011-2013; however, Australia became the leading destination in 2014. Figure E.15.b shows the destination countries for those countries receiving more than 1% of the total U.S. organic cherry exports. A number of Asian countries, including Taiwan and Korea, are among the major export destinations.

**Figure E.15.b: Organic Cherry Export Destinations, by Share**

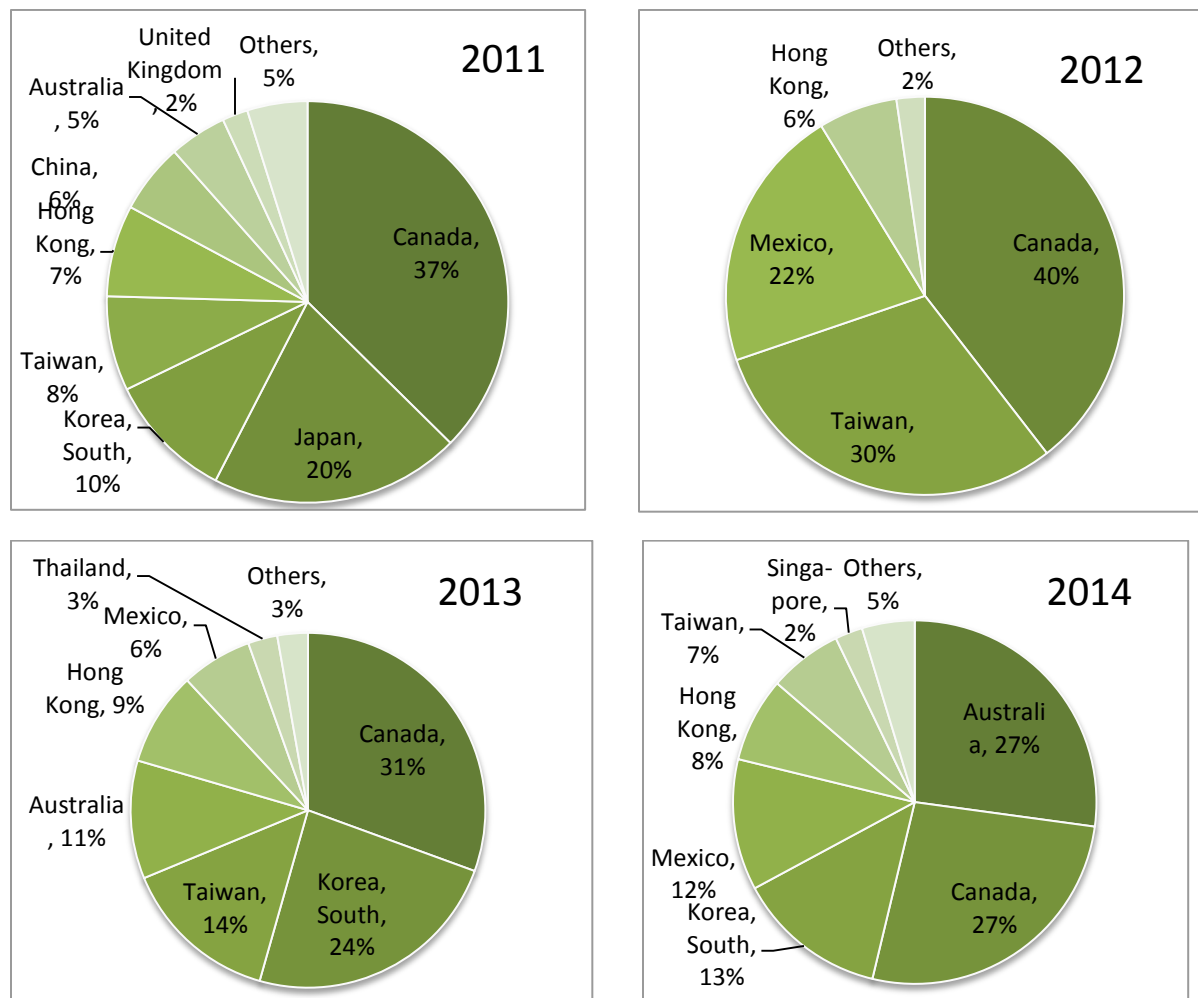


Table E.15.c shows the level of exports to the top destination countries for organic cherries for all four years of data. Table E.15.d, which shows the same information for non-organic cherries, is presented as a basis for comparison. Organic cherry exports to Canada have been very stable, with recent years seeing substantial growth. On the other hand, organic exports (as well as non-organic exports) to Australia have been uneven. Finally, organic exports to Hong Kong and Taiwan decreased dramatically from 2011 to 2012; this decrease is not found for non-organic cherry exports.

**Table E.15.c: Organic Cherry Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Australia(*)	2,970	0	953	3,157
2. Canada	2,597	2,541	2,705	3,091
3. Korea, South	89	76	2,109	1,557
4. Mexico	413	1,383	572	1,356
5. Hong Kong	7,470	413	757	875
6. Taiwan	3,765	1,946	1,271	759
7. Singapore	728	0	16	285
Totals	<b>18,032</b>	<b>6,359</b>	<b>8,383</b>	<b>11,080</b>

**Table E.15.d: Non-Organic Cherry Exports by Destination Country (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	143,665	145,863	129,048	121,307
2. Korea, South	39,406	74,002	79,317	119,113
3. China	21,612	40,449	33,271	50,034
4. Hong Kong	28,337	55,461	41,201	46,365
5. Japan	77,512	76,612	55,647	44,675
6. Taiwan	29,278	45,980	25,833	38,953
7. Australia(*)	17,792	23,496	15,247	10,201
Totals	<b>357,602</b>	<b>461,863</b>	<b>379,564</b>	<b>430,648</b>

**Conclusions:** In general, organic cherry exports appear to exhibit strong growth after 2012. The first year of data, 2011, appears to be a year with unusually high exports, and this anomaly may be driving the estimated negative growth rate overall. Exports to Hong Kong and Taiwan may deserve a closer look: Organic cherry exports to these two countries dropped substantially from 2011 to 2012, but a similar decrease is not observed for non-organic cherry exports to these countries.



### **SECTION 3: Imports of Organic Products, Product-by-Product**

In this section, we present and discuss the top 15 organic imported products. In some cases (e.g., coffee, olive oil, and wine), we combine several sub-categories into one aggregate category. For example, the aggregate category “wine” is composed of white, red, and sparkling wine. Particular product codes that underlie these combinations are found in the technical appendix. In the product-by-product summaries that follow, we again pay particular attention to seasonality and growth, which is often negative for organic imports.

These product-by-product reports on organic imports include information on the import of their non-organic product counterparts for only six products, the top five imports plus corn. Collecting that information proved to be very time consuming as the category codes do not match up well with the organic codes.

Labeling for the tables and figures follows the following scheme: “**I.1.a**” represents imports (I) of the number 1 ranked organic import, with “a” denoting the first table or figure of a series. In addition, graphs depicting monthly imports are in different colors to remind readers that the report has moved on to another product. Often the color of the graph is meant to remind readers of the product – for example, brown for coffee and yellow for bananas.

## 1. ORGANIC COFFEE IMPORTS

Coffee, when combined as a single import product, has been the U.S.'s leading organic import by far since 2011. With the exception of 2014, however, this leading import is not growing.

### *Monthly Import Data and Market Growth*

Based on four years (48 months) of import data, the annual growth rate for organic coffee imports is estimated to be  $-13\%$ , as shown in Table I.1.a. The table summarizes the monthly and annual growth rates estimated with an exponential growth model. It shows that non-organic coffee imports are also decreasing, though at a slightly lower annual rate. Organic coffee imports during the second quarter of each year are significantly higher than during the first quarter, which is the reference quarter. A cyclical pattern is only mildly noticeable in Figure I.1.a, the graph of monthly organic imports.

**Table I.1.a: Total Organic and Non-Organic Coffee Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Coffee	2011-Q1 to 2014-Q4	-1.17%	No	-13.20%	Yes: Q2 is the highest
Non-Organic Coffee	2011-Q1 to 2014-Q4	-0.79%	Yes	-9.13%	Yes: Q2 is the highest

**Figure I.1.a: Monthly Organic Coffee Imports, with Exponential Trend Line**

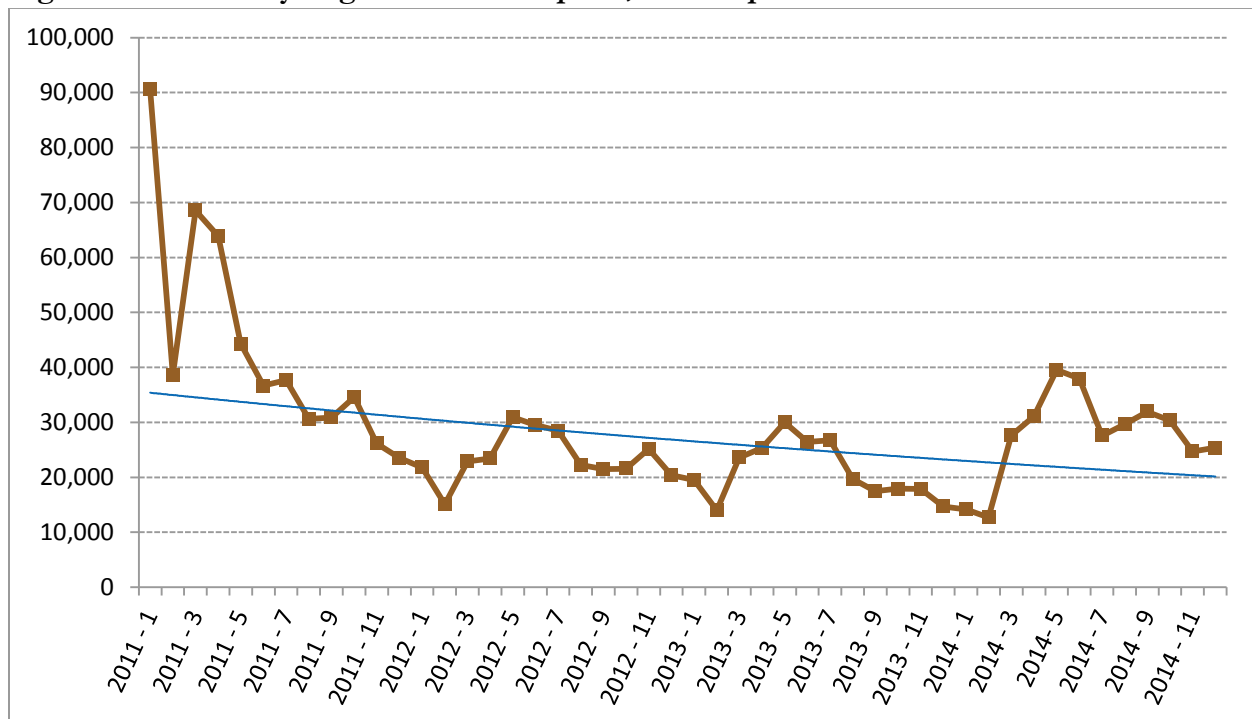


Table I.1.b shows the progression of organic coffee imports over the four-year period juxtaposed with total coffee (both organic and non-organic) over the same period. These figures show that 2011 is a bit of an anomaly, with organic coffee imports much higher that year than in the following years. The organic share reflects this anomaly: at 7%, organic coffee's import share was highest in 2011, dropped in 2012, and then grew slightly in 2013 and 2014.

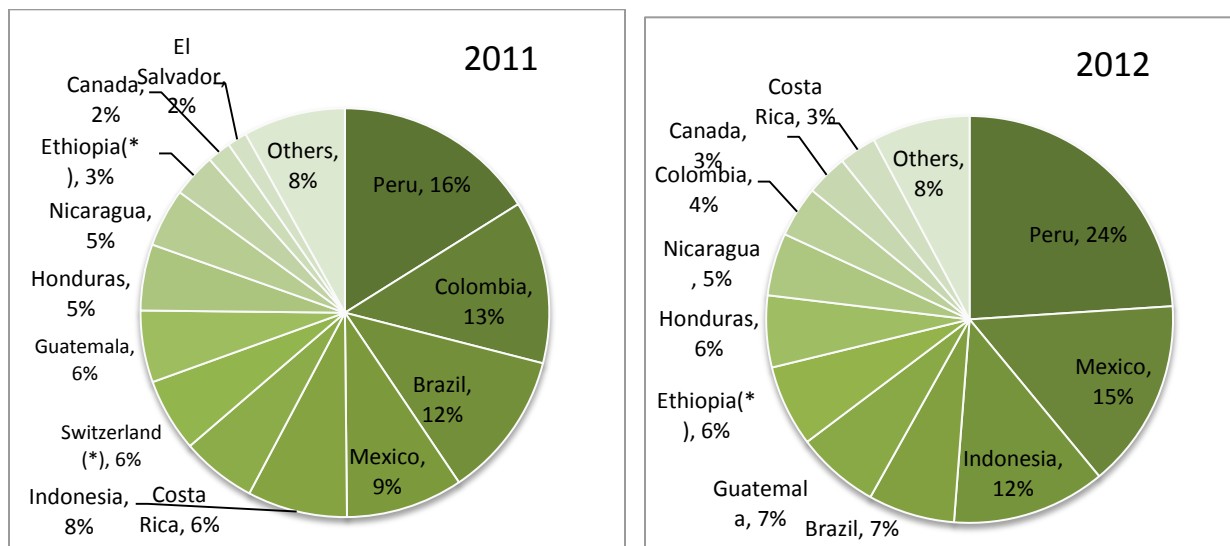
**Table I.1.b: Organic and Total Coffee Imports (\$1,000s)**

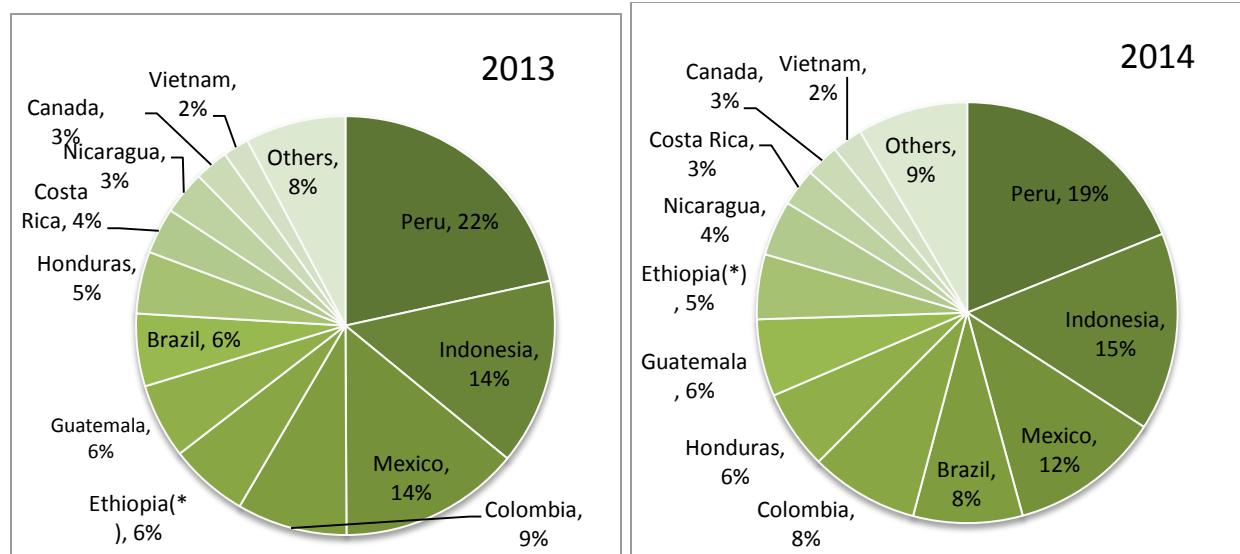
	2011	2012	2013	2014
Organic Coffee Imports	526,076	282,888	253,306	332,524
Total Coffee Imports	7,584,207	6,477,237	5,298,919	5,859,670
Organic Coffee Imports' Share of Total	7%	4%	5%	6%

*Countries of Origin*

Organic coffee import countries of origin prominently feature South American and Central American countries. Peru is the primary origin, but Indonesia, Mexico, and Brazil are also prominent. Figure I.1.b shows the countries of origin for those countries supplying more than 1% of the total U.S. organic coffee imports. A comparison between organic and non-organic trade distribution is illustrated in Figure I.1.c.

**Figure I.1.b: Countries of Origin for Organic Coffee Imports, by Share**





Tables I.1.c and I.1.d show the level of organic and non-organic imports from the top countries of origin for organic coffee for all four years of data. The 2011 imports from Peru, Brazil, Colombia, and some other countries as well seem abnormally high, especially compared with their 2012, 2013, and 2014 values.

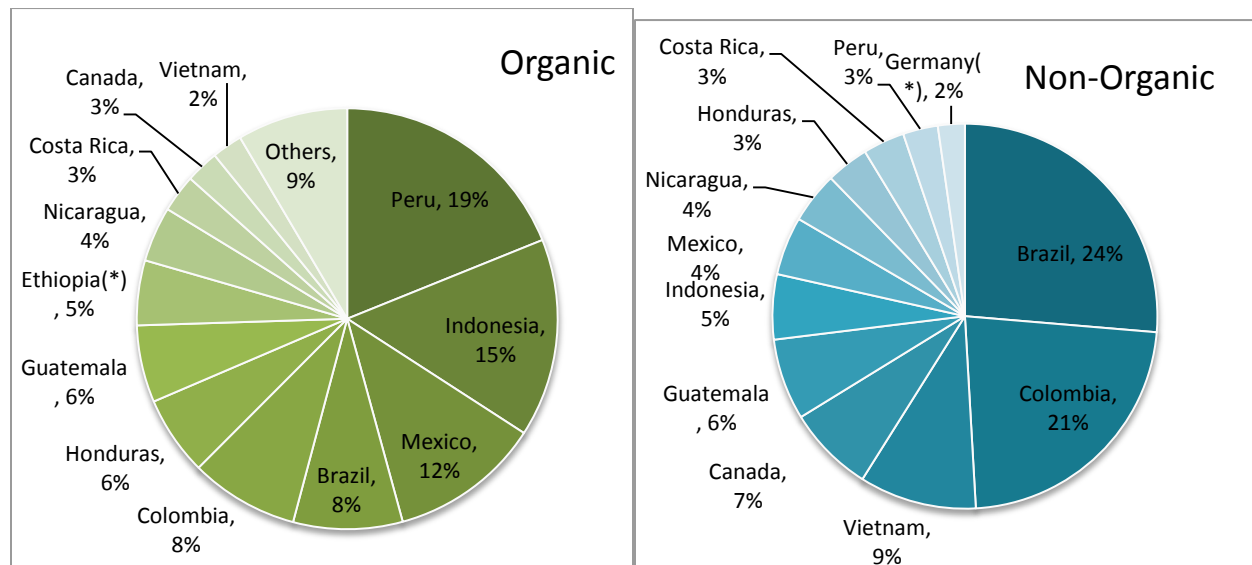
**Table I.1.c: Organic Coffee Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Peru	84,663	67,794	54,643	62,841
2. Indonesia	41,593	34,557	36,379	50,668
3. Mexico	48,715	42,562	35,429	38,623
4. Brazil	61,011	19,463	14,195	27,913
5. Colombia	67,809	11,450	21,560	27,732
6. Honduras	27,552	16,125	12,135	20,222
7. Guatemala	29,892	18,713	14,658	19,718
8. Ethiopia(*)	18,208	18,327	15,450	16,575
9. Nicaragua	24,277	14,073	8,528	14,083
10. Costa Rica	31,302	8,449	9,003	9,596
11. Canada	9,917	9,336	6,596	8,484
12. Vietnam	4,009	129	5,069	7,803
<b>Total, Top 2014 Origins Only</b>	<b>448,948</b>	<b>260,978</b>	<b>233,645</b>	<b>304,258</b>

**Table I.1.d: Non-Organic Coffee Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Brazil	1,871,354	1,326,996	1,067,251	1,312,895
2. Colombia	1,222,973	872,979	908,162	1,134,788
3. Vietnam	487,173	606,292	467,846	490,724
4. Canada	385,332	389,166	368,484	363,472
5. Guatemala	547,204	546,788	395,888	340,236
6. Indonesia	283,010	363,333	253,813	272,437
7. Mexico	449,074	427,280	303,940	244,754
8. Nicaragua	197,816	208,556	154,950	214,805
9. Honduras	203,429	265,625	146,506	178,513
10. Costa Rica	222,960	243,895	191,635	174,250
11. Peru	285,332	173,938	118,380	146,398
12. Germany(*)	181,167	130,410	137,285	112,540
<b>Total, Top 2014 Origins Only</b>	<b>6,336,824</b>	<b>5,555,258</b>	<b>4,514,140</b>	<b>4,985,812</b>

**Figure I.1.c: Coffee – Organic and Non-Organic Trading Partner Distribution (2014)**



Organic imports show greater proportion of direct from origin sourcing compared to non-organic.

**Conclusions:** In general, organic coffee imports appear to exhibit steady declines, though strong 2014 imports from Peru, Indonesia, Brazil, and Colombia seem provide an upturn in the import trend.

## 2. ORGANIC SOYBEAN IMPORTS

Soybeans are the U.S.'s second leading organic import, and the level of organic soybean imports has shown steady and strong growth from 2011 to 2014.

### *Monthly Import Data and Market Growth*

Based on four years (48 months) of import data, the annual growth rate for organic soybean imports is estimated to be 57.3%, as shown in Table I.2.a. The same table shows that this annual growth rate is slightly lower than the growth rate for non-organic soybean imports, which we estimate to be 66.5% per year estimated with an exponential growth model. While Figure I.2.a shows fluctuations from the overall trend of organic imports, these fluctuations do not appear to follow quarterly patterns.

**Table I.2.a: Total Organic and Non-Organic Soybean Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Soybean	2011-Q1 to 2014-Q4	3.85%	Yes	57.3%	No
Non-Organic Soybean	2011-Q1 to 2014-Q4	4.34%	Yes	66.5%	Q2 is the highest; Q4 is the lowest

**Figure I.2.a: Monthly Organic Soybean Imports, with Exponential Trend Line**

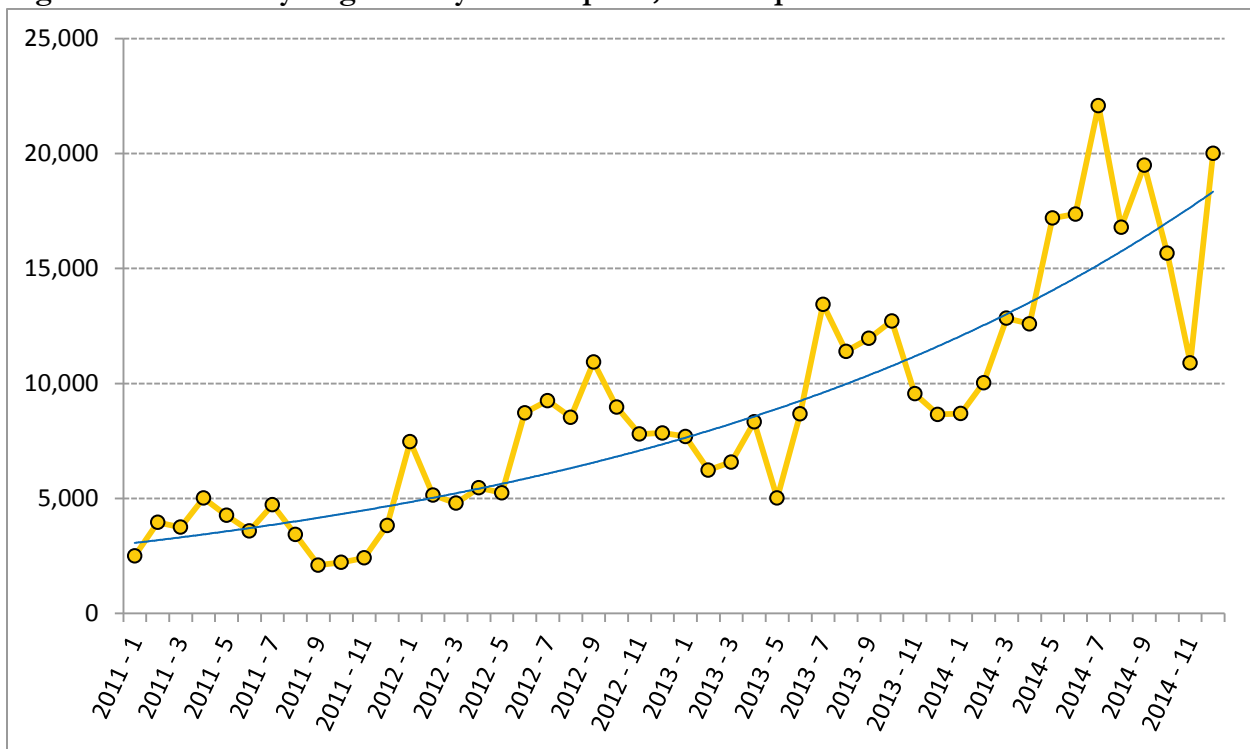


Table I.2.b shows the steady annual increase in organic soybean imports, but it also shows even larger annual increases for all soybean imports, including non-organic. Because of the increase in non-organic soybean imports, the organic share has declined from 2011/2012 to 2013/2014.

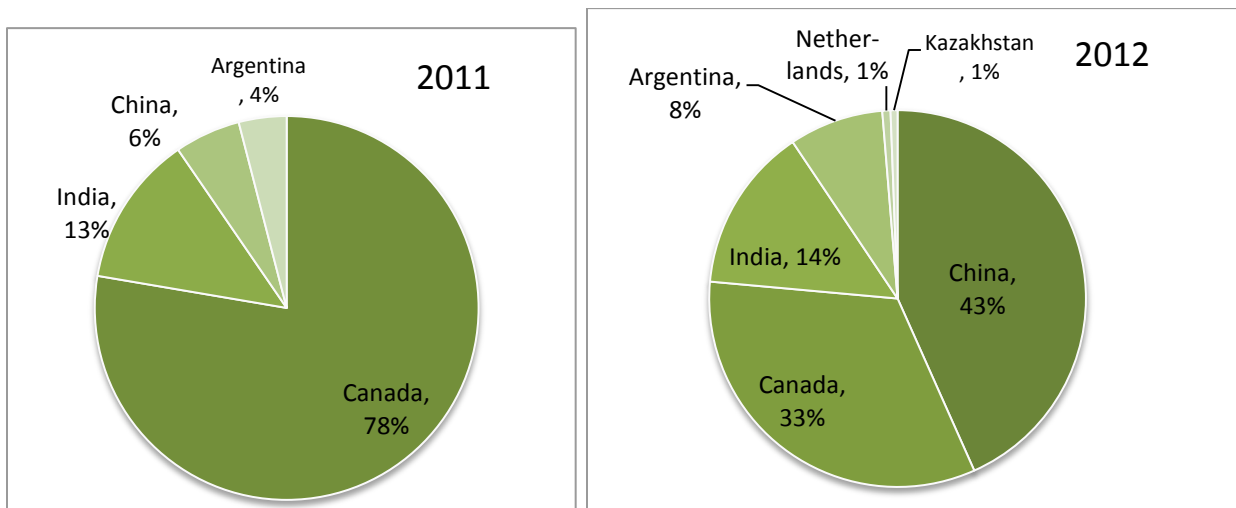
**Table I.2.b: Organic and Total Soybean Imports (\$1,000)**

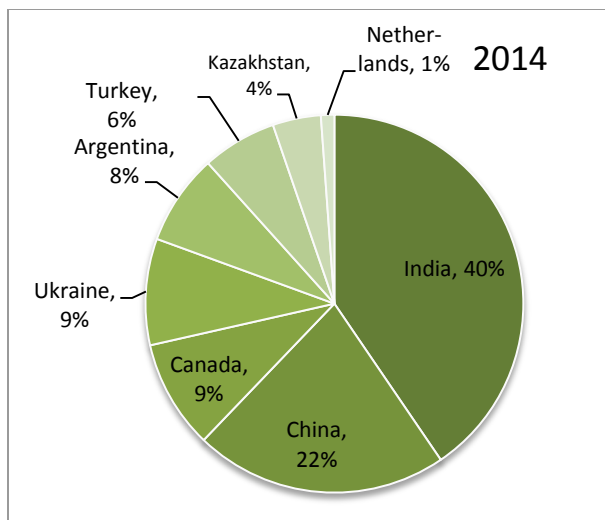
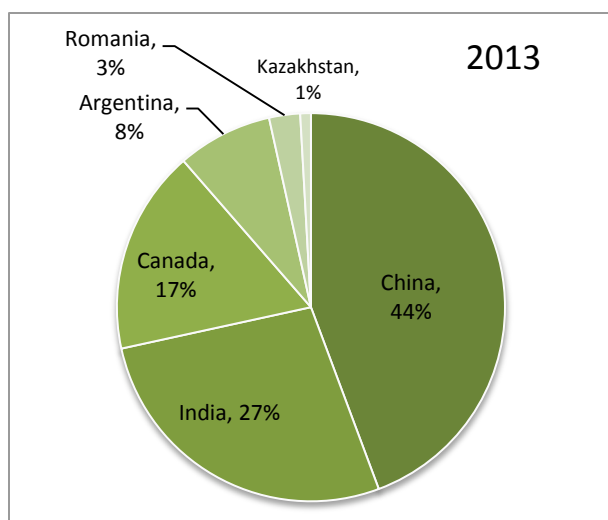
	2011	2012	2013	2014
Organic Soybeans Imports	41,790	90,177	110,244	183,629
Total Soybean Imports	91,610	187,294	343,063	601,545
Organic Soybean Imports' Share of Total	46%	48%	32%	31%

**Countries of Origin**

Figure I.2.b shows the countries of origin for those countries supplying more than 1% of the total U.S. organic soybean imports. The list of countries of origin for organic soybeans is diverse, which – aside from Canada – include some potentially unexpected countries. In 2011, Canada was the U.S.’s chief supplier of organic soybeans, supplying 70 percent of our imports. However, in 2012 and 2013, the share of organic imports from Canada decreased to 33% and 17%, respectively, and China became the top supplier. Canada’s share dropped further in 2014, and India became the top supplier. Potentially unexpected import countries of origin for organic soybeans include Romania, Ukraine, Kazakhstan, and the Netherlands. A comparison between organic and non-organic trade distribution is illustrated in Figure I.2.c.

**Figure I.2.b: Countries of Origin for Organic Soybean Imports, by Share**





Tables I.2.c and I.2.d show the level of organic and non-organic imports from the top countries of origin for soybeans for all four years of data. The first table shows that imports from India increased throughout the four-year period, with a large increase in 2014. Imports from China increased each year except for 2014. It is noteworthy that the U.S. imported more organic soybeans than non-organic soybeans from India and China. The U.S. did not import any organic soybeans from Ukraine until 2014, when it imported \$16 million.

**Table I.2.c: Organic Soybean Imports by Top Countries of Origin (\$1,000s)**

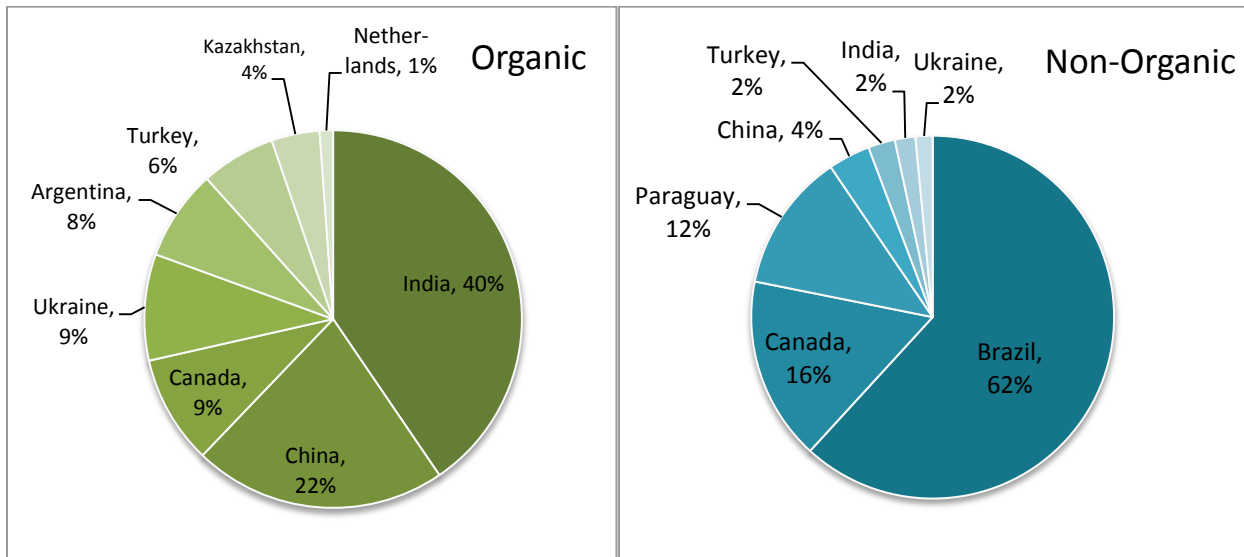
Country (2014 ranking)	2011	2012	2013	2014
1. India	5,328	12,729	29,819	73,839
2. China	2,319	38,924	48,471	39,541
3. Canada	32,462	29,748	18,613	16,964
4. Ukraine	0	0	0	16,608
5. Argentina	1,682	7,275	8,681	14,183
6. Turkey	0	167	387	11,654
7. Kazakhstan	0	537	967	7,521
8. Netherlands	0	630	0	2,091
<b>Total, Top 2014 Origins Only S</b>	<b>41,791</b>	<b>90,010</b>	<b>106,938</b>	<b>182,401</b>

**Table I.2.d: Non-Organic Soybean Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Brazil	0	0	14,140	257,707
2. Canada	35,633	74,909	93,320	68,158
3. Paraguay	0	0	85,320	51,504
4. China	9,455	19,908	23,710	15,606
5. Turkey	0	0	1,111	10,002
6. India	3,525	940	1,409	7,640
7. Ukraine	0	0	0	6,349
<b>Total, Top 2014 Origins Only</b>	<b>48,613</b>	<b>95,757</b>	<b>219,010</b>	<b>416,966</b>



**Figure I.2.c: Soybeans – Organic and Non-Organic Trading Partner Distribution (2014)**



China and India are the top two suppliers of organic soybeans, whereas Canada and Brazil are the top two suppliers of non-organic soybeans.

**Conclusions:** In general, organic soybean imports exhibit extremely strong growth overall. Growth from 2013 to 2014 is particularly strong, and large increases in imports from India, Ukraine, Turkey, Kazakhstan, and the Netherlands seem to be driving this recent increase.

### 3. ORGANIC OLIVE OIL IMPORTS

Data on organic olive oil imports began in 2013. Since that time, organic olive oil has been a top-five import, rising to the third most highly valued import in 2014. Yet from 2013 to 2014, organic olive oil imports have declined modestly.

#### *Monthly Import Data and Market Growth*

Based on two years (24 months) of import data, the estimated monthly growth rate for organic olive oil imports is negative though not statistically different from zero. Annualizing this growth rate suggests that organic olive oil imports had a negative annual growth rate of 9.9%, as shown in Table I.3.a. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. The quarterly effect is barely noticeable in Figure I.3.a, the graph of monthly organic imports.

**Table I.3.a: Total Organic and Non-Organic Olive Oil Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Olive Oil	2013-Q1 to 2014-Q4	-0.87%	No	-9.9%	Yes: Q2 is the highest
Non-Organic Olive Oil	2013-Q1 to 2014-Q4	0.26%	No	3.15%	No

**Figure I.3.a: Monthly Organic Olive Oil Imports, with Exponential Trend Line**

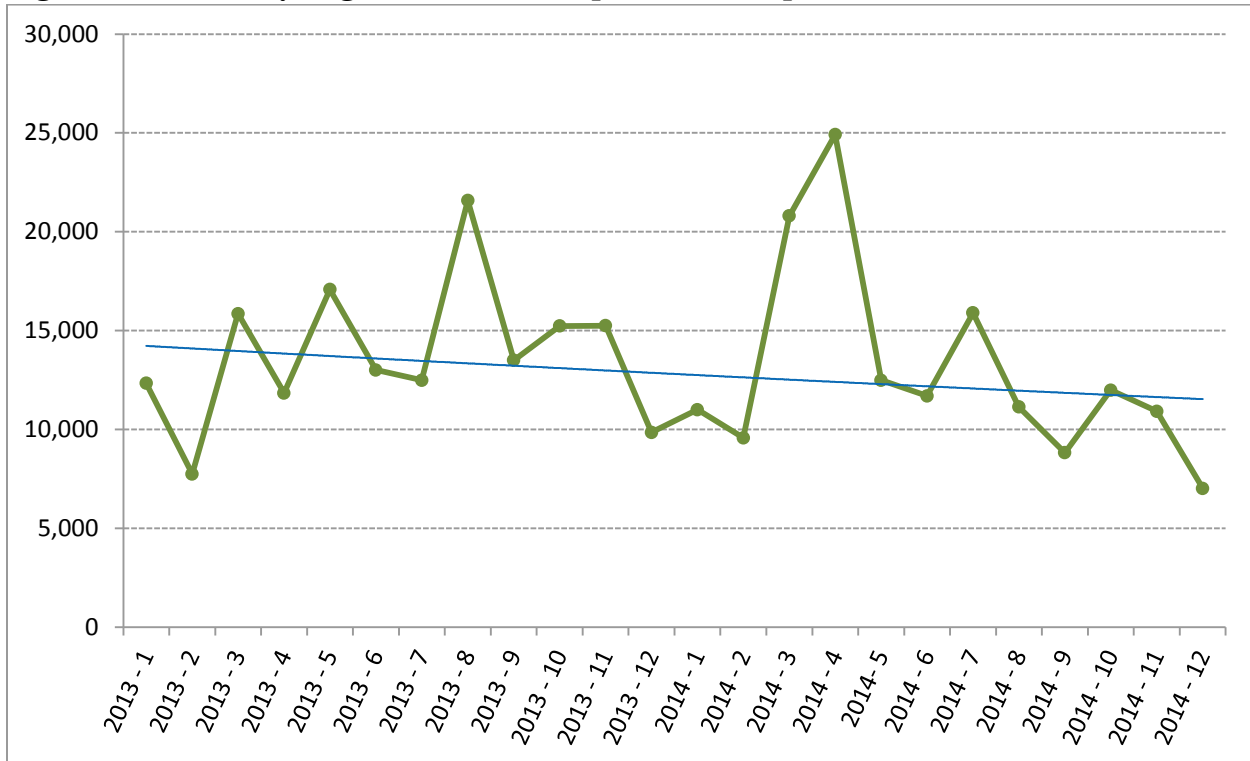


Table I.3.b shows the small but steady annual decrease in organic olive oil imports, but a slight annual increase for all olive oil imports, including non-organic. The organic share has declined slightly from 2013 to 2014.

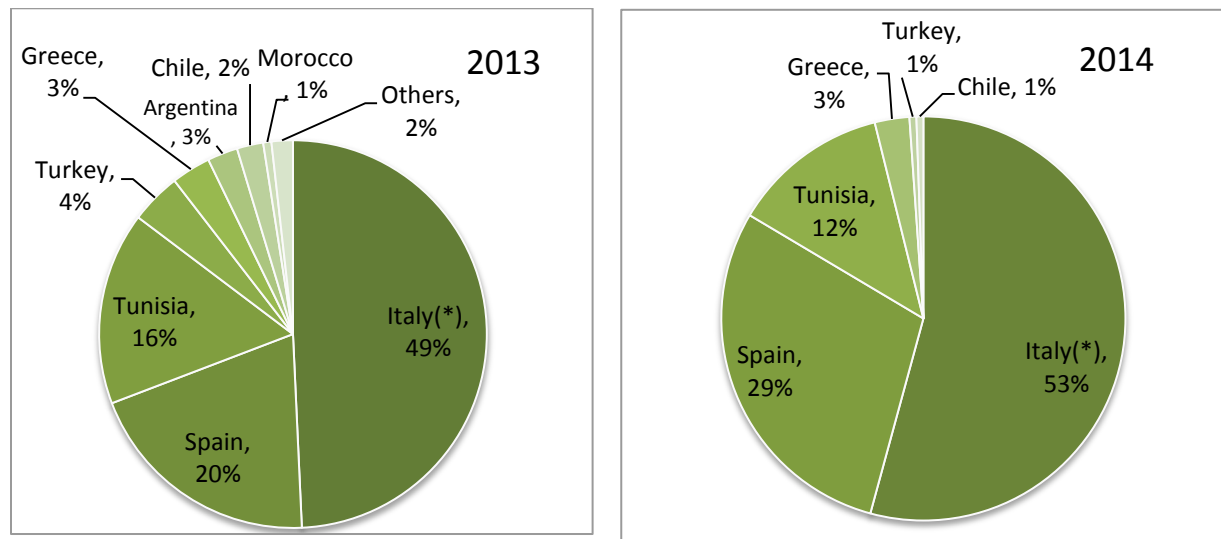
**Table I.3.b: Organic and Total Olive Oil Imports (\$1,000s)**

	2013	2014
Organic Olive Oil Import	165,772	156,274
Total Olive Oil Import	769,233	774,794
Organic Olive Oil Imports' Share of Total	22%	20%

*Countries of Origin*

Figure I.3.b shows the countries of origin for those countries supplying more than 1% of the total U.S. organic olive oil imports, and Table I.3.c lists these imports. For comparison's sake, Table I.3.d also lists imports of non-organic olive oil. The two primary sources of organic and non-organic olive oil imports are Italy and Spain, and imports from both countries grew from 2013 to 2014. However, organic olive oil imports from other countries, such as Tunisia, Greece, Turkey, and Chile, all declined from 2013 to 2014. A comparison between organic and non-organic trade distribution is illustrated in Figure I.3.c.

**Figure I.3.b: Countries of Origin for Organic Olive Oil Imports, by Share**



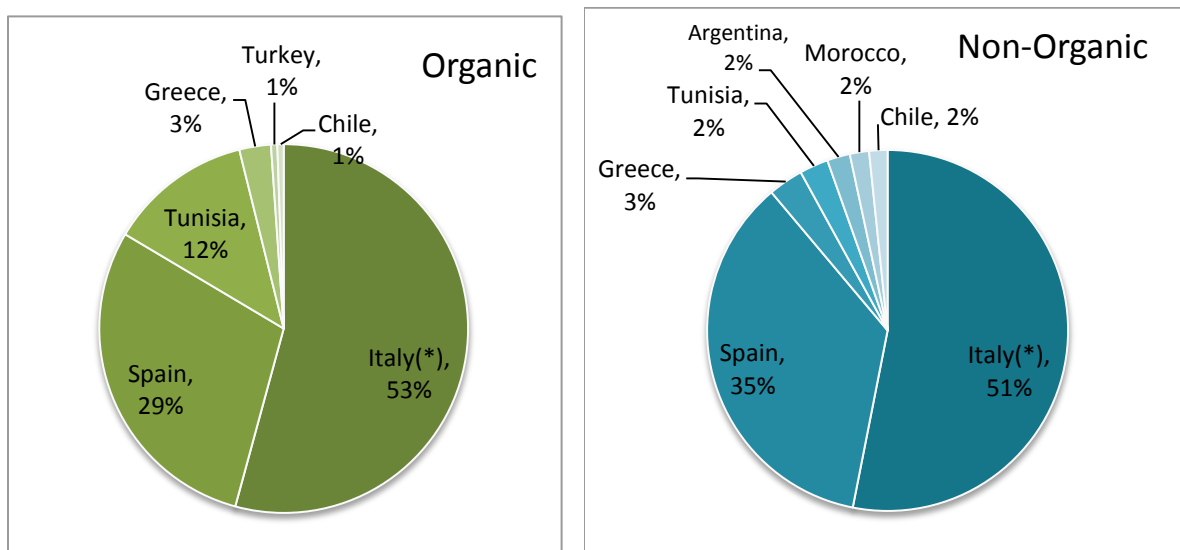
**Table I.3.c: Organic Olive Oil Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2013	2014
1. Italy(*)	81,673	82,873
2. Spain	33,036	44,781
3. Tunisia	26,668	19,235
4. Greece	5,435	4,232
5. Turkey	7,036	845
6. Chile	3,641	844
<b>Total, Top 2014 Origins Only</b>	<b>157,489</b>	<b>152,810</b>

**Table I.3.d: Non-Organic Olive Oil Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2013	2014
1. Italy(*)	333,548	317,758
2. Spain	110,791	214,104
3. Greece	22,822	18,756
4. Tunisia	51,142	15,428
5. Argentina	22,830	12,279
6. Morocco	8,482	10,296
7. Chile	13,283	9,839
<b>Total, Top 2014 Origins Only</b>	<b>562,898</b>	<b>598,460</b>

**Figure I.3.c: Olive Oil – Organic and Non-Organic Trading Partner Distribution (2014)**



The distribution of organic and non-organic olive oil supply is very similar.

**Conclusions:** In general, organic olive oil imports have declined overall. The decrease is mostly reflected in imports from Tunisia, Turkey, and Chile. Unusually high imports in March and April 2014 seem to be exceptions to an overall trend.

## 4. ORGANIC BANANA IMPORTS

Data on organic banana imports began in 2013. At that time, organic bananas were the top-ranked organic import. In 2014, organic bananas dropped to the fourth-most valued organic import.

### *Monthly Import Data and Market Growth*

Based on two years (24 months) of import data, the estimated monthly growth rate for organic banana imports is negative, though not statistically different from zero. Annualizing this growth rate suggests that organic banana imports had a negative annual growth rate of over 30%, as shown in Table I.4.a. On the other hand, non-organic banana imports increased at a rate of 10.9% per year during the same two-year time period. Figure I.4.a, the graph of monthly organic imports, shows that for the first four months of data, organic banana imports were unusually high. Starting in May 2013, organic banana imports exhibit a steady increase.

**Table I.4.a: Total Organic and Non-Organic Banana Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Bananas	2013-Q1 to 2014-Q4	-2.99%	No	-30.6%	No
Non-Organic Bananas	2013-Q1 to 2014-Q4	0.87%	Yes	10.9%	Yes: Q2 is the highest

**Figure I.4.a: Monthly Organic Banana Imports, with Exponential Trend Line**

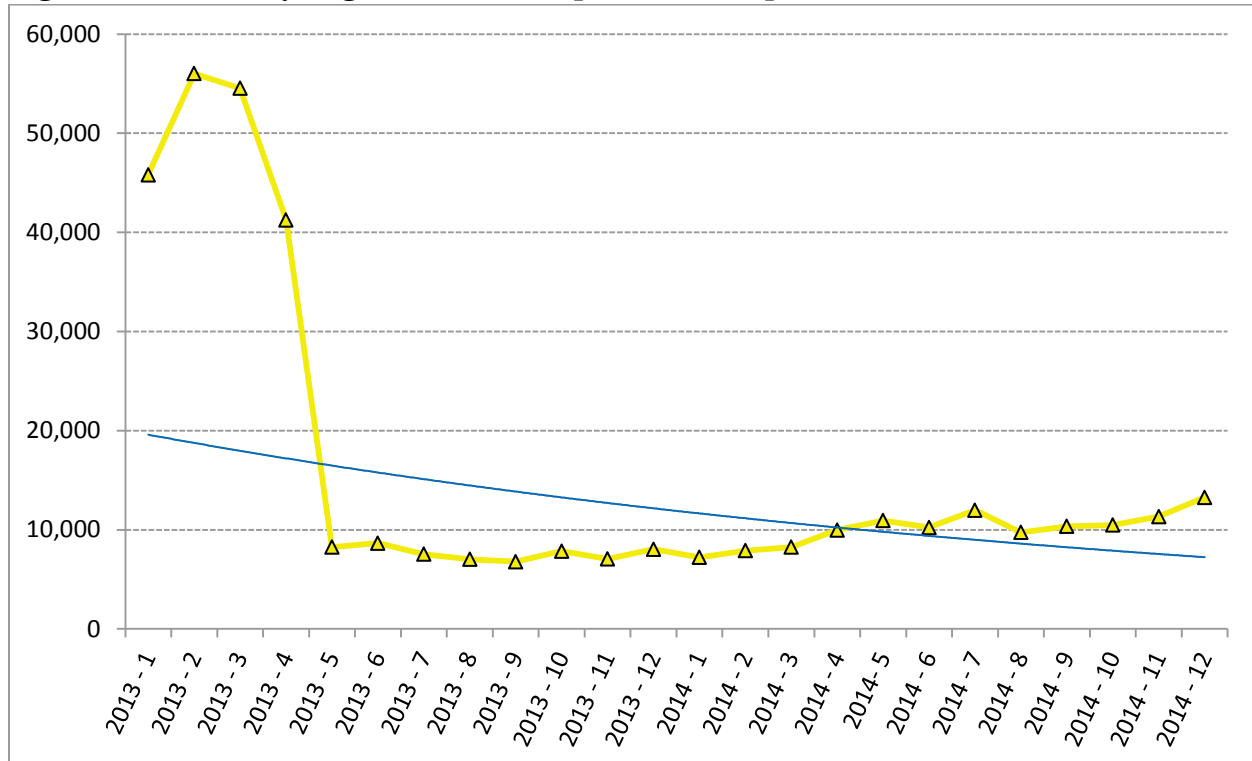


Table 1.4.b shows organic bananas imports juxtaposed with total banana imports, including non-organic bananas. This table shows a large decline in organic imports, but a very small increase in total banana imports.

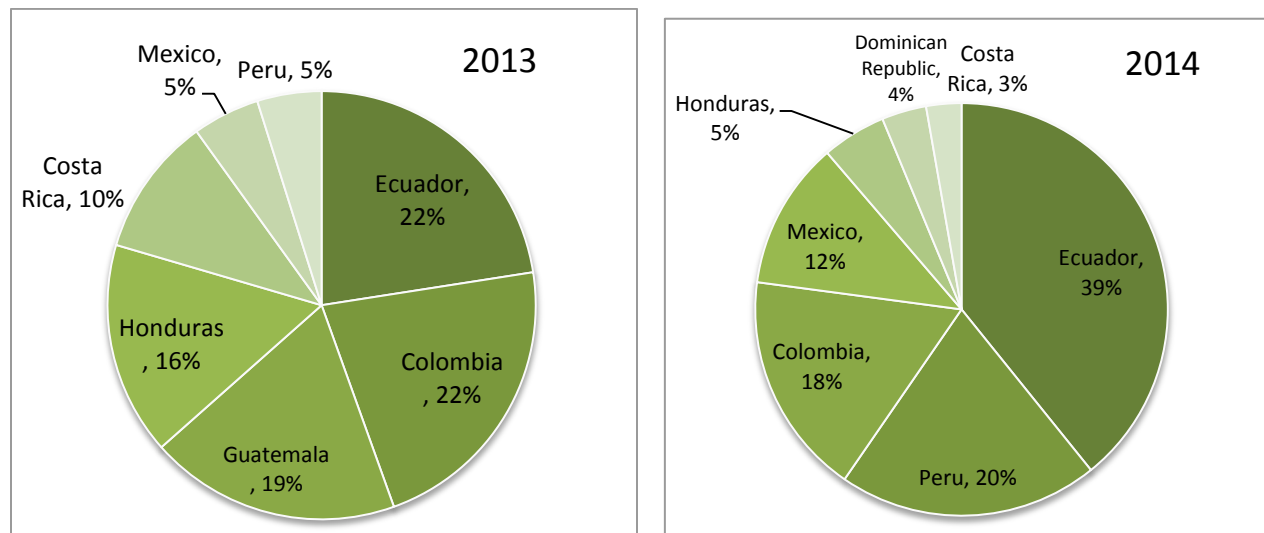
**Table I.4.b: Organic and Total Banana Imports (\$1,000s)**

	2013	2014
Organic Banana Imports	258,769	121,639
Total Banana Imports	2,016,151	2,054,137
Organic Banana Imports' Share of Total	13%	6%

*Countries of Origin*

Figure I.4.b shows the countries of origin for those countries supplying more than 1% of the total U.S. organic banana imports. Tables I.4.c and 1.4.d list these country-of-origin imports, as well as non-organic imports. The primary sources of organic banana imports are Ecuador, Peru, Colombia, Guatemala, and Costa Rica. Large 2013 to 2014 decreases in organic banana imports from Honduras and Costa Rica are noticeable in Table I.4.c. A comparison between organic and non-organic trade distribution is illustrated in Figure I.4.c.

**Figure I.4.b: Countries of Origin for Organic Banana Imports, by Share**



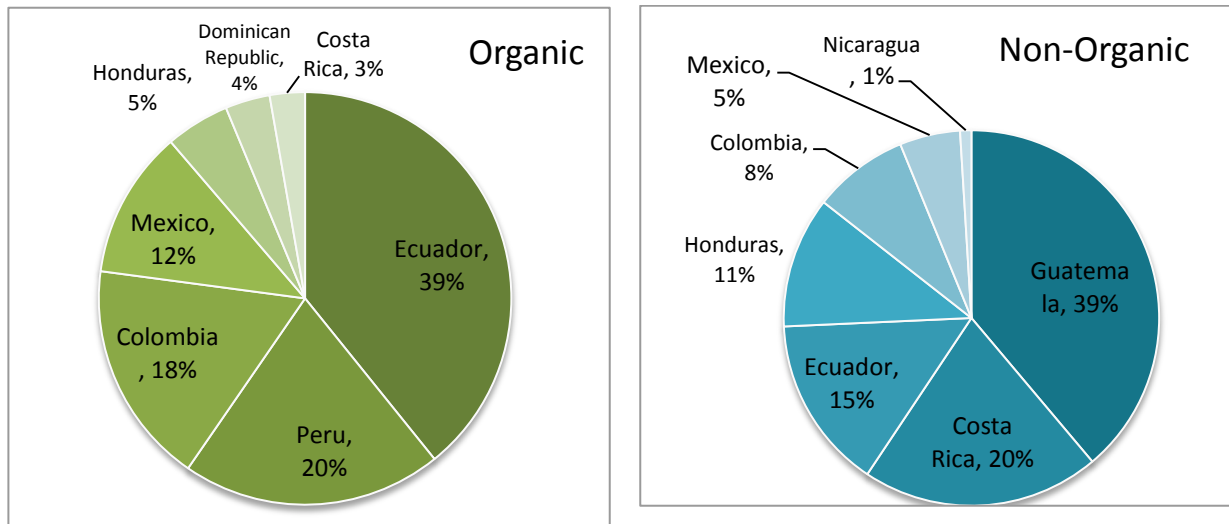
**Table I.4.c: Organic Banana Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2013	2014
1. Ecuador	57,617	47,680
2. Peru	12,416	24,800
3. Colombia	56,187	21,294
4. Mexico	12,963	14,113
5. Honduras	41,124	6,109
6. Dominican Republic	3,123	4,261
7. Costa Rica	26,916	3,354
<b>Total, Top 2014 Origins Only</b>	<b>210,346</b>	<b>121,611</b>

**Table I.4.d: Non-Organic Banana Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2013	2014
1. Guatemala	659,628	746,801
2. Costa Rica	351,269	393,960
3. Ecuador	279,606	286,760
4. Honduras	180,670	217,110
5. Colombia	156,936	158,298
6. Mexico	101,995	100,195
7. Nicaragua	12,794	18,634
<b>Total, Top 2014 Origins Only</b>	<b>1,742,898</b>	<b>1,921,758</b>

**Figure I.4.c: Bananas – Organic and Non-Organic Trading Partner Distribution (2014)**



The organic and non-organic shares of imports are fairly similar for banana imports with one exception: Guatemala has a much larger share of non-organic banana imports.

**Conclusions:** Organic banana imports had a tremendous decline during the first part of 2013, but grew modestly after that. Imports from Peru grew dramatically from 2013 to 2014, but declined even more from Colombia and Honduras.



## 5. ORGANIC WINE IMPORTS

Data on organic wine imports began in 2013, and at that time organic wine was the second most highly valued import (when white, red, and sparkling wine categories are aggregated). In 2014, organic wine dropped to the fifth-most valued organic import. From 2013 to 2014, annual imports have declined dramatically.

### *Monthly Import Data and Market Growth*

Based on two years (24 months) of import data, the estimated monthly growth rate for organic wine is negative and statistically different from zero. Annualizing this growth rate suggests that organic wine imports had a negative annual growth rate of over 50%. Table I.5.a shows the negative growth rate for organic wine, as well as the corresponding positive annual growth rate (5.2%) for non-organic wine. Figure I.5.a, the graph of monthly organic wine imports, shows a steady and sometimes steep decline.

**Table I.5.a: Total Organic and Non-Organic Wine Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Wine	2013-Q1 to 2014-Q4	-5.79%	Yes	-51.1%	No
Non-Organic Wine	2013-Q1 to 2014-Q4	0.43%	Yes	5.2%	Yes: Q4 is the highest

**Figure I.5.a: Monthly Organic Wine Imports, with Exponential Trend Line**

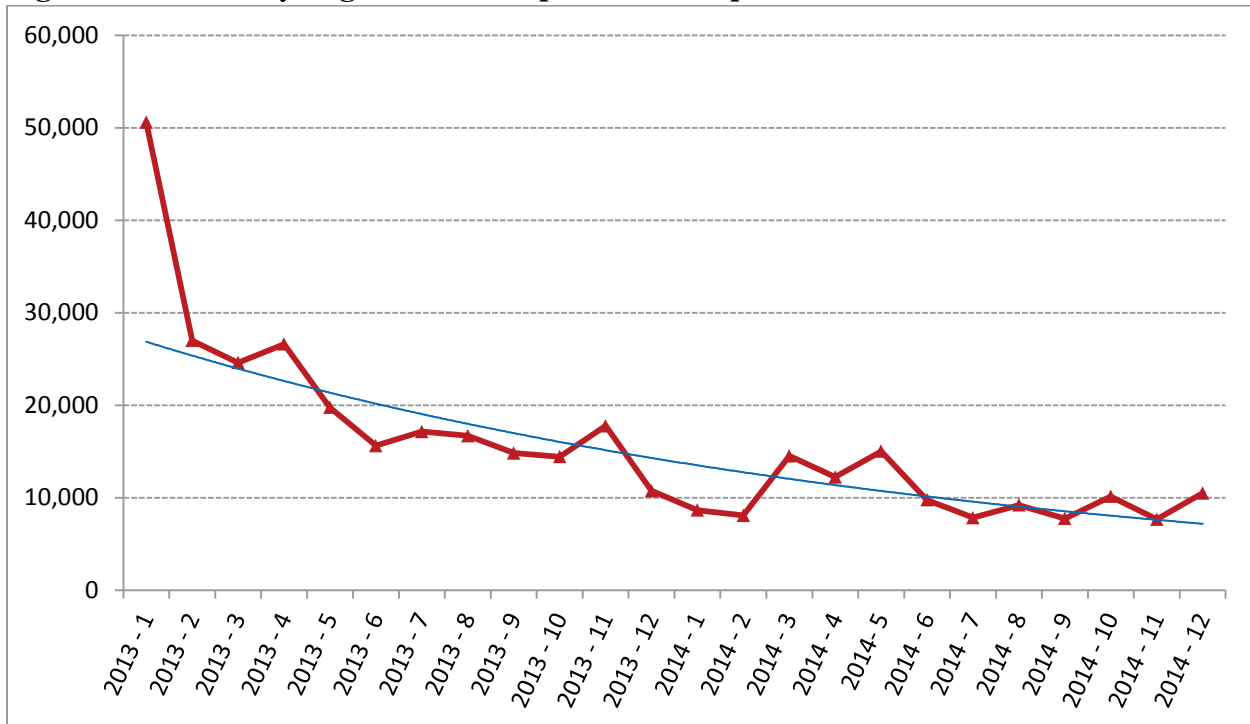


Table I.5.b shows the annual decrease in organic wine imports juxtaposed with the slight increase in total wine imports, which includes non-organic wine. Organic's share of all wine imports dropped from 6% to 3% from 2013 to 2014.

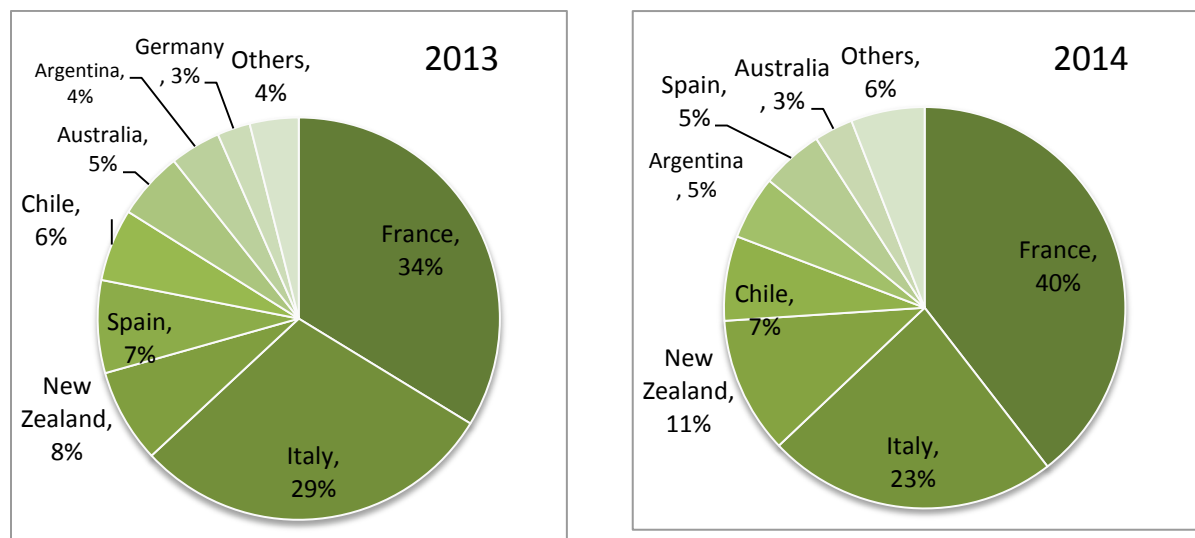
**Table I.5.b: Organic and Total Wine Imports (\$1,000)**

	2013	2014
Organic Wine Imports	255,745	121,341
Total Wine Imports	4,389,766	4,489,872
Organic Wine Imports' Share of Total	6%	3%

*Countries of Origin*

Figure I.5.b shows the countries of origin for those countries supplying more than 1% of the total U.S. organic wine imports. Tables I.5.c and I.5.d list the country-of-origin imports for organic and non-organic wine. The primary sources of organic wine imports are France, Italy, New Zealand, Chile, Argentina, Spain, and Australia. Every country listed in Table I.5.b shows substantial decreases in organic wine imports to the U.S. from 2013 to 2014. A comparison between organic and non-organic trade distribution is illustrated in Figure I.5.c.

**Figure I.5.b: Countries of Origin for Organic Wine Imports, by Share**



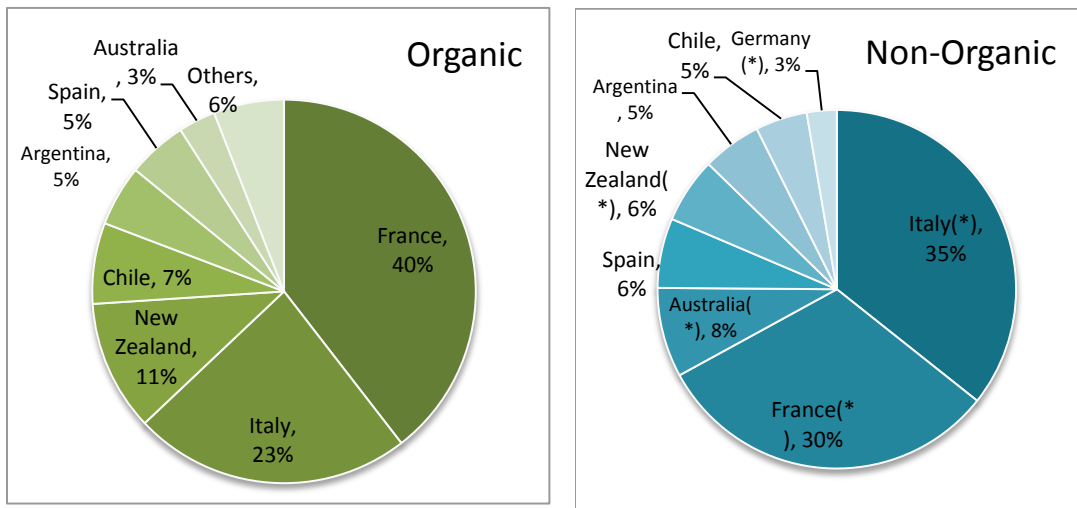
**Table I.5.c: Organic Wine Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2013	2014
1. France(*)	86,267	47,949
2. Italy(*)	75,028	28,422
3. New Zealand(*)	19,336	13,364
4. Chile	14,901	8,279
5. Argentina	10,439	6,221
6. Spain	19,059	6,089
7. Australia(*)	13,880	3,801
<b>Total, Top 2014 Origins Only</b>	<b>238,910</b>	<b>114,125</b>

**Table I.5.d: Non-Organic Wine Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2013	2014
1. Italy(*)	1,398,458	1,508,804
2. France(*)	1,225,667	1,325,515
3. Australia(*)	370,749	341,889
4. Spain	252,712	265,757
5. New Zealand(*)	205,657	249,407
6. Argentina	240,622	225,311
7. Chile	203,759	197,460
8. Germany(*)	109,602	113,994
<b>Total, Top 2014 Origins Only</b>	<b>4,007,226</b>	<b>4,228,137</b>

**Figure I.5.c: Wine – Organic and Non-Organic Trading Partner Distribution (2014)**



France and Italy swap places as the number one wine supplier: For organic wine, France is number one and Italy is number two. The opposite is true for non-organic wine.

**Conclusions:** In general, organic wine imports exhibit a strong decline. The U.S. imports less organic wine in 2014 than in 2013 from each individual country of origin.

## 6. ORGANIC HONEY IMPORTS

After strong growth from 2013 to 2014, honey became the U.S.’s sixth leading organic import.

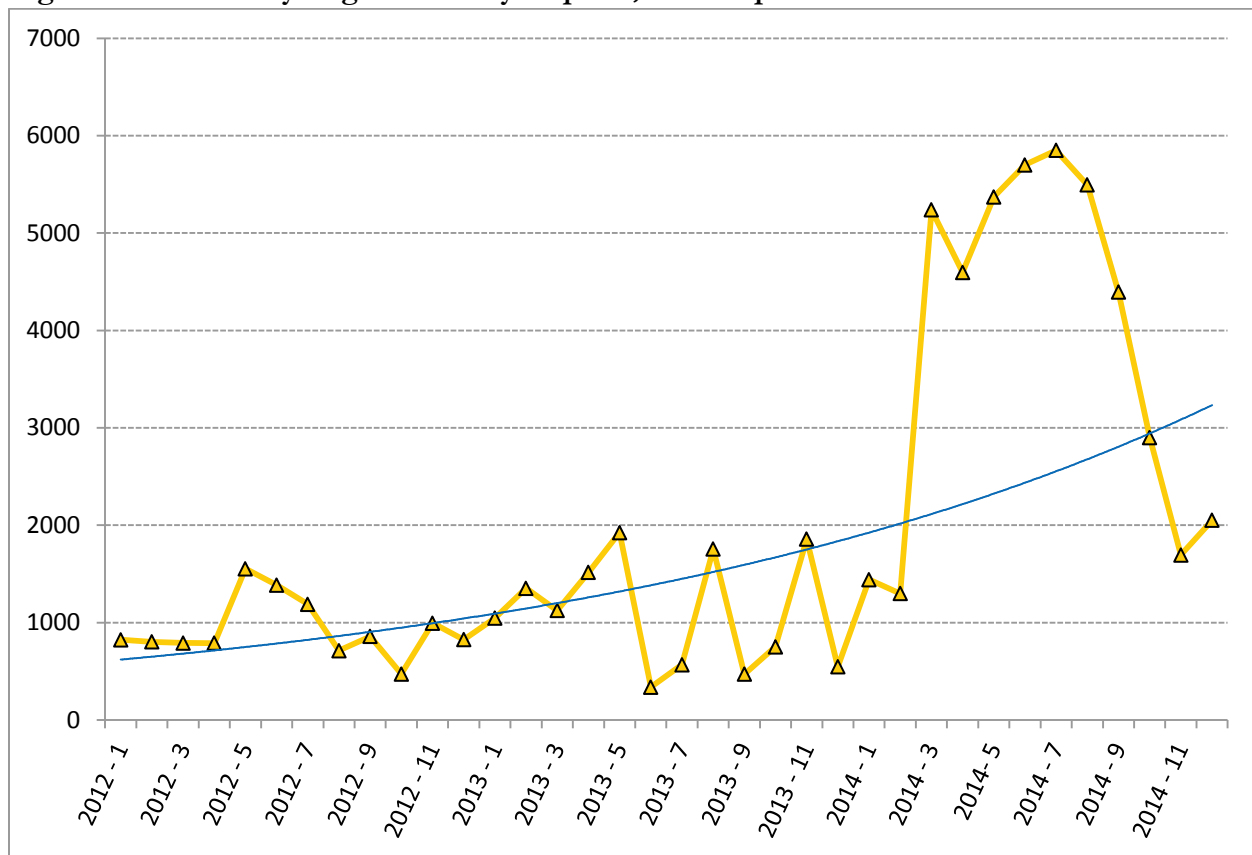
### *Monthly Import Data and Market Growth*

Based on three years (36 months) of import data, the annual growth rate for organic honey imports is estimated to be 89.4%, as shown in Table I.6.a. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. Organic honey imports during months in the fourth quarter of each year are significantly lower than those during months in the first quarter, which is the reference quarter. Figure I.6.a, the graph of monthly organic imports, shows a dramatic increase in organic honey imports between March and September 2014.

**Table I.6.a: Total Organic Honey Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Honey	2012-Q1 to 2014-Q4	5.47%	Yes	89.4%	Yes: Q4 is the lowest

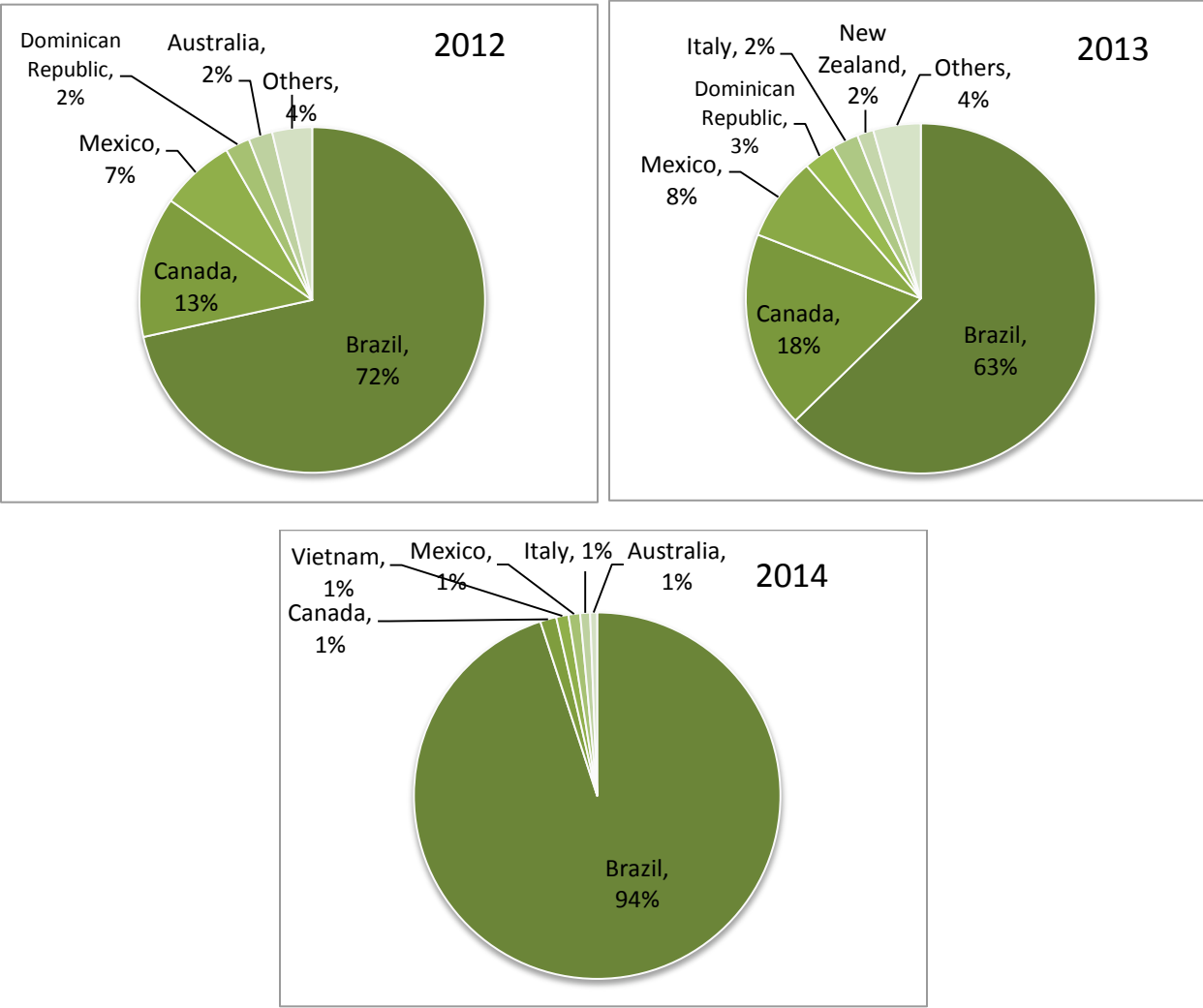
**Figure I.6.a: Monthly Organic Honey Imports, with Exponential Trend Line**



*Countries of Origin*

Figure I.6.b shows the countries of origin for those countries supplying more than 1% of the total U.S. organic honey imports. With an import share ranging from 63% to 94%, Brazil is the primary source for organic honey imports. Table I.6.b shows that imports from Brazil increased dramatically from over \$8 million in 2013 to over \$43 million in 2014. A comparison between organic and non-organic trade distribution is illustrated in Figure I.6.c.

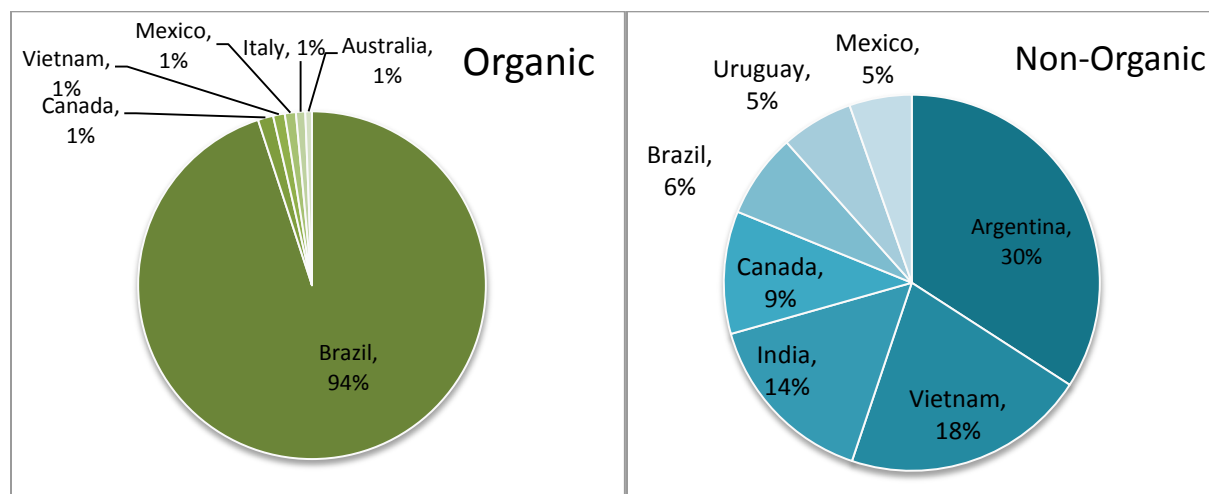
**Figure I.6.b: Countries of Origin for Organic Honey Imports, by Share**



**Table I.6.b: Organic Honey Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2012	2013	2014
1. Brazil	8,013	8,307	43,180
2. Canada	1,476	2,415	648
3. Vietnam	0	0	492
4. Mexico	781	1,026	468
5. Italy(*)	157	324	394
6. Australia(*)	251	75	281
<b>Total, Top 2014 Origins Only</b>	<b>10,678</b>	<b>12,147</b>	<b>45,463</b>

**Figure I.6.c: Honey – Organic and Non-organic Trading Partner Distribution (2014)**



Brazil's share of organic imports is nine times higher than its non-organic share of imports.

**Conclusions:** In general, organic honey imports exhibits extremely strong growth. Much of that growth seems to be driven by a dramatic increase in imports from Brazil. Finally, these abnormally high imports from Brazil probably came in March through September of 2014.

## 7. ORGANIC ALMOND IMPORTS

Almonds are the U.S.'s seventh leading organic import in 2014, and there was a large increase in organic almond imports from 2013 to 2014.

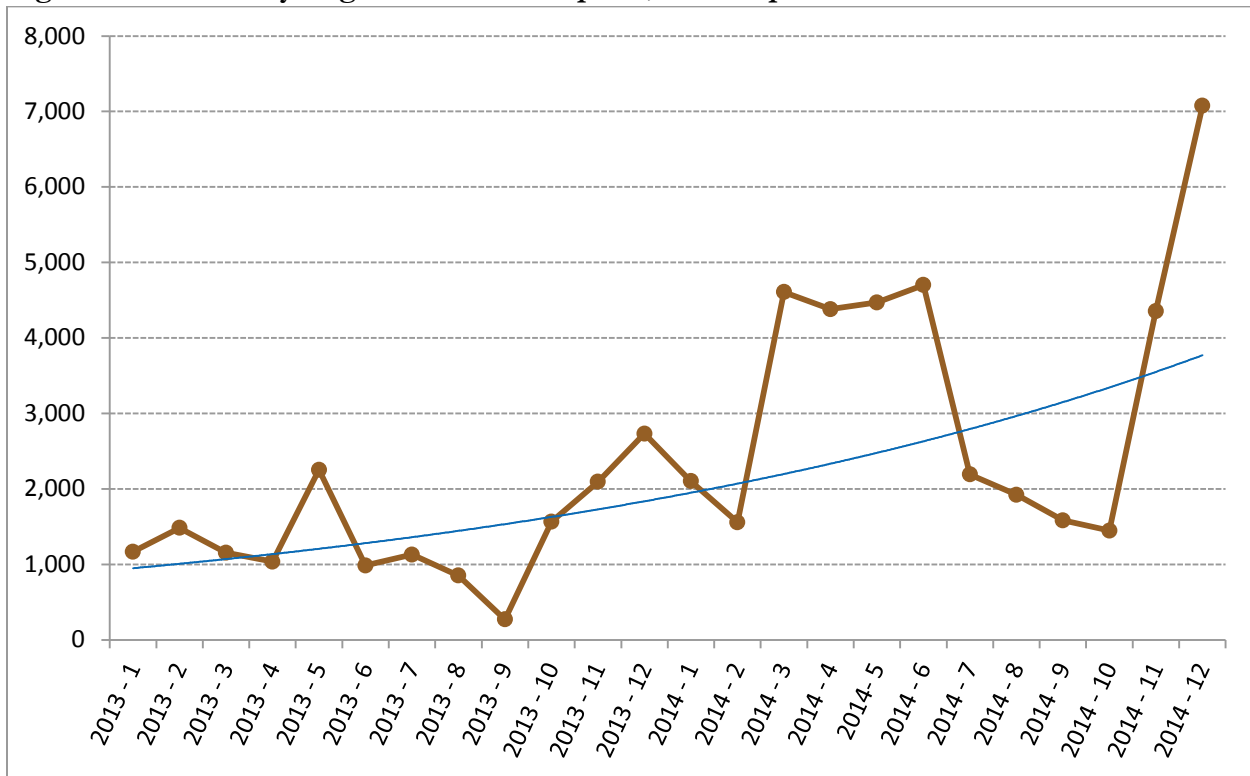
### *Monthly Import Data and Market Growth*

Based on two years (24 months) of import data, the annual growth rate for organic almond imports is estimated to be 133.8%, as shown in Table I.7.a. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. Organic almond imports during the third quarter of each year are significantly lower than during the first quarter, which is the reference quarter. A cyclical pattern is only mildly noticeable in Figure I.7.a, the graph of monthly organic imports; however, strong growth in recent months is very noticeable. At just over \$7 million, imports for December 2014, the most recent month with import data, were approximately triple the monthly average for the two years of data.

**Table I.7.a: Total Organic Almond Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Almonds	2013-Q1 to 2014-Q4	7.34%	Yes	133.8%	Yes: Q3 is the lowest

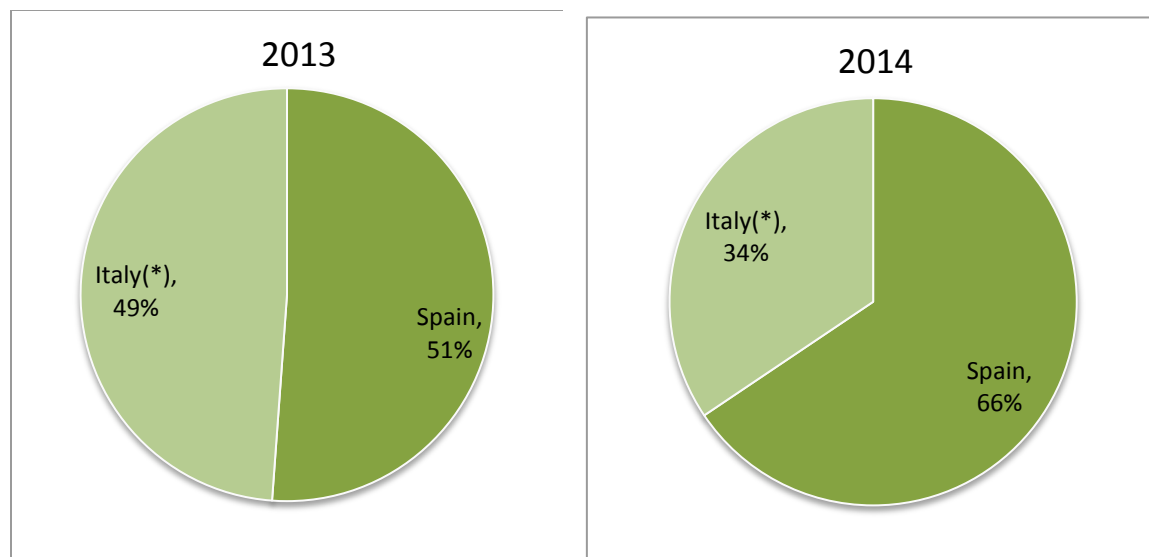
**Figure I.7.a: Monthly Organic Almond Imports, with Exponential Trend Line**



### *Countries of Origin*

Figure I.7.b and Table I.7.b show the countries of origin for those countries supplying more than 1% of the total U.S. organic almond imports. Only two source countries, Spain and Italy, are responsible for the U.S.'s organic almond imports. Spain's level of almond imports rose dramatically from 2013 to 2014.

**Figure I.7.b: Countries of Origin for Organic Almond Imports, by Share**

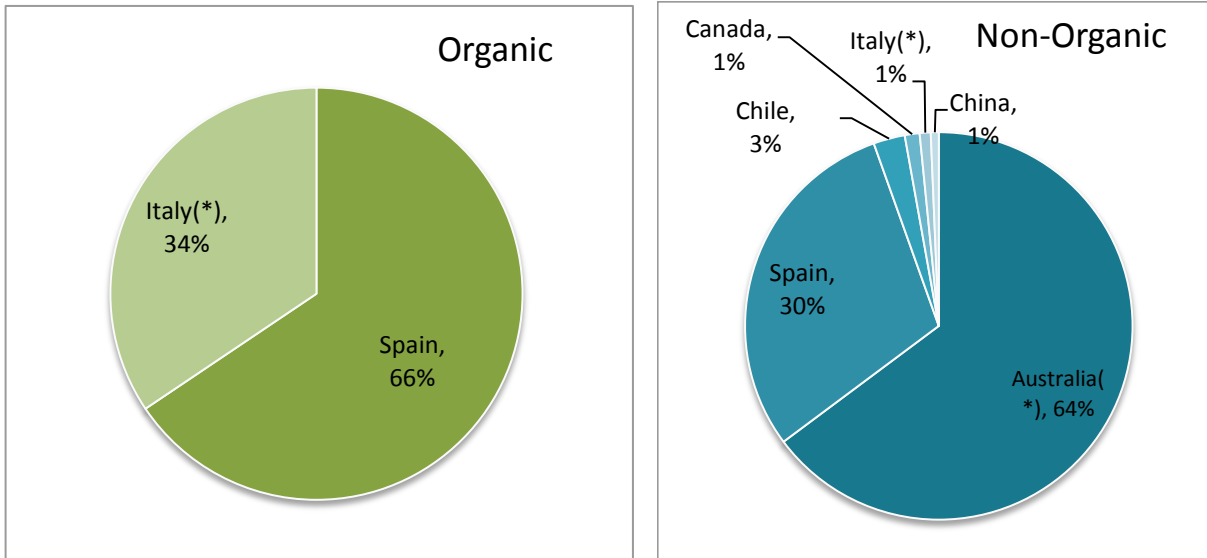


**Table I.7.b: Organic Almond Imports by Top Country of Origin (\$1,000s)**

Country (2014 ranking)	2013	2014
1. Spain	8,552	26,490
2. Italy(*)	8,166	13,904
<b>Total, Top 2014 Origins Only</b>	<b>16,718</b>	<b>40,394</b>



Figure I.7.c: Almond – Organic and Non-organic Trading Partner Distribution (2014)



**Conclusions:** Organic almond imports grew dramatically and, given the most recent month of data, appear poised to keep growing.

## 8. ORGANIC MANGO IMPORTS

Mangos are the U.S.'s eighth leading organic import in 2014. They might have been ranked higher except for a large decrease in imports from 2013 to 2014.

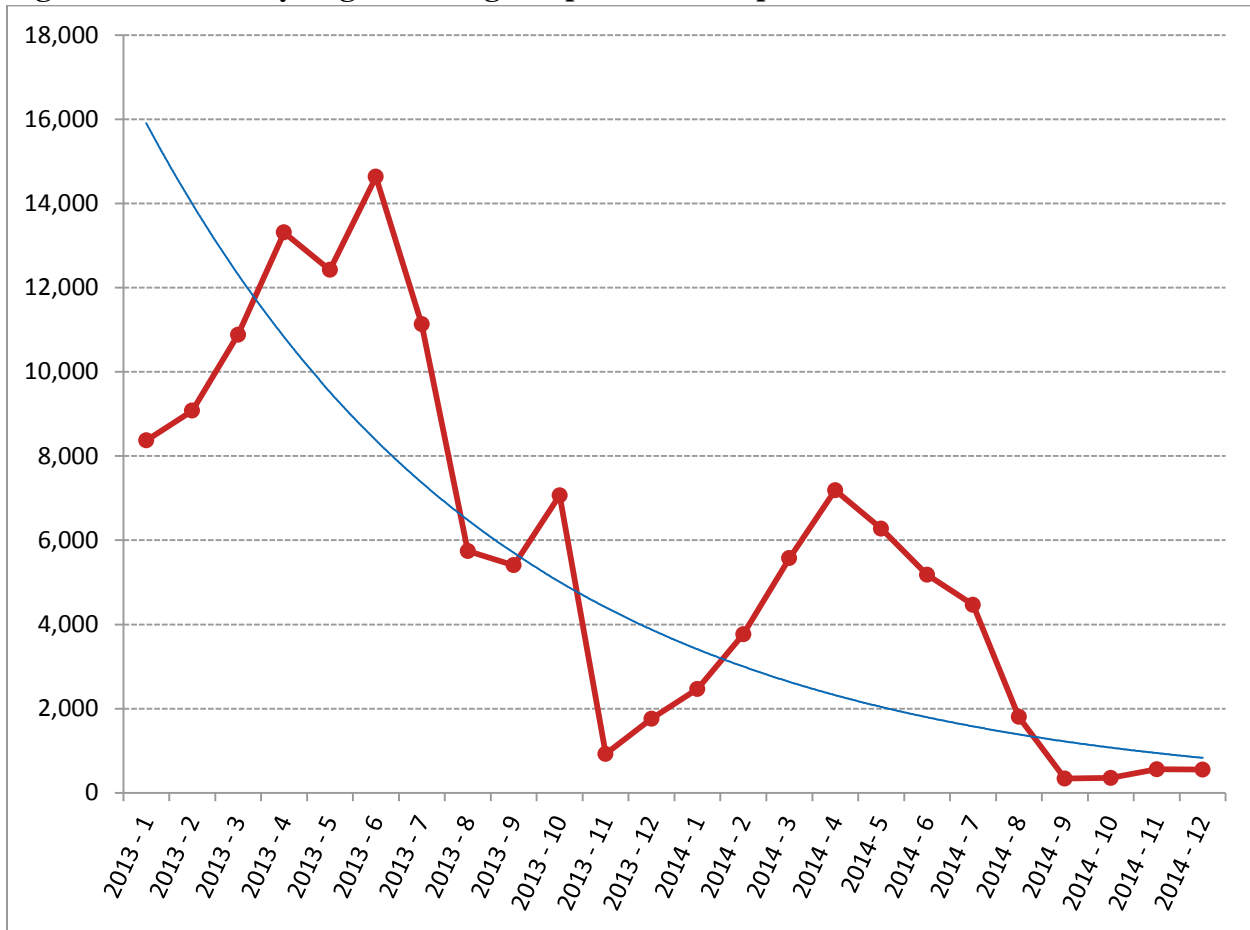
### *Monthly Import Data and Market Growth*

Based on two years (24 months) of import data, the estimated annual growth rate for organic mango imports is strongly negative. As shown in Table I.8.a, imports of organic mangos are decreasing at an annual rate of -73% per year. Figure I.8.a, the graph of monthly organic imports, shows a strong and steady decrease over the 24-month period, despite some quarterly fluctuations.

**Table I.8.a: Total Organic Mango Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Mangoes	2013-Q1 to 2014-Q4	-10.34%	Yes	-73.0%	Yes: Q2 is the highest; Q4 is the lowest

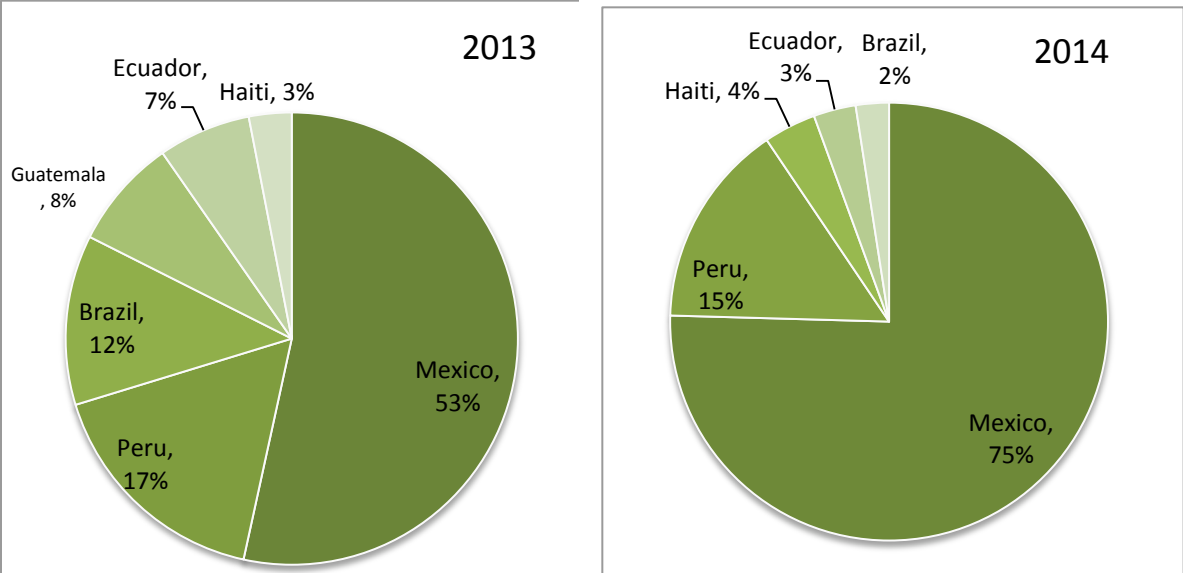
**Figure I.8.a: Monthly Organic Mango Imports, with Exponential Trend Line**



*Countries of Origin*

Figure I.8.b shows the countries of origin for those countries supplying more than 1% of total U.S. organic mango imports, and Table I.8.b lists these imports. The primary sources of organic mango imports are Mexico and Peru. All five countries listed in Table I.8.b show strong decreases in imports from 2013 to 2014. A comparison between organic and non-organic trade distribution is illustrated in Figure I.8.c.

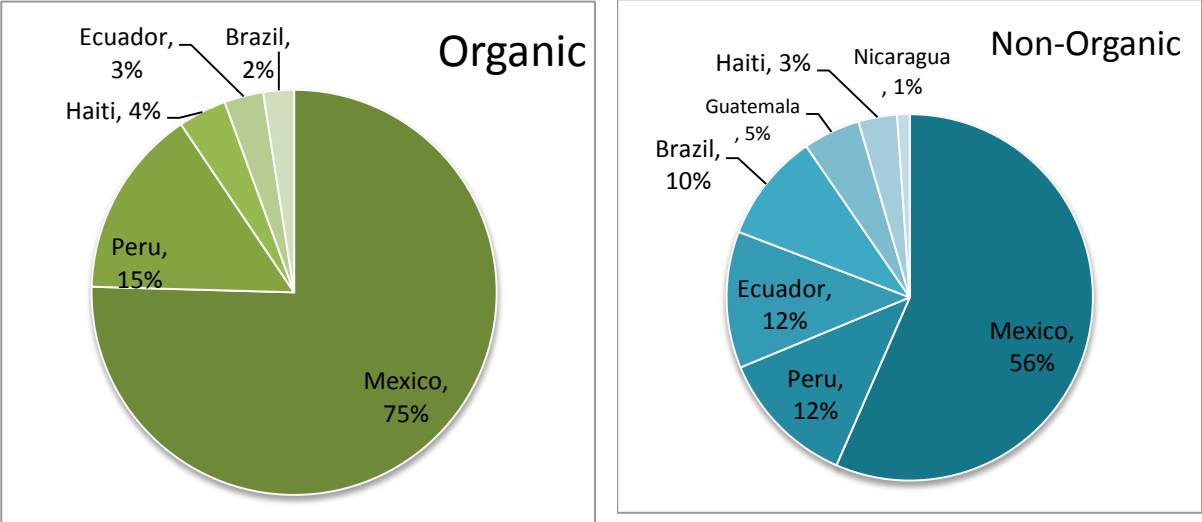
**Figure I.8.b: Countries of Origin for Organic Mango Imports, by Share**



**Table I.8.b: Organic Mango Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2013	2014
1. Mexico	53,539	28,823
2. Peru	16,882	5,777
3. Haiti	3,058	1,477
4. Ecuador	6,643	1,193
5. Brazil	12,178	935
<b>Total, Top 2014 Origins Only</b>	<b>92,300</b>	<b>38,205</b>

Figure I.8.c: Mangoes – Organic and Non-Organic Trading Partner Distribution (2014)



The trading partner distribution of organic and non-organic mangoes is very similar; however, Mexico’s share of organic imports is substantially higher than its non-organic share.

**Conclusions:** Organic mango imports are steeply declining, and that decline comes from across-the-board drops in imports from all top countries.

## 9. ORGANIC AVOCADO IMPORTS

Avocados were the U.S.'s ninth leading organic import in 2014, and there was a large increase in organic avocado imports from 2013 to 2014.

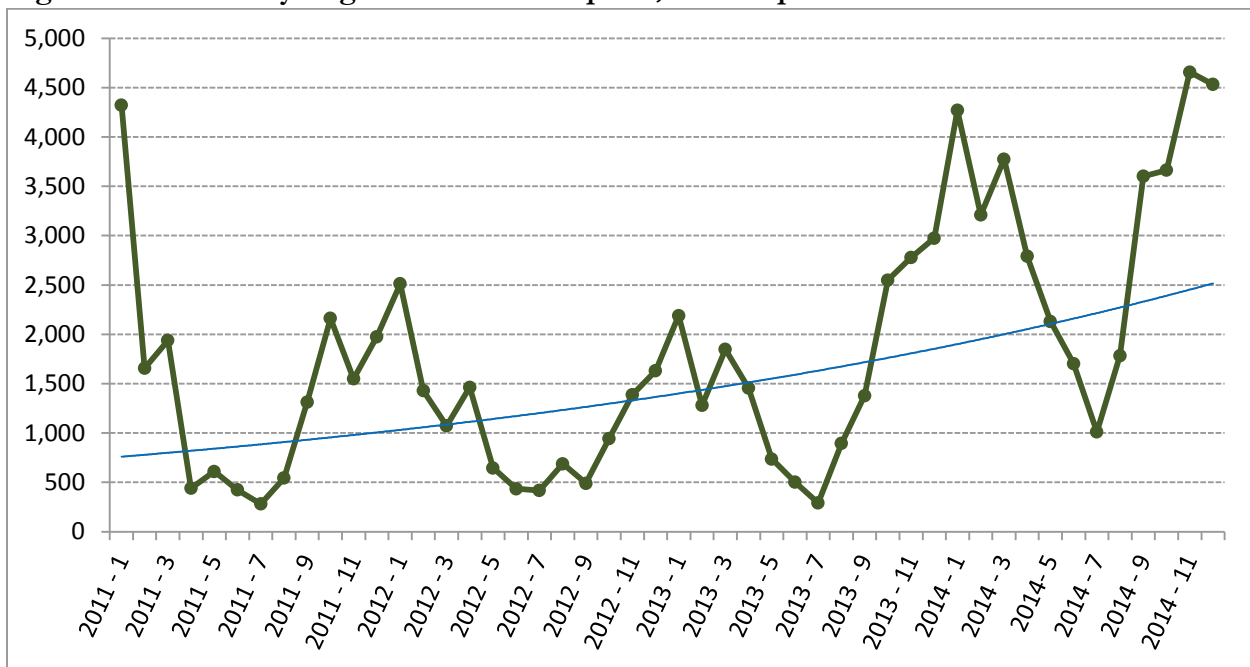
### *Monthly Import Data and Market Growth*

Based on four years (48 months) of import data, the annual growth rate for organic avocado imports is estimated to be 37.7%. Table I.9.a summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. Organic avocado imports during the third quarter of each year are significantly lower than during the first quarter, which is the reference quarter. A cyclical pattern is present in Figure I.9.a, the graph of monthly organic imports. That figure also shows some substantial increases in 2014.

**Table I.9.a: Total Organic Avocado Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Avocados	2011-Q1 to 2014-Q4	2.70%	Yes	37.7%	Yes: Q3 is the lowest

**Figure I.9.a: Monthly Organic Avocado Imports, with Exponential Trend Line**



### *Countries of Origin*

Figure I.9.b and Table I.9.b shows the countries of origin for organic avocado imports. Almost all organic avocados come from Mexico. Table I.9.b shows that, after an initial drop from 2011 to

2012, imports rose steadily through 2013 and 2014. A comparison between organic and non-organic trade distribution is illustrated in Figure I.9.c.

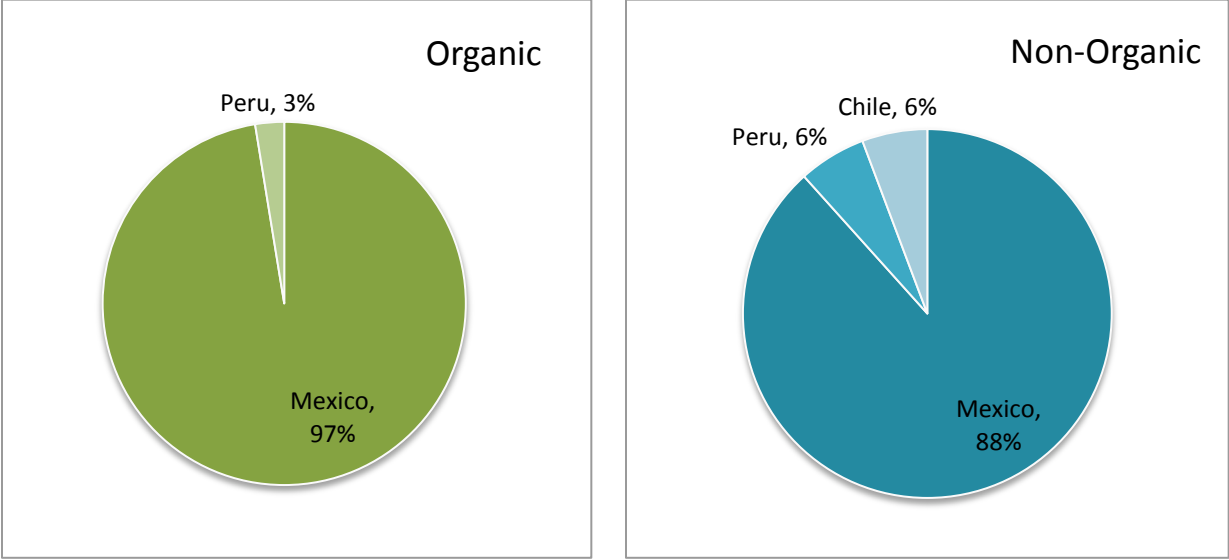
**Figure I.9.b: Countries of Origin for Organic Avocado Imports, by Share**



**Table I.9.b: Organic Avocado Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Mexico	16,805	12,406	18,759	36,179
2. Peru	0	428	123	954
<b>Total, Top 2014 Origins Only</b>	<b>16,805</b>	<b>12,834</b>	<b>18,882</b>	<b>37,133</b>

Figure I.9.c: Avocado – Organic and Non-organic Trading Partner Distribution (2014)



**Conclusions:** Organic avocado imports show strong growth. From 2013 to 2014, imports from Mexico, the dominate source country, almost doubled.

## 10. ORGANIC YELLOW DENT CORN IMPORTS

Data on organic yellow corn imports began halfway through 2013. By 2014, it became the tenth ranked organic import.

### *Monthly Import Data and Market Growth*

Based on one and one-half years (18 months) of import data, organic corn imports is estimated to have an annual growth rate of over 85%. Table I.10.a shows this rate juxtaposed with the large negative estimated growth rate for non-organic corn (-76.9%). Figure I.10.a, the graph of monthly organic imports, shows that for the first two months of data reporting, organic corn imports were unusually high. Starting in September 2013, organic corn imports generally exhibit a steady increase.

**Table I.10.a: Total Organic and Non-Organic Corn Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Yellow Dent Corn	2013-Q1 to 2014-Q4	5.29%	Yes	85.7%	Yes: Q3 is the highest
Non-Organic Yellow Dent Corn	2013-Q1 to 2014-Q4	-11.48%	Yes	-76.9%	Yes: Q3 is the highest

**Figure I.4.a: Monthly Organic Corn Imports, with Exponential Trend Line**

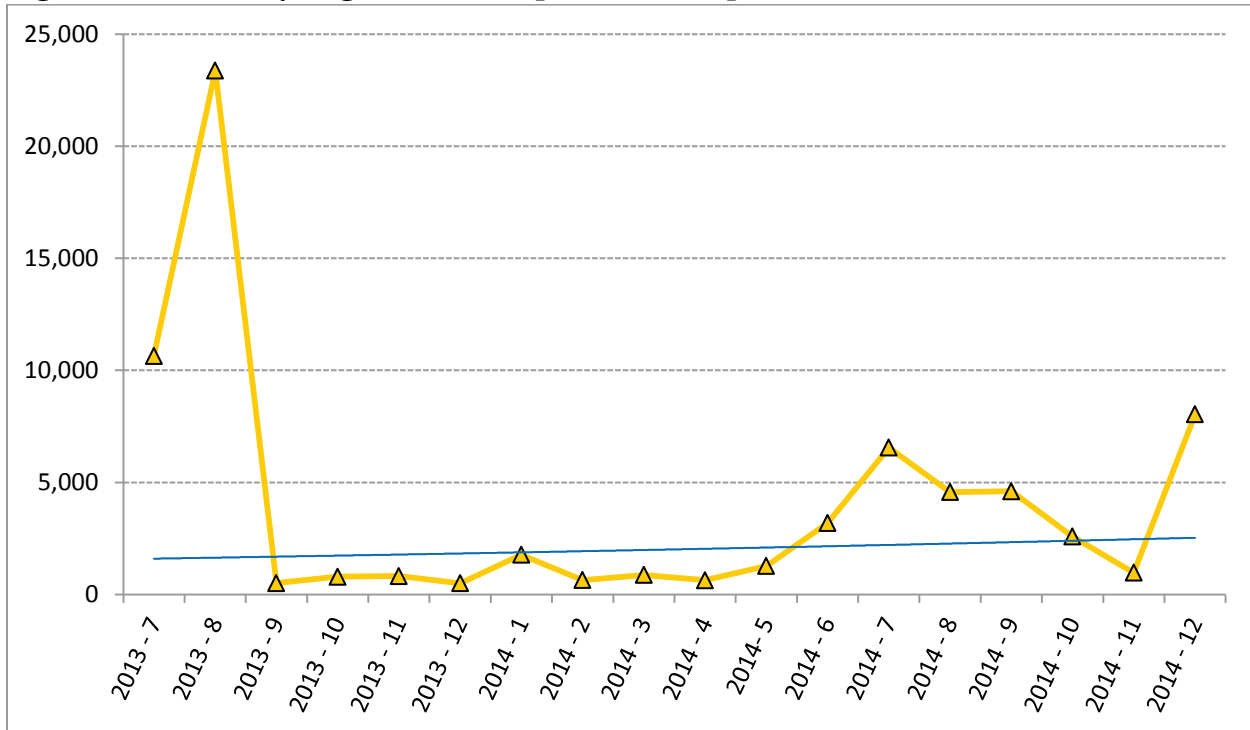




Table I.10.b shows a slight decrease in the annual organic imports of organic corn juxtaposed with a large annual decrease in total corn imports, which includes non-organic corn. The organic share of corn imports rose from 19% in 2013 to 33% in 2014.

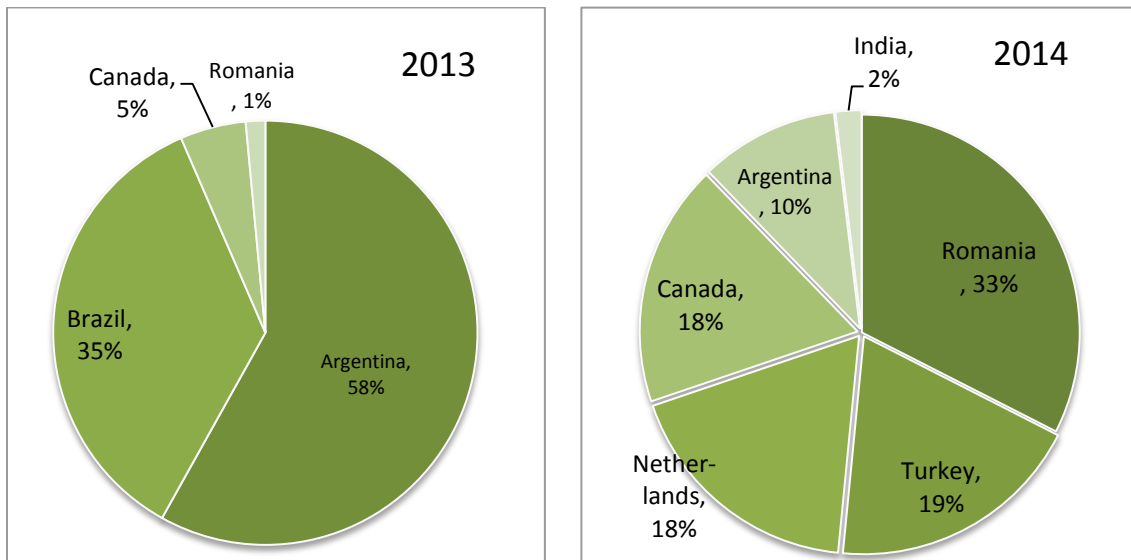
**Table I.10.b: Organic and Total Corn Imports (\$1,000)**

	2013	2014
Organic Corn Imports	36,631	35,700
Total Corn Imports	191,470	109,108
Organic Corn Imports' Share of Total	19%	33%

***Countries of Origin***

Figure I.10.b shows the countries of origin for those countries supplying more than 1% of the total U.S. organic corn imports. Tables I.10.c and I.10.d list country-specific organic and non-organic corn imports. There appears to be strong fluctuation in the source of organic corn imports. The three leading sources of organic corn in 2014--Romania, Turkey, and the Netherlands--supplied little or no organic corn to the U.S. in 2013. On the other hand, the level of imports decreased dramatically from 2013 to 2014 for Argentina, the leading source in 2013. A comparison between organic and non-organic trade distribution is illustrated in Figure I.10.c.

**Figure I.10.b: Countries of Origin for Organic Corn Imports, by Share**



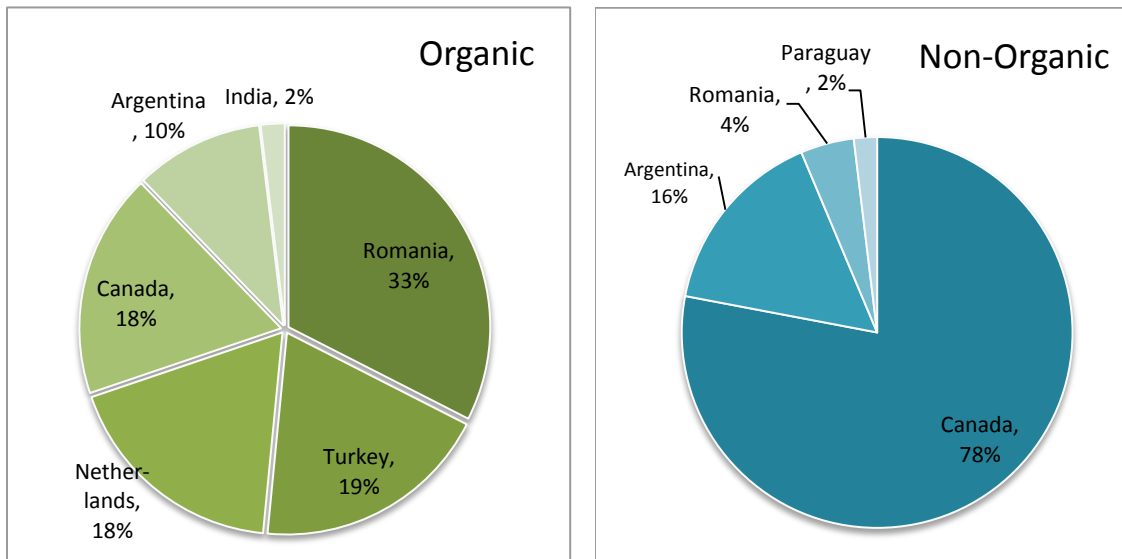
**Table I.10.c: Organic Corn Imports by Top Country of Origin (\$1,000s)**

Country (2014 ranking)	2013	2014
1. Romania	545	11,602
2. Turkey	0	6,797
3. Netherlands	0	6,518
4. Canada	1,838	6,419
5. Argentina	21,282	3,677
6. India	0	685
<b>Total, Top 2014 Origins Only</b>	<b>23,665</b>	<b>35,698</b>

**Table I.10.d: Non-Organic Corn Imports by Top Countries of Origin (\$1,000)**

Country (2014 ranking)	2013	2014
1. Canada	112,968	57,093
2. Argentina	11,091	11,477
3. Romania	109	3,238
4. Paraguay	0	1,402
<b>Total, Top 2014 Origins Only S</b>	<b>124,168</b>	<b>73,210</b>

**Figure I. 10.c: Yellow Dent Corn – Organic and Non-Organic Trading Partner Distribution (2014)**



**Conclusions:** In general, organic corn imports exhibit strong growth, and that growth would appear even stronger if the first two months of data from July and August 2013 were ignored.

## 11. ORGANIC TEA IMPORTS

Once several organic tea import codes are aggregated to a single category, organic tea becomes the U.S.'s eleventh leading organic import in 2014.

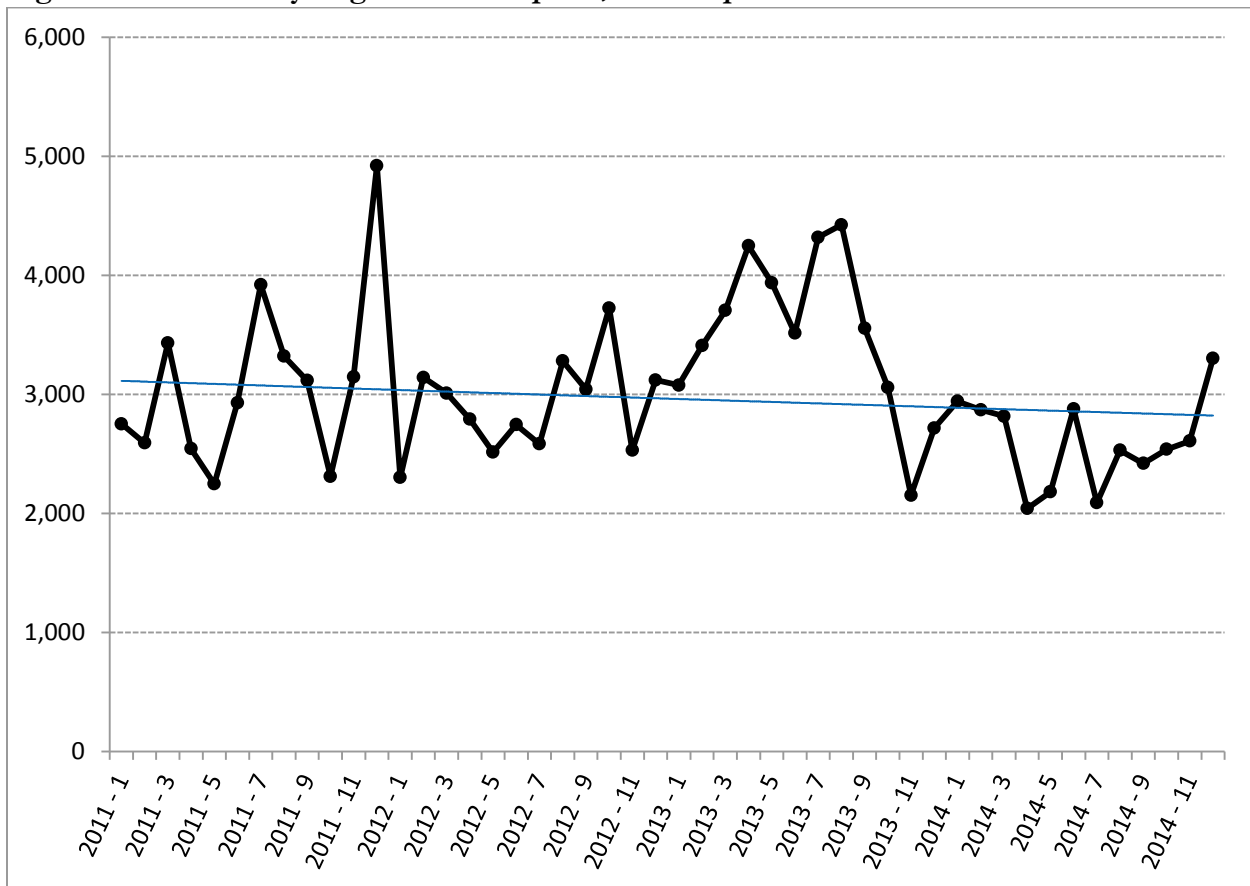
### *Monthly Import Data and Market Growth*

Based on four years (48 months) of import data, the annual growth rate for organic tea imports is estimated to be -2.8%, as shown in Table I.11.a. Figure I.11.a shows monthly fluctuations and a slight general decline in monthly imports.

**Table I.11.a: Total Organic Tea Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Tea	2011-Q1 to 2014-Q4	-0.236%	No	-2.8%	No

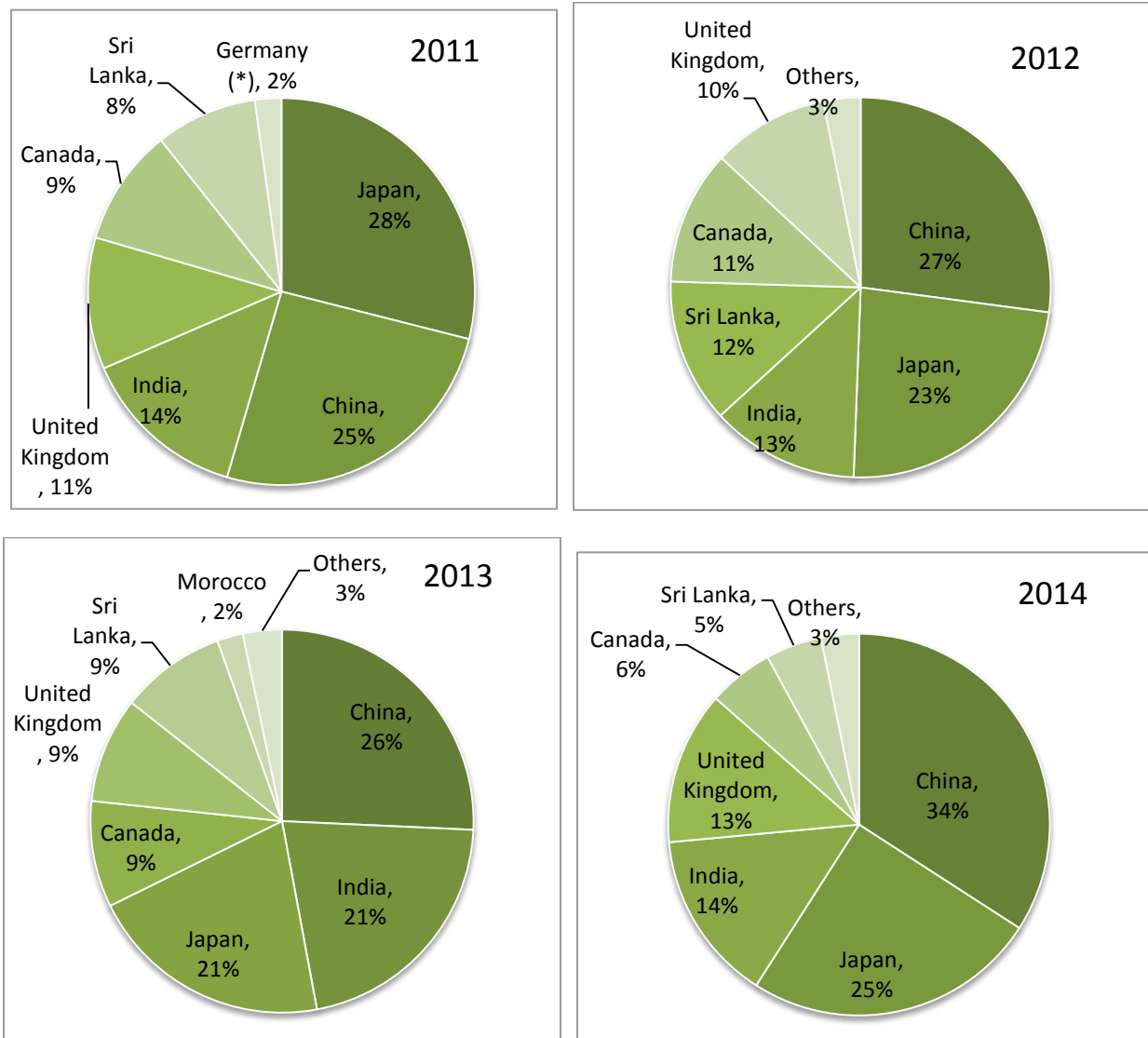
**Figure I.11.a: Monthly Organic Tea Imports, with Exponential Trend Line**



## Countries of Origin

Figure I.11.b and Table I.11.b show the countries of origin for those countries supplying more than 1% of the total U.S. organic tea imports. Not surprisingly, China, Japan, and India are the top three sources of organic tea.

**Figure I.11.b: Countries of Origin for Organic Tea Imports, by Share**



**Table I.11.b: Organic Tea Imports by Top Countries of Origin (\$1,000s)**

<b>Country (2014 ranking)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
1. China	9,218	9,428	10,833	10,652
2. Japan	10,428	8,170	8,690	7,780
3. India	5,031	4,389	8,992	4,517
4. United Kingdom	3,961	3,449	3,763	4,050
5. Canada	3,527	3,976	3,778	1,733
6. Sri Lanka	3,060	4,272	3,750	1,481
<b>Total, <i>Top 2014 Origins Only</i></b>	<b>35,225</b>	<b>33,684</b>	<b>39,806</b>	<b>30,213</b>

**Conclusions:** Organic tea imports are declining modestly, and individual country imports from Japan, India, and other countries are contributing to this decline.

## 12. ORGANIC APPLE IMPORTS

Apples are the U.S.'s 12th leading organic import in 2014, and there was a substantial annual increase in organic imports from 2013 to 2014.

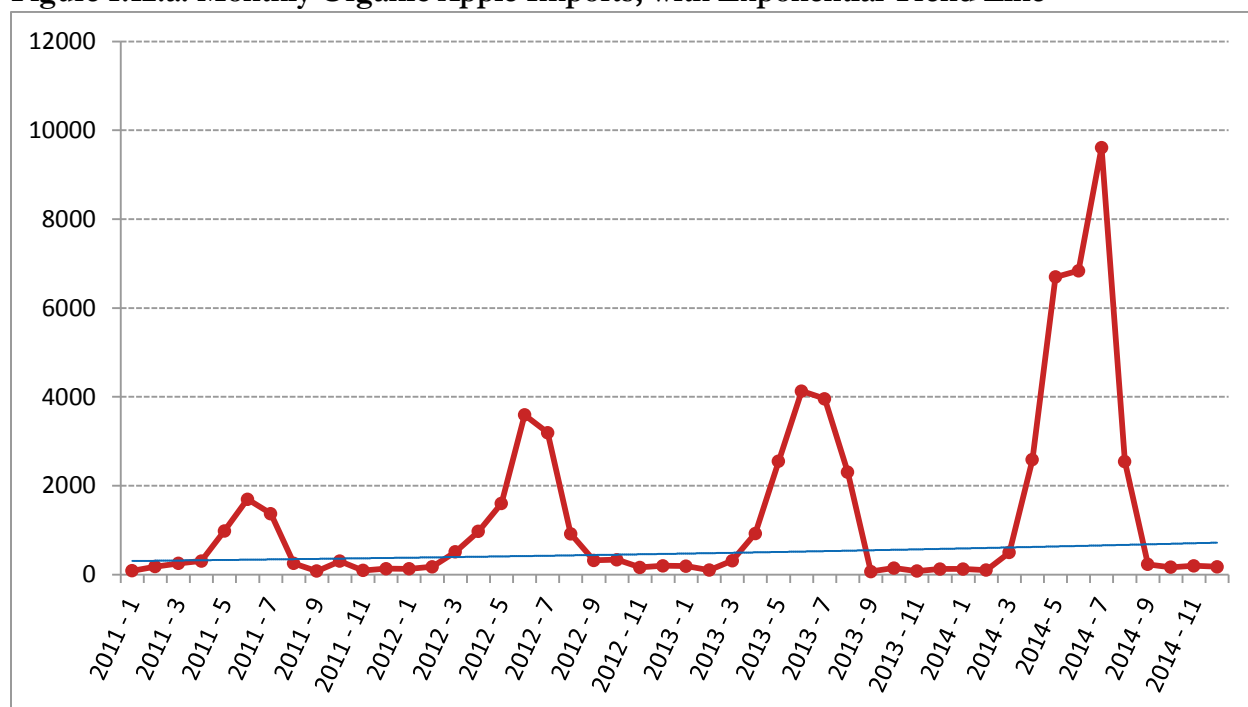
### *Monthly Import Data and Market Growth*

Based on four years (48 months) of import data, the annual growth rate for organic apple imports is estimated to be 29.8%, as shown in Table I.12.a. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. Figure I.12.a, the graph of monthly organic imports, shows that the level of imports is highly cyclical, with the highest levels of imports coming in the months of May through August.

**Table I.12.a: Total Organic Apple Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Apples	2011-Q1 to 2014-Q4	2.198%	Yes	29.8%	Yes: Q2 is the highest; Q4 is the lowest

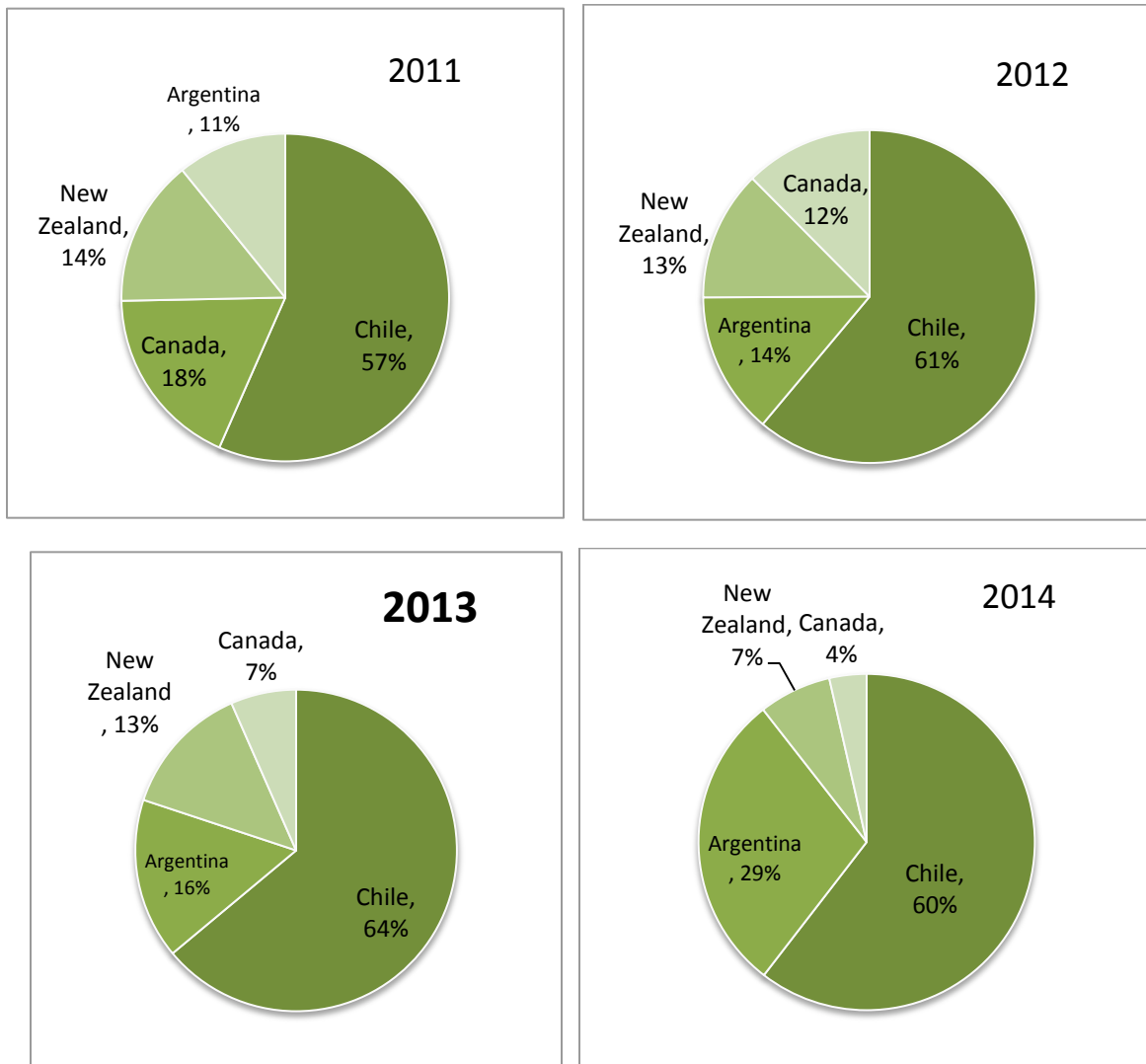
**Figure I.12.a: Monthly Organic Apple Imports, with Exponential Trend Line**



### *Countries of Origin*

Figure I.12.b and Table I.12.b show the countries of origin for those countries supplying more than 1% of the total U.S. organic apple imports. Chile, Argentina, and New Zealand (in that order) provide the bulk of U.S. organic apple imports. Imports from all three countries increased over 2011 to 2014.

**Figure I.12.b: Countries of Origin for Organic Apple Imports, by Share**



**Table I.12.b: Organic Apple Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Chile	3,248	7,397	9,523	18,001
2. Argentina	621	1,673	2,405	8,627
3. New Zealand(*)	832	1,530	1,984	2,079
4. Canada	1,038	1,506	981	1,065
<b>Total, Top 2014 Origins Only</b>	<b>5,739</b>	<b>12,106</b>	<b>14,893</b>	<b>29,772</b>

**Conclusions:** In general, organic apple imports exhibit strong growth, albeit cyclical growth. Imports from our four main trading partners are growing substantially.

### 13. ORGANIC RICE IMPORTS

In 2014, organic rice imports to the U.S. were valued at \$24 million.

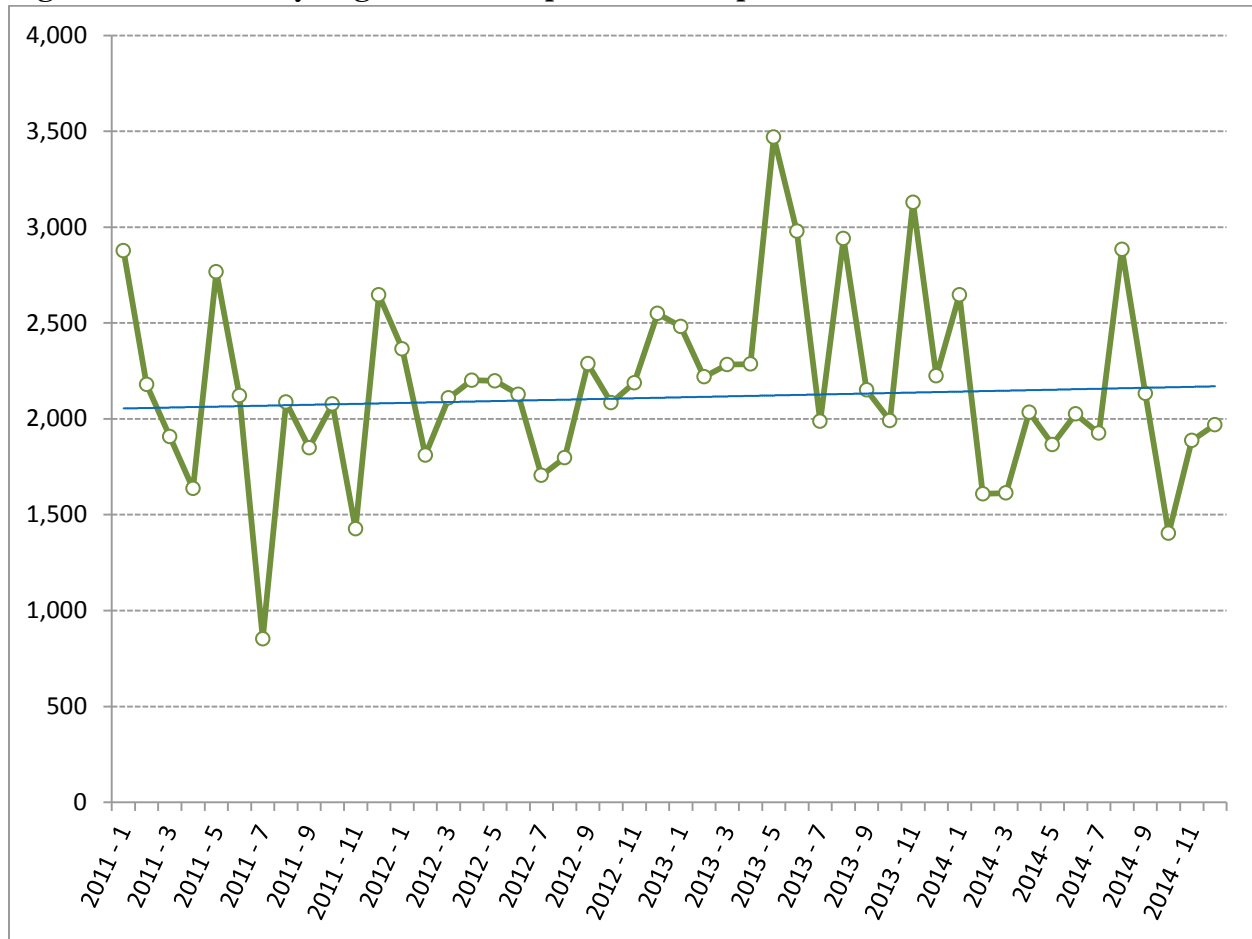
#### *Monthly Import Data and Market Growth*

Based on four years (48 months) of import data, the annual growth rate for organic rice imports is estimated to be 2%, as shown in Table I.13.a, though the monthly estimate – on which this annual figure is based – is not statistically different from zero. Figure I.13, which depicts monthly organic rice imports, shows a fair amount of month-to-month fluctuations but very little overall trend.

**Table I.13.a: Total Organic Rice Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Rice	2011-Q1 to 2014-Q4	0.17%	No	2.06%	No

**Figure I.13.a: Monthly Organic Rice Imports, with Exponential Trend Line**

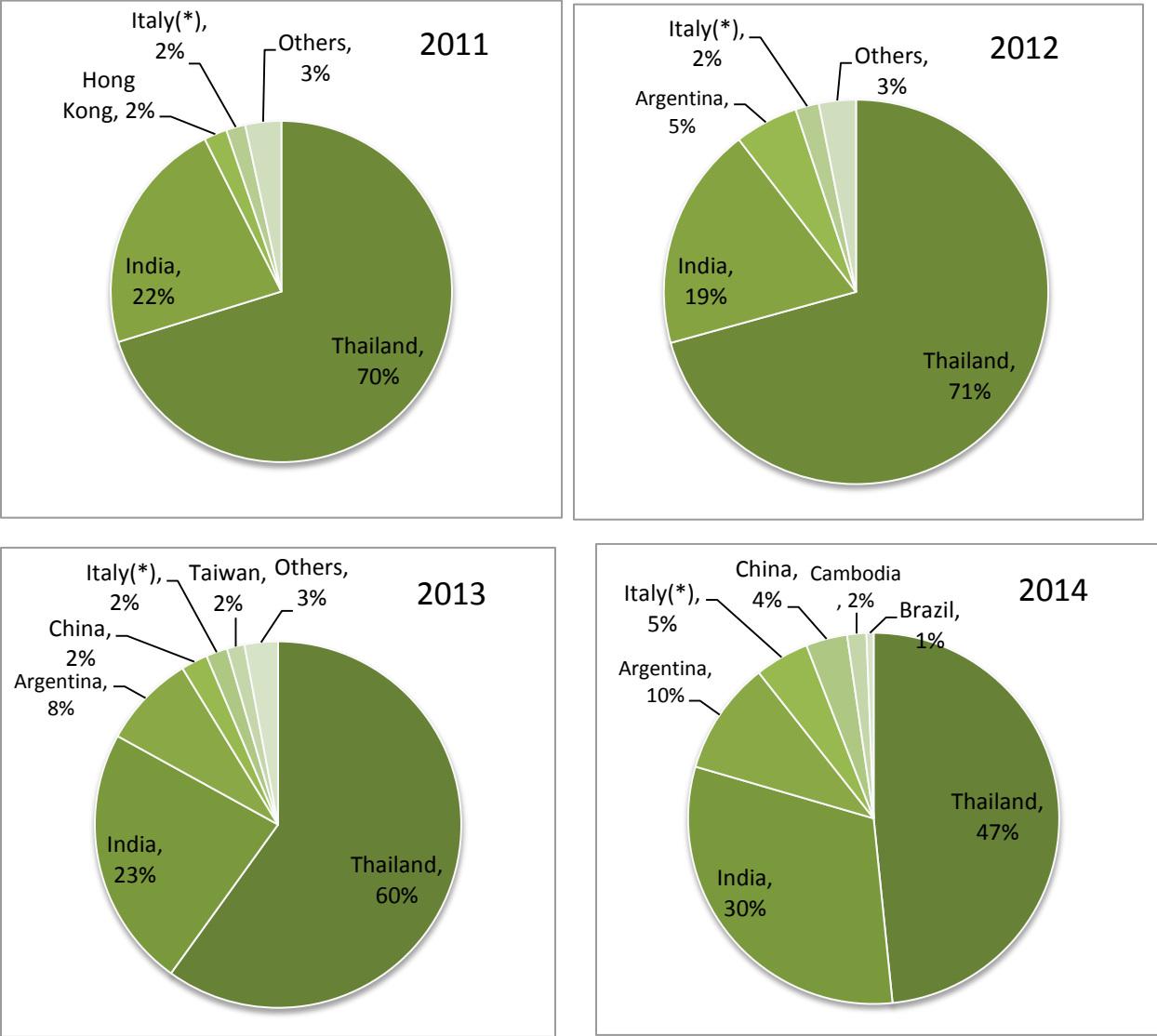




*Countries of Origin*

Figure I.13.b and Table I.13.b show the countries of origin for those countries supplying more than 1% of the total U.S. organic rice imports. Most organic rice comes from Thailand and India. Combined, these two countries comprise 77% to 92% of organic imports from 2011 to 2014. However, imports from Thailand dropped substantially from 2013 to 2014, whereas imports from other top countries increased.

**Figure I.13.b: Countries of Origin for Organic Rice Imports, by Share**



**Table I.13.b: Organic Rice Imports by Top Countries of Origin (\$1,000s)**

<b>Country (2014 ranking)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
1. Thailand	17,152	17,980	18,063	11,281
2. India	5,462	4,789	6,959	7,259
3. Argentina	134	1,359	2,485	2,304
4. Italy(*)	445	504	568	1,102
5. China	42	185	708	840
6. Cambodia	208	108	313	390
<b>Total, <i>Top 2014 Origins Only</i></b>	<b>23,443</b>	<b>24,925</b>	<b>29,096</b>	<b>23,176</b>

**Conclusions:** In general, organic rice imports are flat. In recent years, imports from the U.S.'s top source dropped substantially, whereas imports from other countries increased.

## 14. ORGANIC BELL PEPPER IMPORTS

In 2014, organic bell pepper imports to the U.S. were valued at more than \$19 million, and imports rose each year throughout the 2011-2014 period.

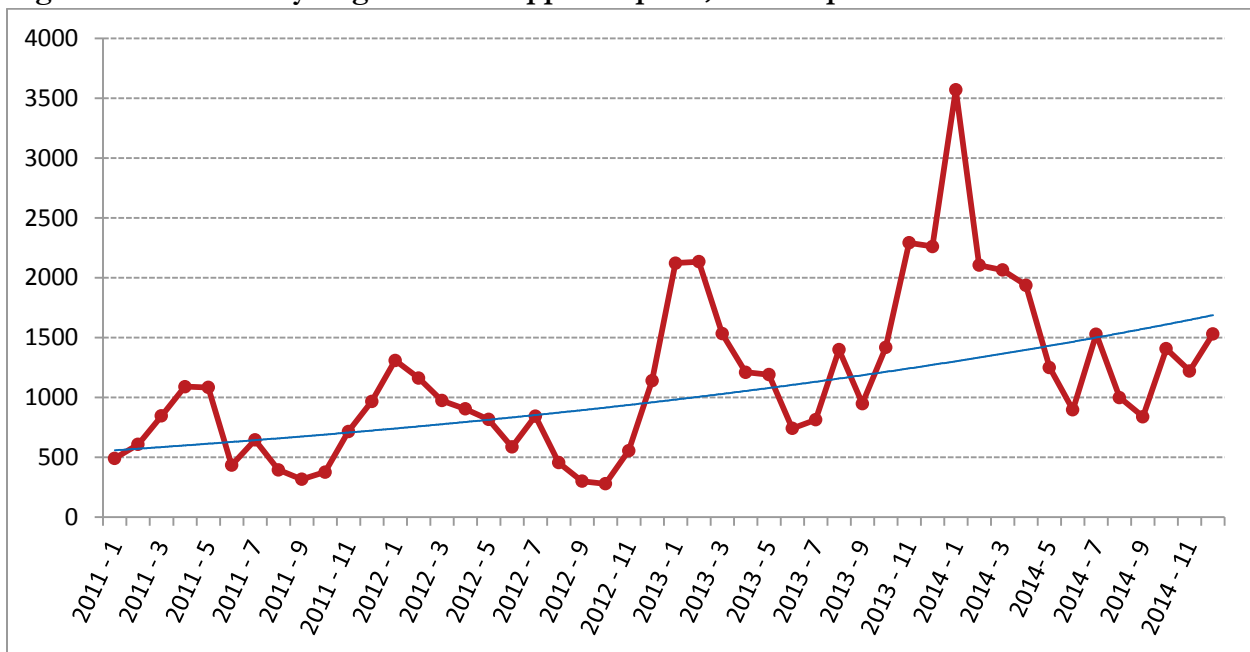
### *Monthly Import Data and Market Growth*

Based on four years (48 months) of import data, the annual growth rate for organic bell pepper imports is estimated to be 38.6%, as shown in Table I.14.a. The table summarizes the monthly and annual growth rates estimated with an exponential growth model, and shows that quarterly effects are significant. Organic bell pepper imports are significantly higher during the first quarter of the year (the reference quarter) than during the third quarter. A cyclical pattern is noticeable in Figure I.14.a, the graph of monthly organic imports, as is the general upward trend.

**Table I.14.a: Total Organic Bell Pepper Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Bell Peppers	2011-Q1 to 2014-Q4	2.76%	Yes	38.6%	Yes: Q3 is the lowest

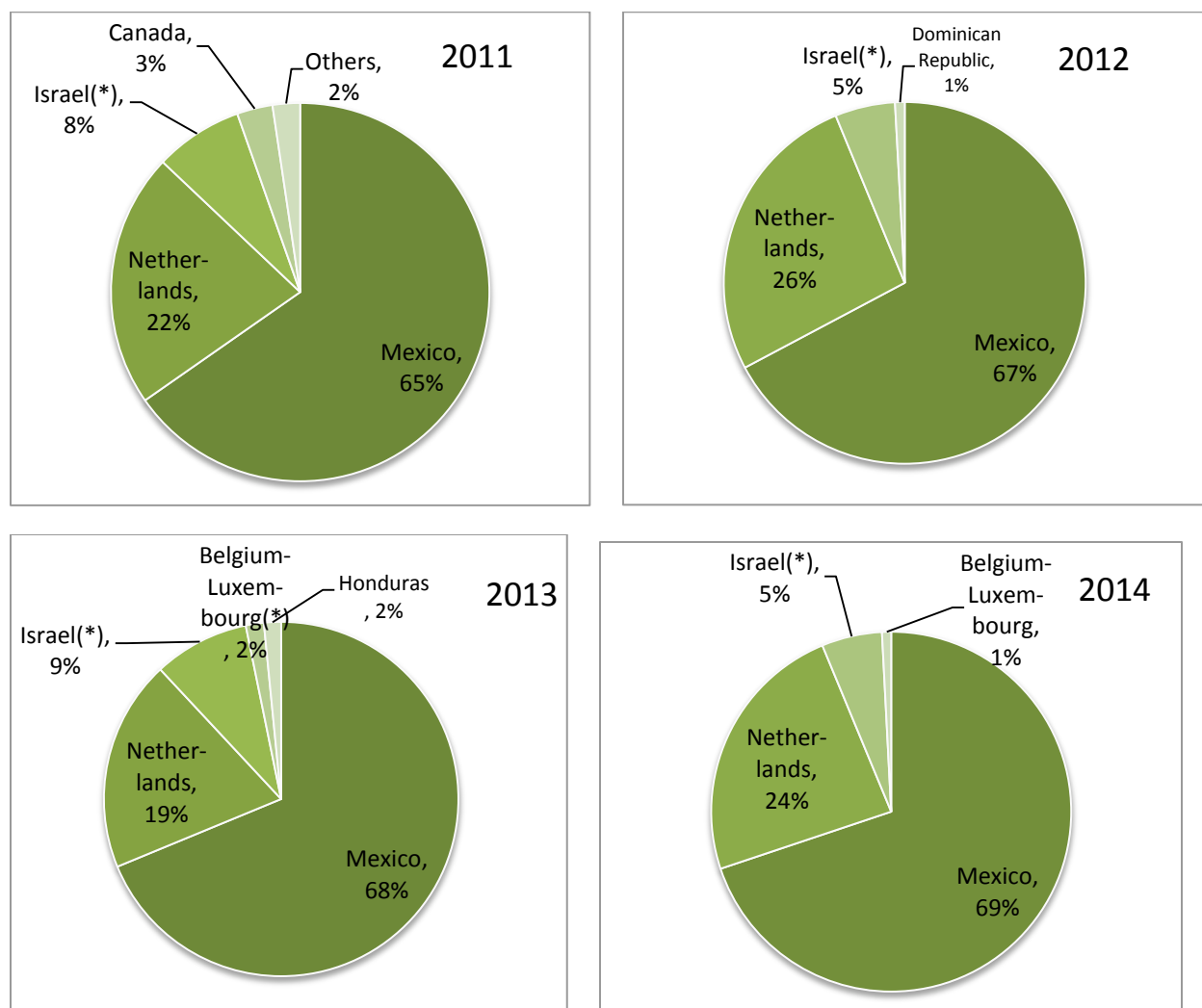
**Figure I.14.a: Monthly Organic bell Pepper Imports, with Exponential Trend Line**



### *Countries of Origin*

Figure I.14.b and Table I.14.b show the countries of origin for U.S. organic bell pepper imports. With an average share of 67% of all organic bell pepper imports, Mexico is the primary supplier. The Netherlands is second, with an average share of 23%. Imports from Mexico and the Netherlands rose each year during the 2011 to 2014 period.

**Figure I.14.b: Countries of Origin for Organic Bell Imports, by Share**



**Table I.14.b: Organic Bell Pepper Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2011	2012	2013	2014
1. Mexico	5,205	6,250	12,335	13,425
2. Netherlands	1,735	2,467	3,461	4,591
3. Israel(*)	601	499	1,567	1,043
4. Belgium-Luxembourg(*)	44	0	295	158
<b>Total, Top 2014 Origins Only</b>	<b>7,585</b>	<b>9,216</b>	<b>17,658</b>	<b>19,217</b>

**Conclusions:** Organic bell pepper imports exhibit strong growth overall. This growth can be seen in imports from the U.S.'s top two sources, Mexico and the Netherlands.

## 15. ORGANIC GINGER IMPORTS

In 2014, organic ginger imports to the U.S. were valued at \$19 million, and annual imports increased dramatically from 2013 to 2014.

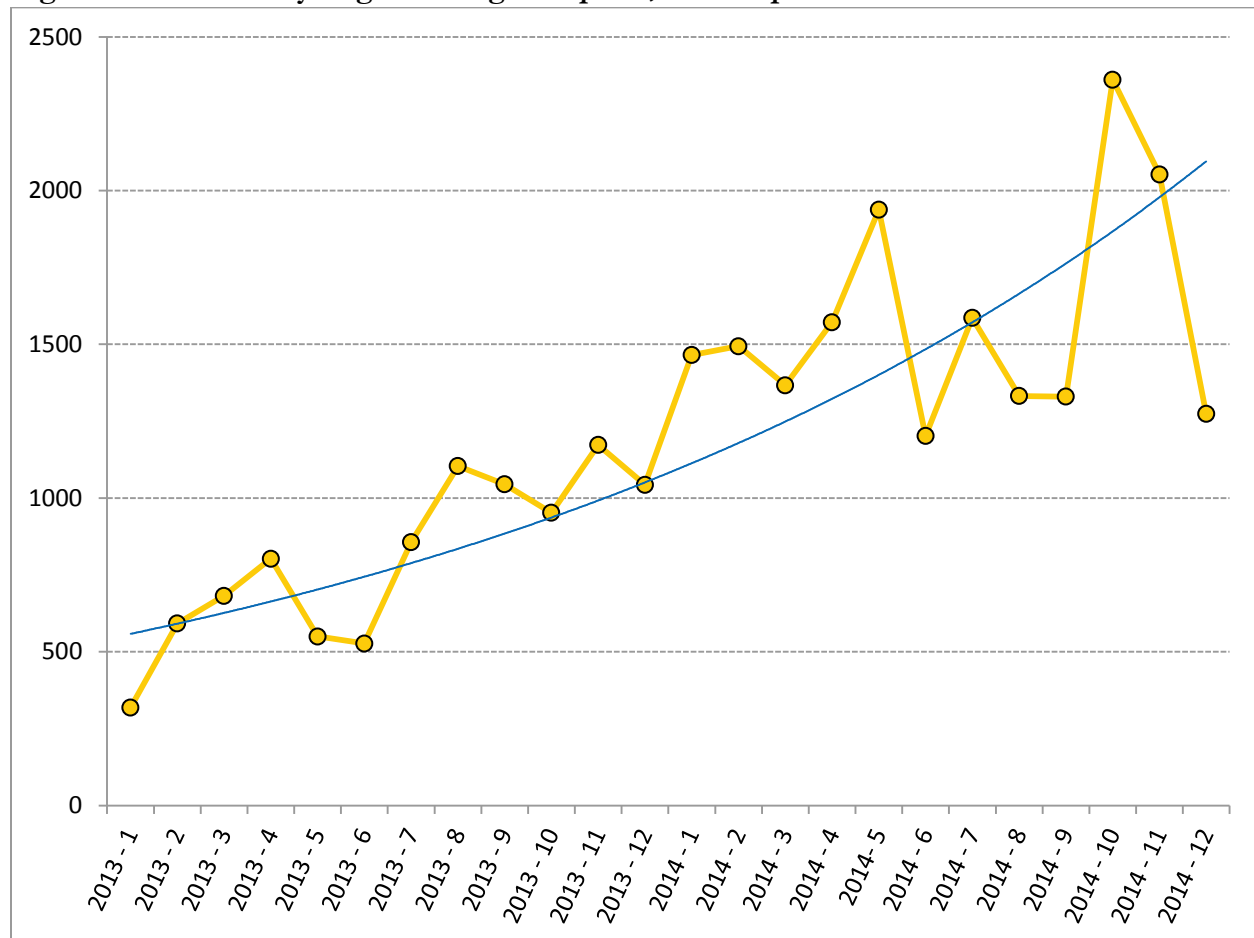
### *Monthly Import Data and Market Growth*

Based on two years (24 months) of import data, the annual growth rate for organic ginger imports is estimated to be 97%, as shown in Table I.15.a. Figure I.15.a, the graph of monthly organic imports, shows that strong growth despite some month-to-month fluctuations.

**Table I.15.a: Total Organic Ginger Imports, Growth Rate and Quarterly Effects**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Ginger	2013-Q1 to 2014-Q4	5.82%	Yes	97.1%	No

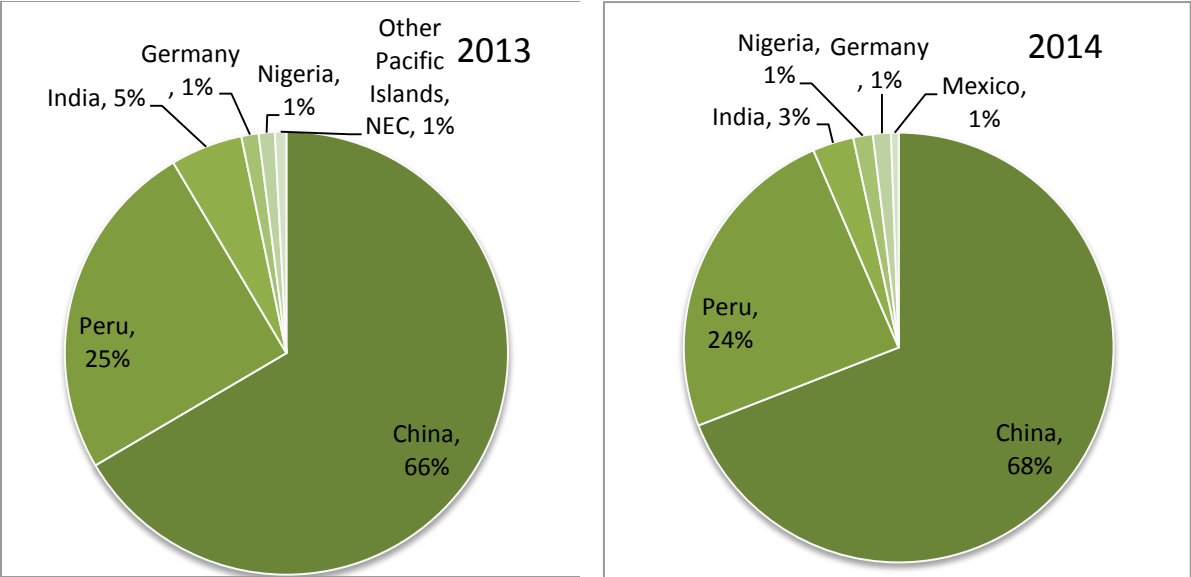
**Figure I.15.a: Monthly Organic Ginger Imports, with Exponential Trend Line**



*Countries of Origin*

Figure I.15.b and Table I.15.b show the countries of origin for organic ginger imports. China and Peru are the primary sources for organic ginger, and imports from these countries approximately doubled from 2013 to 2014.

**Figure I.15.b: Countries of Origin for Organic Ginger Imports, by Share**



**Table I.15.b: Organic Ginger Imports by Top Countries of Origin (\$1,000s)**

Country (2014 ranking)	2013	2014
1. China	6,357	12,925
2. Peru	2,381	4,566
3. India	503	580
4. Nigeria	112	276
5. Germany(*)	120	253
6. Mexico	0	107
<b>Total, Top 2014 Origins Only</b>	<b>9,473</b>	<b>18,707</b>

**Conclusions:** Organic ginger imports exhibit extremely strong growth. Imports from our top trading partners more than doubled from 2013 to 2014.

## **SECTION 4: Next Steps**

### **More Non-Organic Counterpart Information**

The above tables, figures, and analyses are based on monthly export and import data for organic products in the USDA GATS system. Section 2, which focuses on exports, also presents monthly export data for non-organic product counterparts. However, the same is not completely true for Section 3, which focuses on imports but includes information on non-organic counterpart products for only a small number of cases. The reason for this discrepancy is the difficulty in matching trade codes for organic and non-organic imports. This matching is possible, but labor intensive and time consuming. Future work could expand on the non-organic counterpart products.

### **Statistical Analysis of Equivalency Policy on Exports and/or Imports (separate report)**

In a separate report, we will conduct a rigorous statistical analysis of the impact of organic equivalency agreements on the flow of organic exports and imports. We will employ a “workhorse” trade model called the “gravity” model that will allow us to include, as one of the factors of trade flows, a policy variable that reflects the transaction costs of exporting or importing. An organic equivalency policy would be a good example of a policy that reduces the transaction costs of exporting and importing organic products. A gravity model with this policy included will allow us to estimate the impact of the policy.

## TECHNICAL APPENDICES

### APPENDIX A– All Organic Export and Import HS Trade Codes

**Table A-1: Organic Exports with HS Trade Codes**

Product	Codes (Organic)
Apples	0808100010 - ORG APPLES FRESH
Lettuce (Not Head)	0705190010 - ORG LETTUCE X HD
	0705190020 - ORG LETTUCE < 1 KG (added in 2015)
	0705190030 - ORG LETTUCE > 1 KG (added in 2015)
Grapes Fresh	0806100010 - ORG GRAPES FRESH
Spinach	0709700010 - ORG SPINACH FR/C
Strawberries	0810100010 - ORG STRAWBERS FR
Carrots	0706103010 - ORG CARROTS FR/C
	706103020 – ORG CARROT < 11 CM (added in 2015)
	706103030 - ORG CARROT NESOI (added in 2015)
Cauliflower	0704100010 - ORG CAULFLOWR FR
Coffee Roast (Not Decaf)	0901210010 - ORG COFFE RST ND
Tomato Sauce	2103204010 - ORG TMTO SAUC NE
Pears (and Quince)	0808300010 - ORG PEARS
	0808200010 - ORG PEARS/QUINCE
Cult Blueberries	0810400026 - ORG CULT BLUEBER
Oranges	0805100045 - ORG ORANGES FR/D
Broccoli	0704904025 - ORG BROCCOLI FR
Lemons	0805502010 - ORG LEMONS FR/D
Cherries	0809290010 - ORG CHER N/SR FR
	0809200010 - ORG CHERRIES FR
Onion Sets	0703100010 - ORG ONION SET FR
Celery	0709400010 - ORG CELERY FR/CH
Cherry Tomato	0702000015 - ORG CHERRY TOMAT
Peppers	0709600010 - ORG PEPPERS FR/C
Tomato Other	0702000035 - ORG TOMATO OTHER
Grapefruit	0805400010 - ORG GRAPEFRUIT
Potatoes	0701900070 - ORG POTATO XSD
Cabbage	0704902010 - ORG CABBAGE
Head Lettuce	0705110010 - ORG HD LETTUCE
Roma Plum Tomato	0702000025 - ORG ROMA PLM TOM
Cucumbers	0707000010 - ORG CUCMBERS
Beets	0706903100 - ORG BEET FR/CH (added in 2015)
Peas	0708101000 – ORG PEAS (added in 2015)
Asparagus	0709202000 – ORG ASPARAGUS FR/CH (added in 2015)
Limes	0805505010 – ORG LIMES (added in 2015)
Watermelon	0807111000 – ORG WATERMELON (added in 2015)
Peach	0809301000 – ORG PEACH/NECTARIN FRESH (added in 2015)
Berries	0810202000 – ORG BERRIES FRESH (added in 2015)



**Table A-2: Organic Imports with HS Trade Codes**

<b>Product</b>	<b>Codes (Organic)</b>
<b>Coffee</b>	0901110015 - ORG COFF AR ND 0901110045 - ORG COFFEE NR ND 0901120015 - ORG COFF DEC NR 0901210035 - ORG COF RS ND<2K 0901220035 - ORG COF RS DE<2K 0901210055 - ORG COFF RST ND
<b>Soybeans</b>	1201000045 - ORG SOYBEANS OTH (in 2011) 1201900010 - ORG SOYBEANS OTH (since 2012)
<b>Bananas</b>	0803900025 - BANANAS, ORGANIC
<b>Olive Oil</b>	1509102015 - OLV OL VRG<18ORG (only in 2013) 1509102030 - OLV OL XVR<18ORG 1509102040 - OLV OL VRG<18ORG 1509104030 - OLV OL XVR>18ORG 1509104040 - OLV OL VRG>18ORG 1509104015 - OLV OL VRG>18ORG (only in 2013)
<b>Wine</b>	2204100065 - OSPK WIN>\$1.59/L 2204215035 - ORED>1.05<14%<2L 2204215050 - OWWN>1.50<14%<2L
<b>Honey</b>	0409000005 - BHONEY, ORGANIC
<b>Almonds</b>	0802120005 - ALMONDS, SHL ORG
<b>Mangoes</b>	0804504045 - MANGO, ORG IN 0804506045 - MANGO, ORG OUT
<b>Avocado</b>	0804400020 - ORG AVOC-HSLIKE
<b>Yellow Dent Corn</b>	1005902015 - ORG CRN,YLW, X SD
<b>Tea</b>	0902101015 - ORG GR TEA FL<3K 0902109015 - ORG GR TEA NF<3K 0902209015 - ORG GR TEA NF OT 0902300015 - ORG BL TEA F/BAG
<b>Apples</b>	0808100045 - ORG APPL>22CN/KG
<b>Rice</b>	1006309015 - ORG RICE SMI/WHL
<b>Bell Peppers</b>	0709604015 - ORG BELL PEPP GH 0709604065 - ORG BL PEPPRS NE
<b>Ginger</b>	0910110010 - GINGER, ORGANIC
<b>Durum Wheat</b>	1001100025 - ORG DURUM WHEAT (in 2011) 1001190025 - ORG DURUM WHEAT (since 2012)
<b>Pears</b>	0808202015 - ORG PEAR4/1-6/30 (in 2011) 0808204015 - ORG PEAR OTH TM (in 2011)
<b>Blueberries</b>	0810400026 - ORG CULT BLUEBR
<b>Flaxseed</b>	1204000025 - FLAXSEED, OIL ORG
<b>Garlic</b>	0703200005 - GARLIC, ORGANIC
<b>Quinces</b>	0808402015 - ORG QNCE4/1-6/30 0808404015 - ORG QNCE7/1-3/31

## APPENDIX B – Organic and Non-Organic HS Export and Import Code Correspondences

**Table B-1: HS Export Code Correspondences**

Product	Codes (Organic)	Codes (Non-Organic)
Apples	0808100010 - ORG APPLES FRESH	0808100050 - APPLES FRESH
Lettuce (Not Head)	0705190010 - ORG LETTUCE X HD	0705190050 - LETTUCE X HD FR
Grapes Fresh	0806100010 - ORG GRAPES FRESH	0806100050 - GRAPES FRESH
Spinach	0709700010 - ORG SPINACH FR/C	0709700050 - SPINACH FR/CH
Strawberries	0810100010 - ORG STRAWBERRIES FR	0810100050 - STRAWBERRIES FR
Carrots	0706103010 - ORG CARROTS FR/C	0706103050 - CARROTS FR/CH
Cauliflower	0704100010 - ORG CAULFLOWR FR	0704100050 - CAULFLOWER FR/CH
Coffee Roast (Not Decaf)	0901210010 - ORG COFFE RST ND	0901210050 - COFFEE RST ND
Tomato Sauce	2103204010 - ORG TMTO SAUC NE	2103204050 - TMTO SAUCES NES
Pears (and Quince)	0808300010 - ORG PEARS 0808200010 - ORG PEARS/QUINCE	0808200050 - PEARS/QUINCE FR 0808300050 - PEARS, FRESH 0808400000- QUINCES, FRESH
Cult Blueberries	0810400026 - ORG CULT BLUEBER	0810400029 - CULT BLUEBERS FR
Oranges	0805100045 - ORG ORANGES FR/D	0805100065 - ORANGES NES FR/D
Broccoli	0704904025 - ORG BROCCOLI FR	0704904030 - BROCCOLI FR/CH
Lemons	0805502010 - ORG LEMONS FR/D	0805502050 - LEMONS FR/D
Cherries	0809290010 - ORG CHER N/SR FR 0809200010 - ORG CHERRIES FR	0809200050 - CHERRIES FR 0809290050 - CHER N/SR FR
Onion Sets	0703100010 - ORG ONION SET FR	0703100050 - ONION SETS FR/CH
Celery	0709400010 - ORG CELERY FR/CH	0709400050 - CELERY FR/CH
Cherry Tomato	0702000015 - ORG CHERRY TOMAT	0702000045 - CHERRY TOMATO
Peppers	0709600010 - ORG PEPPERS FR/C	0709600050 - PEPPERS FR/CH
Tomato Other	0702000035 - ORG TOMATO OTHER	0702000065 - TOMATOES OTHER
Grapefruit	0805400010 - ORG GRAPEFRUIT	0805400050 - GRAPEFRUIT,FRESH 0805400000 - GRAPEFRUIT,FRESH
Potatoes	0701900070 - ORG POTATO XSD	0701900080 - POTATO XSD NESOI
Cabbage	0704902010 - ORG CABBAGE	0704902050 - CABBAGE, FR/CH 0704902000 - CABBAGE, FR/CH
Head Lettuce	0705110010 - ORG HD LETTUCE	0705110050 - HD LETTUCE FR/CH
Roma Plum Tomato	0702000025 - ORG ROMA PLM TOM	0702000055 - ROMA PLUM TOMATO
Cucumbers	0707000010 - ORG CUCMBERS	0707000050 - CUCMBERS,FR/CH 0707000000 - CUCMBERS,FR/CH

**Table B-2: HS Import Code Correspondences**

Product	Codes (Organic)	Codes (Non-Organic)
Coffee	0901110015 - ORG COFF AR ND 0901110045 - ORG COFFEE NR ND 0901120015 - ORG COFF DEC NR 0901210035 - ORG COF RS ND<2K 0901220035 - ORG COF RS DE<2K 0901210055 - ORG COFF RST ND	0901110025 - COFF AR ND 0901110055 - COFFEE NR ND 0901120025 - COFF DEC NR 0901210045 - COFF RS ND<2K 0901220045 - COFF RS DEC<2K 0901210065 - COFF RST ND
Soybeans	1201000045 - ORG SOYBEANS OTH (in 2011) 1201900010 - ORG SOYBEANS OTH (since 2012)	1201000055 - SOYBEANS OTHER (in 2011) 1201900090 - SOYBEANS OTHER (since 2012)
Bananas	0803900025 - BANANAS, ORGANIC	0803900035 - BANANAS, FRESH 0803900045 - BANANAS, DRIED
Olive Oil	1509102015 - OLV OL VRG<18ORG (only in 2013) 1509102030 - OLV OL XVR<18ORG 1509102040 - OLV OL VRG<18ORG 1509104030 - OLV OL XVR>18ORG 1509104040 - OLV OL VRG>18ORG 1509104015 - OLV OL VRG>18ORG (only in 2013)	1509102025 - OLV OL VRG<18KCT (only in 2013) 1509102050 - OLV OL XVR<18KCT 1509102060 - OLV OL VRG<18KCT 1509104050 - OLVOL XVRG18K>CT 1509104060 - OLVOL VRG18K>CT 1509104025 - OLVOL VRG18K>CT (only in 2013)
Wine	2204100065 - OSPK WIN>\$1.59/L 2204215035 - ORED>1.05<14%<2L 2204215050 - OWVN>1.50<14%<2L	2204100075 - SPK WIN>\$1.59/L 2204215040 - RED>1.05<14%<2L 2204215055 - WVN>1.50<14%<2L
Honey	0409000005 - BHOONEY, ORGANIC	0409000010 - CMB & NT HNY/RTL 0409000035 - WHT HONEY,NT/RT 0409000045 - HONEY,E/L AMBER 0409000056 - HONEY,NT/RET,LT 0409000065 - HONEY,NT/RET,OT
Almonds	0802120005 - ALMONDS, SHL ORG	0802120015 - ALMONDS,SHELLED
Mangoes	0804504045 - MANGO, ORG IN 0804506045 - MANGO, ORG OUT	0804504055 - MANGO, 9/1-5/31 0804506055 - MANGO, 6/1-8/31
Avocado	0804400020 - ORG AVOC-HSLIKE	0804400040 - AVOC-HSLIKE
Yellow Dent Corn	1005902015 - ORG CRN,YLW, X SD	1005902025 - CORN, YLW, EX SD
Tea	0902101015 - ORG GR TEA FL<3K 0902109015 - ORG GR TEA NF<3K 0902209015 - ORG GR TEA NF OT 0902300015 - ORG BL TEA F/BAG	0902101050 - GR TEA FL<3K 0902109050 - GR TEA NF<3K 0902209050 - GR TEA NF OT 0902300050 - BL TEA F/BAG
Apples	0808100045 - ORG APPL>22CN/KG	0808100065 - APPLE FR>22CN/KG
Rice	1006309015 - ORG RICE SMI/WHL	1006309055 - LNG GRN RICE,MLD 1006309065 - MDM GRN RICE,MLD 1006309075 - SHT GRN RICE,MLD 1006309085 - RICE MIXED, MLD
Bell Peppers	0709604015 - ORG BELL PEPP GH 0709604065 - ORG BL PEPPRS NE	0709604025 - BELL PEPPERS GH 0709604085 - BELL PEPPERS NES
Ginger	0910110010 - GINGER, ORGANIC	0910110015 - GINGER,NT/GROUND
Durum Wheat	1001100025 - ORG DURUM WHEAT (in 2011) 1001190025 - ORG DURUM WHEAT (since 2012)	1001100061 - 1DURUM>84%DHV (in 2011) 1001100062 - 1DURUMUPTO84%DHV (in 2011) 1001100065 - 2DURUM>84%DHV (in 2011) 1001100066 - 2DURUMUPTO84%DHV (in 2011) 1001100069 - OTHER DURUM (in 2011) 1001190061 - 1DURUM>84%DHV (since 2012) 1001190062 - 1DURUMUPTO84%DHV (since 2012) 1001190065 - 2DURUM>84%DHV (since 2012) 1001190066 - 2DURUMUPTO84%DHV (since 2012) 1001190069 - OTHER DURUM (since 2012)
Pears	0808202015 - ORG PEAR4/1-6/30 (in 2011) 0808204015 - ORG PEAR OTH TM (in 2011)	0808202025 - PEAR FR 4/1-6/30 (in 2011) 0808204025 - PEAR OTH TM (in 2011) 0808302025 - PEAR FR 4/1-6/30 (since 2012) 0808304025 - PEAR7/1-3/31 (since 2012)
Blueberries	0810400026 - ORG CULT BLUEBR	0810400029 - CULT BLUEBR
Flaxseed	1204000025 - FLAXSEED, OIL ORG	1204000035 - FLAXSEED, OIL STK
Garlic	0703200005 - GARLIC, ORGANIC	0703200015 - FRSH GARLIC BULB
Quinces	0808402015 - ORG QNCE4/1-6/30 0808404015 - ORG QNCE7/1-3/31	0808404025 - QNCE7/1-3/31 0808402025 - QNCE FR 4/1-6/30

## APPENDIX C – Organic Exports by Month

**Table C-1: Organic Apple Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	1,276	8,584	19,231	11,037
February	2,848	9,149	14,059	10,316
March	5,439	9,425	16,565	10,521
April	3,492	7,621	14,245	11,218
May	3,721	7,348	13,139	8,545
June	2,266	6,622	11,029	9,949
July	3,110	6,013	7,447	7,153
August	1,975	3,329	6,850	6,292
September	3,609	4,706	4,712	6,525
October	4,359	9,526	10,101	10,302
November	6,024	14,006	11,925	10,996
December	8,063	13,494	12,432	13,411
<b>Total</b>	<b>46,181</b>	<b>99,822</b>	<b>141,736</b>	<b>116,262</b>

**Table C-2: Organic Lettuce (Not Head) Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	7,255	6,952	7,027	7,211
February	5,798	6,488	7,153	5,464
March	8,083	6,972	7,900	6,710
April	7,233	7,053	7,591	7,103
May	7,687	7,815	7,956	6,891
June	6,729	6,733	6,459	6,552
July	7,945	6,410	6,708	5,999
August	6,957	6,462	6,239	5,550
September	6,593	6,135	6,369	5,430
October	7,184	6,407	6,579	5,657
November	6,485	6,697	6,802	5,605
December	7,249	6,787	6,827	5,157
<b>Total</b>	<b>85,198</b>	<b>80,911</b>	<b>83,610</b>	<b>73,329</b>

**Table C-3: Organic Grapes Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	42	1,381	107	1,710
February	55	105	135	75
March	57	107	109	46
April	70	73	66	25
May	138	252	204	432
June	493	659	862	1,478
July	2,674	2,562	4,281	4,225
August	7,628	8,943	11,307	8,446
September	15,834	5,491	10,503	11,863
October	12,860	6,213	14,520	14,530
November	11,871	7,346	7,581	11,123
December	8,286	6,655	9,329	10,365
<b>Total</b>	<b>60,008</b>	<b>39,787</b>	<b>59,004</b>	<b>64,318</b>

**Table C-4: Organic Spinach Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	1,885	1,991	2,291	3,326
February	1,285	1,815	2,555	2,897
March	1,963	1,974	2,869	3,217
April	1,896	2,152	2,864	3,248
May	1,726	2,461	3,063	3,213
June	1,736	2,272	2,677	3,344
July	1,753	2,197	2,818	3,050
August	1,661	2,183	2,790	2,831
September	1,683	2,138	2,757	3,078
October	1,716	2,084	2,841	3,147
November	1,777	2,386	2,922	3,168
December	1,862	2,380	2,921	3,241
<b>Total</b>	<b>20,943</b>	<b>26,033</b>	<b>33,368</b>	<b>37,760</b>

**Table C-5: Organic Strawberries Exports by Month (value in \$1,000s)**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
January	477	538	384	1,034
February	670	828	522	772
March	718	950	1,148	1,336
April	1,162	1,116	1,829	1,850
May	1,994	2,683	4,414	4,185
June	2,386	2,756	5,212	4,580
July	2,126	2,341	4,344	5,105
August	1,430	2,037	2,925	3,005
September	2,214	1,702	2,932	3,273
October	1,668	1,745	1,547	2,826
November	610	1,096	1,561	1,994
December	310	626	861	755
<b>Total</b>	<b>15,765</b>	<b>18,418</b>	<b>27,679</b>	<b>30,715</b>

**Table C-6: Organic Carrots Exports by Month (value in \$1,000s)**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
January	2,377	1,832	2,303	2,568
February	2,248	1,928	1,950	2,142
March	3,181	2,133	2,341	2,662
April	2,129	2,116	2,384	2,862
May	2,001	2,304	2,626	2,662
June	1,880	2,383	2,243	2,433
July	1,650	1,932	1,921	2,018
August	1,466	1,393	1,520	1,739
September	1,165	1,383	1,563	1,660
October	1,222	1,462	1,624	1,721
November	1,510	1,648	1,876	1,781
December	1,874	2,073	2,200	2,257
<b>Total</b>	<b>22,703</b>	<b>22,587</b>	<b>24,551</b>	<b>26,505</b>

**Table C-7: Organic Cauliflower Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	682	1,835	862	1,527
February	1,144	2,006	1,165	1,419
March	773	2,221	1,359	1,938
April	1,687	2,816	2,021	2,560
May	1,743	2,524	1,940	2,837
June	1,957	2,196	1,416	2,529
July	1,953	1,949	1,488	3,015
August	1,943	1,916	1,238	1,923
September	2,676	2,168	1,353	2,043
October	1,684	1,560	1,034	1,894
November	726	1,302	1,400	1,258
December	1,045	1,542	1,506	1,620
<b>Total</b>	<b>18,013</b>	<b>24,035</b>	<b>16,782</b>	<b>24,563</b>

**Table C-8: Organic Coffee Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	640	2,117	2,074	1,846
February	893	2,344	1,627	1,188
March	948	2,823	1,752	1,741
April	1,231	1,937	1,873	2,197
May	1,406	2,279	1,401	1,666
June	946	1,526	1,338	2,028
July	1,314	2,154	1,853	2,189
August	979	1,819	1,969	1,658
September	1,864	2,764	2,089	1,780
October	1,249	1,478	2,765	2,541
November	1,641	1,516	1,657	1,375
December	2,100	1,522	1,334	2,889
<b>Total</b>	<b>15,211</b>	<b>24,279</b>	<b>21,732</b>	<b>23,098</b>

**Table C-9: Organic Tomato Sauce Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	2,735	733	1,030	1,741
February	2,501	910	920	1,566
March	3,966	847	1,648	1,414
April	1,394	801	1,347	2,156
May	2,151	1,070	1,146	1,529
June	2,063	1,270	1,562	1,700
July	2,315	1,002	1,077	1,550
August	1,660	1,450	1,105	1,847
September	502	694	1,377	1,597
October	1,113	1,003	1,262	1,433
November	881	1,114	1,153	1,363
December	673	1,125	1,363	1,747
<b>Total</b>	<b>21,954</b>	<b>12,019</b>	<b>14,990</b>	<b>19,643</b>

**Table C-10: Organic Pears Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	330	1,375	3,154	1,573
February	376	874	2,422	1,763
March	906	919	2,189	1,586
April	300	941	1,757	1,532
May	134	1,048	1,132	599
June	104	1,002	746	705
July	310	638	413	405
August	416	774	1,098	1,290
September	1,603	3,027	1,967	4,133
October	1,565	3,365	2,047	2,199
November	1,612	3,222	1,170	1,207
December	1,269	3,401	921	1,413
<b>Total</b>	<b>8,925</b>	<b>20,586</b>	<b>19,016</b>	<b>18,405</b>



**Table C-11: Organic Blueberries Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	92	172	143	387
February	162	162	149	231
March	224	125	269	557
April	1,888	753	1,223	1,032
May	4,401	3,604	3,752	4,811
June	5,337	4,428	3,904	4,465
July	2,530	1,893	2,374	3,543
August	706	1,094	1,644	1,098
September	568	1,065	960	774
October	43	92	222	70
November	206	187	394	77
December	211	161	230	202
<b>Total</b>	<b>16,368</b>	<b>13,736</b>	<b>15,264</b>	<b>17,247</b>

**Table C-12: Organic Oranges Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	1,115	1,051	1,256	1,512
February	2,041	1,240	1,271	1,600
March	2,285	1,604	1,957	1,288
April	1,970	1,747	1,902	1,431
May	1,443	2,023	934	1,932
June	1,882	1,067	727	636
July	1,308	495	299	228
August	581	355	235	171
September	191	218	456	148
October	226	265	395	308
November	459	849	627	1,199
December	682	2,764	869	4,176
<b>Total</b>	<b>14,183</b>	<b>13,678</b>	<b>10,928</b>	<b>14,629</b>

**Table C-13: Organic Broccoli Exports by Month (value in \$1,000s)**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
January	420	444	677	704
February	562	435	476	625
March	399	628	565	1,120
April	787	1,468	1,456	1,832
May	923	1,856	2,138	1,650
June	1,397	1,592	1,860	2,112
July	1,216	1,242	1,588	1,892
August	1,189	1,872	1,704	1,302
September	1,535	1,671	1,956	1,258
October	671	1,110	1,098	775
November	338	513	981	554
December	438	748	1,146	635
<b>Total</b>	<b>9,875</b>	<b>13,579</b>	<b>15,645</b>	<b>14,459</b>

**Table C-14: Organic Lemons Exports by Month (value in \$1,000s)**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
January	468	654	734	1,082
February	496	454	624	1,117
March	757	617	837	1,329
April	622	725	977	1,044
May	652	683	873	796
June	639	370	483	667
July	319	327	322	452
August	282	305	246	227
September	313	209	194	259
October	425	402	938	1,140
November	605	689	891	2,503
December	705	650	737	2,105
<b>Total</b>	<b>6,283</b>	<b>6,085</b>	<b>7,856</b>	<b>12,721</b>

**Table C-15: Organic Cherries Exports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	0	0	719	525
February	0	0	60	3
March	0	0	0	0
April	0	0	19	269
May	4,535	212	2,673	1,882
June	6,262	2,295	2,171	3,372
July	13,890	2,698	2,918	4,927
August	5,843	768	138	245
September	62	0	0	0
October	0	0	0	0
November	0	0	0	7
December	4	458	152	395
<b>Total</b>	<b>30,596</b>	<b>6,431</b>	<b>8,850</b>	<b>11,625</b>

## APPENDIX D – Organic Imports by Month

**Table D-1: Organic Coffee Imports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	90,601	21,767	19,515	14,150
February	38,607	15,057	14,005	12,688
March	68,545	22,865	23,609	27,602
April	63,885	23,436	25,352	31,097
May	44,287	30,928	29,967	39,526
June	36,671	29,513	26,450	37,948
July	37,648	28,471	26,734	27,566
August	30,627	22,244	19,706	29,627
September	30,886	21,501	17,469	31,931
October	34,610	21,551	17,923	30,314
November	26,173	25,165	17,866	24,704
December	23,535	20,393	14,704	25,371
<b>Total</b>	<b>526,075</b>	<b>282,891</b>	<b>253,300</b>	<b>332,524</b>

**Table D-2: Organic Soybeans Imports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	2,497	7,474	7,694	8,691
February	3,957	5,146	6,232	10,030
March	3,748	4,793	6,579	12,835
April	5,018	5,461	8,325	12,595
May	4,261	5,246	5,017	17,189
June	3,591	8,723	8,683	17,365
July	4,722	9,250	13,440	22,079
August	3,439	8,532	11,395	16,792
September	2,101	10,926	11,962	19,488
October	2,217	8,976	12,716	15,657
November	2,417	7,800	9,550	10,897
December	3,823	7,849	8,653	20,009
<b>Total</b>	<b>41,791</b>	<b>90,176</b>	<b>110,246</b>	<b>183,627</b>

**Table D-3: Organic Olive Oil Imports by Month (value in \$1,000s)**

	<b>2013</b>	<b>2014</b>
January	12,335	11,004
February	7,751	9,576
March	15,861	20,799
April	11,839	24,912
May	17,078	12,494
June	13,005	11,699
July	12,488	15,897
August	21,583	11,138
September	13,498	8,827
October	15,231	11,990
November	15,250	10,919
December	9,850	7,016
<b>Total</b>	<b>165,769</b>	<b>156,271</b>

**Table D-4: Organic Bananas Imports by Month (value in \$1,000s)**

	<b>2013</b>	<b>2014</b>
January	45,799	7,223
February	56,015	7,898
March	54,531	8,243
April	41,260	9,972
May	8,244	10,936
June	8,648	10,229
July	7,533	11,973
August	7,017	9,740
September	6,778	10,348
October	7,843	10,479
November	7,053	11,329
December	8,047	13,267
<b>Total</b>	<b>258,768</b>	<b>121,637</b>

**Table D-5: Organic Wine Imports by Month (value in \$1,000s)**

	2013	2014
January	50,594	8,656
February	26,978	8,085
March	24,592	14,509
April	26,606	12,225
May	19,756	15,008
June	15,617	9,748
July	17,149	7,836
August	16,693	9,209
September	14,828	7,752
October	14,434	10,141
November	17,760	7,664
December	10,733	10,499
<b>Total</b>	<b>255,740</b>	<b>121,332</b>

**Table D-6: Organic Honey Imports by Month (value in \$1,000s)**

	2012	2013	2014
January	824	1,045	1,441
February	802	1,352	1,298
March	791	1,125	5,238
April	789	1,516	4,596
May	1,554	1,924	5,371
June	1,385	337	5,699
July	1,189	567	5,850
August	712	1,756	5,495
September	859	470	4,396
October	473	751	2,901
November	994	1,857	1,695
December	825	546	2,051
<b>Total</b>	<b>11,197</b>	<b>13,246</b>	<b>46,031</b>

**Table D-7: Organic Almonds Imports by Month (value in \$1,000s)**

	<b>2013</b>	<b>2014</b>
January	1,168	2,103
February	1,484	1,558
March	1,154	4,607
April	1,036	4,381
May	2,253	4,469
June	985	4,701
July	1,130	2,191
August	852	1,923
September	270	1,583
October	1,565	1,448
November	2,094	4,355
December	2,731	7,075
<b>Total</b>	<b>16,722</b>	<b>40,394</b>

**Table D-8: Organic Mangoes Imports by Month (value in \$1,000s)**

	<b>2013</b>	<b>2014</b>
January	8,367	2,466
February	9,077	3,768
March	10,879	5,572
April	13,310	7,188
May	12,419	6,274
June	14,633	5,180
July	11,128	4,465
August	5,744	1,801
September	5,403	339
October	7,066	356
November	925	558
December	1,759	551
<b>Total</b>	<b>100,710</b>	<b>38,518</b>

**Table D-9: Organic Avocados Imports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	4,324	2,512	2,190	4,269
February	1,656	1,429	1,280	3,210
March	1,938	1,073	1,847	3,775
April	441	1,463	1,457	2,791
May	611	647	738	2,132
June	425	435	504	1,704
July	282	418	292	1,012
August	545	689	894	1,785
September	1,313	491	1,380	3,602
October	2,162	944	2,550	3,663
November	1,549	1,387	2,778	4,657
December	1,975	1,630	2,975	4,533
<b>Total</b>	<b>17,221</b>	<b>13,118</b>	<b>18,885</b>	<b>37,133</b>

**Table D-10: Organic Yellow Dent Corn Imports by Month (value in \$1,000s)**

	2013	2014
January	0	1,771
February	0	645
March	0	871
April	0	634
May	0	1,269
June	0	3,182
July	10,646	6,556
August	23,367	4,571
September	506	4,608
October	791	2,587
November	820	969
December	501	8,035
<b>Total</b>	<b>36,631</b>	<b>35,698</b>



**Table D-11: Organic Tea Imports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	2,752	2,301	3,077	2,941
February	2,591	3,141	3,409	2,870
March	3,431	3,010	3,704	2,816
April	2,543	2,792	4,247	2,040
May	2,247	2,514	3,937	2,181
June	2,929	2,745	3,513	2,878
July	3,921	2,584	4,319	2,089
August	3,320	3,279	4,423	2,530
September	3,116	3,042	3,555	2,419
October	2,311	3,725	3,058	2,538
November	3,146	2,530	2,152	2,608
December	4,920	3,120	2,717	3,303
<b>Total</b>	<b>37,227</b>	<b>34,783</b>	<b>42,111</b>	<b>31,213</b>

**Table D-12: Organic Apples Imports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	85	130	191	127
February	182	177	100	102
March	252	511	313	497
April	306	974	926	2,584
May	982	1,603	2,548	6,699
June	1,697	3,595	4,132	6,839
July	1,374	3,195	3,959	9,611
August	251	919	2,306	2,543
September	79	321	67	230
October	304	335	148	165
November	94	161	78	200
December	133	197	125	175
<b>Total</b>	<b>5,739</b>	<b>12,118</b>	<b>14,893</b>	<b>29,772</b>

**Table D-13: Organic Rice Imports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	2,877	2,365	2,482	2,647
February	2,179	1,811	2,219	1,609
March	1,907	2,109	2,283	1,613
April	1,636	2,201	2,286	2,034
May	2,767	2,198	3,469	1,866
June	2,121	2,128	2,978	2,025
July	853	1,705	1,987	1,925
August	2,087	1,797	2,941	2,884
September	1,849	2,287	2,150	2,132
October	2,077	2,084	1,991	1,403
November	1,426	2,188	3,129	1,887
December	2,646	2,549	2,224	1,969
<b>Total</b>	<b>24,425</b>	<b>25,422</b>	<b>30,139</b>	<b>23,994</b>

**Table D-14: Organic Bell Peppers Imports by Month (value in \$1,000s)**

	2011	2012	2013	2014
January	492	1,309	2,122	3,570
February	608	1,163	2,134	2,104
March	846	974	1,532	2,065
April	1,090	905	1,211	1,937
May	1,084	817	1,191	1,250
June	434	587	741	897
July	645	844	814	1,529
August	395	455	1,399	1,000
September	316	301	948	839
October	377	279	1,418	1,407
November	716	556	2,291	1,221
December	968	1,141	2,261	1,531
<b>Total</b>	<b>7,971</b>	<b>9,331</b>	<b>18,062</b>	<b>19,350</b>

**Table D-15: Organic Ginger Imports by Month (value in \$1,000s)**

	<b>2013</b>	<b>2014</b>
January	319	1,465
February	592	1,494
March	682	1,367
April	803	1,572
May	550	1,938
June	527	1,202
July	857	1,586
August	1,104	1,332
September	1,045	1,330
October	952	2,361
November	1,173	2,053
December	1,043	1,274
<b>Total</b>	<b>9,647</b>	<b>18,974</b>

## APPENDIX E– Econometric Estimation of Monthly Export and Import Growth Rates

We assume that when exports or imports grow each month, that growth compounds. In other words, if exports start at an arbitrary value of  $A$  and grow 2% one month, and 2% the second month, then the value of exports ( $Y$ ) would be:

$$y(2) = ((A \times 1.02) \times 1.02) = A \times (1.02)^2$$

For an arbitrary number of months,  $t$ , this logic can be generalized using  $e$ , the transcendental number (~2.71828) for the base. Mathematically, this generalization looks like this:

$$y(t) = A \times e^{gt}$$

where  $g$  is the average monthly growth rate measured as a percentage and  $t$  is the month count. Taking the natural logarithm of both sides of this equation, we get:

$$\ln y(t) = \ln A + g t$$

This is essentially the model we estimate to obtain an exponential curve that best fits the data. The  $y$  comes from the monthly export or import data, and we need to take its natural log. (Note that zeros pose a problem for this model because the natural log of zero is undefined.) The  $\ln A$  is an estimate of the initial amount of exports or imports (logged). Likewise,  $g$  is the estimated average monthly growth rate, and this is the key variable of interest. After recovering the estimate for  $g$ , we raise it to the 12<sup>th</sup> power (adding a 1 first) to get the annual growth rate.

One last thing: to the estimated equation above we add indicator variables if the particular month ( $t$ ) falls in the second, third, or fourth quarters of the year, which means the first quarter is the reference quarter. These quarterly indicators act as “shifters”, and allow the average monthly growth to potentially shift up or down as we move from one quarter to the next. The estimated results might show, for example, that a quarterly shifter is statistically significant, meaning that there is a quarterly effect on export growth, or statistically insignificant, meaning that the quarterly indicators have no statistical impact on export growth.

With the quarterly shifters, the new model will look like this:

$$\ln y(t) = \ln A + g t + b_2 Q_2 + b_3 Q_3 + b_4 Q_4$$

In this model,  $\ln A$ ,  $g$ ,  $b_2$ ,  $b_3$  and  $b_4$  are all parameters that need to be estimated by fitting this equation to the data. Finally, after the best fit equation is estimated, we recover the standard deviation associated with each of the parameter estimates (i.e.,  $\ln A$ ,  $g$ ,  $b_2$ ,  $b_3$  and  $b_4$ ). These standard deviations tell us how precise the parameter estimates are so we can determine whether the estimates are statistically different from zero or not.

**An example with organic spinach exports:** The best fit equation for the monthly spinach export data is:

$$\ln y(t) = 7.385 + 0.0168865 t + 0.0456 Q_2 - 0.0601 Q_3 - 0.0609 Q_4$$

(.0308)
(.0010)
(.0242)
(.0250)
(.0186)

In this example, the numbers in parentheses are standard deviations calculated with a “Newey-West” method that accounts for potentially correlated errors across time. Because the standard deviations in this example are much lower than the parameter estimates, we can say in this case that all parameter estimates are statistically different from zero with 90% or 95% confidence.

The parameter estimate 0.0168865 is the average monthly growth rate, the key variable of interest. We would interpret as evidence of a 1.69% monthly growth rate. To recover the annual growth rate, we use this formula:

$$\text{Annual Growth Rate} = (1 + 0.0168865)^{12} = 1.2226, \text{ or } 22.26 \% \text{ growth each year.}$$

Note that this growth rate is identical to the annual growth rate for organic spinach exports found in Table 1 as well as Section 2’s Table E.4.1.

Finally, in Section 2 and 3 of this report, we do not present the full set of parameter estimates. Instead we present the estimate for the average monthly growth rate ( $g$ ) and indicate whether or not it is statistically different from zero. We also present the result from annualizing this monthly growth rate. Finally, we present an indication if any of the quarterly shifters are significantly different from zero or not. If there is statistical significance, then quarter effects are important in average export or import growth.

## APPENDIX F: #8 ORGANIC COFFEE EXPORTS (Measured in Kilograms)

Some concern has been raised about the possibility of significant price decrease in coffee affecting the report's results, which rely on export and import data measured in dollars. To see how the results might change, this appendix and the next (Appendix G) re-do the results using trade data measured in kilograms.

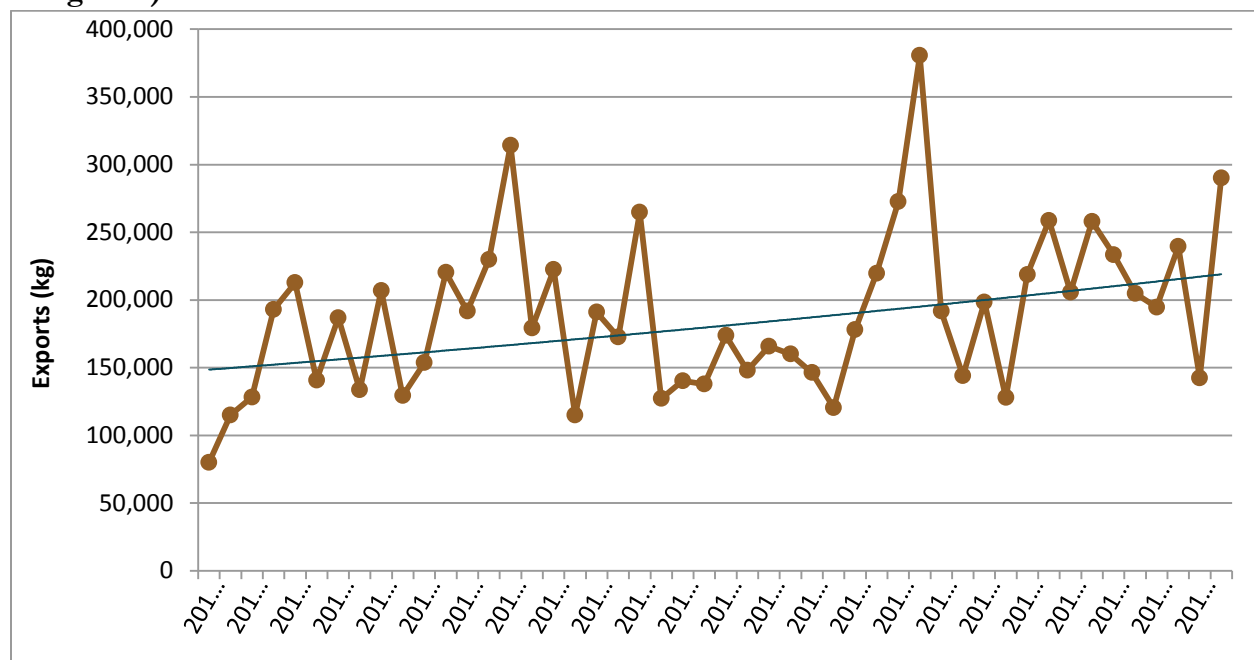
In sum, the results do not change in the following two important ways: (1) The estimated monthly growth for organic imports is still not statistically significant; and (2) The graphs of monthly imports look similar.

However, the results do change in the following three respects: (i) The estimated growth rate for non-organic coffee exports is positive with the quantity-based figures; (ii) The value-based figures have lower peaks in later years than do the quantity-based figures (which is consistent with a price drop); and (iii) With quantity-based figures, Brazil's share of imports increases. This outcome makes sense if coffee from Brazil has a low price.

**Table F.8.a: Organic Coffee Exports, Growth Rate and Seasonality (in Kilograms)**

Imports	Time Period, Monthly	Estimated Monthly	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Coffee	2011-Q1 to 2014-Q4	0.80%	Yes	9.99%	No
Non-Organic Coffee	2011-Q1 to 2014-Q4	0.03%	No	0.33%	Yes: Q4 is the highest

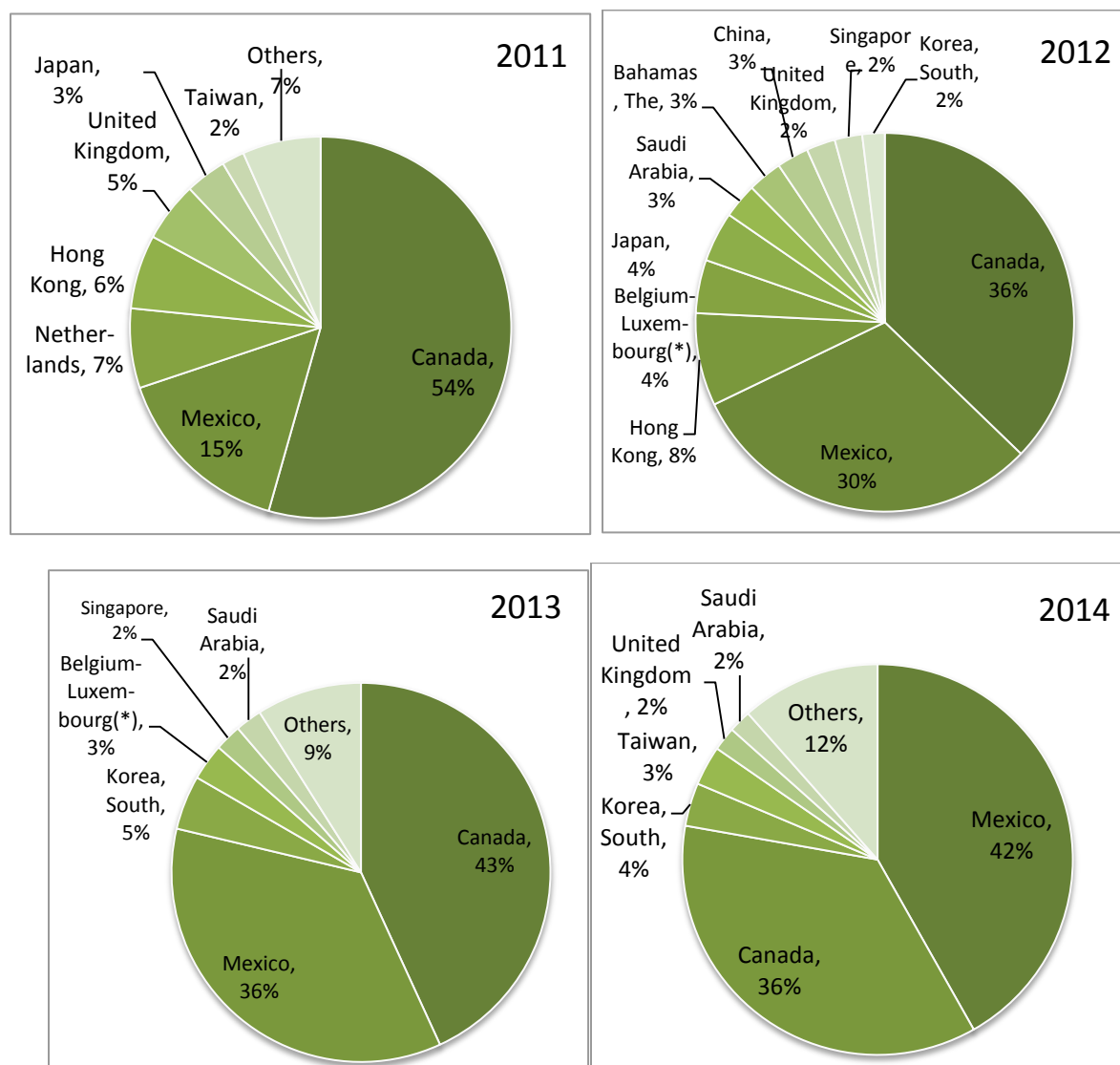
**Figure F.8.a: Monthly Organic Coffee Exports, with Exponential Trend Line (Using Kilograms)**



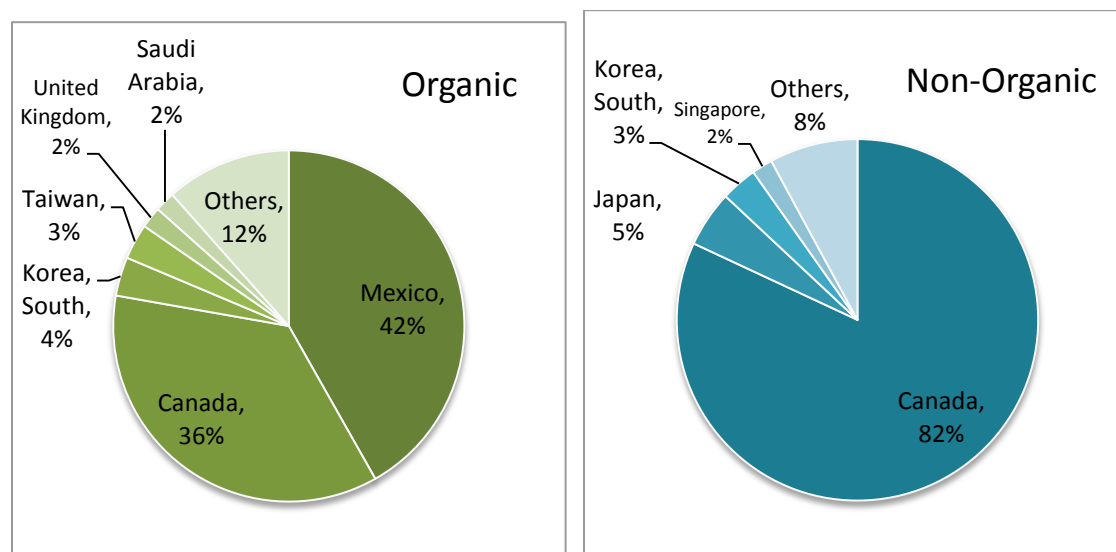
**Table F.8.b: Shares of Organic Coffee Exports in Total Exports (in Kilograms)**

	2011	2012	2013	2014
Organic Coffee Exports	1,900,642	2,286,304	2,301,064	2,572,526
Total Coffee Exports	91,096,629	87,699,737	89,848,171	92,206,366
Share of Organic Exports	2%	3%	3%	3%

**Figure F.8.b: Organic Coffee Exports Partners, by Share (using Kilograms)**



**Figure F.8.c: Organic and Non-Organic Coffee Exports Shares in 2014 (using Kilograms)**



**Table F.8.c: Organic Coffee Exports by Country (values in kilograms)**

Country (2014 ranking)	2011	2012	2013	2014
1. Mexico	294,063	680,334	818,360	1,075,351
2. Canada	1,033,901	826,454	992,910	925,531
3. Korea, South	27,745	42,453	106,442	91,861
4. Taiwan	36,310	1,824	19,326	84,281
5. United Kingdom	96,257	54,896	10,156	50,553
6. Saudi Arabia	25,723	66,088	52,278	47,940
<b>Totals</b>	<b>1,513,999</b>	<b>1,672,049</b>	<b>1,999,472</b>	<b>2,275,517</b>

**Table F.8.d: Non-Organic Coffee Exports by Country (values in Kilograms)**

Country (2014 ranking)	2011	2012	2013	2014
1. Canada	71,050,400	67,356,360	67,984,344	73,446,920
2. Japan	4,185,519	5,806,249	5,389,499	4,516,118
3. Korea, South	3,283,335	3,274,901	4,093,100	2,905,290
4. Singapore	1,804,315	1,961,662	2,457,068	1,672,039
<b>Totals</b>	<b>80,323,569</b>	<b>78,399,172</b>	<b>79,924,011</b>	<b>82,540,367</b>

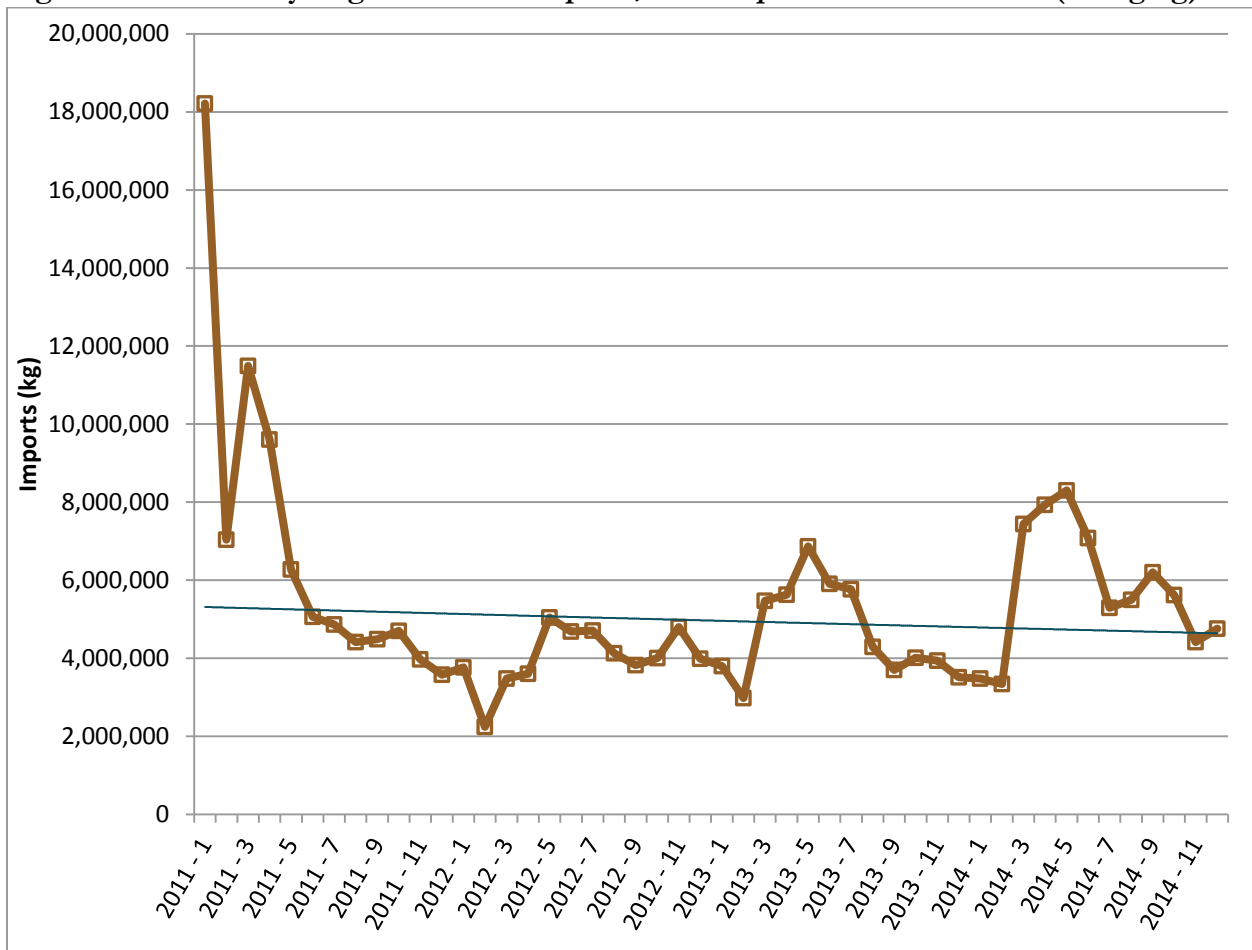


**APPENDIX G: #1. ORGANIC COFFEE IMPORTS (Measured in Kilograms)**

**Table G.1.a: Organic Coffee Imports, Growth Rate and Seasonality (Using kg)**

Imports	Time Period, Monthly	Estimated Monthly Growth Rate	Statistically Significant?	Annual Growth Rate	Quarterly Effects?
Organic Coffee	2011-Q1 to 2014-Q4	-0.15%	No	-1.8%	No
Non-Organic Coffee	2011-Q1 to 2014-Q4	0.18%	Yes	2.2%	Yes: Q4 is the lowest

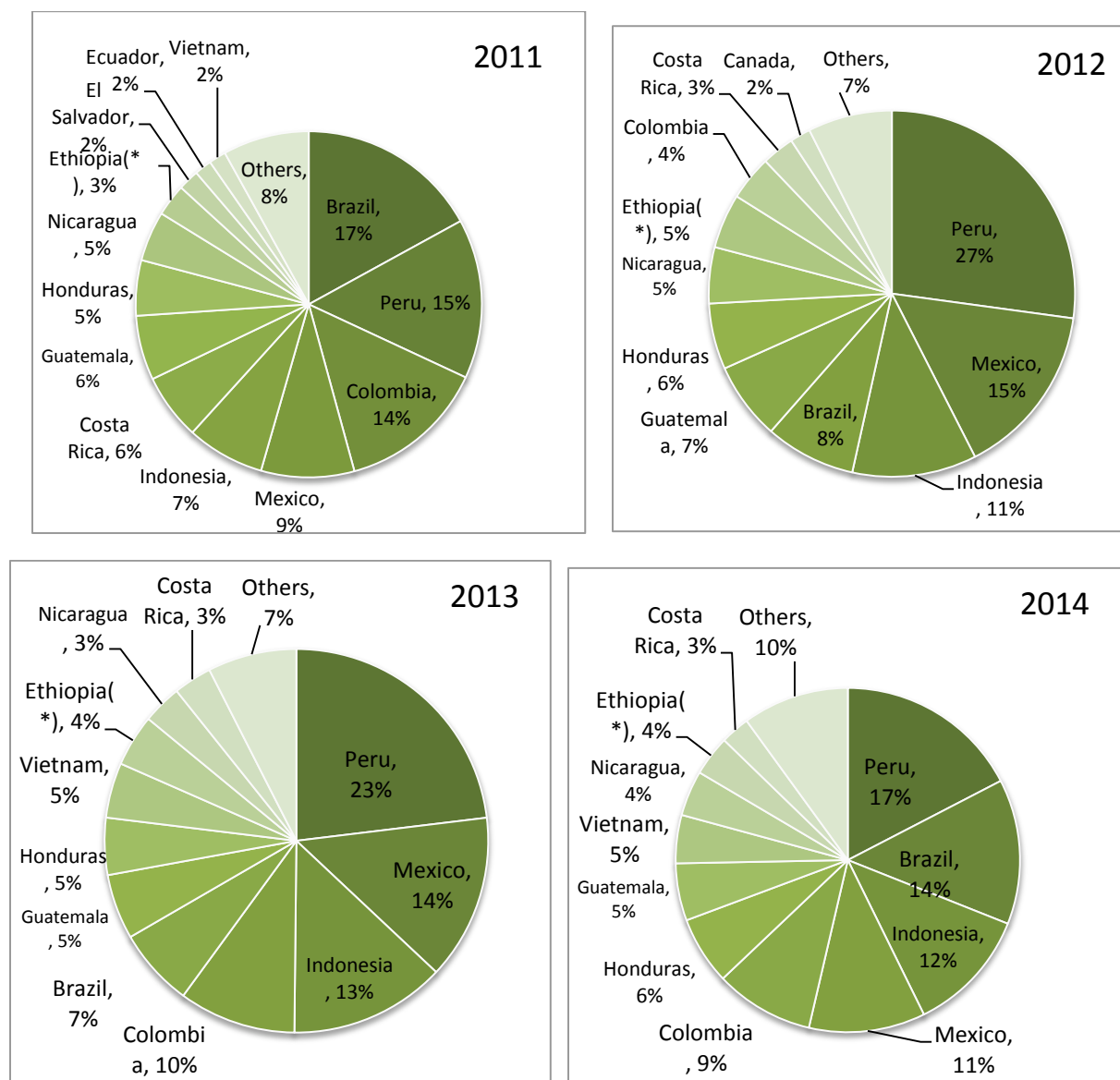
**Figure G.1.a: Monthly Organic Coffee Imports, with Exponential Trend Line (Using kg)**



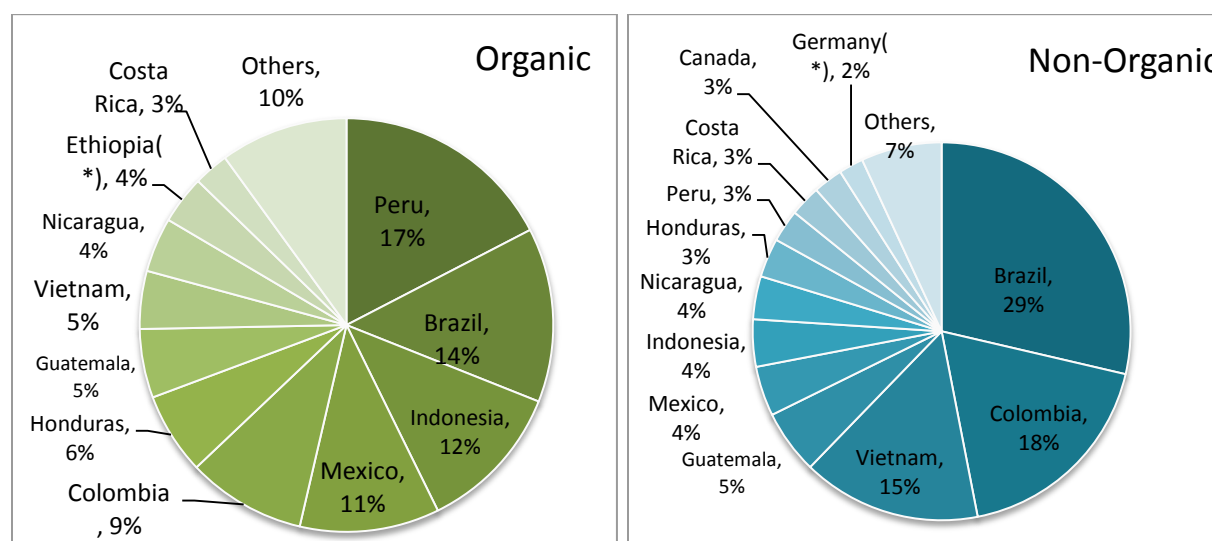
**Table G.1.b: Shares of Organic Coffee Import in Total Import (Using kg)**

	2011	2012	2013	2014
Organic Coffee Imports	83,718,593	48,265,190	55,883,547	69,366,295
Total Coffee Imports	1,441,293,929	1,436,046,822	1,490,363,267	1,522,275,647
Share of Organic Imports	6%	3%	4%	5%

**Figure G.1.b: Organic Coffee Imports Partners, by Share (Using kg)**



**Figure G.1.c: Organic and Non-Organic Shares in 2014 (Using kg)**



**Table G.1.c: Organic Coffee Imports by Country (values in kg)**

Country (2014 ranking)	2011	2012	2013	2014
1. Peru	12,492,880	13,108,423	12,896,457	12,066,762
2. Brazil	14,246,510	3,858,615	3,687,312	9,456,165
3. Indonesia	6,093,542	5,298,258	7,355,287	8,106,582
4. Mexico	7,287,873	7,403,668	7,782,556	7,576,281
5. Colombia	11,560,831	1,911,416	5,519,755	6,440,787
6. Honduras	4,336,663	2,813,624	2,687,491	4,433,397
7. Guatemala	5,054,068	3,300,189	3,066,563	3,732,345
8. Vietnam	1,339,966	56,121	2,598,766	3,143,154
9. Nicaragua	3,909,771	2,393,799	1,844,055	2,957,283
10. Ethiopia(*)	2,511,922	2,324,759	2,447,558	2,612,687
11. Costa Rica	5,166,725	1,387,516	1,809,928	1,902,698
<b>Totals</b>	<b>74,000,751</b>	<b>43,856,388</b>	<b>51,695,728</b>	<b>62,428,141</b>

**Table G.1.d: Non-Organic Coffee Imports by Country (values in kilograms)**

Country (2014 ranking)	2011	2012	2013	2014
1. Brazil	389,281,568	317,613,184	346,765,632	416,191,168
2. Colombia	192,955,104	171,761,872	244,721,680	265,797,008
3. Vietnam	199,087,440	257,405,008	220,230,656	222,355,120
4. Guatemala	89,446,992	103,833,984	98,681,304	79,527,464
5. Mexico	78,043,872	97,883,440	92,287,984	61,980,152
6. Indonesia	52,954,008	73,934,112	73,069,216	58,721,040
7. Nicaragua	35,349,884	42,235,544	41,002,764	53,471,872
8. Honduras	35,509,056	59,526,776	42,069,600	48,492,548
9. Peru	50,491,984	38,599,656	39,273,208	40,290,536
10. Costa Rica	37,127,408	43,477,608	43,914,112	38,358,764
11. Canada	35,720,044	35,172,712	36,948,548	36,781,064
12. Germany(*)	32,329,008	30,711,596	40,702,712	30,610,392
<b>Totals</b>	<b>1,228,296,368</b>	<b>1,272,155,492</b>	<b>1,319,667,416</b>	<b>1,352,577,128</b>

**Table G.1.e: Organic Coffee Imports by Month (value in kilograms)**

	2011	2012	2013	2014
January	18,217,876	3,770,152	3,801,706	3,479,588
February	7,040,881	2,238,585	2,978,069	3,344,411
March	11,489,527	3,482,153	5,475,125	7,441,661
April	9,608,770	3,603,302	5,629,251	7,928,671
May	6,279,685	5,045,351	6,869,555	8,300,269
June	5,065,050	4,683,723	5,906,064	7,083,451
July	4,863,308	4,707,202	5,766,671	5,294,179
August	4,411,028	4,124,996	4,289,124	5,499,668
September	4,491,148	3,823,295	3,701,060	6,199,323
October	4,701,189	4,001,719	4,013,442	5,621,690
November	3,971,384	4,799,912	3,939,948	4,417,555
December	3,578,747	3,984,800	3,513,532	4,755,829
<b>Total</b>	<b>83,718,593</b>	<b>48,265,190</b>	<b>55,883,547</b>	<b>69,366,295</b>

**Addendum Table G.1.f: Non-Organic Coffee Imports by Month (value in kilograms)**

	2011	2012	2013	2014
January	101,014,168	132,969,928	123,214,416	107,035,096
February	103,755,888	107,526,176	109,362,528	107,005,968
March	127,037,656	122,676,688	115,913,408	132,274,816
April	117,018,224	108,489,168	119,232,328	137,482,192
May	114,024,560	121,266,040	146,142,736	140,230,832
June	116,168,120	116,419,936	127,482,696	136,540,816
July	113,964,944	127,663,472	137,732,224	132,046,816
August	100,668,512	126,325,512	122,010,256	131,513,472
September	103,716,640	115,358,592	104,817,968	120,034,096
October	111,585,912	99,343,200	106,653,224	110,899,120
November	120,430,392	103,319,552	102,685,680	89,399,576
December	128,190,320	106,423,368	119,232,256	108,446,552
<b>Total</b>	<b>1,357,575,336</b>	<b>1,387,781,632</b>	<b>1,434,479,720</b>	<b>1,452,909,352</b>