

# The Prospective Free Trade Agreement with Korea: Background, Analysis, and Perspectives for California Agriculture

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## EXECUTIVE SUMMARY

South Korea (henceforth called simply Korea) and the United States signed a free trade agreement (FTA) on April 1, 2007, after an intensive year-long negotiation process. Although the bilateral negotiations have been finalized, the agreement must be approved by each country's legislature for the agreement to be implemented, and it faces considerable opposition in each country. In the United States, the Bush administration slated passage of the Korean FTA as a major goal for 2008, but other events intervened and the administration had little influence in Congress. The Obama administration has not focused on trade issues yet. In Korea, although negotiated by the previous government, the agreement is strongly supported by the Lee administration. The Korea-United States Free Trade Agreement (KORUS FTA) has the potential to be a significant demand driver for California agriculture. This report explains the agreement and considers its potential impacts.

The Korean economy, comprised of almost 50 million consumers, has been growing rapidly for decades and has per capita income (\$20,045 in 2007) that exceeds those of many European countries and approaches that of Spain. As a relatively large, relatively high-income country with a well-developed food and fiber distribution system, Korea is a major market for agricultural goods of the type produced in California.

As the country has become more industrialized overall, Korean agriculture has been increasingly losing competitiveness. Korea has relatively little arable land per capita and is now a highly urban country with agriculture accounting for only 3% of gross domestic product and 7% of the population. Because per capita income is high by world standards, Korea's many small farms have relied on high domestic commodity prices to maintain farm incomes comparable to rapidly improving urban incomes. Nonetheless, the farm population is aging and rapidly declining in number.

Despite high import tariffs, tight import quota quantities, and restrictive sanitary and phytosanitary regulations, Korea has become a major agricultural

importer with imported products comprising an increasing share of food consumption expenditures. Korea is an important export destination for many products and typically ranks among the top six export destinations for California agriculture overall. With lower import barriers that would accompany the KORUS FTA, there is significant potential for expanding California agricultural exports to Korea.

Agriculture was at the center of the negotiations and delayed completion of the deal until the very last hour. It also will be at the center of attempts to ratify the agreement in the legislatures of the two countries. In the end, Korea resisted rapid and complete opening of agricultural markets and the United States was not successful in achieving comprehensive free trade in agriculture as soon as possible. These negotiating positions followed from typical pressures on governments to protect weak industries from imports and to support strong exporters.

Overall, the agreement provides for gradual elimination of Korea's high tariffs for most export commodities of interest to California agriculture. Importantly, exceptions include rice, for which a previously negotiated quota is in place and no new market opening was achieved, and fresh citrus fruit, for which high seasonal tariffs that limit shipments of oranges and mandarins will remain.

Because its costs are high and U.S. barriers are already quite low, Korean agriculture has no potential to expand its tiny agricultural exports to the United States. We find that U.S. and California agriculture will expand exports to Korea substantially if free trade is allowed. Some of that increase in exports from California would be derived from trade diversion from other exporters, such as Chile, Australia, New Zealand, and China. This diversion follows from the KORUS FTA lowering the net price in Korea of U.S. goods relative to those of suppliers from other countries. In some cases these goods from other countries have tariff advantages now that would be redressed by the KORUS FTA. Additional exports contribute positively to the California economy, whether by diversion of other global sources or replacement of local Korean

supplies. From a global perspective, trade diversion may reduce global welfare if products from the United States that currently have lower tariffs replace lower-cost products from other exporters that would have higher relative tariffs after the KORUS FTA.

To better understand the potential for implementation and the likely impacts of the negotiated agreement, this report outlines major characteristics and concerns within Korean agriculture and shows where Korean agriculture is most vulnerable to expanded imports that affect Korean producers negatively. We also point out significant gains to Korean food buyers. By analyzing impacts among Korean farmers and consumers, we can improve understanding of the Korean situation and opposition to the agreement in the legislature.

This study provides detailed information on the potential effects of the KORUS FTA for California agriculture on a commodity-by-commodity basis. This helps California agriculture better appreciate and communicate what is at stake for California commodities. The analysis will also help California agriculture prepare for the realistic impacts of the potential market opening in Korea.

The report catalogs agricultural exports from California to Korea commodity by commodity. It also reviews existing trade barriers that limit exports to Korea, considers explicitly the export positions of major competitors, and examines the size of the Korean market for each commodity. This information helps us to assess the degree to which agricultural exports to Korea have been constrained by trade barriers and the potential additional exports that the Korean market

can absorb. We provide a detailed market analysis for many important California products.

We find that better access to the Korean market would create significant opportunities for dozens of major commodities. California has the potential to more than double its current exports of about \$280 million within a few years and to continue to expand exports as barriers fall gradually on products that are politically sensitive in Korea. For example, lower tariffs and fewer other barriers would allow important export expansions for citrus products, tree nuts, dairy products, beef, grapes and grape products, stone fruits, strawberries, fresh and processed vegetables, flowers and ornamental horticulture, processed tomato products, olives, hides and skins, cotton, and hay. Expanded agricultural output to serve greater demand for California products in Korea will also cause additions to farm employment and expansion of the agricultural economy past the farm gate.

The state of the U.S. and global economy in 2009 provides further impetus for encouraging more open international borders for trade. Countries belonging to the Organization for Economic Cooperation and Development have pledged to resist new trade restrictions and reduce trade barriers to avoid letting the collapse in trade become even more of a drag on economic recovery. The agricultural industries in the U.S. and California are looking for sources of new growth given the decline in domestic demand. Better access to the Korean market could be one source of additional market opportunity for major California commodities.



## INTRODUCTION

The Republic of Korea<sup>1</sup> and the United States signed a free trade agreement (FTA) on April 1, 2007. Although the bilateral negotiations have been finalized, the agreement must be approved by each country's legislature in order for implementation of the agreement to take place, but it faces considerable opposition in each country. In the United States, the Bush administration slated passage of the Korean FTA as a major goal for 2008. The Korea-United States Free Trade Agreement (KORUS FTA) has the potential to be a significant demand driver for California agriculture.

The Korean economy, comprised of almost 50 million consumers, has been growing rapidly for decades and has per capita income (\$20,045 in 2007) that exceeds those of many European countries and approaches that of Spain. The United States is already Korea's top supplier of a broad variety of agricultural products at \$3.5 billion in 2007. The United States is the number one supplier to Korea of such farm products as almonds, fresh cherries, hides and skins, poultry, soybeans, corn, and wheat. As a relatively large, relatively high-income country with a well-developed food and fiber distribution system, Korea is a major market for agricultural goods of the type produced in California.

As the country has become more developed over the past 40 years, Korean agriculture has become less competitive with imports and potential imports. Korea has relatively little arable land per capita and is now a highly urban country with agriculture accounting for only 3% of gross domestic product (GDP) and about 7% of the population. Korea's many small farms have relied on high government-protected commodity prices to maintain farm incomes comparable to rapidly improving urban incomes. Nonetheless, the average age of farmers has been rising. And because young people have avoided farming, the farm population has been declining rapidly in number.

Despite high import tariffs, tight import quota quantities, and restrictive sanitary and phytosanitary

regulations, South Korea has become a major agricultural importer with imported products comprising an increasing share of food consumption expenditures. Korea is an important export destination for many products and typically ranks among the top six export destinations for California agriculture overall. With lower import barriers that would accompany the KORUS FTA, there is significant potential for expanding California agricultural exports to Korea. This bilateral agreement, which lowers tariffs on Korean imports of U.S. products, is expected to help the United States compete against other countries, especially China and Australia, and, as a consequence, to expand U.S. sales in the Korean market.

Agriculture was at the center of the negotiations, delaying completion of the deal until the very last hour. It also will be at the center of attempts to ratify the agreement in the legislatures of the two countries (Choi and Schott). In the end, Korea resisted rapid and complete opening of agricultural markets and the United States was not successful in achieving comprehensive free trade in agriculture. These negotiating positions followed from typical pressures on governments to protect weak industries from imports and to support strong exporters.

Agricultural costs of production are high in Korea and U.S. barriers to imports from Korea are already quite low. Therefore, it is generally accepted that Korean agriculture has no potential to expand its limited agricultural exports to the United States.

We find that the significant agricultural effects for California are that U.S. and California agriculture will expand exports to Korea substantially if free trade is allowed. Some of that increase in exports from California would be derived from trade diversion from other exporters, such as Chile, Australia, New Zealand, and China. This diversion follows from the KORUS FTA lowering the net price in Korea of U.S. goods relative to those of suppliers from other countries. In some cases, such goods from other countries have tariff advantages now that would be redressed by the

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<sup>1</sup> In this report we refer to the Republic of Korea as South Korea or, more often, as simply Korea. North Korea is a separate country with a government that tightly controls the economy. The proposed free trade agreement is strictly bilateral and does not include North Korea.

KORUS FTA. Additional exports contribute positively to the California economy, whether by diversion of other global sources or replacement of local Korean supplies. From a global perspective, trade diversion may reduce global welfare if products from the United States that currently have lower tariffs replace lower-cost products from other exporters that would have higher relative tariffs after the KORUS FTA.

Because of the size of the Korean economy and the height of pre-existing trade barriers, the KORUS FTA is broadly acknowledged as the most commercially significant free trade agreement the United States has negotiated in nearly twenty years. Several factors underscore the significance for California agriculture of comprehensive and rapidly established free trade with South Korea. First, California agriculture is a major supplier of many fruit, vegetable, and tree nut products. It is also a large supplier of hay, rice, cotton, beef, and dairy products. Second, exports have recently accounted for more than 20% of California agricultural production and are important for the economic success of many commodities (Matthews and Sumner; Rowhani and Sumner). Third, Korea has a large and well-developed consumer base for California agricultural products. Korea has long been an important market for California agriculture even as the leading export commodities have changed over time (Matthews and Sumner; Rowhani and Sumner). Fourth, Korea has high trade barriers for many of the products supplied by California agriculture. Therefore, the potential for expanded imports from California is large. Finally, Korea has little or no potential to increase exports of agricultural products to the United States. Korean domestic prices are high and very few Korean agricultural products could compete successfully in the U.S. market.

We find that better access to the Korean market would create significant opportunities for dozens of major commodities. California has the potential to more than double its current exports of about \$280 million within a few years and to continue expanding exports as barriers fall gradually on products that are politically sensitive in Korea. For example, lower tariffs and fewer other barriers would allow important export expansions for citrus products, tree nuts, dairy products, beef, grapes and grape products, stone

fruits, strawberries, fresh and processed vegetables, flowers and ornamental horticulture, processed tomato products, olives, hides and skins, cotton, and hay. Expanded agricultural output to serve greater demand for California products in Korea will also cause additions to farm employment and expansion of the agricultural economy past the farm gate.

The rest of this report builds on these general points to consider more specifically the basis for these broad conclusions. It is important to understand some background information before delving into the details of the agreement and its implications. In Part 1, we provide a general background about the negotiation initiation and process; summarize the nature of the Korean economy, especially in agriculture; and describe the two countries' trade positions. Understanding pre-existing overall and bilateral trade will help us appreciate the scope of interaction between the two economies, further understand the potential for trade, and see how the KORUS FTA fits within the context of Korea's society, economy, and agriculture. We then turn our attention to California agriculture and its role as an export provider. Part 2 gives a snapshot of California agriculture that focuses on export commodities. Part 3 provides detailed information on how the KORUS FTA eliminates or reduces the trade barriers currently in place for products important for California agriculture. In Part 4, we discuss the impact of free trade on both Korean and California agriculture. We summarize the impacts for key commodities and commodity groups. The final section concludes the report.

Much of the report consists of a series of detailed tables and charts that show trade patterns and current Korean trade barriers. This information is provided to allow the reader to have ready access to trade data in a form that facilitates consideration of export gains for California agriculture. The bottom line is that the KORUS FTA would make U.S. products relatively cheaper in Korea and, as a result, the Korean market for U.S. products would expand. Further, the larger difference in tariffs on agricultural goods means that there is substantial potential for gains from the KORUS FTA in agricultural trade for the United States and California.

## Part 1. Background

To provide context to the KORUS FTA discussion later, this section describes the negotiation process prior to the final terms of the KORUS FTA, a brief overview of Korea's economy and agriculture, and the current status of bilateral and multilateral trade agreements in both countries.

### 1.1. Negotiation Background

The United States and South Korea formally announced their intention to start negotiations leading to a free trade agreement on February 2, 2006. After negotiation sessions in Washington, D.C., and Seoul, follow-up meetings were held in Seattle, Washington, and on Jeju Island in South Korea in late October 2006. The negotiations were very strenuous given the complexity of trade relations between the two countries coupled with the short deadline to conclude the negotiations (Table 1.a).

In the United States, negotiations were authorized under trade promotion authority (TPA) legislation. The most recent trade promotion negotiation authority was granted to the president under the Bipartisan Trade Promotion Act of 2002 (P.L. 107-210) and expired on July 1, 2007 (Cooper and Manyin). The TPA requires a 90-day presidential notification to

Congress of intent to sign the agreement. The KORUS FTA was finalized on the last possible day, April 1, 2007, (Cooper and Manyin) and on June 30, 2007, trade officials representing the United States and South Korea signed it. Once an agreement is signed, the U.S. Congress must pass implementing legislation before the trade agreement can take effect. There is no binding deadline for such legislation and implementation of FTAs has often been delayed until long after the agreements were signed.

Under the TPA legislation, Congress must either pass or reject an agreement as signed and may not amend it. Trade observers consider this provision a requirement for any trade negotiation to proceed. Clearly, trading partners would find it futile to negotiate with the United States if the agreement reached could subsequently be unilaterally changed by Congress. The president must be in a position of authority to negotiate and the agreement must stand or fall as struck.

Besides the World Trade Organization (WTO) negotiations in the Doha Round, the United States has used TPA to engage in free trade initiatives in the western hemisphere, East Asia, Oceania, the Middle East, North Africa, and southern Africa. The United States has completed free trade agreements with Canada,

**Table 1.a. Timeline for the Negotiations**

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#### Formal declaration of intent to negotiate a free trade agreement: February 2, 2006

- Preparation and analysis by each country in preparation for bilateral sessions: February through May 2006.

#### Bilateral negotiations

- Formal negotiations begin at a session in Washington, D.C.: June 4–6, 2006.
- Negotiations continue with sessions at various venues alternated between the United States and South Korea: July 2006 through February 2007.
- Final negotiation session completed in Seoul, South Korea: April 2, 2007.

#### Completed proposed agreement submitted to legislatures in each country

- Notification submitted to U.S. Congress on April 2, 2007.
  - Agreement signed by both countries on June 30, 2007.
  - Trade negotiation authority expired on July 1, 2007.
-

Mexico, Singapore, Central America-5 (CAFTA-5), Israel, Australia, Chile, Jordan, and Morocco and has signed an FTA with the Dominican Republic, Peru, Oman, and Bahrain (Schott et al.).<sup>2</sup>

Under a simple definition, an FTA is a pact between or among two or more countries under which tariffs and similar nontariff border restrictions are eliminated among the parties to the agreement. Many, if not all, FTAs achieve less than full free trade. Even when barriers are removed, the gradual scheduling of liberalization and other rules make the agreements complex (Congressional Research Service).

Korea has FTAs with Chile (since April 1, 2004), Singapore (since March 2, 2006), ASEAN-10 (Association of South East Asian Nations-10) (since June 1, 2007), and EFTA-4 (European Free Trade Association-4) (since September 2006). Korea has negotiations under consideration with Japan, Canada, Mexico, and India (Choi; Schott et al.).<sup>3</sup> Korea is also considering FTAs with New Zealand and Australia (Choi).

Korea's existing FTAs allow only limited access for agricultural trade. For example, the Korean FTA with the ASEAN-10, signed in May 2006, excluded a number of agricultural items, including rice (Thailand, a major rice exporter, did not join in the agreement). Previous Korean FTAs also contained provisions intended for gradual market opening, such as schedules for phasing out tariffs and nontariff barriers. Furthermore, those FTAs granted a preferential status (consistent with the rest of South Korea) to the Kaesong Industrial Complex, which houses South Korean companies near the North Korean city of Kaesong. Likewise, previous FTAs signed by the United States have included tariff reduction schedules and provisions for dispute resolution and related issues.

Even though the United States and Korea have been political allies for many decades, they have a history of trade disputes that goes back long before the WTO entered into force in January 1995. Since 1995, the two countries have filed thirteen cases involving bilateral trade problems, seven by the United States and six by Korea. Six of the seven U.S. cases against Korea

have involved problems with nontariff protection in agriculture (Schott et al.).

## **1.2. Rapid Changes in Korea's Society, Economy, and Agriculture**

South Korea has experienced phenomenal change in the last half century. It has gone from an extremely poor agrarian economy using nineteenth century technology at best to a wealthy modern society at the cutting edge of applied science and with some of the world's most advanced technological firms dominating the economic landscape. In two generations, Korea went through changes that took 100 years or more in the United States and Europe. As GDP doubled and then doubled again and again, annual income went from only a few hundred dollars per capita to more than \$20,000 per capita today. Meanwhile, manufacturing and services expanded and the share of agriculture in the economy declined from about 30% in 1970 to a little more than 3% now.

The changes in dietary patterns in Korea were equally rapid. As recently as 1982, about 32% of monthly food expenditures went to cereal (mostly rice) consumed at home. By 2005, that share had fallen to just 6%. Consumption of all other products at home, except processed products, has also fallen somewhat while food consumed away from home has jumped from just 6% of monthly expenditures to about 46% (Choi). The huge shift in expenditures on food away from home also indicates the nature of Korean society, in which most people live in urban apartments. They spend long hours away from home involved in school, work, commuting, and other activities. Of course, many of the food expenditures away from home are for food preparation and related services that are not included in food costs for home consumption. The same issues are reflected in data for the United States, where expenditures away from home have risen rapidly in recent decades.

The rapid change (and westernization) in the Korean diet may also be gleaned from changes in

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<sup>2</sup> CAFTA-5: Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.

<sup>3</sup> EFTA-4: Iceland, Lichtenstein, Norway, and Switzerland. ASEAN-10: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. However, Thailand is excluded from that FTA.

nutrient consumption. In 1980, fully 75% of Korean calorie intake came from carbohydrates while 12% came from protein and 13% came from fat. By 2004, carbohydrate intake had fallen to 61% of calories and fat had risen to 26% (Choi). (For comparison, Americans get 47% of their caloric intake from carbohydrates and 37% from fat (Food and Agriculture Organization).) The increased fat intake has been driven by increased consumption of meat and dairy products and the greater role of processed snacks and other processed foods in the diet. It also reflects the different composition of food consumed away from home.

In the context of this economic and social revolution, agriculture has changed but not to the degree that industrial and service economies have. Under tight protection from imports, rice continued and even expanded as the dominant crop with 37% of acreage devoted to rice in 1970 and about 50% currently. Horticultural production has expanded substantially while barley and potato acreages have declined. The arable land devoted to fruit production has expanded from about 2% in 1970 to 8% today and greenhouse production grew from almost nothing to 2% of arable land (Choi). The dairy and beef industries have expanded to meet part of the increased domestic demand. Farm size has grown slowly in Korea but remains far below the average farm size of other industrial economies other than Japan. Korean agriculture has been like Japanese agriculture in another characteristic as

well: protection from imports has kept much of agriculture insulated from competitive pressures from abroad, helped maintain rice as the dominant crop, and relied on high prices rather than farm size increases as the mechanism by which to maintain farm incomes relative to nonfarm incomes.

Per capita farm income in Korea grew along with the national average until the last decade. Since the early 1990s, per capita income of the farm population went from rough parity with the nonfarm

population to about 80% of nonfarm incomes today (Choi). At the same time, a demographic transformation has occurred in the age pattern of the farm population (Choi). In 1970, more than 50% of the farm population was less than 20 years of age and only about 5% of the population was older than 65. In 2004, about 30% of the population was older than 65 and only about 15% was under 20 (Figure 1). This huge and rapid shift means that there are few young families with children left among farm families. There will be a huge turnover among farmers and, given the lack of successors available, farm consolidation is inevitable.

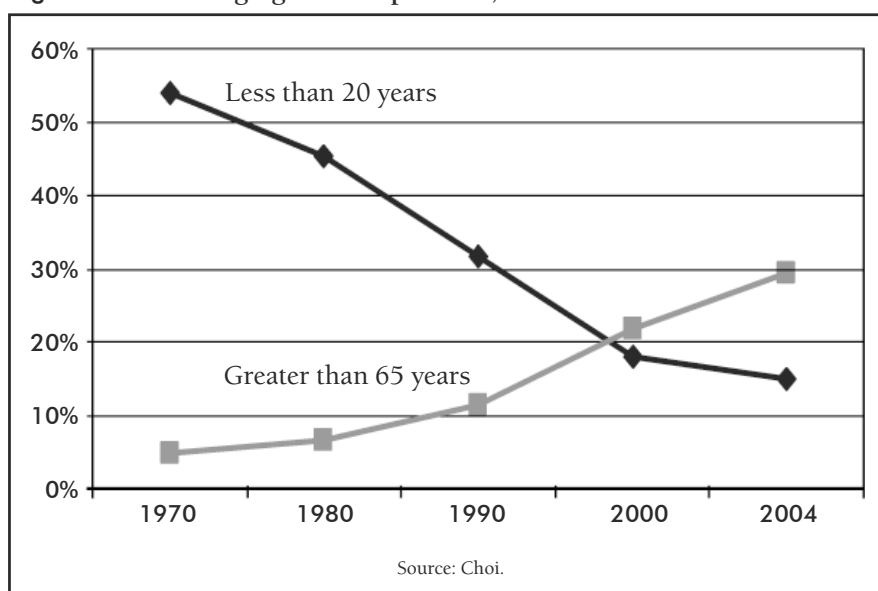
### 1.3. Historical Perspective on Overall Trade and Bilateral Trade

This section describes the status of trade situations for Korea and the United States using historical trade data. We provide the overall trade balance for both countries and the bilateral trade balance between the two countries.

#### 1.3.1. All Merchandise Trade

Table 1.b reports the value of total merchandise trade for the two countries for the period 2000–2007. The United States incurred a significant trade deficit each year, while Korea has produced a trade surplus each year. The United States trades much more than

Figure 1. Korea's Aging Farm Population, 1970–2004



Korea; in 2007, U.S. total trade was more than four times Korean trade in value. However, considering the relative size of the economy, it is important to note that trade has a more significant role in the Korean economy. In 2007, annual trade totaled about one-quarter of U.S. GDP but about 80% for Korea.

For the period 2000–2007, U.S. exports to Korea averaged close to \$26 billion and about 3% of total U.S. exports go to Korea. U.S. merchandise exports to Korea declined sharply in 2001 but bounced back gradually, reaching the pre-slump level by 2005.

During 2006/07, U.S. exports rose substantially, reaching \$33 billion. In the same year, Korea was the seventh largest export market for the United States. Major export items from the United States to Korea include semiconductor chips, manufacturing equipment, aircraft, and agricultural goods.

Korea is equally important as a source for U.S. imports as it is the seventh largest import source. Consistent with the overall U.S. trade deficit, the United States incurs a deficit in bilateral trade with Korea. The trade deficit was \$14 billion at the beginning of

**Table 1.b. Total Merchandise Trade for the United States and Korea: 2000–2007**

|      | Total U.S. Trade |                  | Total Korean Trade |                    | Bilateral Trade           |                               |                                 |                             |                               |                                 |
|------|------------------|------------------|--------------------|--------------------|---------------------------|-------------------------------|---------------------------------|-----------------------------|-------------------------------|---------------------------------|
|      | U.S. Exports (A) | U.S. Imports (B) | Korean Exports (C) | Korean Imports (D) | U.S. Exports to Korea (E) | Share of U.S. Exports (E)/(A) | Share of Korean Imports (E)/(D) | U.S. Imports from Korea (F) | Share of U.S. Imports (F)/(B) | Share of Korean Exports (F)/(C) |
|      | \$Bil            | \$Bil            | \$Bil              | \$Bil              | \$Bil                     |                               |                                 | \$Bil                       |                               |                                 |
| 2000 | 714              | 1,207            | 172                | 160                | 26.3                      | 4%                            | 16%                             | 39.8                        | 3%                            | 23%                             |
| 2001 | 664              | 1,132            | 150                | 141                | 20.9                      | 3%                            | 15%                             | 34.9                        | 3%                            | 23%                             |
| 2002 | 630              | 1,155            | 162                | 152                | 21.2                      | 3%                            | 14%                             | 35.3                        | 3%                            | 22%                             |
| 2003 | 651              | 1,248            | 194                | 179                | 22.5                      | 3%                            | 13%                             | 36.9                        | 3%                            | 19%                             |
| 2004 | 729              | 1,446            | 254                | 224                | 25.0                      | 3%                            | 11%                             | 45.1                        | 3%                            | 18%                             |
| 2005 | 805              | 1,646            | 284                | 261                | 26.2                      | 3%                            | 10%                             | 43.2                        | 3%                            | 15%                             |
| 2006 | 938              | 1,832            | 325                | 309                | 30.8                      | 3%                            | 10%                             | 44.7                        | 2%                            | 14%                             |
| 2007 | 1,043            | 1,949            | 370                | 357                | 33.0                      | 3%                            | 9%                              | 45.4                        | 2%                            | 12%                             |

Source: U.S. trade data are from the U.S. International Trade Commission ([www.dataweb.usitc.gov/scripts/intro.asp](http://www.dataweb.usitc.gov/scripts/intro.asp)); Korean data are from the Korean Customs Service ([www.customs.go.kr](http://www.customs.go.kr)).

**Table 1.c. Market Shares of Korea's Major Trading Partners: 2000–2006**

|                                                  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|--------------------------------------------------|------|------|------|------|------|------|------|
| <b>Share of Korean Exports by Destination</b>    |      |      |      |      |      |      |      |
| United States                                    | 23%  | 23%  | 22%  | 19%  | 18%  | 15%  | 14%  |
| Japan                                            | 12%  | 11%  | 9%   | 9%   | 9%   | 8%   | 8%   |
| China                                            | 11%  | 12%  | 15%  | 18%  | 20%  | 22%  | 21%  |
| <b>Share of Korean Import Market by Exporter</b> |      |      |      |      |      |      |      |
| United States                                    | 16%  | 15%  | 14%  | 13%  | 11%  | 10%  | 10%  |
| Japan                                            | 20%  | 19%  | 20%  | 20%  | 21%  | 19%  | 17%  |
| China                                            | 8%   | 9%   | 11%  | 12%  | 13%  | 15%  | 16%  |

Source: Korean Customs Service, [www.customs.go.kr](http://www.customs.go.kr).

the century and has remained in the range of \$12 to \$14 billion in recent years. Even though U.S. exports to Korea grew substantially, U.S. imports from Korea also increased and the trade deficit has changed little. Almost all imports from Korea are manufactured goods (agricultural goods account for \$0.3 billion) (U.S. International Trade Commission (USITC)).

Unlike the United States, which has run a trade deficit overall for decades, Korea has run a trade surplus for many years. However, the trade surplus in general is not large—about 5% of the country’s exports—because Korea has to rely on foreign sources for much its raw materials. Over the time period considered, Korea expanded trade rapidly, doubling exports as well as imports. Consistent with the global importance of the U.S. economy, the United States represents a much larger proportion of Korean trade than Korea does of U.S. trade. In 2007 Korea represented, at most, 3% of U.S. trade as a buyer of U.S. goods and as a seller in the U.S. market. During that same year, the United States had about 9% of the Korean market and about 12% of total exports by Korea were destined for the United States.

Korea’s trade has been dominated mostly by three countries: the United States, China, and Japan. (Korea trades with the European Union (EU) in a similar

magnitude for both imports and exports as the United States but the EU is excluded from the list of individual countries.) Prior to 2000, Japan and the United States traded the position of top source of imports into Korea. However, since 2000, Japanese exports to Korea have surpassed U.S. exports and Japan has remained as the top source of Korean imports. With the emergence of China, the United States’ relative position in Korea declined further. As shown in Table 1.c, since 2004 China has replaced the United States as the second source of Korean imports after Japan. China also is the largest market for Korean goods, having replaced the United States in 2003. Major Korean exports to the United States include cellular phones, cars, semiconductor circuits, televisions, flat panel screens, and construction vehicles (USITC).

### 1.3.2. Trade of Agricultural Products

Agricultural goods are important export commodities in the United States. Table 1.d provides values of agricultural trade for the United States and Korea for recent years. In 2007, agricultural trade occupied about 9% of U.S. merchandise exports and 4% of merchandise imports (for the total trade figures, see Table 1.b). The U.S. agricultural sector consistently produces

**Table 1.d. Total Agricultural Trade for the United States and Korea: 2000–2007**

|      | U.S. Ag Trade |         | Korean Ag Trade |         | Bilateral Ag Trade    |                                                      |                                                        |
|------|---------------|---------|-----------------|---------|-----------------------|------------------------------------------------------|--------------------------------------------------------|
|      | Exports       | Imports | Exports         | Imports | U.S. Exports to Korea | Share of U.S. Exports to Korea in Total U.S. Exports | Share of U.S. Exports to Korea in Total Korean Imports |
|      | (A)           | (B)     | (C)             | (D)     |                       | (E)/(A)                                              | (E)/(D)                                                |
|      | \$Bil         | \$Bil   | \$Bil           | \$Bil   | \$Bil                 |                                                      |                                                        |
| 2000 | 51.3          | 39.0    | 1.3             | 6.8     | 2.5                   | 5%                                                   | 37%                                                    |
| 2001 | 53.7          | 39.4    | 1.4             | 6.8     | 2.6                   | 5%                                                   | 38%                                                    |
| 2002 | 53.1          | 41.9    | 1.5             | 7.7     | 2.7                   | 5%                                                   | 35%                                                    |
| 2003 | 59.4          | 47.4    | 1.7             | 8.3     | 2.9                   | 5%                                                   | 35%                                                    |
| 2004 | 61.4          | 54.0    | 1.9             | 9.2     | 2.5                   | 4%                                                   | 27%                                                    |
| 2005 | 63.2          | 59.3    | 2.1             | 9.8     | 2.2                   | 4%                                                   | 23%                                                    |
| 2006 | 70.9          | 65.3    | 2.2             | 10.9    | 2.9                   | 4%                                                   | 26%                                                    |
| 2007 | 89.9          | 71.9    | 2.4             | 13.3    | 3.5                   | 4%                                                   | 26%                                                    |

Note: Korean agricultural exports are few and we do not present the Korean export shares.

Source: U.S. data were obtained from the U.S. Department of Agriculture Foreign Agricultural Services’ U.S. FATUS data ([www.ers.usda.gov/Data/FATUS/#monthly](http://www.ers.usda.gov/Data/FATUS/#monthly)); Korean data were obtained from Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

a trade surplus and contributes to reducing the trade deficit (Table 1.d). Farm subsidies in the United States have some impact on exports, especially for cotton, but the quantitative impact overall is relatively small because more products (including fruits, tree nuts, livestock products, hay, and vegetables) have not benefited from significant farm subsidies and many of the subsidy programs have relatively little net effect on production.

Korea exports few agricultural goods and the Korean agricultural trade incurs a large trade deficit—an amount almost equal to the country's total trade surplus (in 2007, the agricultural trade deficit was \$10.9 billion and the surplus from all merchandise trade was \$13 billion).

U.S. agricultural exports to Korea exceeded \$3 billion in the late 1990s, fell to \$1.7 billion in 1998 during Korea's financial crisis, and then began to recover slowly in subsequent years (not shown in the table). U.S. agricultural exports to Korea began to decline again in 2004 after the discovery of a slaughter cow with bovine spongiform encephalopathy (BSE) in the United States in December 2003. That event caused a collapse in beef exports to Korea and, as a result, agricultural exports fell in 2004 and 2005 (Table 1.d). After 2005, which marked the lowest level of U.S. exports since the financial crisis in 1998, U.S. exports bounced back, reaching \$3.5 billion in 2007.

The United States remains the largest agricultural exporter to Korea and is the chief supplier of many agricultural commodities traded in Korea. Korea is the destination of 4–5% of U.S. agricultural exports but those products constitute a significant share of Korean agricultural imports—23–38% during 2000–2007 (Table 1.d). The trend in the past few years, though, is

a decline in the U.S. market share, mainly due to the emergence of new competitors in the Korean market such as China, Australia, and Chile.

Table 1.e lists shares of total U.S. agricultural exports to Korea for 2003 and 2007 by commodity. Distinct changes in export share during that period are the drop in meat exports and rise in coarse grain exports. With the collapse of meat exports in December 2003, meats' share of total U.S. exports to Korea plummeted from 33% to 11% in 2007 and the share of coarse grains rose from 1% to 24%. The category that includes fruits, nuts, and vegetables changed little, remaining at 11–12%.

**Table 1.e. U.S. Agricultural Exports to Korea by Percent of Total U.S. Value: 2003 and 2007**

|                                                         | 2003 | 2007 |
|---------------------------------------------------------|------|------|
| Coarse grains                                           | 1%   | 24%  |
| Fruits, nuts, vegetables,<br>and other related products | 12%  | 11%  |
| Hides and skins                                         | 15%  | 10%  |
| Meats                                                   | 33%  | 11%  |
| Wheat                                                   | 7%   | 9%   |
| Soybeans                                                | 10%  | 5%   |
| Cotton                                                  | 5%   | 3%   |
| Other bulk and<br>intermediate products                 | 11%  | 18%  |
| Other consumer-ready<br>products                        | 4%   | 9%   |

Note: Column totals may not be 100% due to rounding.

Source: U.S. Department of Agriculture, Economic Research Service, "Briefing Rooms, South Korea: Trade," [www.ers.usda.gov/Briefing/SouthKorea/trade.htm](http://www.ers.usda.gov/Briefing/SouthKorea/trade.htm).



## **Part 2. California Agricultural Exports to Korea and California's Relative Position**

In order to assess the increased export potential for California products due to the KORUS FTA, it is important to review the current status of California's agricultural exports to Korea and relative position as an exporter. We will first examine the status of California exports to Korea for major export commodities and then the historical trend of Korean imports of agricultural products with a focus on products important to California. We then analyze California's relative position as an exporter to Korea by considering the current competition from other export suppliers, especially Chile and China, and from domestic production in Korea.

### **2.1. Recent Agricultural Exports to Korea from California**

Table 2.a on the following page presents University of California Agricultural Issues Center estimates of recent California agricultural exports to Korea.<sup>4</sup> After growing by more than \$100 million or about 75% from 1999 to 2003, exports declined in 2004 and in 2005 rose only back to the level reached in 2001. In 2006, California agricultural exports to Korea rose back to the record of \$312 million reached in 2003. Oranges continue to be the number one export product. In recent years, fresh oranges have replaced cotton and beef as the leading export from California to the Korean market. Beef exports collapsed in 2004 with the discovery of BSE in the United States. Along with declining cotton production in California, the Korean textile processing industry has been shrinking for several years as Korean wages have grown too high relative to those in China and other textile processing countries of Asia. Korean imports of cotton reached a high of about \$100 million in 2001, fell to less than \$40 million, and then collapsed to less than \$10 million in 2006. Tree nuts, especially almonds and walnuts, are also major exports to Korea. Hay, hides and skins, processed tomato products, wine, grapefruit, and rice round out the top exports to Korea in

value. Dairy products declined substantially starting in 2003 but remain a major export category. California is a major provider of U.S. exports for many of the commodities listed in Table 2.a.

Table 2.b arranges the California export data to indicate the importance of the Korean market to California agricultural export products. The ranks in Table 2.b are not evaluated by the magnitude of value but by the size of export share shipped to Korea within the given industry. In 2006, Korea was the top export market for California grapefruit with an export share of 14%. For some commodities, export markets are spread among many countries. With a 2-5% export share, Korea is the second most important market for California grape juice, hay, and hides and skins. For California walnuts, Korea ranked eighth in 2006 with a 10% export share. Korea slipped from the top export market for oranges in 2005 to number four in 2006. Before the collapse of exports in 2004, Korea was the number two export market for California beef, accounting for 34% of California beef exports in 2003. In the more recent years shown in Table 2.b, Korea holds double-digit shares of California exports of almonds, grapefruit, oranges, rice, and walnuts. For many of the export commodities listed in Table 2.b, Korea is a top-ten export market and accounts for a significant share of California's exports.

### **2.2. Scope of Korean Agricultural Imports by Product Category**

To evaluate California's relative position and the export potential in the Korean market, we investigate the size and scope of Korean imports. Before we consider individual commodities, let us first review Korean imports of fruits, tree nuts, and vegetables at an aggregate level. There are many individual fruit and vegetable export products. Thus, aggregation of import items and the World Customs Organization's harmonized system (HS) codes provide a natural framework.

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<sup>4</sup> No formal trade data are available at the state level.

The HS codes are recognized and used widely in international trade. An item can be classified with an HS code of up to ten digits with longer codes representing more refined classifications of aggregation. For example, the first two digits of HS code 0706 represent vegetables while the last two digits narrow the category to root-type edible vegetables (thus, the category expressed as 0706 consists of all items with HS codes beginning with 0706).

HS codes 0703 through 0709 cover fresh/chilled vegetables and codes 0710 through 0712 cover vegetables in nonfresh form, which includes frozen,

provisionally preserved (not suited for immediate consumption), and dried products.

Table 2.c presents Korean imports of selected fruits at the aggregation level expressed by four-digit HS codes. Fruits are first differentiated into fresh and nonfresh. In the table, processed items such as fruit juices are excluded because there are so many individual processed items and the HS codes cannot be conveniently aggregated. Table 2.c indicates that Korean imports of fruit products are mainly in fresh form with imports of nonfresh fruit accounting for, at most, 10% of import value. The value of fresh

**Table 2.a. Exports of California Agricultural Products to Korea for 1999–2006 in \$1,000**

| Commodity                      | 1999 <sup>1</sup> | 2000 <sup>1</sup> | 2001    | 2002    | 2003    | 2004    | 2005    | 2006    |
|--------------------------------|-------------------|-------------------|---------|---------|---------|---------|---------|---------|
| Oranges, fresh <sup>2</sup>    | 14,512            | 41,000            | 51,152  | 70,877  | 81,101  | 88,846  | 96,670  | 60,184  |
| Almonds                        | 11,326            | 11,000            | 13,903  | 17,409  | 21,382  | 25,781  | 34,608  | 31,875  |
| Cotton                         | 69,656            | 88,000            | 99,969  | 37,626  | 29,328  | 28,034  | 33,214  | 9,810   |
| Walnuts                        |                   | 4,000             | 4,566   | 6,712   | 7,434   | 13,890  | 17,522  | 33,972  |
| Hay                            | 4,189             | 13,000            | 14,961  | 17,600  | 17,745  | 17,120  | 14,282  | 18,533  |
| Hides and skins                |                   |                   | 17,167  | 16,390  | 18,721  | 15,113  | 13,878  | 14,963  |
| Tomatoes (processed)           | 9,276             | 8,000             | 9,710   | 11,364  | 10,938  | 11,387  | 12,300  | 12,809  |
| Wine                           | 2,358             | 3,000             | 4,915   | 3,347   | 5,927   | 6,992   | 9,535   | 10,124  |
| Grapefruit (incl. juice)       |                   |                   | 1,004   | 2,028   | 4,001   | 5,107   | 8,914   | 44,711  |
| Rice                           |                   |                   | 3,988   | 10,979  | 25,340  | 17,447  | 6,619   | 31,920  |
| Grape juice                    | 6,115             | 3,000             | 6,348   | 7,878   | 8,169   | 5,180   | 5,249   | 4,781   |
| Dairy and products             | 12,096            | 28,000            | 16,816  | 17,938  | 11,419  | 4,200   | 6,279   | 5,933   |
| Raisins                        | 2,444             |                   | 2,568   | 2,669   | 2,631   | 3,653   | 4,159   | 5,201   |
| Table grapes                   |                   |                   | 451     | 0       | 2,202   | 2,273   | 2,955   | 3,425   |
| Lemons                         |                   |                   | 2,443   | 3,398   | 2,542   | 2,749   | 2,950   | 5,251   |
| Orange juice                   |                   |                   | 3,295   | 3,779   | 2,976   | 2,955   | 2,392   | 2,586   |
| Cherries                       |                   |                   | 352     | 9       | 1,439   | 1,459   | 1,180   | 2,557   |
| Pistachios                     |                   |                   | 587     | 475     | 434     | 532     | 914     | 2,035   |
| Kiwi fruit                     |                   |                   | 57      | 0       | 1,438   | 1,924   | 859     | 3,266   |
| Lettuce                        |                   |                   | 51      | 45      | 420     | 649     | 777     | 1,088   |
| Flowers                        |                   |                   | 704     | 187     | 308     | 112     | 437     | 436     |
| Beef and products <sup>3</sup> | 37,795            | 51,000            | 21,022  | 39,781  | 52,956  | 114     | 243     | 39      |
| Total CA Exports to Korea      | 178,000           | 262,000           | 279,406 | 273,839 | 311,628 | 258,166 | 278,174 | 311,938 |

<sup>1</sup> Data provided for commodities with exports of more than \$2 million in 1999 and 2000.

<sup>2</sup> For 1999 and 2000, the category of fresh oranges includes orange juice.

<sup>3</sup> For 1999 and 2000, the category of beef and products includes hides and skins.

Source: University of California Agricultural Issues Center, annual California international agricultural export estimates, 2001–2006 ([www.aic.ucdavis.edu/pub/exports.html](http://www.aic.ucdavis.edu/pub/exports.html)).

fruit imports was close to \$500 million in 2007 with bananas and citrus being the top two fresh fruit import categories. California does not produce bananas but citrus is an important export item for the state. Korea also imports significant amounts of table grapes and cherries. Imports of these two items have grown rapidly and California has been an important supplier.

Tree nut imports are presented in Table 2.d. The major items in tree nut imports are almonds and walnuts, which comprise almost 90% of Korea's tree nut import value. Besides almonds and walnuts, other tree nuts imported include pistachios, pine nuts, and ginkgo nuts. Among these minor nuts, we report only pistachios, for which California is a major exporter. Table 2.d also reports U.S. tree nut exports to Korea for the last five years. Over this period, California has been supplying about 90% of Korean imports. For almonds, the United States was the only supplier in 2007. Tree nuts are a very important export category for the United States and California in terms of value and market share.

Korea is not a major importer of vegetables. While it is a major importer of agricultural products, the country's vegetable consumption is mostly supplied from domestic sources. Of the total imports of agricultural products worth more than \$10 billion in 2007, vegetables account for less than 5% (\$466 million) (Korean Ministry of Agriculture, Forestry, and Fishery). Table 2.e presents selected vegetable imports aggregated at the four-digit HS code level. The table omits vegetable categories that show few imports or little relevance to California. Unlike fruits, nonfresh items dominate Korean vegetable imports, accounting for about 60%. The table also shows China's import share in the Korean market for the last three years. China dominates Korea's vegetable import market with shares exceeding 90% for all categories except lettuce (0705) and other vegetables (0709). Even in the lettuce market China's share has been steadily growing, accounting for about half of the market in 2007.

**Table 2.b. Share of Total California Exports by Value That Are Shipped to Korea and Rank of Korea in Export Destinations for Major California Agricultural Products: 2003–2006**

| Commodity           | 2003  |      | 2004  |      | 2005  |      | 2006  |      |
|---------------------|-------|------|-------|------|-------|------|-------|------|
|                     | Share | Rank | Share | Rank | Share | Rank | Share | Rank |
| Almonds             | 2%    | 7    | 2%    | 8    | 2%    | 7    | 10%   | 8    |
| Beef                | 34%   | 2    | –     | –    | –     | –    | 0.01% | 18   |
| Cherries            | 2%    | 7    | 2%    | 6    | 3%    | 6    | 0.8%  | 5    |
| Cotton              | 4%    | 8    | 4%    | 9    | 5%    | 9    | 3%    | 11   |
| Grapefruit          | 8%    | 3    | 12%   | 3    | 18%   | 2    | 14%   | 1    |
| Grape juice         | 27%   | 2    | 17%   | 2    | 13%   | 2    | 2%    | 2    |
| Hay                 | 17%   | 2    | 16%   | 2    | 13%   | 2    | 6%    | 2    |
| Hides and skins     | 32%   | 1    | 27%   | 2    | 26%   | 2    | 5%    | 2    |
| Kiwi fruit          | 16%   | 3    | 18%   | 4    | 10%   | 4    | 1%    | 3    |
| Oranges             | 25%   | 1    | 27%   | 2    | 27%   | 1    | 19%   | 4    |
| Raisins             | 2%    | 11   | 2%    | 11   | 2%    | 11   | 2%    | 6    |
| Rice                | 12%   | 3    | 6%    | 4    | 2%    | 7    | 10%   | 2    |
| Table grapes        | 1%    | 19   | 1%    | 18   | 1%    | 19   | 1%    | 23   |
| Tomatoes, processed | 5%    | 5    | 5%    | 5    | 5%    | 4    | 4%    | 4    |
| Walnuts             | 3%    | 5    | 6%    | 4    | 6%    | 5    | 11%   | 4    |
| Wine                | 1%    | 6    | 1%    | 6    | 1%    | 6    | 3%    | 6    |

Source: University of California Agricultural Issues Center, agricultural export database, [www.aic.ucdavis.edu/pub/exports.html](http://www.aic.ucdavis.edu/pub/exports.html).

**Table 2.c. Korean Fruit Imports by HS Code in \$1,000 (aggregated in first four digits)**

|      | Fresh Fruit       |                        |                                           |                      |                                       |                        |
|------|-------------------|------------------------|-------------------------------------------|----------------------|---------------------------------------|------------------------|
|      | Bananas<br>(0803) | Citrus Fruit<br>(0805) | Table Grapes <sup>1</sup><br>(0806100000) | All Melons<br>(0807) | Cherries <sup>2</sup><br>(0809200000) | Other Fruits<br>(0810) |
| 1998 | 37,800.0          | 33,021.9               | 2,180.0                                   | 15.4                 | 213.9                                 | 5,207.1                |
| 1999 | 73,097.8          | 32,470.3               | 10,241.6                                  | 224.3                | 722.9                                 | 7,626.5                |
| 2000 | 75,250.4          | 69,468.2               | 12,661.8                                  | 188.6                | 1,265.3                               | 8,834.0                |
| 2001 | 70,045.5          | 83,414.3               | 9,545.5                                   | 109.9                | 1,365.3                               | 9,862.0                |
| 2002 | 78,211.3          | 94,878.8               | 10,443.5                                  | 34.3                 | 1,689.3                               | 17,633.2               |
| 2003 | 90,681.8          | 118,414.1              | 17,731.6                                  | 30.3                 | 4,111.4                               | 26,895.6               |
| 2004 | 86,665.4          | 143,099.6              | 16,920.6                                  | 207.1                | 6,053.3                               | 54,052.5               |
| 2005 | 114,836.8         | 127,686.1              | 23,615.6                                  | 458.0                | 8,851.0                               | 67,589.6               |
| 2006 | 144,694.7         | 131,856.1              | 32,600.3                                  | 832.8                | 12,156.4                              | 76,651.8               |
| 2007 | 170,658.7         | 122,766.4              | 58,028.6                                  | 724.3                | 31,744.4                              | 85,826.9               |

|      | Nonfresh Fruit   |                                   |                 |
|------|------------------|-----------------------------------|-----------------|
|      | Frozen<br>(0811) | Provisionally Preserved<br>(0812) | Dried<br>(0813) |
| 1998 | 3,732            | 86                                | 503             |
| 1999 | 7,700            | 88                                | 2,034           |
| 2000 | 9,237            | 79                                | 2,156           |
| 2001 | 9,664            | 84                                | 4,642           |
| 2002 | 15,505           | 76                                | 3,287           |
| 2003 | 18,174           | 309                               | 6,360           |
| 2004 | 23,397           | 884                               | 7,334           |
| 2005 | 22,660           | 501                               | 8,344           |
| 2006 | 27,918           | 1,808                             | 10,670          |
| 2007 | 35,845           | 129                               | 12,659          |

<sup>1</sup> We present only fresh table grapes out of the 0806 category, which also includes dried grapes (raisins).

<sup>2</sup> The 0809 category includes all fresh stone fruits, including peaches, plums, nectarines, apricots, and cherries. However, imports of other stone fruit other than cherries are zero.

Note: The four-digit HS code (0805 for example) includes all items identified by an HS code that begins with those digits. Some HS categories are not present. HS code 0804 includes jujube and other tropical fruits. Imports in this category are less than \$1 million annually. HS code 0808 includes apples and pears. Korea imports no fresh apples and only a small amount of pears (\$86,000 in 2007).

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

**Table 2.d. Korean Imports of Tree Nuts**

|                                         | All Tree Nuts<br>(080200000) | Almonds<br>(0802100000) | Walnuts<br>(0802300000) | Pistachios<br>(0802500000) |
|-----------------------------------------|------------------------------|-------------------------|-------------------------|----------------------------|
| <b>Total Imports in \$1,000</b>         |                              |                         |                         |                            |
| 1998                                    | 16,213                       | 12,619                  | 889                     | 971                        |
| 1999                                    | 18,786                       | 13,948                  | 2,211                   | 997                        |
| 2000                                    | 20,061                       | 13,012                  | 4,136                   | 1,351                      |
| 2001                                    | 26,535                       | 16,571                  | 4,667                   | 1,547                      |
| 2002                                    | 27,117                       | 16,881                  | 5,868                   | 1,614                      |
| 2003                                    | 35,453                       | 21,955                  | 8,230                   | 2,141                      |
| 2004                                    | 47,092                       | 25,861                  | 15,497                  | 1,491                      |
| 2005                                    | 61,514                       | 34,938                  | 19,152                  | 2,531                      |
| 2006                                    | 87,198                       | 38,531                  | 38,999                  | 2,419                      |
| 2007                                    | 81,764                       | 34,594                  | 38,378                  | 2,556                      |
| <b>Imports from the U.S. in \$1,000</b> |                              |                         |                         |                            |
| 2003                                    | 32,099                       | 17,249                  | 7,434                   | 323                        |
| 2004                                    | 41,451                       | 24,498                  | 13,976                  | 380                        |
| 2005                                    | 54,179                       | 33,752                  | 17,522                  | 601                        |
| 2006                                    | 73,759                       | 30,862                  | 33,972                  | 1,878                      |
| 2007                                    | 72,280                       | 34,745                  | 35,234                  | 1,851                      |

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

We now turn our attention to more disaggregated figures. Table 2.f presents the value of Korean imports for the three most recent years of individual commodities that are of potential importance to California. Among the products listed, the product with the highest value is beef with imports that exceed \$1 billion. Product categories with more than \$100 million in import value include fresh oranges, hides and skins, rice, wine, cotton, hay, cheese, and mixed milk powder. Categories that are greater than \$10 million but less than \$100 million include orange juice, lemons, table grapes, grape juice, cherries, processed tomatoes, olives, kiwis, garlic, almonds, walnuts, flowers, and many dairy products (skim milk powder, butter, whey, formulated butter, infant formula, and casein). Imports of many of these products more than

doubled during these years. Most notably, imports of table grapes, cherries, kiwis, walnuts, prunes, lettuce, butter, and mixed milk powder increased more than three times.

### 2.3. California's Relative Position and Potential in Korean Markets

Even though the United States represents substantial market shares in many Korean markets, U.S. producers also face major competition from other exporters. In this section, we investigate the relative positions of the United States and other export suppliers in the Korean market. First, we investigate country-specific imports.

Table 2.e. Korean Vegetable Imports

|                                               | Fresh/Chilled                                                        |                                                              |                            |                                                            |                                                                | Prepared/Preserved |                  |              |
|-----------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------|----------------------------|------------------------------------------------------------|----------------------------------------------------------------|--------------------|------------------|--------------|
|                                               | Onions, Shallots, Garlic, Leeks, and Other Similar Vegetables (0703) | Cabbage, Broccoli, Cauliflower, and Similar Brassicas (0704) | Lettuce and Chicory (0705) | Edible Roots: Carrots, Turnips, Celery, Salad Beets (0706) | Other Vegetables: Artichokes, Asparagus, Eggplant, Etc. (0709) | Frozen (0710)      | Preserved (0711) | Dried (0712) |
| <b>Korean Imports in \$1,000</b>              |                                                                      |                                                              |                            |                                                            |                                                                |                    |                  |              |
| 1998                                          | 13,901                                                               | 50                                                           | 252                        | 7,162                                                      | 2,172                                                          | 6,953              | 4,043            | 26,618       |
| 1999                                          | 10,677                                                               | 641                                                          | 340                        | 11,564                                                     | 4,020                                                          | 12,981             | 8,045            | 35,003       |
| 2000                                          | 1,129                                                                | 2,191                                                        | 394                        | 12,647                                                     | 8,441                                                          | 10,541             | 9,245            | 41,116       |
| 2001                                          | 9,775                                                                | 99                                                           | 363                        | 14,928                                                     | 7,279                                                          | 17,473             | 6,203            | 34,314       |
| 2002                                          | 7,289                                                                | 931                                                          | 425                        | 17,416                                                     | 8,842                                                          | 20,150             | 7,199            | 38,862       |
| 2003                                          | 23,008                                                               | 2,827                                                        | 1,073                      | 29,729                                                     | 12,267                                                         | 42,912             | 9,796            | 45,438       |
| 2004                                          | 20,930                                                               | 4,041                                                        | 1,353                      | 37,482                                                     | 15,726                                                         | 61,540             | 11,207           | 72,806       |
| 2005                                          | 13,711                                                               | 5,342                                                        | 1,374                      | 42,862                                                     | 18,317                                                         | 59,951             | 8,777            | 53,311       |
| 2006                                          | 30,019                                                               | 9,731                                                        | 2,760                      | 54,674                                                     | 27,024                                                         | 81,557             | 11,513           | 47,530       |
| 2007                                          | 17,956                                                               | 12,969                                                       | 4,849                      | 54,169                                                     | 28,385                                                         | 106,591            | 11,765           | 58,575       |
| <b>Chinese Share of Korean Import Markets</b> |                                                                      |                                                              |                            |                                                            |                                                                |                    |                  |              |
| 2005                                          | 98%                                                                  | 93%                                                          | 20%                        | 99%                                                        | 62%                                                            | 91%                | 93%              | 86%          |
| 2006                                          | 96%                                                                  | 97%                                                          | 40%                        | 99%                                                        | 57%                                                            | 95%                | 93%              | 93%          |
| 2007                                          | 95%                                                                  | 99%                                                          | 47%                        | 100%                                                       | 46%                                                            | 94%                | 94%              | 93%          |

Note: There are other vegetable categories that are not presented in the table. They include fresh potatoes (0701), fresh tomatoes (0702), and all forms of tuber types of vegetables (mostly sweet potatoes and cassava) (0714). Except for fresh tomatoes, these products are of no importance in California agriculture and Korea imports almost no fresh tomatoes.

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

**Table 2.f. Value of Korean Imports by Commodity Category and by Commodity in \$1,000: 2005–2007**

| Commodities Important to California | 2005    | 2006    | 2007      |
|-------------------------------------|---------|---------|-----------|
| Oranges, fresh                      | 120,377 | 123,064 | 108,013   |
| Oranges, juice                      | 42,058  | 44,973  | 71,287    |
| Lemons                              | 6,691   | 8,384   | 11,489    |
| Table grapes                        | 23,616  | 32,600  | 58,029    |
| Grapes, juice                       | 23,829  | 21,226  | 21,653    |
| Cherries                            | 13,154  | 15,777  | 36,221    |
| Raisins                             | 5,206   | 5,257   | 5,584     |
| Kiwis                               | 53,313  | 62,736  | 69,831    |
| Grapefruit                          | 3,970   | 4,431   | 8,839     |
| Peaches, processed                  | 6,365   | 7,787   | 9,023     |
| Peaches, juice                      | 1,817   | 1,357   | 1,326     |
| Pears, fresh                        | 111     | 72      | 86        |
| Pears, processed                    | 403     | 368     | 304       |
| Prunes                              | 595     | 2,200   | 2,178     |
| Almonds                             | 34,938  | 38,531  | 34,594    |
| Walnuts                             | 19,152  | 38,999  | 38,378    |
| Pistachios                          | 2,531   | 2,419   | 2,556     |
| Lettuce                             | 1,020   | 2,417   | 4,443     |
| Garlic                              | 21,244  | 32,341  | 31,772    |
| Strawberries                        | 5,128   | 7,540   | 9,838     |
| Tomatoes, processed                 | 29,800  | 31,803  | 36,190    |
| Rice                                | 51,369  | 118,481 | 136,542   |
| Cotton                              | 355,352 | 298,694 | 305,403   |
| Hay                                 | 142,408 | 158,277 | 236,528   |
| Flowers                             | 49,767  | 59,170  | 67,905    |
| Wine                                | 83,877  | 103,758 | 167,286   |
| Beef                                | 735,143 | 878,977 | 1,037,052 |
| Hides and skins                     | 407,524 | 363,759 | 380,571   |
| Dairy products, total               | 320,070 | 330,196 | 438,387   |
| Skim milk powder                    | 14,568  | 15,374  | 17,334    |
| Whole milk powder                   | 4,342   | 4,784   | 3,366     |
| Butter                              | 12,807  | 8,346   | 11,298    |
| Whey                                | 32,786  | 50,449  | 67,083    |
| Cheese                              | 143,572 | 146,262 | 178,992   |
| Formulated butter                   | 47,751  | 44,176  | 49,706    |
| Mixed milk powder                   | 72,656  | 67,602  | 103,782   |
| Infant formula                      | 23,027  | 20,808  | 19,768    |
| Casein                              | 44,641  | 45,947  | 58,236    |

Note: Fishery and forest products are excluded.

Source: Data for all except cotton and hides and skins are from Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net). Data for cotton and hides and skins are from Korea Customs Service, [www.customs.go.kr](http://www.customs.go.kr).

Table 2.g lists the United State's share of major Korean import products and the major competitors for each of these products. This table shows that the United States commands a major share of exports to Korea for a number of commodities, including oranges, lemons, grape juice, processed tomato products, raisins, grapefruit, lettuce, almonds, walnuts, pistachios, hides and skins, whey, cotton, hay, and flowers. The major competitors for orange juice include Brazil (orange juice is a minor product for the California orange industry and is shipped to Korea mainly from Florida). Chile is the major competitor for table grapes and wine (next to France). China is the major competitor for many fresh products, including strawberries, lettuce, garlic, red peppers, rice, flowers, and processed tomato products. Spain is the main competitor for grape juice and olives. New Zealand is a major competitor for kiwis, beef, and dairy products and Australia is the major competitor for beef, dairy products, and cotton. Finally, Iran is the major competitor for pistachios and Vietnam for walnuts. An FTA would allow California suppliers either to have a price advantage relative to other suppliers or to keep up with suppliers that have or may soon have FTAs with Korea.

Among the competitors we have listed, Chile is the first country with which Korea has established a bilateral trade agreement. The Korea-Chile FTA was signed in 2002 and came into force on April 1, 2004. Since the FTA was completed, Chile has had an advantage over other competitors and some exports from California compete with Chilean exports in Korean markets. Table 2.h uses Korean import data to examine the relative positions of the United States and Chile as import suppliers to Korea. Among the products of some importance to California, we consider only the markets in which Chile represents some positive market shares in Korea. The table includes data for

2003 as a representation of the pre-FTA period. This table shows that the United States commands a major share of exports to Korea for a number of commodities. Chile also is the main export supplier of table grapes to Korea (which are available in the off-season relative to both Korean and Californian grapes) and a significant supplier of kiwis and wine. Further, our data indicate that, after the FTA, Chilean imports grew substantially for kiwis, grape juice, lemons, processed tomatoes, wine, and whey.

Imports also compete with domestic production. Table 2.i shows import quantities relative to Korean production for each commodity. The blank cells in the table indicate that either data are not available or production is almost zero. For many items, such as olives, pineapples, and bananas, there is no domestic production. Despite having no domestic industry to protect from directly competitive imports, Korea continues to maintain high tariffs, often more than 30%. These tariffs apply to lemons, grape juice, cherries, processed tomato products, raisins, pineapple, bananas, kiwis, grapefruit, almonds, walnuts, pistachios, and wine. Import tariffs for other products are also high, about 45% in most cases. Given the sizable domestic production, import quantities remain very small relative to domestic supplies. This is the case for table grapes, strawberries, apples, lettuce, and rice. Only a few products, such as oranges, beef, some dairy products, and hay, have significant imports when large quantities of domestic production are also available. In those cases, imports are able to compete with domestic supplies despite sizable tariffs because costs of production in the domestic industry are high. Finally, fresh peaches and pears deserve attention. Table 2.i indicates that Korea has a sizable fresh peach and pear market but almost no imports enter the country. Note that the Korea-Chile FTA excludes fresh pears (as well as fresh apples) from preferential tariffs.



**Table 2.g. Import Value Share of the United States and Its Major Competitors in Korea for Selected Years**

|                      | Import Value Share of U.S. |      |      | Share of Competing Countries               |                                            |
|----------------------|----------------------------|------|------|--------------------------------------------|--------------------------------------------|
|                      | 2002                       | 2005 | 2007 | 2005                                       | 2007                                       |
| Oranges, fresh       | 97%                        | 96%  | 93%  |                                            |                                            |
| Oranges, juice       | 26%                        | 25%  | 24%  | Brazil 72%                                 | Brazil 60%                                 |
| Lemons               | 86%                        | 75%  | 77%  | Chile 9%, Italy 7%                         | Chile 5%, Italy 10%                        |
| Table grapes         | 17%                        | 19%  | 18%  | Chile 81%                                  | Chile 82%                                  |
| Grapes, juice        | 75%                        | 43%  | 47%  | Spain 36%                                  | Spain 26%                                  |
| Cherries             | 92%                        | 80%  | 91%  |                                            |                                            |
| Strawberries         | 29%                        | 31%  | 26%  | China 50%, Italy 9%                        | China 57%, Italy 3%                        |
| Tomatoes, processed  | 47%                        | 46%  | 41%  | China 25%, Italy 12%                       | China 26%, Italy 15%                       |
| Raisins              | 94%                        | 92%  | 94%  |                                            |                                            |
| Olives               | 3%                         | 1%   | 1%   | Spain 76%, Italy 14%                       | Spain 75%, Italy 18%                       |
| Apples               | 20%                        | 0%   | 0%   | China 50%, Chile 2%                        | China 50%, Chile 2%                        |
| Pineapples           | 2%                         | 1%   | 0%   | Philippines 86%                            | Philippines 98%                            |
| Kiwis                | 3%                         | 5%   | 8%   | New Zealand 80%,<br>Chile 15%              | New Zealand 77%,<br>Chile 14%              |
| Grapefruit           | 57%                        | 59%  | 74%  | Japan 26%                                  | Japan 12%                                  |
| Peaches, processed   | 0%                         | 1%   | 0%   | South Africa 32%,<br>Greece 28%, China 22% | South Africa 20%,<br>Greece 14%, China 44% |
| Peaches, juice       | 86%                        | 80%  | 83%  | China 16%                                  | China 8%                                   |
| Pears, fresh         | 0%                         | 66%  | 83%  | Canada 34%                                 |                                            |
| Pears, processed     | 5%                         | 14%  | 1%   | China 35%, Spain 23%,<br>South Africa 22%  | China 48%, Spain 18%,<br>South Africa 12%  |
| Prunes, dried        | 100%                       | 100% | 98%  |                                            |                                            |
| Lettuce              | 30%                        | 73%  | 48%  | China 22%                                  | China 52%                                  |
| Garlic               | 0%                         | 0%   | 0%   | China 100%                                 | China 100%                                 |
| Red peppers          | 1%                         | 0%   | 0%   | China 96%                                  | China 95%                                  |
| Almonds              | 98%                        | 100% | 100% |                                            |                                            |
| Walnuts              | 95%                        | 87%  | 91%  | Vietnam 13%                                | Vietnam 9%                                 |
| Pistachios           | 98%                        | 68%  | 59%  | Iran 32%                                   | Iran 37%                                   |
| Beef                 | 69%                        | 1%   | 9%   | Australia 73%,<br>New Zealand 24%          | Australia 73%,<br>New Zealand 16%          |
| Hides and skins      | 88%                        | 88%  | 89%  |                                            |                                            |
| Rice                 | 39%                        | 28%  | 31%  | China 65%, Thailand 7%                     | China 61%, Thailand 8%                     |
| Wine                 | 9%                         | 12%  | 10%  | France 37%, Chile 18%                      | France 45%, Chile 15%                      |
| Cotton               | 31%                        | 48%  | 40%  | Australia 24%                              | Australia 13%                              |
| Hay                  | 78%                        | 79%  | 82%  |                                            |                                            |
| Flowers              | 1%                         | 2%   | 1%   | China 25%, Taiwan 24%,<br>Netherlands 18%  | China 31%, Taiwan 30%,<br>Netherlands 18%  |
| Total dairy products | 19%                        | 18%  | 19%  | New Zealand 22%,<br>Australia 20%          | New Zealand 4%,<br>Australia 15%           |

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**Table 2.g. Import Value Share of the United States and Its Major Competitors in Korea for Selected Years (cont.)**

|                   | Import Value Share of U.S. |      |      | Share of Competing Countries                                       |                                                                    |
|-------------------|----------------------------|------|------|--------------------------------------------------------------------|--------------------------------------------------------------------|
|                   | 2002                       | 2005 | 2007 | 2005                                                               | 2007                                                               |
| Skim milk powder  | 0%                         | 0%   | 3%   | Australia 61%,<br>New Zealand 19%                                  | Australia 61%,<br>New Zealand 17%                                  |
| Whole milk powder | 0%                         | 0%   | 0%   | Australia 85%,<br>New Zealand 6%                                   | Australia 94%,<br>Germany 5%                                       |
| Butter            | 6%                         | 1%   | 0%   | Australia 60%,<br>New Zealand 29%                                  | Australia 45%,<br>New Zealand 34%                                  |
| Whey              | 39%                        | 61%  | 46%  | France 9%, Australia 9%                                            | France 11%, Chile 7%                                               |
| Cheese            | 17%                        | 18%  | 18%  | New Zealand 27%,<br>Australia 22%                                  | New Zealand 26%,<br>Australia 18%                                  |
| Formulated butter | 0%                         | 0%   | 0%   | Belgium 32%, Australia<br>28%, New Zealand 17%,<br>Netherlands 17% | Belgium 38%, Australia<br>26%, New Zealand 13%,<br>Netherlands 16% |
| Mixed milk powder | 2%                         | 7%   | 3%   | Netherlands 29%,<br>Canada 18%,<br>France 10%                      | Netherlands 42%,<br>Canada 19%,<br>France 11%                      |
| Infant formula    | 35%                        | 11%  | 1%   | New Zealand 67%                                                    | New Zealand 57%                                                    |
| Casein            | 1%                         | 0%   | 0%   | New Zealand 49%,<br>France 17%                                     | New Zealand 55%,<br>France 15%                                     |

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

Table 2.h. Total Korean Imports and Import Shares of the United States and Chile by Commodity before and after the Korea-Chile FTA in 2004

|                       | 2003             |            | 2005             |            | 2006             |            | 2007             |            |
|-----------------------|------------------|------------|------------------|------------|------------------|------------|------------------|------------|
|                       | Total in \$1,000 | U.S. Share | Total in \$1,000 | U.S. Share | Total in \$1,000 | U.S. Share | Total in \$1,000 | U.S. Share |
| Oranges, fresh        | 112,631          | 97%        | 120,377          | 96%        | 123,064          | 95%        | 108,013          | 93%        |
| Lemons                | 5,096            | 86%        | 6,691            | 75%        | 8,384            | 75%        | 11,489           | 77%        |
| Table grapes          | 17,732           | 23%        | 23,616           | 19%        | 32,600           | 15%        | 58,029           | 18%        |
| Kiwis                 | 22,528           | 12%        | 53,313           | 5%         | 62,736           | 8%         | 69,831           | 8%         |
| Grape juice           | 17,628           | 60%        | 23,829           | 43%        | 21,226           | 42%        | 21,653           | 47%        |
| Strawberries          | 3,565            | 38%        | 5,128            | 31%        | 7,540            | 32%        | 9,838            | 26%        |
| Tomatoes, processed   | 24,772           | 52%        | 29,800           | 46%        | 31,803           | 46%        | 36,190           | 41%        |
| Peaches, processed    | 6,542            | 0%         | 6,365            | 1%         | 7,787            | 1%         | 9,023            | 0%         |
| Wine                  | 67,150           | 11%        | 83,877           | 12%        | 103,758          | 12%        | 167,286          | 10%        |
| Flowers               | 31,082           | 1%         | 49,767           | 2%         | 59,170           | 2%         | 67,905           | 1%         |
| Dairy products, total | 182,941          | 21%        | 320,070          | 18%        | 330,196          | 20%        | 438,387          | 19%        |
| Whey                  | 25,035           | 43%        | 32,786           | 61%        | 50,449           | 56%        | 67,083           | 46%        |

Note: We include only the commodities that are imported from Chile in some significant amount. For example, Chile does not export tree nuts or animal products (except for whey).  
 Source: All data are from Korea Agricultural Trade Information, www.kati.net.

**Table 2.i. Korean Agricultural Imports and Domestic Production by Commodity in Metric Tons: 2005–2007**

|                              | 2005    |            | 2006    |            | 2007    |            |
|------------------------------|---------|------------|---------|------------|---------|------------|
|                              | Imports | Production | Imports | Production | Imports | Production |
| <b>Fruits and Vegetables</b> |         |            |         |            |         |            |
| Oranges, fresh               | 123,048 | 638,000    | 124,495 | 620,000    | 77,671  | 706,000    |
| Oranges, juice               | 38,446  |            | 34,158  |            | 32,872  |            |
| Lemons                       | 5,171   |            | 5,998   |            | 6,249   |            |
| Table grapes                 | 13,353  | 381,436    | 17,291  | 330,000    | 27,802  | 307,000    |
| Grapes, juice                | 16,625  |            | 14,643  |            | 14,172  |            |
| Cherries                     | 2,845   |            | 2,782   |            | 5,745   |            |
| Strawberries                 | 4,585   |            | 5,580   |            | 7,375   | 190,000    |
| Tomatoes, processed          | 39,850  |            | 41,899  |            | 43,157  |            |
| Raisins                      | 3,208   |            | 3,470   |            | 3,561   |            |
| Apples                       | 6,624   | 368,000    | 6,571   | 408,000    | 7,743   | 436,000    |
| Pineapple                    | 65,678  |            | 69,628  |            | 86,570  |            |
| Bananas                      | 253,974 |            | 280,245 |            | 308,252 |            |
| Kiwis                        | 26,751  |            | 32,112  |            | 34,658  |            |
| Grapefruit                   | 2,045   |            | 2,745   |            | 6,834   |            |
| Peaches, fresh               | 0       | 223,701    | 0       | 194,000    | 0       | 209,000    |
| Peaches, processed           | 7,196   |            | 8,561   |            | 9,363   |            |
| Peaches, juice               | 894     |            | 591     |            | 590     |            |
| Pears, fresh                 | 44      | 443,000    | 33      | 432,000    | 38      | 467,000    |
| Pears, processed             | 437     |            | 415     |            | 353     |            |
| Plums, fresh                 | 0       | 75,963     | 0       | 64,419     | 0       |            |
| Prunes, dried                | 171     |            | 542     |            | 610     |            |
| Lettuce                      | 1,262   | 204,786    | 3,357   |            | 5,667   |            |
| Garlic                       | 42,152  | 374,980    | 43,990  | 331,379    | 51,013  | 348,000    |
| Red peppers                  | 61,000  | 161,000    | 73,000  | 117,000    | 28,000  | 160,000    |
| Onions                       | 41,000  | 1,023,000  | 61,000  | 890,000    | 26,000  | 1,213,000  |
| <b>Tree Nuts</b>             |         |            |         |            |         |            |
| Almonds                      | 5,011   |            | 5,262   |            | 6,071   |            |
| Walnuts                      | 4,483   |            | 8,113   |            | 6,935   |            |
| Pistachios                   | 473     |            | 430     |            | 435     |            |
| <b>Livestock Products</b>    |         |            |         |            |         |            |
| Beef                         | 196,363 | 152,400    | 236,338 | 158,200    | 244,602 | 171,600    |
| Hides and skins              | 181,017 |            | 157,606 |            | 149,410 |            |

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**Table 2.i. Korean Agricultural Imports and Domestic Production by Commodity in Metric Tons: 2005–2007 (cont.)**

|                       | 2005    |            | 2006    |            | 2007    |            |
|-----------------------|---------|------------|---------|------------|---------|------------|
|                       | Imports | Production | Imports | Production | Imports | Production |
| <b>Dairy Products</b> |         |            |         |            |         |            |
| TOTAL                 | 149,045 |            | 154,503 |            | 157,515 |            |
| Skim milk powder      | 6,147   | 23,677     | 6,711   | 18,318     | 4,928   |            |
| Whole milk powder     | 1,743   | 4,762      | 1,992   | 4,020      | 1,136   |            |
| Butter                | 5,047   | 4,013      | 3,206   | 3,891      | 4,096   |            |
| Whey                  | 40,319  |            | 52,511  |            | 46,792  |            |
| Cheese                | 44,032  | 23,724     | 44,032  | 27,929     | 49,471  |            |
| Formulated butter     | 19,371  |            | 19,397  |            | 21,393  |            |
| Mixed milk powder     | 28,708  |            | 26,527  |            | 31,723  |            |
| Infant formula        | 3,179   | 15,204     | 2,684   | 12,766     | 2,372   |            |
| Casein                | 6,089   |            | 6,418   |            | 7,226   |            |
| <b>Other</b>          |         |            |         |            |         |            |
| Rice                  | 133,486 | 5,000,000  | 255,042 | 4,768,000  | 264,739 | 4,680,000  |
| Wine                  | 21,046  |            | 23,715  |            | 33,389  |            |
| Cotton                | 278,288 |            | 216,268 |            | 226,409 |            |
| Hay                   | 700,996 | 3,432,000  | 699,431 |            | 906,104 |            |
| Flowers               | 36,053  | 7,522 ha   | 39,617  |            | 40,695  |            |

Sources: All import data except for cotton and hides and skins are from Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net). Data for cotton and hides and skins are from Korea Customs Service, [www.customs.go.kr](http://www.customs.go.kr). Production data are from a variety of sources. Hay production is from Korea Dairy Committee, [www.dairy.or.kr](http://www.dairy.or.kr). Production data for table grapes, strawberries, apples, garlic, and red peppers are from National Agricultural Products Quality Management Service, [www.naqs.go.kr](http://www.naqs.go.kr). Data for dairy production is from various issues of the *Dairy Year Book* published by the Korean Ministry of Agriculture, Forestry, and Fishery. All other production data are from Korea Rural Economic Institute, [www.krei.re.kr](http://www.krei.re.kr).



## Part 3. The KORUS FTA and Broad Agricultural Access Improvements

This section considers the pre-existing pattern of agricultural tariffs and then summarizes the changes in market access proposed in the KORUS FTA on a commodity-by-commodity basis. We cannot list the full set of access changes given the thousands of tariff lines that are affected.

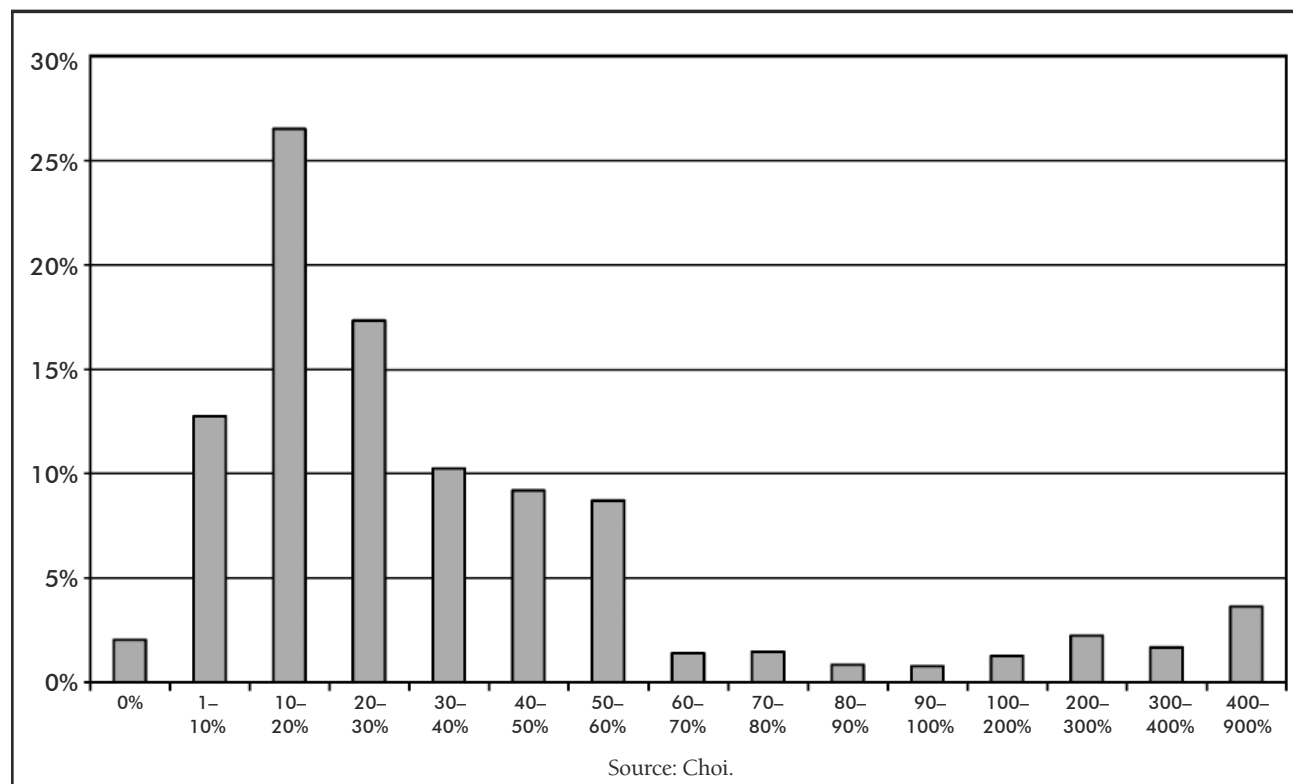
### 3.1. Pre-existing Agricultural Access Barriers

Korea maintains high tariffs on agricultural goods. The average agricultural tariff in Korea is 62% (Choi), which is considerably higher than the average applied tariff of 11.2% on manufactured goods (this is still high compared to an average U.S. applied tariff of 7%). Of all Korea's agricultural tariffs, only about 2% are zero and only about 15% are less than 10% (Figure 2). At the other end of the spectrum, about 10% of the tariffs exceed 100% and about 4% exceed

400%. The bulk of the tariffs—more than 80% of all tariff lines—fall between 11% and 60% (Figure 2). For comparison, the average agricultural tariff applied by the United States is 12% with many tariff lines already set at zero. Even with low or zero U.S. tariffs for most agricultural products, imports from Korea have been negligible.

Some of the highest Korean tariffs are for specialty agricultural products that are important in Korean food. For example, the sesame tariff is 630%, the pepper tariff is 270%, and the garlic tariff is 360%. These products are important for preparation of Korean specialty foods and face potential import competition, especially from China. Tariffs for meat products, although still very high by international standards, are much lower. The tariff for beef is 40% and the tariff for chicken is 18% (Choi). In many cases, major import commodities from California face tariffs of more than

Figure 2. Percentage Share of Korean Agricultural Tariff Lines by Tariff Rate Bracket



30%. In a number of cases, such as beef, citrus, tree nuts, and others, significant exports are able to penetrate the Korean market despite high tariffs.

In addition to high tariffs, imports of products important for Korean agriculture are often restricted by imposition of quotas. Table 3.a shows tariff rate quota (TRQ) quantities (absolute quotas for rice) for selected commodities for each year since the beginning of implementation of the Uruguay Round WTO agreement in 1995. (For tariff rates for these commodities, see Table A-1 in the Appendix.) We will discuss the dairy quotas in more detail. Here we only note that orange imports far exceeded the access available at the within-quota tariff rate and, according to Korean data, all imports pay the duty of 50%. Expanding or removing these quotas and lowering the tariffs, especially on a bilateral basis, would create substantial opportunities for California exports to Korea. For example, a lower tariff for California garlic while China continues to face a 360% tariff would create a substantial advantage for California. We consider such cases in more detail in Part 4.

Lower tariffs and fewer other barriers would allow important export expansions for citrus products, tree nuts, dairy products, beef, grapes and grape products, stone fruits, strawberries, fresh and processed vegetables, flowers and ornamental horticulture, processed tomato products, olives, hides and skins, cotton, and hay.

### **3.2. Overview of the Market Access Schedule under the KORUS FTA**

Korea already has, in practice, an almost open border for many field crops other than rice. But it has erected high trade barriers for many specialty crops, including vegetables, fruits, and animal products, that are important in California agriculture. (Detailed commodity-specific tariff rates are provided in Table A-1 in the Appendix.) The KORUS FTA would reduce tariffs rapidly and create access opportunities for many specialty products currently exported to Korea under relatively high tariffs. For other products, tariffs are reduced only gradually and TRQs are used to expand access quantitatively. For some politically

sensitive commodities, the agreement establishes safeguards to protect Korean industries during the transition.

Table 3.b shows the major market access categories, each of which includes important California agricultural products and commodities. The table indicates that, with the exception of rice, there is substantial potential for new market access for many California agricultural products in the Korean market. Market access is improved through four broadly defined mechanisms: immediate opening, simple tariff phase-outs, safeguard quantities or duty phase-outs, and expansion of duty-free tariff rate quantities. For some sensitive products, Korea uses safeguard and TRQ approaches. While both of these approaches use quantity restrictions, they differ in the treatment of over-quota quantity (or the safeguard quantity). Furthermore, how the quantity restrictions change over time differs by product. In the next section, we provide more detailed information on this. In Table A-2 in the Appendix we provide the tariff schedules that are effective under the Korea-Chile FTA, which can be compared with the schedules under the KORUS FTA.



**Table 3.a. Korean Quotas or Tariff Rate Quotas and Actual Imports by Tariff Tier: Dairy Products, Oranges, and Rice for 1995–2004**

| Year                     | Minimum Market Access<br>(tons) |          |       | Actual Imports by Tariff Rate<br>(tons) |                  |       |       |
|--------------------------|---------------------------------|----------|-------|-----------------------------------------|------------------|-------|-------|
|                          | Initial                         | Increase | Total | Lower<br>Tariff                         | Higher<br>Tariff | Other | Total |
| <b>Skim Milk Powder</b>  |                                 |          |       |                                         |                  |       |       |
| 2004                     | 1,034                           | –        | 1,034 | 710                                     | 3,680            | –     | 4,389 |
| 2003                     | 988                             | –        | 988   | 888                                     | 3,664            | 8     | 4,560 |
| 2002                     | 942                             | –        | 942   | 118                                     | 4,043            | 0     | 4,160 |
| 2001                     | 896                             | –        | 896   | 1,515                                   | 3,734            | 12    | 5,260 |
| 2000                     | 806                             | 1,195    | 2,000 | 143                                     | 2,859            | 2     | 3,004 |
| 1999                     | 805                             | –        | 805   | 805                                     | 2,037            | 0     | 2,842 |
| 1998                     | 759                             | –        | 759   | 916                                     | 1,732            | –     | 2,648 |
| 1997                     | 713                             | –        | 713   | 603                                     | 1,327            | 0     | 1,930 |
| 1996                     | 667                             | –        | 667   | 649                                     | –                | –     | 649   |
| 1995                     | 621                             | –        | 621   | 621                                     | –                | –     | 621   |
| <b>Whole Milk Powder</b> |                                 |          |       |                                         |                  |       |       |
| 2004                     | 573                             | –        | 573   | 99                                      | 1,412            | –     | 1,512 |
| 2003                     | 548                             | –        | 548   | 447                                     | 1,212            | 1     | 1,660 |
| 2002                     | 522                             | –        | 522   | –                                       | 1,074            | –     | 1,074 |
| 2001                     | 497                             | –        | 497   | 407                                     | 1,092            | 40    | 1,539 |
| 2000                     | 471                             | –        | 471   | 180                                     | 512              | –     | 692   |
| 1999                     | 446                             | –        | 446   | 326                                     | 135              | –     | 461   |
| 1998                     | 420                             | –        | 420   | 75                                      | 119              | –     | 194   |
| 1997                     | 395                             | –        | 395   | 320                                     | 121              | –     | 441   |
| 1996                     | 369                             | –        | 369   | 16                                      | –                | –     | 16    |
| 1995                     | 344                             | –        | 344   | 344                                     | –                | –     | 344   |
| <b>Evaporated Milk</b>   |                                 |          |       |                                         |                  |       |       |
| 2004                     | 130                             | –        | 130   | –                                       | 190              | –     | 190   |
| 2003                     | 124                             | –        | 124   | –                                       | 53               | –     | 53    |
| 2002                     | 118                             | –        | 118   | –                                       | 11               | 0     | 11    |
| 2001                     | 113                             | –        | 113   | –                                       | 48               | 0     | 49    |
| 2000                     | 107                             | –        | 107   | 19                                      | 17               | 1     | 37    |
| 1999                     | 101                             | –        | 101   | –                                       | –                | 0     | 0     |
| 1998                     | 95                              | –        | 95    | –                                       | –                | –     | –     |
| 1997                     | 90                              | –        | 90    | –                                       | 2                | –     | 2     |
| 1996                     | 84                              | –        | 84    | 50                                      | –                | –     | 50    |
| 1995                     | 78                              | –        | 78    | 78                                      | –                | –     | 78    |

Continued on following page

**Table 3.a. Korean Quotas or Tariff Rate Quotas and Actual Imports by Tariff Tier:  
Dairy Products, Oranges, and Rice for 1995–2004 (cont.)**

| Year           | Minimum Market Access<br>(tons) |          |        | Actual Imports by Tariff Rate<br>(tons) |                  |       |        |
|----------------|---------------------------------|----------|--------|-----------------------------------------|------------------|-------|--------|
|                | Initial                         | Increase | Total  | Lower<br>Tariff                         | Higher<br>Tariff | Other | Total  |
| <b>Whey</b>    |                                 |          |        |                                         |                  |       |        |
| 2004           | 54,233                          | –        | 54,233 | 35,740                                  | 121              | –     | 35,861 |
| 2003           | 50,763                          | –        | 50,763 | 39,202                                  | 320              | 61    | 39,582 |
| 2002           | 47,292                          | –        | 47,292 | 35,199                                  | 153              | 1     | 35,353 |
| 2001           | 43,822                          | –        | 43,822 | 38,457                                  | 142              | 6     | 38,604 |
| 2000           | 40,351                          | –        | 40,351 | 38,796                                  | 86               | 2     | 38,884 |
| 1999           | 36,881                          | –        | 36,881 | 30,544                                  | 40               | 35    | 30,619 |
| 1998           | 33,411                          | –        | 33,411 | 23,976                                  | 30               | 9     | 24,015 |
| 1997           | 29,941                          | –        | 29,941 | 21,256                                  | 11               | 1,713 | 22,981 |
| 1996           | 26,470                          | –        | 26,470 | 22,973                                  | –                | –     | 22,973 |
| 1995           | 23,000                          | –        | 23,000 | 22,250                                  | –                | –     | 22,250 |
| <b>Butter</b>  |                                 |          |        |                                         |                  |       |        |
| 2004           | 420                             | –        | 420    | 420                                     | 1,272            | 193   | 1,885  |
| 2003           | 401                             | –        | 401    | 401                                     | 725              | 171   | 1,296  |
| 2002           | 382                             | –        | 382    | 382                                     | 486              | 178   | 1,046  |
| 2001           | 363                             | –        | 363    | 363                                     | 554              | 154   | 1,071  |
| 2000           | 345                             | –        | 345    | 345                                     | 431              | 156   | 931    |
| 1999           | 326                             | –        | 326    | 326                                     | 443              | 127   | 896    |
| 1998           | 307                             | –        | 307    | 307                                     | 131              | 61    | 499    |
| 1997           | 288                             | –        | 288    | 288                                     | 862              | 2     | 1,152  |
| 1996           | 269                             | –        | 269    | 268                                     | –                | –     | 268    |
| 1995           | 250                             | –        | 250    | 250                                     | –                | –     | 250    |
| <b>Lactose</b> |                                 |          |        |                                         |                  |       |        |
| 2004           | 9,400                           | 10,600   | 20,000 | 14,509                                  | 25               | 138   | 14,672 |
| 2003           | 8,982                           | 8,018    | 17,000 | 15,647                                  | 9                | 115   | 15,770 |
| 2002           | 8,565                           | 8,436    | 17,000 | 15,395                                  | 10               | 211   | 15,615 |
| 2001           | 8,147                           | 9,453    | 17,600 | 14,104                                  | 374              | 247   | 14,725 |
| 2000           | 7,729                           | 8,471    | 16,200 | 14,755                                  | 68               | 285   | 15,108 |
| 1999           | 7,311                           | 4,689    | 12,000 | 12,062                                  | 136              | 265   | 12,463 |
| 1998           | 6,893                           | 5,107    | 12,000 | 10,641                                  | 100              | –     | 10,740 |
| 1997           | 6,476                           | 7,524    | 14,000 | 11,332                                  | 7                | 425   | 11,763 |
| 1996           | 6,058                           | 7,942    | 14,000 | 11,194                                  | –                | –     | 11,194 |
| 1995           | 5,640                           | 9,360    | 15,000 | 9,918                                   | –                | –     | 9,918  |

Continued on following page

**Table 3.a. Korean Quotas or Tariff Rate Quotas and Actual Imports by Tariff Tier: Dairy Products, Oranges, and Rice for 1995–2004 (cont.)**

| Year                       | Minimum Market Access<br>(tons) |          |         | Actual Imports by Tariff Rate<br>(tons) |                  |        |         |
|----------------------------|---------------------------------|----------|---------|-----------------------------------------|------------------|--------|---------|
|                            | Initial                         | Increase | Total   | Lower<br>Tariff                         | Higher<br>Tariff | Other  | Total   |
| <b>Oranges</b>             |                                 |          |         |                                         |                  |        |         |
| 2004                       | 57,017                          | –        | 57,017  | 247                                     | 102,557          | 51,641 | 154,444 |
| 2003                       | 50,682                          | –        | 50,682  | 50,497                                  | 94,151           | 233    | 144,881 |
| 2002                       | 45,051                          | –        | 45,051  | 44,059                                  | 58,404           | 191    | 102,654 |
| 2001                       | 40,045                          | –        | 40,045  | 31,993                                  | 58,807           | 179    | 90,980  |
| 2000                       | 38,343                          | –        | 38,343  | 31,215                                  | 67,504           | 297    | 99,017  |
| 1999                       | 33,674                          | –        | 33,674  | 22,269                                  | 6,811            | 1,773  | 30,853  |
| 1998                       | 29,006                          | –        | 29,006  | 27,177                                  | 9,388            | 94     | 36,659  |
| 1997                       | 24,337                          | –        | 24,337  | 24,681                                  | 13,671           | 2      | 38,354  |
| 1996                       | 19,669                          | –        | 19,669  | 19,669                                  | –                | –      | 19,669  |
| 1995                       | 15,000                          | –        | 15,000  | 14,986                                  | –                | –      | 14,986  |
| <b>Rice (nonglutinous)</b> |                                 |          |         |                                         |                  |        |         |
| 2004                       | 205,228                         | –        | 205,228 | 199,004                                 | –                | 39,065 | 238,070 |
| 2003                       | 179,575                         | –        | 179,575 | 143,154                                 | –                | 24,523 | 167,677 |
| 2002                       | 153,921                         | –        | 153,921 | 151,139                                 | –                | 21,869 | 173,008 |
| 2001                       | 128,268                         | –        | 128,268 | 93,113                                  | –                | 22,740 | 115,853 |
| 2000                       | 102,614                         | –        | 102,614 | 172,044                                 | –                | 16,487 | 188,532 |
| 1999                       | 102,614                         | –        | 102,614 | 155,659                                 | –                | 10,803 | 166,462 |
| 1998                       | 89,787                          | –        | 89,787  | 43,969                                  | –                | 22,882 | 66,850  |
| 1997                       | 76,961                          | –        | 76,961  | 8,000                                   | –                | 21,181 | 29,181  |
| 1996                       | 64,134                          | –        | 64,134  | 64,134                                  | –                | –      | 64,134  |
| 1995                       | 51,307                          | –        | 51,307  | 51,307                                  | –                | –      | 51,307  |

Note: Dash means not applicable.

Source: Korea Rural Economic Institute, [www.krei.re.kr](http://www.krei.re.kr).

**Table 3.b. Summary of Access Improvements for Important Agricultural Products by General Market Access Category**

|                                                                             |                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Market access schedule                                                      | Commodities                                                                                                                                                                                                                                                                    |
| Excluded from the agreement                                                 | Rice                                                                                                                                                                                                                                                                           |
| Immediate unrestricted opening                                              | Fresh asparagus, cabbage, celery, fresh cucumbers, eggplant, fresh shallots, spinach (fresh and frozen), tomato paste, cherries, olives, raisins, frozen orange concentrate, grape juice, almonds, pistachios, coffee, wine, cattle hides and skins, live livestock, feed whey |
| Tariff phase-out                                                            |                                                                                                                                                                                                                                                                                |
| Two years                                                                   | Avocados, lemons, dried plums                                                                                                                                                                                                                                                  |
| Four years                                                                  | Off-season table grapes                                                                                                                                                                                                                                                        |
| Five years                                                                  | Chinese cabbage, carrots (fresh and frozen), cauliflower, broccoli, peas, beans (excluding selected varieties), dried mushrooms (excluding selected varieties), frozen potatoes, tomato juice, grapefruit, frozen strawberries, orange juice, various fruit juices             |
| Six years                                                                   | Walnuts (shelled), off-season fresh oranges                                                                                                                                                                                                                                    |
| Seven years                                                                 | Fresh tomatoes, ice cream, apricots                                                                                                                                                                                                                                            |
| Nine years                                                                  | Fresh strawberries                                                                                                                                                                                                                                                             |
| Ten years                                                                   | Artichokes, brussels sprouts, preserved cucumbers, lettuce, fresh mushrooms (excluding selected varieties), peaches, pears (excluding Asian pears), dates, persimmons, tangerine juice                                                                                         |
| Twelve years                                                                | Chicken meat, frozen onions, watermelon, various berries                                                                                                                                                                                                                       |
| Fifteen years                                                               | Korean citrus, kiwi fruit, walnuts (in-shell), chestnuts, pine nuts, oak mushrooms (fresh and dried), beef offal                                                                                                                                                               |
| Seventeen years                                                             | In-season table grapes                                                                                                                                                                                                                                                         |
| Twenty years                                                                | Asian pears                                                                                                                                                                                                                                                                    |
| Safeguard quantity and duty applied                                         | Garlic, onions, peppers, beans (Urd, Adzudi, Mung), sweet potatoes, ginger, apples, beef, pork                                                                                                                                                                                 |
| Duty-free TRQ expands over time with or without over-quota tariff phase-out | In-season fresh oranges, skim milk powder, cheese, whole milk powder, condensed and evaporated milk, food whey, butter                                                                                                                                                         |

Source: Office of the United States Trade Representative, "KORUS Agricultural Tariff Schedule for the Republic of Korea," [www.ustr.gov/assets/Trade\\_Agreements/Bilateral/Republic\\_of\\_Korea\\_FTA/Draft\\_Text/asset\\_upload\\_file1\\_12756.pdf](http://www.ustr.gov/assets/Trade_Agreements/Bilateral/Republic_of_Korea_FTA/Draft_Text/asset_upload_file1_12756.pdf).

## Part 4. Commodity-specific Analysis of Market Access Improvements

California is an important supplier of many agricultural products, including fruits, tree nuts, vegetables, rice, cotton, beef and beef related products, and dairy products. In previous parts of this report, we have provided an overview of changes in trade barriers that would be achieved under the KORUS FTA for California export commodities. However, some details were necessarily deferred given that import access, even for seemingly similar products, is often differentiated depending on the commodity classification used in trade. Our purpose here is to supplement the information previously provided by adding more detail on a product-by-product basis. We identify the products with their

ten-digit HS codes and provide information on access improvements specified in the KORUS FTA, recent imports, and major exporters.

### 4.1. Citrus Fruit

Korea has been a major market for fresh oranges and other citrus fruit from California despite a current duty of 50%. Table 4.a provides detailed information on how various citrus imports will enter the country under the KORUS FTA. Off-season oranges (March 1 through August 31) will receive an immediate tariff cut to 30%, which will then decline to zero over six years. In-season imports (September 1 through February 28)

**Table 4.a. Market Access Improvements for Citrus Fruit under the KORUS FTA**

| Citrus Product                                 | Base Tariff | Market Opening Schedule                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oranges, fresh <sup>1</sup>                    | 50%         | Off season (March 1 through August 31): immediate tariff reduction to 30% and then phased out in six years.<br>In season (September 1 through February 28): An immediate duty-free TRQ of 2,500 metric tons applies. From year two, the duty-free TRQ grows at a compounded 3% rate in perpetuity. Above the TRQ amount, a tariff of 50% applies. |
| Korean citrus and other mandarins <sup>2</sup> | 144%        | Fifteen years                                                                                                                                                                                                                                                                                                                                     |
| Lemons and limes                               | 30%         | Two years                                                                                                                                                                                                                                                                                                                                         |
| Grapefruit                                     | 30%         | Five years                                                                                                                                                                                                                                                                                                                                        |
| Orange juice, frozen concentrated              | 54%         | Immediate                                                                                                                                                                                                                                                                                                                                         |
| Grapefruit juice                               | 30%         | Ten years                                                                                                                                                                                                                                                                                                                                         |
| Lemon juice                                    | 50%         | Ten years <sup>3</sup>                                                                                                                                                                                                                                                                                                                            |
| Lime juice                                     | 50%         | Five years                                                                                                                                                                                                                                                                                                                                        |

<sup>1</sup> The HSK (Harmonized Schedule of Korea) provision for this category is 0805100000 and excludes temple oranges, mandarins (including tangerines and Satsuma oranges), clementines, Wilkings, and similar citrus hybrids.

<sup>2</sup> The Korean citrus (0805201000) is similar to the Satsuma variety of oranges.

<sup>3</sup> This schedule applies to lemon juice with HS code 2009391000. Lemon juice with a brix level of less than twenty (HS code of 2009311000) has a five-year phase-out. However, Korea imports mostly (more than 90%) the former type.

Source: Office of the United States Trade Representative, "KORUS Agricultural Tariff Schedule for the Republic of Korea," [www.ustr.gov/assets/Trade\\_Agreements/Bilateral/Republic\\_of\\_Korea\\_FTA/Draft\\_Text/asset\\_upload\\_file1\\_12756.pdf](http://www.ustr.gov/assets/Trade_Agreements/Bilateral/Republic_of_Korea_FTA/Draft_Text/asset_upload_file1_12756.pdf).

will be subject to tight TRQs. Beginning with a duty-free TRQ of 2,500 metric tons (MT) in the first year, the TRQ grows each year at a 3% compounded rate in perpetuity. An over-quota tariff of 50% applies to any imports in excess of the TRQ amount. The schedule for in-season imports specified under the KORUS FTA is indeed very restrictive given that the first-year TRQ of 2,500 MT is equivalent to only 0.4% of the citrus fruit produced in Korea in 2007.

The limited access improvement for in-season oranges is designed to protect a domestic industry that produces a citrus fruit that is similar to the mandarin orange and almost identical to a Satsuma variety (this kind is referred to as Korean citrus in the agreement). This Korean citrus fruit is easy to peel, often quite sweet, and nearly seedless. Korea produces more than 600,000 MT of this Korean citrus fruit on Jeju Island, which is located just off the southern tip of the peninsula. During the marketing season, imported oranges are clear substitutes for Korean citrus. In addition to limits on imports of fresh oranges, the Korean citrus industry is protected by the 144% tariff imposed on foreign supplies of close substitutes for Korean citrus and mandarins. Under the KORUS FTA, the tariff on Korean citrus is scheduled to phase out over fifteen years.

Currently, about 70% of fresh orange exports to Korea are shipped during the off-season (U.S. Department of Agriculture, Foreign Agricultural Service). Korea was the second largest market for California oranges in 2004 and 2005 before slipping to fourth in 2006. California shipped oranges to Korea valued at about \$75 million per year from 2003 to 2006 with only very limited competition from South Africa, Australia, and Spain. Given the 50% base tariff, the KORUS FTA would provide considerable access improvement for California exporters. Table 4.b shows that fresh citrus and juice are the two major citrus product imports. For orange products, frozen orange juice imports are especially substantial, comprising almost 40% of all combined orange products. More than 60% of Korea's frozen orange juice imports come from Brazil. The United States follows Brazil with about 23% of market share. However, Korea's 54% WTO tariff on frozen orange juice concentrate will be eliminated immediately, and this will substantially enhance the competitiveness of U.S. frozen orange juice producers.

The 30% tariff on fresh lemons and limes will be eliminated in two years and the 50% tariff on juice will be eliminated in ten years for lemon juice and five years for lime juice. Korea is a major export market for California lemons. In 2006, Korea imported \$8.4 million worth of fresh lemons and limes; of this, California lemons and limes accounted for \$5.3 million. The KORUS FTA would contain fresh lemon exports from Chile, which have increased since the Chilean FTA with Korea reduced the tariff faced by Chile. Lemon and lime juice imports are about 25% of the lemon and lime product market and the United States is the second largest exporter, following Italy very closely (Table 4.c).

The current 30% tariff on fresh grapefruit will be eliminated in five years in equal annual installments. In 2007, Korean imports of fresh grapefruit

**Table 4.b. Imports of Citrus Products by HS Code in \$1,000**

|                                          | 2006           | 2007           |
|------------------------------------------|----------------|----------------|
| <b>Orange Products</b>                   | <b>168,038</b> | <b>179,301</b> |
| Fresh (0805100000)                       | 123,064        | 108,014        |
| Frozen juice (2009110000)                | 43,443         | 68,838         |
| Other (2009190000)                       | 861            | 1,467          |
| Orange juice, brix ≤ 20 (2009120000)     | 669            | 982            |
| <b>Lemon and Lime Products</b>           | <b>7,912</b>   | <b>10,961</b>  |
| Fresh (0805501000)                       | 6,046          | 8,326          |
| Lemon juice (2009391000)                 | 1,728          | 2,495          |
| Lime juice, brix ≤ 20 (2009312000)       | 17             | 12             |
| Lemon juice, brix ≤ 20 (2009311000)      | 59             | 27             |
| Lime juice (2009392000)                  | 31             | 70             |
| Citrus aurantifolia (0805502010)         | 31             | 30             |
| <b>Grapefruit Products</b>               | <b>4,431</b>   | <b>8,839</b>   |
| Fresh (0805400000)                       | 2,715          | 6,396          |
| Grapefruit juice (2009290000)            | 1,662          | 2,420          |
| Grapefruit juice, brix ≤ 20 (2009210000) | 54             | 24             |

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

**Table 4.c. Imports of Citrus Products by Major Import Source in \$1,000**

|                     |        | 2006    | 2007    |
|---------------------|--------|---------|---------|
| Fresh oranges       | U.S.   | 116,611 | 100,990 |
| Frozen orange juice | Brazil | 31,264  | 42,818  |
|                     | U.S.   | 11,231  | 16,058  |
| Fresh lemons        | U.S.   | 5,393   | 7,755   |
|                     | Chile  | 654     | 571     |
| Lemon juice         | Italy  | 804     | 1,035   |
|                     | U.S.   | 751     | 999     |
|                     | Israel | 68      | 288     |
| Fresh grapefruit    | U.S.   | 2,715   | 6,396   |
| Grapefruit juice    | Japan  | 1,024   | 1,068   |
|                     | Israel | 350     | 1,101   |
|                     | U.S.   | 49      | 157     |

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

and grapefruit juice products combined approached \$9 million (Table 4.b). The United States exports mostly fresh grapefruit and not much grapefruit juice (Table 4.c). Korea produces no grapefruit so lower prices will increase demand.

#### 4.2 Noncitrus Fruit

The KORUS FTA promises the complete opening of fruit markets in Korea to U.S. exports with some markets opening immediately and others opening within specified time schedules. Table 4.d provides the detailed schedule of market openings for noncitrus fruit products. Immediate complete opening of the markets is allowed for cherries, olives, raisins, and grape juice concentrate. For most of the remaining products, the tariffs will be reduced to zero in two to fifteen years. The market opening schedules for apples, Asian pears, and table grapes are more restrictive. These are fruits consumed widely in Korea and Korean fruit farmers are particularly threatened by rapid opening of these markets. For these items, the KORUS FTA includes safeguard quantities/duties and seasonal restrictions in addition to the simple tariff phase-out. Note that apples and pears were excluded from the FTA that Korea recently concluded with Chile. However, there currently is no market access

for apples and pears due to sanitary and phytosanitary issues.

The market opening for apples has been delayed with safeguard quantities and duties. The safeguard quantity, starting with 9,000 MT, increases to 20,429 MT by year 23. Given annual apple production of more than 400,000 MT in Korea, the safeguard quantity starts at less than 2.5% and ends at about 50% of domestic production. The tariff phases out in ten years. The safeguard duty decreases over the same period, ending after year ten for all apples but the Fuji variety. Fujis, which are favored by Koreans, have a long period of market opening with the safeguard duty lasting 23 years. As shown in Table 4.e, under the currently restrictive import policy, no fresh apples enter the country. Imports of apple juice are substantial—close to \$10 million in 2007. Table 4.f shows that these apple juice imports are mostly supplied from China. The United States is a distant second and California is not a significant exporter of apple juice.

Table grapes do not face quantity restrictions but seasonal import restrictions apply (Table 4.d). The Korean tariff on U.S. table grapes is now 45% and, under the KORUS FTA, it will fall to 24% immediately and then be phased out. For off-season imports (October 16 through April 30), the tariff will be eliminated in four years; for in-season imports (May 1 through October 15), the tariff phases out in seventeen years. Currently, about 70% of U.S. table grape exports to Korea are shipped during the off-season period. Chile currently accounts for 85% of Korea's grape imports, in part because Chile's exports are counter-seasonal to Korean production (Table 4.f). The Korean market for table grapes is substantial at close to \$60 million in 2007. The import markets are dominated by only two countries, Chile and the United States (mostly from California). The immediate tariff reduction from 45% to 24% will provide access improvement for U.S. producers.

The market for grape juice is also large, exceeding \$25 million in 2007 (Table 4.e). The Korean import tariff of 45% on grape juice will be eliminated immediately. As shown in Table 4.f, U.S. suppliers in 2007 shipped grape juice valued at \$10 million to Korea, which is the United States' third largest market for this product. Spain is the number two exporter of grape

**Table 4.d. Market Access Improvements under the KORUS FTA: Selected Noncitrus Fruit**

| Noncitrus Product | Base Tariff | Market Opening Schedule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Noncitrus Product                                   | Base Tariff | Market Opening Schedule                                                                                                     |
|-------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------|
| Apples, fresh     | 45%         | An initial safeguard trigger level of 9,000 MT is established. This level remains unchanged until the end of year four. In year five, it increases to 12,000 MT and grows at a 3% compounded rate each year until it reaches 20,429 MT in year twenty-three. The safeguard quantity includes all varieties of apples.<br><br>The tariff goes to zero in ten equal reductions. The safeguard duty has a schedule of 45% for years one through five, 33.8% for years six through ten, 27% for years eleven through fifteen, and 22.5% for years sixteen through twenty-three. Beginning with year eleven, the safeguard duty applies only to Fuji apples. | Kiwi fruit                                          | 45%         | Fifteen years                                                                                                               |
| Apple juice       | 45%         | Seven years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Olives                                              | 20%         | Fifteen years                                                                                                               |
| Apricots          | 45%         | Seven years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Peaches                                             | 45%         | Ten years                                                                                                                   |
| Avocados          | 30%         | Two years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Pears, fresh                                        | 45%         | The tariff for all pears except Asian pears goes to zero in ten equal reductions. Asian pears have a twenty-year phase-out. |
| Dates             | 30%         | Ten years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Peaches, prepared and preserved <sup>1</sup>        | 50%         | Ten years                                                                                                                   |
| Cherries, fresh   | 24%         | Immediate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Plums, dried                                        | 18%         | Two years                                                                                                                   |
| Cherries, canned  | 45%         | Immediate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Raisins                                             | 21%         | Immediate                                                                                                                   |
| Grapes, table     | 45%         | The tariff is immediately reduced to 24% and then phases out in four years for off-season imports (October 16 through April 30) and seventeen years for in-season imports (May 1 through October 15).                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Raspberries, blackberries, mulberries, loganberries | 45%         | Twelve years                                                                                                                |
|                   |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Strawberries, fresh                                 | 45%         | Nine years                                                                                                                  |
|                   |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Strawberries, frozen                                | 30%         | Five years                                                                                                                  |
|                   |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Grape juice                                         | 45%         | Immediate                                                                                                                   |
|                   |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Peach juice, strawberry juice                       | 50%         | Ten years                                                                                                                   |

<sup>1</sup> This category includes the items under HS code 2008701000.

Source: Office of the United States Trade Representative, "KORUS Agricultural Tariff Schedule for the Republic of Korea," [www.ustr.gov/assets/Trade\\_Agreements/Bilateral/Republic\\_of\\_Korea\\_FTA/Draft\\_Text/asset\\_upload\\_file1\\_12756.pdf](http://www.ustr.gov/assets/Trade_Agreements/Bilateral/Republic_of_Korea_FTA/Draft_Text/asset_upload_file1_12756.pdf).



**Table 4.e. Korean Imports of Noncitrus Fruit Products in \$1,000**

|                                                  | 2006          | 2007          |
|--------------------------------------------------|---------------|---------------|
| <b>Total Grape Products</b>                      | <b>59,438</b> | <b>85,695</b> |
| Table grapes (0806100000)                        | 32,600        | 58,029        |
| Grape juice (2009690000)                         | 28,049        | 25,448        |
| Raisins (0806200000)                             | 5,257         | 5,584         |
| Grapes, prepared or preserved (2008991000)       | 355           | 430           |
| Grape juice, brix ≤ 20 (2009610000)              | 236           | 324           |
| <b>Total Cherry Products</b>                     | <b>15,777</b> | <b>36,221</b> |
| Fresh cherries (0809200000)                      | 12,156        | 31,744        |
| Cherries, prepared or cooked (2008600000)        | 3,604         | 4,476         |
| Cherries, temporarily preserved (0812100000)     | 17            | 0             |
| <b>Total Peach/Nectarine Products</b>            | <b>9,145</b>  | <b>10,349</b> |
| Prepared and preserved (2008701000) <sup>1</sup> | 7,617         | 8,538         |
| Peach juice (2009801010)                         | 1,357         | 1,326         |
| Prepared (2008709000)                            | 171           | 485           |
| <b>Total Apple Products</b>                      | <b>8,535</b>  | <b>10,606</b> |
| Apple juice (2009790000)                         | 6,834         | 8,508         |
| Apple juice, brix ≤ 20 (2009710000)              | 513           | 1,467         |
| Prepared or preserved (2008992000)               | 870           | 567           |
| Dried apples (0813300000)                        | 319           | 64            |
| <b>Total Strawberry Products</b>                 | <b>7,540</b>  | <b>9,838</b>  |
| Prepared or cooked (2008800000)                  | 1,550         | 1,966         |
| Frozen strawberries (0811100000)                 | 4,951         | 7,035         |
| Strawberry juice (2009801020)                    | 1,040         | 837           |
| <b>Total Kiwi Products</b>                       | <b>62,736</b> | <b>69,831</b> |
| Fresh kiwis (0810500000)                         | 62,736        | 69,831        |

<sup>1</sup> Preserved in airtight containers with sugar added.

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

**Table 4.f. Korean Imports of Selected Noncitrus Fruit Products by Major Import Source in \$1,000**

|                                      | 2006   | 2007   |
|--------------------------------------|--------|--------|
| <b>Table Grapes</b>                  |        |        |
| Chile                                | 27,835 | 47,431 |
| U.S.                                 | 4,765  | 10,509 |
| <b>Raisins</b>                       |        |        |
| U.S.                                 | 4,926  | 5,239  |
| Turkey                               | 225    | 219    |
| <b>Grape Juice</b>                   |        |        |
| U.S.                                 | 8,861  | 10,059 |
| Spain                                | 6,276  | 5,574  |
| Argentina                            | 2,375  | 1,834  |
| Chile                                | 1,516  | 1,384  |
| <b>Fresh Cherries</b>                |        |        |
| U.S.                                 | 11,041 | 29,908 |
| <b>Frozen Strawberries</b>           |        |        |
| China                                | 4,043  | 5,565  |
| U.S.                                 | 813    | 813    |
| Mexico                               | 0      | 500    |
| <b>Peaches/Nectarines, Preserved</b> |        |        |
| China                                | 2,736  | 3,766  |
| Greece                               | 1,618  | 1,229  |
| South Africa                         | 1,994  | 1,772  |
| U.S.                                 | 67     | 0.1    |
| <b>Apple Juice</b>                   |        |        |
| China                                | 4,034  | 4,688  |
| U.S.                                 | 1,220  | 985    |
| New Zealand                          | 562    | 1,455  |
| <b>Fresh Kiwis</b>                   |        |        |
| New Zealand                          | 45,710 | 54,108 |
| Chile                                | 12,255 | 9,946  |
| U.S.                                 | 4,749  | 5,742  |

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

juice to Korea and Chile and Argentina have rapidly increased their presence in the market (Table 4.f does not show this time trend). The 21% raisin tariff will be eliminated immediately, allowing a substantial reduction in the domestic price in Korea. Raisin imports have exceeded \$5 million a year (Table 4.e) and more than 95% of these imports are shipped from California. Korea produces no raisins and there are only very limited imports from Turkey. Elimination of the tariffs for grape juice and raisins means that the Korean prices of these products will decline substantially and the markets for these products will expand.

Table grapes present one of the largest potentials for U.S. expansion in the Korean market. Korean grapes are available seasonally but the California season is longer. Elimination of the 45% tariff would allow the California grape industry to replace some Korean product and supply grapes during months when Korean grapes are unavailable or extremely costly and the Chilean product is not yet in the market. Under the Korean FTA with Chile, the tariff rate for table grapes is set at 28.9% in 2007 and scheduled to go to zero in 2014.

The 45% tariff for all pears except Asian pears will phase out over ten years, but Asian pears are subject to the twenty-year tariff phase-out. Fresh pears are not allowed to enter the country and the market for processed pears (45% tariff) is presently very small. Most California stone fruits other than cherries are not in the Korean market in a significant way. As shown in Table 4.e, imports of peach products (including nectarines) are all in nonfresh form. Among these, the largest imports are identified with HS code 2008701000, which is fruit preserved in airtight containers with sugar added (mostly canned). As shown in Table 4.d, the base tariff of 50% for this product will phase out in ten years. Table 4.f indicates that the largest exporter of this product to Korea is China, followed by South Africa and Greece. Gradual elimination of the 50% tariff for canned peaches from the United States will allow a modest price advantage for California products. The prune market (18% tariff), which is also small, will be completely open in two years.

Under the KORUS FTA, the 24% tariff on fresh cherries will be eliminated immediately. Fresh cherry exports to Korea rank as the United States' second

largest fresh fruit export. These fresh cherry exports to Korea reached about \$30 million in 2007 and were supplied mostly by California. Korea produces almost no cherries and elimination of the 24% tariff is expected to expand the fresh cherry market even further. The immediate elimination of the 45% tariff on preserved (or canned) cherries will also expand the market for canned cherries substantially.

Strawberries are another favored fruit in Korea. The 45% tariff on fresh strawberries will be eliminated in nine years. Currently, no fresh strawberries enter the country (Table 4.e) and more than 70% of Korea's imported strawberries are frozen. Strawberries are probably the largest greenhouse crop in value (no data are available for greenhouse crops) in Korea. Under the KORUS FTA, the 30% tariff on frozen strawberries will be reduced to zero over five years. Korea imported more than \$7 million worth of frozen strawberries in 2007 and about 80% of those imports originated from China with the rest supplied by the United States and Mexico. Preserved strawberries also add to strawberry imports (close to \$2 million in 2007). The 45% tariff on preserved strawberries will be eliminated over fifteen years.

Kiwis are relatively new to Korean consumers. Though kiwis were introduced in Korea only about a decade ago, the import market in Korea has grown rapidly, reaching \$70 million in 2007 (Table 4.e). Kiwi imports consist of fresh kiwis only and the 45% tariff currently imposed will be eliminated over fifteen years under the KORUS FTA. Kiwi exports to Korea are dominated by New Zealand, which has 78% of the import market in Korea. The rest of the market is distributed between Chile (14%) and the United States (8%).

Currently, Korean markets for avocado and olive exports are small at less than \$3 million in combined value. Under the KORUS FTA, Korea's 30% tariff on avocados will be phased out over two years and the 20% tariff on olives will be eliminated over five years. Even though the current markets are small, with no Korean production and no major competitors for the United States, these markets have growth potential under free trade.

### 4.3. Wine

We consider wine separately because it is a large import product in value among all food and beverage items in Korea and is one of the most important agricultural products that California produces. Table 4.g provides data on Korean wine imports for the most recent decade. Korean wine imports have grown more than twentyfold over the last ten years and evolved into a major market with wine imports reaching more than \$150 million in 2007. In Korea, traditional wines are made from sources other than grapes and consumption of wine made from grapes is mostly due to Western influences. Until very recently, there was no commercial grape wine industry in Korea.

Under the KORUS FTA, the 30% tariff on wine will be eliminated immediately. France has been the largest wine exporter in the Korean market. Chile has come in second in recent years. But note that Chilean wine exports jumped after the FTA with Korea was completed. Elimination of the tariff on U.S. wine would allow the California industry to compete effectively with other import suppliers and match the zero tariff now enjoyed by Chile. In 2007, the United States exported \$17 million worth of wine to Korea, almost all from California. The unit export prices implied in Table 4.g indicate that California exports mainly relatively inexpensive wines to Korea as Spain is the only exporter of the six that has a lower unit price.

**Table 4.g. Korean Wine Imports**

|                                            | 1998  | 1999   | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007    |
|--------------------------------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| <b>Total Korean Imports of Wine (2204)</b> |       |        |        |        |        |        |        |        |        |         |
| Tons                                       | 2,559 | 5,766  | 8,053  | 8,862  | 11,510 | 13,980 | 15,898 | 18,984 | 22,195 | 31,810  |
| \$1,000                                    | 6,491 | 15,122 | 19,802 | 23,109 | 29,417 | 45,783 | 57,979 | 67,655 | 88,607 | 150,364 |
| <b>Imported from France</b>                |       |        |        |        |        |        |        |        |        |         |
| Tons                                       | 962   | 2,597  | 3,405  | 3,450  | 4,378  | 4,511  | 4,513  | 4,217  | 4,660  | 7,091   |
| \$1,000                                    | 3,108 | 8,380  | 10,230 | 10,924 | 16,325 | 22,684 | 26,350 | 24,967 | 32,705 | 59,141  |
| <b>Imported from Chile</b>                 |       |        |        |        |        |        |        |        |        |         |
| Tons                                       | 20    | 104    | 193    | 156    | 322    | 848    | 2,281  | 3,247  | 3,843  | 6,104   |
| \$1,000                                    | 89    | 360    | 483    | 652    | 1,205  | 2,990  | 8,008  | 11,884 | 15,376 | 25,496  |
| <b>Imported from Italy</b>                 |       |        |        |        |        |        |        |        |        |         |
| Tons                                       | 292   | 576    | 712    | 668    | 768    | 1,061  | 1,053  | 1,371  | 1,861  | 3,257   |
| \$1,000                                    | 759   | 1,337  | 1,457  | 1,599  | 2,257  | 4,187  | 4,708  | 6,747  | 8,989  | 19,608  |
| <b>Imported from United States</b>         |       |        |        |        |        |        |        |        |        |         |
| Tons                                       | 375   | 930    | 1,280  | 1,320  | 1,525  | 3,001  | 3,466  | 3,589  | 4,192  | 4,834   |
| \$1,000                                    | 907   | 2,256  | 3,394  | 5,672  | 4,358  | 7,192  | 8,136  | 9,471  | 12,482 | 16,756  |
| <b>Imported from Australia</b>             |       |        |        |        |        |        |        |        |        |         |
| Tons                                       | 150   | 396    | 513    | 361    | 556    | 990    | 1,279  | 1,301  | 1,595  | 2,430   |
| \$1,000                                    | 277   | 901    | 1,199  | 897    | 1,430  | 3,234  | 4,037  | 5,133  | 6,654  | 11,166  |
| <b>Imported from Spain</b>                 |       |        |        |        |        |        |        |        |        |         |
| Tons                                       | 201   | 353    | 814    | 1,530  | 2,918  | 2,273  | 2,081  | 3,012  | 3,653  | 5,325   |
| \$1,000                                    | 284   | 379    | 815    | 1,050  | 1,781  | 2,111  | 2,325  | 2,928  | 4,506  | 7,520   |

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

The historical import data indicate that the trend of an expanding Korean wine market is likely to continue, and California's share of that growth would be much enhanced by a tariff advantage relative to European and Australian wines. Further, improving the access of California wine to an up-scaled premium wine market in Korea would also increase the total value of California exports.

#### 4.4 Tree Nuts

Table 4.h documents access improvements for three major tree nut exports under the KORUS FTA. These three nuts constitute a major share of Korean tree nut imports and are the major tree nuts produced in California. Since Korea does not import tree nut products other than shelled and in-shell nuts, we do not provide a product-specific import table for tree nuts. We also do not provide imports by source because California is the major exporter of these nuts and those import figures are provided in the preceding tables.

Both shelled and in-shell almonds are currently subject to an applied tariff of 8%. In 2006 and 2007, Korea established a TRQ for almonds of 5,300 MT. The in-quota rate was lowered to 5% while the out-of-quota rate remained at 8%. While the applied rate for almonds has been 8% for a number of years, Korea's WTO-bound duties are 21% for shelled almonds and 45% for in-shell almonds. The FTA will prevent arbitrary imposition of the higher tariffs should Korea decide to protect domestic nut industries (such as walnuts). With elimination of the tariff on almonds under the KORUS FTA, all export expansion would be new demand because Korea produces no almonds and no other supplier is in the market.

U.S. pistachios are currently subject to applied tariffs of 30%. However, Korea's WTO-bound duty is 45%. As with almonds, without the FTA Korea could impose the higher tariff should it decide to protect domestic nut industries. Exports are currently small but a price cut could create new demand as incomes in Korea rise and the diet continues to diversify. In addition, imports from Iran now account for about half of the market.

Shelled walnuts face a tariff (both bound and applied) of 30% and in-shell walnuts face a tariff of 45%. Until 2006, phytosanitary restrictions kept in-shell walnuts out of Korea. Since lifting of those restrictions, imports have grown. Under the KORUS FTA, the tariff for shelled walnuts will be eliminated in six years and the tariff for in-shell walnuts will be eliminated in fifteen years. Walnut exports to Korea are already substantial and lower tariffs will allow the market to grow while insuring California products an advantage relative to imports from Vietnam and potential imports from China.

The California tree nut industry successfully exports globally and Korea has begun to increase imports despite tariffs as high as 45%. California has a strong presence in the Korean market for tree nuts. Tariff elimination would allow the industries to build on recent momentum. Tree nuts fit well with the Korean diet and there is no domestic industry to offer competition. Current imports are ready to expand rapidly with tariff elimination, generating lower prices for Korean customers.

#### 4.5. Vegetables

Table 4.i presents the detailed schedule for tariff elimination or phase-out for vegetables. The KORUS FTA allows Korean tariffs on vegetables to be either eliminated immediately or phased out over time for all but a few sensitive products for which safeguard restrictions are applied. Many fresh vegetables (including asparagus, cabbage, celery, cucumbers, and spinach) and tomato paste will be free of duties immediately. Products such as carrots, cauliflower, and broccoli have a five-year phase-out. Fresh tomatoes have a

**Table 4.h. Market Access Improvements under the KORUS FTA: Tree Nuts**

| Product                                                 | Base Tariff | Market Opening Schedule |
|---------------------------------------------------------|-------------|-------------------------|
| Almonds, in-shell (0802110000) and shelled (0802120000) | 8%          | Immediate               |
| Pistachios (0802500000)                                 | 30%         | Immediate               |
| Walnuts, shelled (0802320000)                           | 30%         | Six years               |
| Walnuts, in-shell (0802310000)                          | 45%         | Fifteen years           |

**Table 4.i. Market Access Improvements under the KORUS FTA: Selected Vegetable Products**

| Product <sup>1</sup>                                                                                                    | Base Tariff | Phase-out     | Product                                                               | Base Tariff | Safeguard Restrictions                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------|-------------|---------------|-----------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tariff Phase-out</b>                                                                                                 |             |               | <b>Safeguard</b>                                                      |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Asparagus, eggplant, shallots, cucumbers, celery, pumpkins, green onions or chives, cabbage, spinach (fresh and frozen) | 27%         | Immediate     | Garlic, fresh peeled, fresh unpeeled, and dried                       | 360%        | An initial safeguard trigger level of 1,148 MT is established and the level grows to 2,297 MT in year fifteen and then remains unchanged for years sixteen through eighteen.                                                                                                                                                                                                                                          |
| Artichokes                                                                                                              | 27%         | Ten years     | Onions, fresh and dried                                               | 135%        | A safeguard duty of 360% remains until year fifteen and then declines to 270% over years sixteen through eighteen. In year nineteen, safeguard restrictions no longer apply.                                                                                                                                                                                                                                          |
| Chinese cabbage                                                                                                         | 27%         | Five years    |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Cauliflower and broccoli                                                                                                | 27%         | Five years    | Peppers, fresh and dried (including all dried—whole, cut, or crushed) | 270%        | An initial safeguard trigger level of 827 MT is established and increases by 59 MT each year, reaching 1,655 MT in year fifteen. This level remains unchanged for years sixteen through eighteen. The initial safeguard duty of 270% remains unchanged until year fifteen, declines to 203% in year sixteen, and remains unchanged until the end of year eighteen. In year nineteen, safeguard rules no longer apply. |
| Lettuce                                                                                                                 | 45%         | Ten years     |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Brussels sprouts                                                                                                        | 27%         | Ten years     |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Carrots, fresh                                                                                                          | 30%         | Five years    |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Carrots, frozen                                                                                                         | 27%         | Five years    |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Carrots, preserved                                                                                                      | 30%         | Ten years     |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Carrots, dried                                                                                                          | 30%         | Ten years     |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Cucumbers, provisionally preserved                                                                                      | 30%         | Ten years     |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Cucumbers, preserved in vinegar or pickled                                                                              | 30%         | Five years    |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Tomatoes                                                                                                                | 45%         | Seven years   |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Tomatoes, prepared or preserved <sup>2</sup>                                                                            | 8%          | Immediate     |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Garlic, frozen                                                                                                          | 27%         | Fifteen years |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Garlic, preserved in vinegar                                                                                            | 30%         | Ten years     |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Peppers, frozen                                                                                                         | 27%         | Fifteen years |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Onions, frozen                                                                                                          | 27%         | Twelve years  |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Kidney beans, dried                                                                                                     | 27%         | Ten years     |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Red beans, dried                                                                                                        | 420.8%      | Fifteen years |                                                                       |             |                                                                                                                                                                                                                                                                                                                                                                                                                       |

<sup>1</sup> Unless mentioned, all of these products are for fresh use.

<sup>2</sup> Preserved tomatoes consist mostly of tomato paste.

Source: Office of the United States Trade Representative, "KORUS Agricultural Tariff Schedule for the Republic of Korea," [www.ustr.gov/assets/Trade\\_Agreements/Bilateral/Republic\\_of\\_Korea\\_FTA/Draft\\_Text/asset\\_upload\\_file1\\_12756.pdf](http://www.ustr.gov/assets/Trade_Agreements/Bilateral/Republic_of_Korea_FTA/Draft_Text/asset_upload_file1_12756.pdf).

seven-year phase-out while products that include artichokes, brussels sprouts, and fresh lettuce have a ten-year phase-out. We hereafter highlight only selected vegetables that are significant in import value or promise potential for exports from California.

Even with the 45% tariff, Korea's imports of lettuce have grown rapidly to more than \$4 million in 2007 from \$1 million in 2005 (Table 2.f). The \$4.4 million in imports in 2007 are, however, a small share of Korea's 2007 lettuce sales, which exceeded \$200 million. Nevertheless, the fact that California lettuce competes mostly with off-season, high-cost greenhouse lettuce in Korea and that California producers were able to penetrate the Korean market over the relatively high tariff suggest the potential for additional exports. China also ships lettuce to Korea, but elimination of the duty for U.S. lettuce will reduce China's price in the Korean market.

The domestic industry also incurs high costs for other fresh leafy vegetables (such as spinach) that are favored by Korean consumers so there is potential for a large export expansion. Producers of other fresh vegetables that are not part of the traditional Korean diet, such as asparagus and artichokes, could also take advantage of the health-conscious and more globalized Korean consumers as prices fall.

For a few sensitive products (namely garlic, onions, and peppers), the agreement allows for gradual access through eighteen-year phase-out periods with imposition of safeguard restrictions. Garlic, onions, and red peppers are important ingredients in the Korean diet and important domestic crops. Their economic importance in agriculture is substantial. Red peppers, for example, rank ninth in terms of economic value among all individual crops in Korea. The market opening process for these crops is very restrictive. The initial safeguard quantities for these products, which are currently tiny, double only after fifteen years and the safeguard duties remain strongly prohibitive. Even though free access eventually will be allowed (after eighteen years), the agreement calls for tightly controlling access for these products.

Base tariffs for some products differ significantly according to how the product is prepared.

For example, while fresh and dried garlic have base tariffs of 360%, frozen garlic has a tariff of only 27%. Red peppers are another example: a 270% tariff for fresh and dried products and 27% for frozen. The consequences of these differences are indicated by patterns in importation of these products. The most recent import data, shown in Table 4.j, indicate that about two-thirds of garlic imports were frozen garlic and more than 70% of red pepper imports were frozen. Table 4.j shows that there are other vegetables for which nonfresh use is the major form of imports. Tomato imports are mainly puree, bean imports are exclusively dry products, and cucumber imports are all preserved products.<sup>5</sup>

As indicated in Table 4.k, vegetable trading for all but a few products is dominated by China. Exceptions are fresh pumpkins, for which more than 90% of the export share is held by New Zealand; pickled cucumbers, for which the United States is almost the sole supplier; and fresh lettuce, for which the United States holds about 50% of market share.

#### 4.6. Beef and Related Products

Under the KORUS FTA, beef imports from the United States are subject to a 40% base tariff that phases out in equal reductions each year over fifteen years. However, imports exceeding the safeguard quantity are subject to an over-quota tariff (Table 4.l). The safeguard quantities, accompanied by gradually declining safeguard duties, are scheduled to increase over fifteen years from the initial 270,000 MT. At the end of year fifteen, safeguard restrictions no longer apply. However, as detailed in Table 4.l, reductions in the safeguard duties over time occur more slowly than the ones for general tariff reductions, indicating that the safeguard restrictions are aimed at providing more control over the access of foreign products, which allows the domestic beef industry to adjust to the open market.

By value, beef products are the number one agricultural commodity imported into Korea. In 2007, beef imports in Korea exceeded \$1 billion. Korea was an important market for U.S. beef after opening its market

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<sup>5</sup> "Provisionally preserved" means that the product is preserved by sulfur dioxide gas or in brine, sulfur water, or another preservative solution and is unsuitable in that state for immediate consumption. Thus, it is different from preservation in vinegar.

**Table 4.j. Korean Imports of Vegetable Products by HS Code in \$1,000**

|                                                                                      | 2006          | 2007          |                                                 | 2006          | 2007          |
|--------------------------------------------------------------------------------------|---------------|---------------|-------------------------------------------------|---------------|---------------|
| <b>Red Pepper Products</b>                                                           | <b>60,035</b> | <b>84,732</b> | <b>Pumpkin Products</b>                         | <b>10,722</b> | <b>14,590</b> |
| Frozen (0710807000)                                                                  | 43,119        | 63,303        | Fresh (0709903000)                              | 10,109        | 13,710        |
| Dried whole<br>(0904201000)                                                          | 15,369        | 19,799        | Dried (0712902050)                              | 613           | 881           |
| Dried, cut or crushed<br>(0904202000)                                                | 1,540         | 1,627         | <b>Red Beans</b>                                | <b>13,791</b> | <b>21,122</b> |
| Other pimenta family<br>(0709609000)                                                 | 7             | 3             | Dried ( 0713329000)                             | 8,724         | 12,966        |
| <b>Tomato Products</b>                                                               | <b>31,803</b> | <b>36,191</b> | Shelled and prepared<br>(2005512000)            | 1,254         | 2,637         |
| Paste (2002901000)                                                                   | 20,447        | 22,271        | Not shelled and prepared<br>(2005592000)        | 3,814         | 5,518         |
| Whole or in pieces,<br>prepared or preserved except<br>by vinegar (2002100000)       | 3,809         | 5,217         | <b>Cucumber Products</b>                        | <b>9,034</b>  | <b>8,980</b>  |
| Sauce (2103202000)                                                                   | 4,376         | 4,688         | Pickled (2001100000)                            | 4,733         | 4,684         |
| Other, prepared or preserved<br>(other than by vinegar or<br>acetic acid) 2002909000 | 1,941         | 2,321         | Provisionally preserved<br>(0711400000)         | 4,302         | 4,293         |
| Ketchup<br>(2103201000)                                                              | 961           | 1,492         | Fresh (0707000000)                              | 0             | 3             |
| Juice (2009500000)                                                                   | 270           | 201           | <b>Cauliflower and Broccoli</b>                 | <b>8,631</b>  | <b>10,782</b> |
| Prepared in vinegar<br>( 2001909020)                                                 | 0             | 1             | Fresh (0704100000)                              | 8,631         | 10,782        |
| Fresh (0702000000)                                                                   | 0             | 0.1           | <b>Kidney Beans</b>                             | <b>5,094</b>  | <b>5,939</b>  |
| <b>Carrot Products</b>                                                               | <b>36,643</b> | <b>37,467</b> | Dried (0713339000)                              | 5,084         | 5,930         |
| Fresh (0706101000)                                                                   | 33,546        | 33,831        | Dried for seeds (0713331000)                    | 10            | 9             |
| Dried (0712902040)                                                                   | 2,226         | 2,729         | <b>Green Onions or<br/>Chinese Chives, Etc.</b> | <b>4,415</b>  | <b>1,515</b>  |
| Frozen (0710804000)                                                                  | 869           | 906           | Fresh (0703909000)                              | 4,415         | 1,515         |
| Temporarily preserved<br>(0711904000)                                                | 2             | 1             | <b>Onion Products</b>                           | <b>15,756</b> | <b>12,874</b> |
| <b>Garlic Products</b>                                                               | <b>32,341</b> | <b>31,772</b> | Fresh (0703101000)                              | 14,162        | 9,081         |
| Frozen (0710802000)                                                                  | 17,084        | 19,226        | Dried (0712200000)                              | 1,092         | 2,843         |
| Preserved in vinegar<br>(2001909060)                                                 | 3,732         | 4,834         | Frozen (0710801000)                             | 366           | 759           |
| Fresh unpeeled (0703209000)                                                          | 9,954         | 5,951         | Prepared or preserved<br>(2001909070)           | 136           | 192           |
| Fresh peeled (0703201000)                                                            | 319           | 877           |                                                 |               |               |
| Dried (0712901000)                                                                   | 1,253         | 852           |                                                 |               |               |
| Provisionally preserved (0711901000)                                                 | 0             | 33            |                                                 |               |               |

Source: Korea Agricultural Trade Information, www.kati.net.

in 2001 (Table 4.m). The United States had the largest share of the import market when Korea banned U.S. beef imports in December 2003 following detection of the first BSE case in the United States. Since then, Australia and New Zealand have replaced the United States, together supplying more than 90% of Korean imports. Table 4.m also provides the unit value of imported beef. The data indicate that the U.S. unit value has exceeded that of other countries (except in

2006), suggesting that U.S. producers supply higher quality beef.

The United States resumed supplying beef to Korea in 2007. However, recapturing the market depends on how effectively the United States competes with Australia and New Zealand. Australia traditionally produces grass-fed beef but expanded its production of grain-fed beef for export to Korea. The initial safeguard quantity is sizable, amounting to about 60% of domestic consumption. The within-quota tariff is scheduled to fall 2.7% each year, which will provide a price advantage to U.S. producers over those in Australia and New Zealand.

Korea also imports a substantial amount of offal and cattle hides and skins. Korea imported almost \$9 million worth of bovine offal and \$381 million worth of hides and skins in 2007. The base tariff of 27% on beef offal is scheduled to phase out in fifteen years and the base tariff of 1% on hides and skins will be eliminated immediately.

**Table 4.k. Korean Imports of Vegetable Products by Major Source in \$1,000**

|                                                        | 2006   | 2007   |
|--------------------------------------------------------|--------|--------|
| <b>Fresh Pumpkins (0709903000)</b>                     |        |        |
| TOTAL                                                  | 10,109 | 13,710 |
| New Zealand                                            | 8,124  | 12,797 |
| Tonga                                                  | 1,856  | 663    |
| <b>Onions, Fresh/Chilled (0703101000)</b>              |        |        |
| TOTAL                                                  | 14,161 | 9,081  |
| China                                                  | 12,961 | 8,332  |
| U.S.                                                   | 1,179  | 582    |
| Vietnam                                                | 20     | 135    |
| <b>Cauliflower and Broccoli, Fresh (0704100000)</b>    |        |        |
| TOTAL                                                  | 8,631  | 10,782 |
| China                                                  | 8,356  | 10,695 |
| U.S.                                                   | 273    | 73     |
| <b>Pickled Cucumbers (2001100000)</b>                  |        |        |
| TOTAL                                                  | 4,733  | 4,684  |
| U.S.                                                   | 4,192  | 4,219  |
| China                                                  | 68     | 33     |
| <b>Cucumbers, Provisionally Preserved (0711400000)</b> |        |        |
| TOTAL                                                  | 4,302  | 4,293  |
| China                                                  | 3,561  | 3,643  |
| <b>Tomato Paste (2002901000)</b>                       |        |        |
| TOTAL                                                  | 20,446 | 22,271 |
| U.S.                                                   | 7,948  | 7,085  |
| China                                                  | 7,895  | 9,378  |
| Chile                                                  | 1,895  | 2,245  |
| Italy                                                  | 1,202  | 2,102  |

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

**Table 4.l. Market Access Improvements under the KORUS FTA: Selected Beef Products**

| Product                | Base Tariff | Market Opening Schedule                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Beef, muscle cuts      | 40%         | Fifteen-year straight-line tariff phase-out.<br>An initial safeguard trigger level of 270,000 MT is established and this level grows at a compound 2% rate yearly until year fifteen. The safeguard duty is 40% for years one through five, 30% for years six through ten, 24% for years eleven through fifteen, and zero thereafter. In year sixteen no safeguard rules apply. |
| Beef, offal            | 27%         | Tariffs phase out in fifteen years. There are no safeguards.                                                                                                                                                                                                                                                                                                                    |
| Cattle hides and skins | 1%          | Immediate complete opening.                                                                                                                                                                                                                                                                                                                                                     |



#### 4.7. Dairy Products

Under the KORUS FTA, dairy product import-access barriers are reduced gradually as tariffs are reduced and TRQ quantities increase gradually (Table 4.n). For skim milk powder, whole milk powder, and

evaporated milk (condensed milk), a combined duty-free quota of 5,000 MT is established and this amount grows at a 3% annual compounded rate in perpetuity. As shown in Table 4.o, the United States does not export milk powder to Korea. The major exporter of milk powder is Australia. However, the

**Table 4.m. Korean Imports of Beef by Major Source**

|                                           | Total     | United States | Canada | Australia | New Zealand | Mexico         | Uruguay | Other |
|-------------------------------------------|-----------|---------------|--------|-----------|-------------|----------------|---------|-------|
| <b>Quantity in 1,000 Kilograms</b>        |           |               |        |           |             |                |         |       |
| 1999                                      | 197,627   | 96,832        | 10,496 | 80,462    | 9,128       | 0              | 0       | 710   |
| 2000                                      | 263,781   | 146,343       | 20,877 | 78,045    | 12,479      | 0              | 5,520   | 516   |
| 2001                                      | 208,017   | 118,265       | 9,962  | 65,684    | 11,678      | 0              | 1,713   | 715   |
| 2002                                      | 358,032   | 227,642       | 16,441 | 93,877    | 19,804      | 0              | 0       | 269   |
| 2003                                      | 363,952   | 248,654       | 8,066  | 78,018    | 28,962      | 0              | 0       | 253   |
| 2004                                      | 175,949   | 27,790        | 348    | 99,071    | 47,736      | 852            | 0       | 153   |
| 2005                                      | 196,363   | 760           | 33     | 139,808   | 51,831      | 3,585          | 0       | 346   |
| 2006                                      | 236,338   | 8             | 0      | 180,386   | 49,038      | 6,791          | 70      | 45    |
| 2007                                      | 244,602   | 14,112        | 0      | 179,942   | 44,891      | 5,366          | 255     | 37    |
| <b>Value in \$1,000</b>                   |           |               |        |           |             |                |         |       |
| 1999                                      | 505,421   | 307,466       | 32,204 | 145,284   | 18,825      | 0              | 0       | 1,642 |
| 2000                                      | 795,016   | 533,501       | 67,224 | 153,832   | 29,691      | 0              | 9,735   | 1,033 |
| 2001                                      | 555,392   | 361,689       | 25,554 | 139,429   | 24,512      | 0              | 3,102   | 1,106 |
| 2002                                      | 946,808   | 655,876       | 37,358 | 209,707   | 43,348      | 0              | 0       | 517   |
| 2003                                      | 1,177,005 | 886,778       | 20,627 | 197,438   | 71,718      | 0              | 0       | 444   |
| 2004                                      | 600,384   | 103,233       | 362    | 355,378   | 138,691     | 2,207          | 0       | 512   |
| 2005                                      | 735,143   | 3,996         | 92     | 539,803   | 178,653     | 11,790         | 0       | 810   |
| 2006                                      | 878,977   | 30            | 0      | 693,673   | 163,458     | 21,477         | 241     | 98    |
| 2007                                      | 1,037,052 | 94,025        | 0      | 761,560   | 161,908     | 19,001         | 444     | 114   |
| <b>Unit Value in Dollars per Kilogram</b> |           |               |        |           |             |                |         |       |
| 1999                                      | 2.56      | 3.18          | 3.07   | 1.81      | 2.06        | - <sup>1</sup> | -       | 2.31  |
| 2000                                      | 3.01      | 3.65          | 3.22   | 1.97      | 2.38        | -              | 1.76    | 2.00  |
| 2001                                      | 2.67      | 3.06          | 2.57   | 2.12      | 2.10        | -              | 1.81    | 1.55  |
| 2002                                      | 2.64      | 2.88          | 2.27   | 2.23      | 2.19        | -              | -       | 1.92  |
| 2003                                      | 3.23      | 3.57          | 2.56   | 2.53      | 2.48        | 2.75           | -       | 1.76  |
| 2004                                      | 3.41      | 3.71          | 1.04   | 3.59      | 2.91        | 2.59           | -       | 3.35  |
| 2005                                      | 3.74      | 5.25          | 2.79   | 3.86      | 3.45        | 3.29           | -       | 2.34  |
| 2006                                      | 3.72      | 3.81          |        | 3.85      | 3.33        | 3.16           | 3.44    | 2.17  |
| 2007                                      | 4.24      | 6.66          |        | 4.23      | 3.61        | 3.54           | 1.74    | 3.12  |

<sup>1</sup> These values are not defined.

Note: The category of beef products includes all products (boned, boneless, chilled, frozen, and packaged) except for intestines and hides and skins.

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

duty-free quota provided under the KORUS FTA will provide substantial new access given that recent exports of these products to Korea have been near zero. The current tariffs of 176% for skim and whole milk powder and 89% for evaporated milk remain as over-quota tariffs. While significant relative to Korea's current market, the quota of 5,000 MT is small relative to recent global exports of milk powder from the United States, which reached more than 270,000 MT in 2007.

Cheese has a duty-free TRQ set at 7,000 MT that expands annually at a 3% compounded rate. The tariff is phased out in equal installments over ten years for cheddar cheese and fifteen years for other cheeses. In the case of cheese, the duty-free TRQ represents about 10% of Korean consumption (in 2006) and is slightly less than total U.S. exports of cheese to Korea in 2007. The United States is already the number two exporter of cheese in the Korean market, following New Zealand. Thus, in addition to duty-free exports, even more new access will be created by reductions of the current 36% tariff. The Korean cheese market has been growing rapidly and duty-free access and low tariffs will expand exports to Korea substantially.

The United States is the number one lactose exporter to the Korean market (Table 4.o) and competes with the Netherlands and Germany. Under the KORUS FTA, the base tariff of 49.5% on lactose is scheduled to go to zero in five years. The lower tariff will expand the U.S. share in the Korean lactose market.

The Korean market for casein imports is also sizable, amounting to more than \$58 million. The United

**Table 4.n. Market Access Improvements under the KORUS FTA: Selected Dairy Products**

| Product                                                                                                  | Base Tariff                                                 | Market Opening Schedule                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skim milk powder, whole milk powder, and condensed (or evaporated) milk (both sweetened and unsweetened) | 176% for skim and whole milk powder; 89% for condensed milk | An initial duty-free TRQ of 5,000 MT for the aggregate quantity grows at a compounded rate of 3% in perpetuity. Over-quota tariffs remain at base rates.                                                                                                                                               |
| Cheese, fresh, grated, and powdered                                                                      | 36%                                                         | An initial duty-free TRQ of 7,000 MT grows annually at a compounded rate of 3% to 10,280 MT in year fourteen. In year fifteen, no quantity restrictions apply. The over-quota tariff is phased out in fifteen years in equal installments (except for cheddar cheese, which has a ten-year phase-out). |
| Lactose                                                                                                  | 49.5%                                                       | Five years                                                                                                                                                                                                                                                                                             |
| Casein and casein-derived products                                                                       | 20%                                                         | Seven years                                                                                                                                                                                                                                                                                            |
| Whey                                                                                                     | 49.5% <sup>1</sup>                                          | Feed whey: Immediate duty-free access.<br>Food whey: An initial duty-free TRQ of 3,000 MT grows annually at a compounded rate of 3% to 3,800 MT in year nine. The over-quota tariff is reduced from 49.5% to 20% immediately and phased out over ten years.                                            |
| Butter                                                                                                   | 89% <sup>2</sup>                                            | An initial duty-free TRQ of 200 MT grows annually at a compounded rate of 3% to 253 MT in year nine. Over-quota tariffs phase out in ten years in equal installments. In year ten, unlimited duty-free access applies.                                                                                 |

<sup>1</sup> Currently, when exports fall within the TRQ amount set by the WTO, a 20% tariff applies.

<sup>2</sup> When exports fall within the TRQ (420 MT) set by the WTO, a 40% tariff applies.

Source: Office of the United States Trade Representative, "KORUS Agricultural Tariff Schedule for the Republic of Korea," [www.ustr.gov/assets/Trade\\_Agreements/Bilateral/Republic\\_of\\_Korea\\_FTA/Draft\\_Text/asset\\_upload\\_file1\\_12756.pdf](http://www.ustr.gov/assets/Trade_Agreements/Bilateral/Republic_of_Korea_FTA/Draft_Text/asset_upload_file1_12756.pdf).

**Table 4.o. Korean Imports of Dairy Products**

|                                       | 2006     |         | 2007     |         |
|---------------------------------------|----------|---------|----------|---------|
|                                       | 1,000 MT | \$1,000 | 1,000 MT | \$1,000 |
| <b>Skim Milk Powder (040210....)</b>  |          |         |          |         |
| TOTAL                                 | 6,711    | 15,374  | 4,928    | 17,334  |
| Australia                             | 4,426    | 9,930   | 3,127    | 10,492  |
| New Zealand                           | 1,377    | 3,168   | 934      | 3,022   |
| <b>Whole Milk Powder (04022.....)</b> |          |         |          |         |
| TOTAL                                 | 1,992    | 4,784   | 1,136    | 3,366   |
| Australia                             | 1,523    | 3,670   | 1,075    | 3,165   |
| <b>Cheese (0406.....)</b>             |          |         |          |         |
| TOTAL                                 | 44,032   | 146,262 | 49,471   | 178,992 |
| New Zealand                           | 11,344   | 34,217  | 15,254   | 47,314  |
| United States                         | 6,859    | 24,899  | 7,852    | 32,267  |
| Australia                             | 7,554    | 24,580  | 9,073    | 31,863  |
| Uruguay                               | 5,922    | 16,517  | 5,323    | 16,229  |
| Argentina                             | 5,461    | 15,136  | 5,164    | 14,246  |
| Germany                               | 1,390    | 5,635   | 1,816    | 8,514   |
| France                                | 720      | 5,973   | 876      | 8,464   |
| Netherlands                           | 1,360    | 4,831   | 1,657    | 6,022   |
| Italy                                 | 361      | 3,426   | 390      | 4,667   |
| Denmark                               | 545      | 3,111   | 554      | 3,408   |
| Brazil                                | 2,259    | 6,336   | 972      | 3,021   |
| <b>Lactose (170210....)</b>           |          |         |          |         |
| TOTAL                                 | 14,296   | 12,156  | 13,857   | 31,008  |
| United States                         | 8,854    | 6,906   | 8,479    | 15,699  |
| Netherlands                           | 1,875    | 2,043   | 1,821    | 5,873   |
| Germany                               | 543      | 799     | 1,174    | 3,521   |
| <b>Casein (3501.....)</b>             |          |         |          |         |
| TOTAL                                 | 6,418    | 45,947  | 7,226    | 58,236  |
| New Zealand                           | 3,220    | 23,776  | 4,087    | 32,207  |
| France                                | 994      | 6,905   | 1,110    | 8,784   |
| Germany                               | 780      | 5,327   | 780      | 6,644   |
| Australia                             | 168      | 1,334   | 288      | 2,269   |
| India                                 | -        | -       | 222      | 2,238   |
| Poland                                | 266      | 1,658   | 268      | 2,332   |

Continued on following page

**Table 4.o. Korean Imports of Dairy Products (cont.)**

|                                                   | 2006     |         | 2007     |         |
|---------------------------------------------------|----------|---------|----------|---------|
|                                                   | 1,000 MT | \$1,000 | 1,000 MT | \$1,000 |
| <b>Whey (including modified whey) (0404.....)</b> |          |         |          |         |
| TOTAL                                             | 71,730   | 98,483  | 70,420   | 143,954 |
| Netherlands                                       | 10,731   | 23,916  | 14,363   | 47,374  |
| United States                                     | 35,224   | 30,602  | 23,653   | 32,243  |
| Canada                                            | 8,169    | 15,990  | 9,447    | 21,389  |
| France                                            | 3,090    | 4,145   | 5,329    | 8,504   |
| New Zealand                                       | 296      | 2,183   | 1,131    | 5,224   |
| Chile                                             | 453      | 532     | 4,308    | 4,908   |
| Australia                                         | 5,229    | 7,656   | 1,289    | 3,619   |
| Germany                                           | 1,708    | 3,157   | 1,304    | 3,514   |
| Finland                                           | 2,454    | 3,375   | 2,071    | 3,493   |
| Poland                                            | 126      | 145     | 1,224    | 2,105   |
| Ukraine                                           | 92       | 91      | 1,657    | 2,063   |
| Turkey                                            | 887      | 754     | 1,570    | 1,939   |
| Belgium                                           | 552      | 1,067   | 391      | 1,505   |
| Argentina                                         | 549      | 730     | 908      | 1,241   |
| <b>Butter (0405.....)</b>                         |          |         |          |         |
| TOTAL                                             | 3,206    | 8,346   | 4,096    | 11,298  |
| Australia                                         | 1,315    | 3,263   | 2,105    | 5,137   |
| New Zealand                                       | 1,281    | 3,542   | 1,301    | 3,856   |

Source: Korea Agricultural Trade Information, [www.kati.net](http://www.kati.net).

States does not have a presence in the Korean casein market, which is dominated by New Zealand. The 20% base tariff is scheduled to phase out in seven years under the KORUS FTA.

Korea has a sizable whey market. In 2007, total imports of whey powder were \$144 million in value. Major exporters are the Netherlands, the United States, and Canada, which have a combined market share of close to 80%. Under the KORUS FTA, feed whey receives immediate duty-free access and the initial quota for food whey is set at 3,000 MT. That quota will grow annually at a compounded 3% rate until year nine. The over-quota tariff will be reduced immediately from 49.5% to 20% and will phase out over ten years. The initial quota set for U.S. exports far exceeds current export levels. However, immediate tariff elimination for feed whey and reduction of the food whey tariff to 20% will expand access. This will give California suppliers preferential access relative to competitors from the Netherlands and Canada. Korea's current imports of butter are not substantial due to the high tariff and there are very few imports from the United States. The KORUS FTA establishes a TRQ for butter with duty-free access for 200 MT and that amount grows at a compounded rate of 3% per year until unlimited duty-free access is allowed in year ten.

Dairy products are the number one agricultural product in California when measured by total revenue and the California industry has expanded substantially. California dairy exports have also expanded rapidly in recent years. Dairy exports from California to Korea were about \$6 million in 2006, but U.S. exports of dairy products to Korea tripled from 2004 to 2007, reaching more than \$70 million. The potential for dairy exports is important to consider in some detail for two additional reasons. First, the dairy product market in Korea is large in value and Korea is already an established market for major exporters of dairy products. Second, although Korea clearly has a cost disadvantage in dairy production, the domestic industry is sustained by trade barriers and government price subsidies (Lee, Sumner, and Ahn). This suggests that any changes in government

dairy policy may offer an additional market potential for exporters, especially for processed products that do not entail high shipping costs.

#### **4.8. Rice**

California is a major competitive producer of japonica, the type of rice favored by Korean consumers, and rice was a major focus of the agricultural negotiations. In recent years under WTO agreements, Korea has emerged as a significant market for California rice. In the WTO agreements, Korea was able to maintain strict quota import controls that limited imports to 4% of domestic consumption by 2005. Korea then agreed to a second round of gradual quota expansions that will result in access for all WTO members to export about 8% of domestic consumption to Korea by 2015 (Lee and Sumner). This additional market access fulfilled Korea's obligations under the WTO agreement of 1994 and was unrelated to the KORUS FTA. California has been able to export a portion of this quota access.

The California rice industry pressed hard during the FTA negotiations to achieve additional U.S.-specific market access for rice. Even if complete free trade could not be achieved, the opportunity to expand access to Korea would allow a steady and secure market in which consumers are accustomed to paying premium prices for rice and California rice has the potential to compete well in terms of quality.

Throughout the FTA negotiations, Korea maintained that it would allow absolutely no additional rice access as part of the KORUS FTA. Indeed, the Korean government refused to allow its negotiators to even consider or discuss any market opening for rice. Korea pointed to the United State's unwillingness to allow additional market access for sugar in its free trade agreement with Australia as a precedent. At the end of the day (literally after midnight on the day of the deadline), the United States finally signed an agreement that did indeed exclude any additional market access for rice. This was a major disappointment for the California rice industry, which had been a major supporter of the negotiations.



## **Part 5. Closing Remarks**

**T**his report has shown that there is a substantial potential to expand exports to Korea for many California agricultural commodities. Lower trade barriers will allow California agriculture to compete in a large, growing, and lucrative market. Commodity prices are high in Korea and consumers are willing to pay premiums for high-quality products of the type produced in California. Thus, with free trade, California agriculture should be in an excellent position to compete on both price and quality.

We focus here mainly on import access and new market opportunities. At the same time, we recognize that expanded access to the Korean market for the United States should be considered in the context of the broader world market for agricultural products.

Trade diversion will limit how much total U.S. exports rise once access is granted in Korea. Therefore, growth in exports to Korea does not necessarily translate to the same amount of growth in total exports. It is beyond the scope of our analysis to develop detailed price implications for California agricultural products.

Agriculture was a major item on the negotiating agenda. Because of concerns from Korea's agricultural lobby, Korea excluded from the agreement any liberalization for rice, limited access improvements for citrus fruit, and delayed market opening for several products of interest to California agriculture. Nonetheless, the resulting agreement will substantially improve access for a broad range of California agricultural commodities.

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## Appendix

**Table A-1. Detailed Uruguay-Round Tariff Schedule: Most Favored Nation Tariff Rates**

| Commodity                    | HS code      | Starting Tariff | 2004 Tariff | Tariff for Within-quota Quantity |
|------------------------------|--------------|-----------------|-------------|----------------------------------|
| <b>Fruits and Vegetables</b> |              |                 |             |                                  |
| Oranges, fresh               | 0805.10.0000 | 99              | 50          | 50                               |
| Oranges, juice               | 2009.11.0000 | 60              | 54          | –                                |
|                              | 2009.12.0000 | 60              | 54          | –                                |
|                              | 2009.19.0000 | 60              | 54          | –                                |
| Lemons                       | 0805.50.1000 | 50              | 30          | –                                |
|                              | 2009.31.1000 | 71              | 54          | –                                |
|                              | 2009.39.1000 | 71              | 54          | –                                |
|                              | 3301.13.0000 | 20              | 13          | –                                |
| Table grapes                 | 0806.10.0000 | 50              | 45          | –                                |
| Grapes, juice                | 2009.61.0000 | 50              | 45          | –                                |
|                              | 2009.69.0000 | 50              | 45          | –                                |
| Cherries                     | 0809.20.0000 | 40              | 24          | –                                |
|                              | 0812.10.0000 | 59.2            | 45          | –                                |
|                              | 2008.60.0000 | 59.2            | 45          | –                                |
| Strawberries                 | 0810100000   | 50              | 45          | –                                |
|                              | 0811100000   | 80              | 72          | –                                |
|                              | 0812901000   | 50              | 32.8        | –                                |
|                              | 2008800000   | 50              | 45          | –                                |
| Tomatoes, processed          | 2002.10.0000 | 50              | 45          | –                                |
|                              | 2002.90.1000 | 35              | 31.5        | –                                |
|                              | 2002.90.9000 | 50              | 45          | –                                |
|                              | 2009.50.0000 | 71              | 54          | –                                |
|                              | 2103.20.1000 | 60              | 54          | –                                |
|                              | 2103.20.2000 | 60              | 54          | –                                |
| Raisins                      | 0806.20.0000 | 50              | 21          | –                                |
| Olives                       | 0711.20.0000 | 30              | 27          | –                                |
|                              | 1509.10.0000 | 30              | 27          | –                                |
|                              | 1509.90.0000 | 30              | 27          | –                                |
|                              | 1510.00.0000 | 30              | 27          | –                                |
|                              | 2005.70.0000 | 35              | 22.9        | –                                |
| Apples                       | 0808100000   | 50              | 45          | –                                |
|                              | 0813300000   | 50              | 45          | –                                |
|                              | 2009710000   | 50              | 45          | –                                |
|                              | 2009790000   | 50              | 45          | –                                |
|                              | 2008992000   | 59.2            | 45          | –                                |

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Table A-1. Detailed Uruguay-Round Tariff Schedule: Most Favored Nation Tariff Rates (cont.)

| Commodity                 | HS code      | Starting Tariff | 2004 Tariff | Tariff for Within-quota Quantity |
|---------------------------|--------------|-----------------|-------------|----------------------------------|
| Pineapples                | 0804300000   | 50              | 45          | -                                |
|                           | 2009400000   | -               | -           | -                                |
|                           | 2009410000   | 71              | 54          | -                                |
|                           | 2009490000   | 71              | 54          | -                                |
|                           | 2006002000   | 59.2            | 45          | -                                |
|                           | 2008200000   | 50              | 45          | -                                |
| Bananas                   | 0803000000   | 100             | 90          | -                                |
| Kiwis                     | 0810.50.0000 | 50              | 45          | -                                |
| Grapefruit                | 0805.40.0000 | 50              | 30          | -                                |
|                           | 2009.21.0000 | 60              | 30          | -                                |
|                           | 2009.29.0000 | 60              | 30          | -                                |
| Lettuce                   | 0705.11.0000 | 50              | 45          | -                                |
|                           | 0705.19.0000 | 50              | 45          | -                                |
| Garlic                    | 0703201000   | 400             | 360         | 50                               |
|                           | 0703209000   | 400             | 360         | 50                               |
|                           | 0710802000   | 35.5            | 27          | -                                |
|                           | 0711901000   | 400             | 360         | 50                               |
|                           | 0712901000   | 400             | 360         | 50                               |
|                           | 2001909060   | 40              | 36          | -                                |
| Red peppers               | 0709601000   | 300             | 270         | 50                               |
|                           | 0709609000   | 300             | 270         | 50                               |
|                           | 0904201000   | 30              | 19.7        | -                                |
|                           | 0904202000   | 30              | 19.7        | -                                |
| <b>Tree Nuts</b>          |              |                 |             |                                  |
| Almonds                   | 0802.11.0000 | 50              | 45          | -                                |
|                           | 0802.12.0000 | 50              | 21          | -                                |
| Walnuts                   | 0802.31.0000 | 50              | 45          | -                                |
|                           | 0802.32.0000 | 50              | 30          | -                                |
| Pistachios                | 0802.50.0000 | 59.2            | 45          | -                                |
| <b>Livestock Products</b> |              |                 |             |                                  |
| Beef                      | 0201.10.0000 | 44.5            | 40          | -                                |
|                           | 0201.20.0000 | 44.5            | 40          | -                                |
|                           | 0201.30.0000 | 44.5            | 40          | -                                |
|                           | 0202.10.0000 | 44.5            | 40          | -                                |
|                           | 0202.20.0000 | 44.5            | 40          | -                                |
|                           | 0202.30.0000 | 44.5            | 40          | -                                |
|                           | 0206.10.0000 | 20              | 18          | -                                |
|                           | 0206.21.0000 | 23.7            | 18          | -                                |
|                           | 0206.22.0000 | 23.7            | 18          | -                                |

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**Table A-1. Detailed Uruguay-Round Tariff Schedule: Most Favored Nation Tariff Rates (cont.)**

| Commodity             | HS code      | Starting Tariff | 2004 Tariff | Tariff for Within-quota Quantity |
|-----------------------|--------------|-----------------|-------------|----------------------------------|
| Beef (cont.)          | 0206.29.1000 | 20              | 18          | –                                |
|                       | 0206.29.2000 | 20              | 18          | –                                |
|                       | 0206.29.9000 | 20              | 18          | –                                |
|                       | 0210.20.1000 | 30              | 27          | –                                |
|                       | 0210.20.9000 | 30              | 27          | –                                |
|                       | 0210.99.1010 | 29.6            | 22.5        | –                                |
|                       | 1602.50.1000 | 80              | 72          | –                                |
|                       | 1602.50.9000 | 80              | 72          | –                                |
| Hides and skins       | 4101.20.1000 | 20              | 5           | –                                |
|                       | 4101.50.1011 | 10              | 5           | –                                |
|                       | 4101.50.1012 | 10              | 5           | –                                |
|                       | 4101.50.1013 | 10              | 5           | –                                |
|                       | 4101.50.1014 | 10              | 5           | –                                |
|                       | 4101.50.1019 | 10              | 5           | –                                |
|                       | 4101.50.1021 | 10              | 5           | –                                |
|                       | 4101.50.1022 | 10              | 5           | –                                |
|                       | 4101.50.1023 | 10              | 5           | –                                |
|                       | 4101.50.1024 | 10              | 5           | –                                |
|                       | 4101.50.1029 | 10              | 5           | –                                |
|                       | 4101.50.1090 | 10              | 5           | –                                |
|                       | 4101.90.1011 | 20              | 5           | –                                |
|                       | 4101.90.1019 | 10              | 5           | –                                |
|                       | 4101.90.1091 | 20              | 5           | –                                |
|                       | 4101.90.1099 | 10              | 5           | –                                |
| <b>Dairy Products</b> |              |                 |             |                                  |
| Skim milk powder      | 0402.10.1010 | 220             | 176         | 20                               |
|                       | 0402.10.1090 | 220             | 176         | 20                               |
|                       | 0402.10.9000 | 220             | 176         | 20                               |
| Whole milk powder     | 0402.21.1000 | 220             | 176         | 40                               |
|                       | 0402.21.9000 | 220             | 176         | 40                               |
|                       | 0402.29.0000 | 220             | 176         | 40                               |
| Butter                | 0405.10.0000 | 99              | 89          | 40                               |
|                       | 0405.20.0000 | 60              | 54          | –                                |
|                       | 0405.90.0000 | 99              | 89          | 40                               |
| Whey                  | 0404.10.1010 | 99              | 49.5        | 20                               |
|                       | 0404.10.1090 | 99              | 49.5        | 20                               |
|                       | 0404.10.2110 | 99              | 49.5        | 20                               |
|                       | 0404.10.2120 | 99              | 49.5        | 20                               |
|                       | 0404.10.2130 | 99              | 49.5        | 20                               |
|                       | 0404.10.2190 | 99              | 49.5        | 20                               |
|                       | 0404.10.2900 | 99              | 49.5        | 20                               |
|                       | 0404.90.0000 | 47.4            | 36          | –                                |

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**Table A-1. Detailed Uruguay-Round Tariff Schedule: Most Favored Nation Tariff Rates (cont.)**

| Commodity         | HS code      | Starting Tariff | 2004 Tariff | Tariff for Within-quota Quantity |
|-------------------|--------------|-----------------|-------------|----------------------------------|
| Cheese            | 0406.10.1000 | 40              | 36          | -                                |
|                   | 0406.10.2000 | 47.4            | 36          | -                                |
|                   | 0406.20.0000 | 40              | 36          | -                                |
|                   | 0406.30.0000 | 40              | 36          | -                                |
|                   | 0406.40.0000 | 40              | 36          | -                                |
|                   | 0406.90.0000 | 40              | 36          | -                                |
| Formulated butter | 2106.90.9020 | 60              | 54          | -                                |
| Mixed milk powder | 0404.90.0000 | 47.4            | 36          | -                                |
|                   | 1901.90.2000 | 40              | 36          | -                                |
| Infant formula    | 1901.10.1010 | 40              | 36          | -                                |
|                   | 1901.10.1090 | 71              | 54          | -                                |
| Casein            | 3501.10.0000 | 25              | 22.5        | -                                |
|                   | 3501.90.1000 | 25              | 22.5        | -                                |
|                   | 3501.90.2000 | 25              | 22.5        | -                                |
| <b>Other</b>      |              |                 |             |                                  |
| Rice              | 1006.10.0000 | -               | -           | 5                                |
|                   | 1006.20.1000 | -               | -           | 5                                |
|                   | 1006.20.2000 | -               | -           | 5                                |
|                   | 1006.30.1000 | -               | -           | 5                                |
|                   | 1006.30.2000 | -               | -           | 5                                |
|                   | 1006.40.0000 | -               | -           | 5                                |
|                   | 1102.30.0000 | -               | -           | 5                                |
|                   | 1103.19.3000 | -               | -           | 5                                |
|                   | 1103.20.2000 | -               | -           | 5                                |
|                   | 1104.19.1000 | -               | -           | 5                                |
|                   | 1104.30.1000 | 23.7            | 18          | -                                |
|                   | Wine         | 2204.10.0000    | 118.4       | 30                               |
| 2204.21.1000      |              | 100             | 30          | -                                |
| 2204.21.2000      |              | 100             | 30          | -                                |
| 2204.21.9000      |              | 100             | 30          | -                                |
| 2204.29.1000      |              | 100             | 30          | -                                |
| 2204.29.2000      |              | 100             | 30          | -                                |
| 2204.29.9000      |              | 100             | 30          | -                                |
| 2204.30.0000      |              | 100             | 30          | -                                |
| 2205.10.0000      |              | 100             | 30          | -                                |
| 2205.90.0000      |              | 100             | 30          | -                                |
| 2208.20.1000      |              | 100             | 30          | -                                |
| 2208.20.9000      |              | 100             | 30          | -                                |

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**Table A-1. Detailed Uruguay-Round Tariff Schedule: Most Favored Nation Tariff Rates (cont.)**

| Commodity    | HS code      | Starting Tariff | 2004 Tariff | Tariff for Within-quota Quantity |
|--------------|--------------|-----------------|-------------|----------------------------------|
| Cotton       | 5201.00.1000 | 10              | 2           | -                                |
| Hay          | 1209.21.0000 | 0               | 0           | -                                |
|              | 1214.10.0000 | 20              | 10          | -                                |
|              | 1214.90.1000 | 111.7           | 100.5       | 5                                |
|              | 1214.90.9010 | 20              | 18          | -                                |
|              | 1214.90.9090 | 111.7           | 100.5       | 5                                |
| Flowers      | 0601.10..... | 30              | 27          | -                                |
|              | 0601.20..... | 30              | 27          | -                                |
|              | 0602.10.1000 | 20              | 13.1        | -                                |
|              | 0602.10.9000 | 20              | 13.1        | -                                |
|              | 0602.20.1000 | 20              | 18          | 8                                |
|              | 0602.20.2000 | 20              | 18          | 8                                |
|              | 0602.20.3000 | 20              | 18          | 8                                |
|              | 0602.20.4000 | 20              | 13.1        | -                                |
|              | 0602.20.5000 | 20              | 13.1        | -                                |
|              | 0602.20.6000 | 20              | 18          | 8                                |
|              | 0602.20.7010 | 20              | 13.1        | -                                |
|              | 0602.20.7020 | 20              | 13.1        | -                                |
|              | 0602.20.7030 | 20              | 13.1        | -                                |
|              | 0602.20.9000 | 20              | 13.1        | -                                |
|              | 0602.30.0000 | 20              | 13.1        | -                                |
|              | 0602.40.0000 | 30              | 27          | -                                |
|              | 0602.90.1010 | 30              | 27          | -                                |
|              | 0602.90.1020 | 20              | 18          | -                                |
|              | 0602.90.1030 | 20              | 18          | -                                |
|              | 0602.90.1040 | 20              | 18          | -                                |
|              | 0602.90.1050 | 20              | 18          | -                                |
|              | 0602.90.1060 | 20              | 18          | -                                |
|              | 0602.90.1090 | 30              | 27          | -                                |
|              | 0602.90.20.. | 20              | 13.1        | -                                |
|              | 0602.90.9010 | 20              | 13.1        | -                                |
|              | 0602.90.9020 | 20              | 13.1        | -                                |
|              | 0602.90.9030 | 20              | 18          | 8                                |
|              | 0602.90.9040 | 20              | 18          | -                                |
|              | 0602.90.9090 | 20              | 13.1        | -                                |
|              | 0603.10..... | 40              | 36          | -                                |
|              | 0603.90.0000 | 40              | 36          | -                                |
|              | 0604.10.0000 | 20              | 13.1        | -                                |
| 0604.91..... | 20           | 13.1            | -           |                                  |

Source: Korea Rural Economic Institute.

Table A-2. Preferential Tariff Rates for Chile under the FTA

| Commodity                      | HS Code      | Basic Tariff | Tariff Rates: Reduction Schedule by Year and Number of Years to Phase Out |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                 |
|--------------------------------|--------------|--------------|---------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------------|
|                                |              |              | In 2004                                                                   | In 2005 | In 2006 | In 2007 | In 2008 | In 2009 | In 2010 | In 2011 | In 2012 | In 2013 | In 2014 | In 2015 | In 2016 | In 2017 | In 2018 | In 2019 | In 2020 | No. Years       |
| <b>Fruits and Vegetables</b>   |              |              |                                                                           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                 |
| Oranges, juice                 | 2009.11.0000 | 55           | 49.6                                                                      | 44.7    | 39.7    | 34.7    | 29.8    | 24.8    | 19.9    | 14.9    | 9.9     | 5.0     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
| Lemons                         | 0805.50.1000 | 32           | 29.1                                                                      | 26.2    | 23.3    | 20.4    | 17.4    | 14.6    | 11.6    | 8.7     | 5.8     | 2.9     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 2009.31.1000 | 50           | 45.5                                                                      | 40.9    | 36.4    | 31.8    | 27.3    | 22.8    | 18.2    | 13.7    | 9.1     | 4.6     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 2009.39.1000 | 50           | 45.5                                                                      | 40.9    | 36.4    | 31.8    | 27.3    | 22.8    | 18.2    | 13.7    | 9.1     | 4.6     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 3301.13.0000 | 5            | 4.2                                                                       | 3.3     | 2.5     | 1.7     | 0.8     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5               |
| Table grapes                   | 0806.10.0000 | 46           | 41.4                                                                      | 37.2    | 33.1    | 28.9    | 24.8    | 20.7    | 16.6    | 12.4    | 8.3     | 4.1     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10<br>(Nov-Apr) |
| Grapes, juice                  | 2009.61.0000 | 46           | 39.8                                                                      | 34.1    | 28.4    | 22.8    | 17.1    | 11.4    | 5.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 7               |
|                                | 2009.69.0000 | 46           | 39.8                                                                      | 34.1    | 28.4    | 22.8    | 17.1    | 11.4    | 5.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 7               |
| Cherries                       | 0809.20.0000 | 26           | 23.3                                                                      | 20.9    | 18.6    | 16.3    | 14.0    | 11.6    | 9.3     | 7.0     | 4.7     | 2.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 0812.10.0000 | 30           | 27.3                                                                      | 24.5    | 21.8    | 19.1    | 16.4    | 13.7    | 10.9    | 8.2     | 5.5     | 2.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
| Strawberries                   | 0811.10.0000 | 30           | 27.3                                                                      | 24.5    | 21.8    | 19.1    | 16.4    | 13.7    | 10.9    | 8.2     | 5.5     | 2.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 2009.80.1020 | 50           | 43.8                                                                      | 37.5    | 31.3    | 25.0    | 18.8    | 12.5    | 6.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 7               |
|                                | 2008.80.0000 | 46           | 45.5                                                                      | 45.5    | 45.5    | 45.5    | 45.5    | 45.5    | 45.5    | 41.0    | 36.4    | 31.9    | 27.3    | 22.8    | 18.2    | 13.7    | 9.1     | 4.6     | 0       | 16              |
| Tomatoes, processed            | 2002.10.0000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5               |
|                                | 2002.90.1000 | 5            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0               |
|                                | 2002.90.9000 | 8            | 7.3                                                                       | 6.5     | 5.8     | 5.1     | 4.4     | 3.6     | 2.9     | 2.2     | 1.5     | 0.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 2009.50.0000 | 30           | 27.3                                                                      | 24.5    | 21.8    | 19.1    | 16.4    | 13.7    | 10.9    | 8.2     | 5.5     | 2.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 2103.20.1000 | 8            | 7.3                                                                       | 6.5     | 5.8     | 5.1     | 4.4     | 3.6     | 2.9     | 2.2     | 1.5     | 0.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 2103.20.2000 |              |                                                                           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 10              |
| Raisins                        | 0806.20.0000 | 22           | 20.4                                                                      | 18.3    | 16.3    | 14.2    | 12.2    | 10.2    | 8.2     | 6.1     | 4.1     | 2.0     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
| Olives                         | 0711.20.0000 | 27           | 22.7                                                                      | 18.2    | 13.7    | 9.1     | 4.6     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5               |
|                                | 1509.10.0000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5               |
|                                | 1509.90.0000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5               |
|                                | 1510.00.0000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5               |
|                                | 2005.70.0000 | 20           | 16.7                                                                      | 13.3    | 10.0    | 6.7     | 3.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5               |
| Apples                         | 0813.30.0000 | 46           | 41.4                                                                      | 37.2    | 33.1    | 28.9    | 24.8    | 20.7    | 16.6    | 12.4    | 8.3     | 4.1     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 2009.71.0000 | 46           | 41.4                                                                      | 37.2    | 33.1    | 28.9    | 24.8    | 20.7    | 16.6    | 12.4    | 8.3     | 4.1     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 2009.79.0000 | 46           | 41.4                                                                      | 37.2    | 33.1    | 28.9    | 24.8    | 20.7    | 16.6    | 12.4    | 8.3     | 4.1     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
|                                | 2008.99.2000 | 46           | 42.2                                                                      | 38.0    | 33.7    | 29.5    | 25.3    | 21.1    | 16.9    | 12.7    | 8.4     | 4.2     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |
| Pineapples, bananas, and kiwis | 0810.50.0000 | 46           | 41.4                                                                      | 37.2    | 33.1    | 28.9    | 24.8    | 20.7    | 16.6    | 12.4    | 8.3     | 4.1     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10              |

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**Table A-2. Preferential Tariff Rates for Chile under the FTA (cont.)**

| Commodity       | HS Code      | Basic Tariff | Tariff Rates: Reduction Schedule by Year and Number of Years to Phase Out |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |    |
|-----------------|--------------|--------------|---------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|----|
|                 |              |              | In 2004                                                                   | In 2005 | In 2006 | In 2007 | In 2008 | In 2009 | In 2010 | In 2011 | In 2012 | In 2013 | In 2014 | In 2015 | In 2016 | In 2017 | In 2018 | In 2019 | In 2020 | No. Years |    |
| Grapefruit      | -            | -            | -                                                                         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -         |    |
| Lettuce         | 0705.19.0000 | 46           | 37.9                                                                      | 30.3    | 22.8    | 15.2    | 7.6     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 5  |
| Garlic          | -            | -            | -                                                                         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -         | -  |
| Red peppers     | -            | -            | -                                                                         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -         | -  |
| <b>Nuts</b>     |              |              |                                                                           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |    |
| Almonds         | 0802.11.0000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 5  |
|                 | 0802.12.0000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 5  |
| Walnuts         | 0802.31.0000 | 46           | 39.8                                                                      | 34.1    | 28.4    | 22.8    | 17.1    | 11.4    | 5.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 7  |
|                 | 0802.32.0000 | 32           | 28.0                                                                      | 24.0    | 20.0    | 16.0    | 12.0    | 8.0     | 4.0     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 7  |
| Pistachios      | -            | -            | -                                                                         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -         | -  |
| <b>Meats</b>    |              |              |                                                                           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |    |
| Beef            | 0206.10.0000 | 18           | 16.5                                                                      | 14.9    | 13.2    | 11.6    | 9.9     | 8.3     | 6.6     | 5.0     | 3.3     | 1.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 10 |
|                 | 0206.21.0000 | 19           | 15.5                                                                      | 12.4    | 9.3     | 6.2     | 3.1     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 5  |
|                 | 0206.22.0000 | 19           | 16.9                                                                      | 15.2    | 13.5    | 11.8    | 10.1    | 8.5     | 6.8     | 5.1     | 3.4     | 1.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 10 |
|                 | 0206.29.1000 | 18           | 15.2                                                                      | 12.1    | 9.1     | 6.1     | 3.0     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 5  |
|                 | 0206.29.2000 | 18           | 15.2                                                                      | 12.1    | 9.1     | 6.1     | 3.0     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 5  |
|                 | 0206.29.9000 | 18           | 15.2                                                                      | 12.1    | 9.1     | 6.1     | 3.0     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 5  |
|                 | 0210.99.1010 | 23           | 21.1                                                                      | 19.0    | 16.9    | 14.8    | 12.6    | 10.6    | 8.4     | 6.3     | 4.2     | 2.1     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 10 |
| Hides and skins | 4101.20.1000 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1011 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1012 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1013 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1014 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1019 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1021 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1022 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1023 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1024 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1029 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.50.1090 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.90.1011 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.90.1019 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
|                 | 4101.90.1091 | 1            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         | 0  |
| 4101.90.1099    | 1            | 0            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         |    |

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Table A-2. Preferential Tariff Rates for Chile under the FTA (cont.)

| Commodity             | HS Code      | Basic Tariff | Tariff Rates: Reduction Schedule by Year and Number of Years to Phase Out |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
|-----------------------|--------------|--------------|---------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
|                       |              |              | In 2004                                                                   | In 2005 | In 2006 | In 2007 | In 2008 | In 2009 | In 2010 | In 2011 | In 2012 | In 2013 | In 2014 | In 2015 | In 2016 | In 2017 | In 2018 | In 2019 | In 2020 | No. Years |
| <b>Dairy Products</b> |              |              |                                                                           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
| Skim milk powder      | -            | -            | -                                                                         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |           |
| Whole milk powder     | -            | -            | -                                                                         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |           |
| Butter                | -            | -            | -                                                                         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |           |
| Whey                  | -            | -            | -                                                                         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |           |
| Cheese                | 0406.90.0000 | 36           | 33.1                                                                      | 29.8    | 26.5    | 23.2    | 19.8    | 16.6    | 13.2    | 9.9     | 6.6     | 3.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10        |
| Formulated butter     | 2106.90.9020 | 8            | 7.3                                                                       | 6.5     | 5.8     | 5.1     | 4.4     | 3.6     | 2.9     | 2.2     | 1.5     | 0.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10        |
| Mixed milk powder     | -            | -            | -                                                                         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -         |
| Infant formula        | 1901.10.1010 | 36           | 36.4                                                                      | 36.4    | 36.4    | 36.4    | 36.4    | 36.4    | 36.4    | 32.8    | 29.1    | 25.5    | 21.8    | 18.2    | 14.6    | 10.9    | 7.3     | 3.6     | 0       | 16        |
|                       | 1901.10.1090 | 40           | 36.4                                                                      | 32.7    | 29.1    | 25.4    | 21.8    | 18.2    | 14.6    | 10.9    | 7.3     | 3.6     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10        |
| Casein                | 3501.10.0000 | 20           | 18.2                                                                      | 16.4    | 14.5    | 12.7    | 10.9    | 9.1     | 7.3     | 5.5     | 3.6     | 1.8     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10        |
|                       | 3501.90.1000 | 20           | 18.2                                                                      | 16.4    | 14.5    | 12.7    | 10.9    | 9.1     | 7.3     | 5.5     | 3.6     | 1.8     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10        |
|                       | 3501.90.2000 | 20           | 18.2                                                                      | 16.4    | 14.5    | 12.7    | 10.9    | 9.1     | 7.3     | 5.5     | 3.6     | 1.8     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10        |
| <b>Other</b>          |              |              |                                                                           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
| Rice                  | -            | -            | -                                                                         | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -         |
| Wine                  | 2204.10.0000 | 15           | 12.5                                                                      | 10.0    | 7.5     | 5.0     | 2.5     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|                       | 2204.21.1000 | 15           | 12.5                                                                      | 10.0    | 7.5     | 5.0     | 2.5     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|                       | 2204.21.2000 | 15           | 12.5                                                                      | 10.0    | 7.5     | 5.0     | 2.5     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|                       | 2204.21.9000 | 15           | 12.5                                                                      | 10.0    | 7.5     | 5.0     | 2.5     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|                       | 2204.29.1000 | 15           | 12.5                                                                      | 10.0    | 7.5     | 5.0     | 2.5     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|                       | 2204.29.2000 | 15           | 12.5                                                                      | 10.0    | 7.5     | 5.0     | 2.5     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|                       | 2204.29.9000 | 15           | 12.5                                                                      | 10.0    | 7.5     | 5.0     | 2.5     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|                       | 2204.30.0000 | 30           | 27.3                                                                      | 24.5    | 21.8    | 19.1    | 16.4    | 13.7    | 10.9    | 8.2     | 5.5     | 2.7     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10        |
|                       | 2205.10.0000 | 15           | 12.5                                                                      | 10.0    | 7.5     | 5.0     | 2.5     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|                       | 2208.20.1000 | 15           | 12.5                                                                      | 10.0    | 7.5     | 5.0     | 2.5     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|                       | 2208.20.9000 | 15           | 12.5                                                                      | 10.0    | 7.5     | 5.0     | 2.5     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
| Cotton                | 5201.00.1000 | 0            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         |
|                       | 5201.00.9020 | 0            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         |
|                       | 5201.00.9030 | 0            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         |
| Hay                   | 1209.21.0000 | 0            | 0                                                                         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0         |
|                       | 1214.10.0000 | 1            | 0.8                                                                       | 0.7     | 0.5     | 0.3     | 0.2     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|                       | 1214.90.9010 | 1            | 0.8                                                                       | 0.7     | 0.5     | 0.3     | 0.2     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |

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Table A-2. Preferential Tariff Rates for Chile under the FTA (cont.)

| Commodity | HS Code      | Basic Tariff | Tariff Rates: Reduction Schedule by Year and Number of Years to Phase Out |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
|-----------|--------------|--------------|---------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
|           |              |              | In 2004                                                                   | In 2005 | In 2006 | In 2007 | In 2008 | In 2009 | In 2010 | In 2011 | In 2012 | In 2013 | In 2014 | In 2015 | In 2016 | In 2017 | In 2018 | In 2019 | In 2020 | No. Years |
| Flowers   | 0601.10.1000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.10.2000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.10.3000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.10.4000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.10.5000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.10.6000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.10.7000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.10.8000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.10.9000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.20.1000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.20.2000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.20.3000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.20.4000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.20.5000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.20.6000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.20.7000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.20.8000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.20.9010 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0601.20.9090 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.10.1000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.10.9000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.20.1000 | 18           | 15.2                                                                      | 12.1    | 9.1     | 6.1     | 3.0     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.20.2000 | 18           | 15.2                                                                      | 12.1    | 9.1     | 6.1     | 3.0     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.20.3000 | 18           | 15.2                                                                      | 12.1    | 9.1     | 6.1     | 3.0     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.20.4000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.20.5000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.20.6000 | 18           | 15.2                                                                      | 12.1    | 9.1     | 6.1     | 3.0     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.20.7010 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.20.7020 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.20.7030 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.20.9000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.30.0000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.40.0000 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.90.1010 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.90.1020 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.90.1030 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.90.1040 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.90.1050 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |
|           | 0602.90.1060 | 8            | 6.7                                                                       | 5.3     | 4.0     | 2.7     | 1.3     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 5         |

Continued on following page

Table A-2. Preferential Tariff Rates for Chile under the FTA (cont.)

| Commodity | HS Code      | Basic<br>Tariff | Tariff Rates: Reduction Schedule by Year and Number of Years to Phase Out |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |
|-----------|--------------|-----------------|---------------------------------------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|
|           |              |                 | In<br>2004                                                                | In<br>2005 | In<br>2006 | In<br>2007 | In<br>2008 | In<br>2009 | In<br>2010 | In<br>2011 | In<br>2012 | In<br>2013 | In<br>2014 | In<br>2015 | In<br>2016 | In<br>2017 | In<br>2018 | In<br>2019 | In<br>2020 | No. Years |
| Flowers   |              |                 |                                                                           |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |
| (cont.)   | 0602.90.1090 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2011 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2019 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2020 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2030 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2040 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2050 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2061 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2069 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2071 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2079 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2081 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2089 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2091 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.2099 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.9010 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.9020 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.9030 | 18              | 15.2                                                                      | 12.1       | 9.1        | 6.1        | 3.0        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.9040 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0602.90.9090 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0603.10.1000 | 25              | 22.7                                                                      | 20.5       | 18.2       | 15.9       | 13.6       | 11.4       | 9.1        | 6.8        | 4.6        | 2.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 10        |
|           | 0603.10.2000 | 25              | 22.7                                                                      | 20.5       | 18.2       | 15.9       | 13.6       | 11.4       | 9.1        | 6.8        | 4.6        | 2.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 10        |
|           | 0603.10.3000 | 25              | 20.8                                                                      | 16.7       | 12.5       | 8.3        | 4.2        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0603.10.4000 | 25              | 20.8                                                                      | 16.7       | 12.5       | 8.3        | 4.2        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0603.10.5000 | 25              | 22.7                                                                      | 20.5       | 18.2       | 15.9       | 13.6       | 11.4       | 9.1        | 6.8        | 4.6        | 2.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 10        |
|           | 0603.10.6000 | 25              | 22.7                                                                      | 20.5       | 18.2       | 15.9       | 13.6       | 11.4       | 9.1        | 6.8        | 4.6        | 2.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 10        |
|           | 0603.10.7000 | 25              | 20.8                                                                      | 16.7       | 12.5       | 8.3        | 4.2        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0603.10.8000 | 25              | 20.8                                                                      | 16.7       | 12.5       | 8.3        | 4.2        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0603.10.9000 | 25              | 22.7                                                                      | 20.5       | 18.2       | 15.9       | 13.6       | 11.4       | 9.1        | 6.8        | 4.6        | 2.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 10        |
|           | 0603.90.0000 | 25              | 22.7                                                                      | 20.5       | 18.2       | 15.9       | 13.6       | 11.4       | 9.1        | 6.8        | 4.6        | 2.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 10        |
|           | 0604.10.0000 | 8               | 7.3                                                                       | 6.5        | 5.8        | 5.1        | 4.4        | 3.6        | 2.9        | 2.2        | 1.5        | 0.7        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 10        |
|           | 0604.91.1010 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0604.91.1090 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0604.91.9000 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |
|           | 0604.99.0000 | 8               | 6.7                                                                       | 5.3        | 4.0        | 2.7        | 1.3        | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5         |

Source: Korea Rural Economic Institute.

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