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List of abbreviations

BIL	BILLION
CAGR	COMPOUND ANNUAL GROWTH RATE
CPA	CLASSIFICATION OF PRODUCTS BY ACTIVITY
CPC	CENTRAL PRODUCT CLASSIFICATION
€	EURO
EU	EUROPEAN UNION
FDA	US FOOD AND DRUG ADMINISTRATION
HS	HARMONIZED COMMODITY DESCRIPTION AND CODING SYSTEM
ISIC	INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION
M	METRES
MIL	MILLION
MT	METRIC TON
NACE	NOMENCLATURE GÉNÉRALE DES ACTIVITÉS ÉCONOMIQUES DANS LES COMMUNAUTÉS EUROPÉENNES
NAICS	NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM
SITC	STANDARD INTERNATIONAL TRADE CLASSIFICATION
SPS	SANITARY AND PHYTOSANITARY MEASURES
TARIC	EUROPEAN UNION INTEGRATED COMMUNITY TARIFF
TBT	TECHNICAL BARRIERS TO TRADE
US\$	UNITED STATES DOLLAR
US	UNITED STATES OF AMERICA
USDA	UNITED STATES DEPARTMENT OF AGRICULTURE
WTO	WORLD TRADE ORGANIZATION
YR	YEAR

Executive summary

This survey explores walnut export opportunities to the German and US markets with an emphasis on the Persian or English walnut (*Juglans Regia*), which are production and trade leaders throughout the world.

Walnut consumption is increasing. Walnuts are being used in a greater variety of foods, increasingly consumed as a snack, and consumers are now more aware of the health benefits walnuts offer. The world market for walnuts is increasing by 9% per year while the world consumption of walnuts has grown by nearly 76% since 2006 (Food and Agriculture Organization of the United Nations, 2011).

Germany is the world's leading importer of shelled walnuts. As the fourth largest consumer of walnuts, not counting the EU in aggregation, Germany represents a strong export opportunity for producers. Domestic production is minuscule so demand is met by importation. The US is the largest supplier of walnuts.

The US represents a huge market, but a challenging export opportunity at the same time. Consumption in the US is second only to China, but imports are barely measurable due to exceptional level of domestic production, which meets over 99% of the demand (Borris, Burnke and Kreith, 2011).

A growing trend in the walnut value chain is off-shore processing to reduce costs. Exporters may ship in-shell walnuts to processing centers in China or the Republic of Moldova (New Rural Industries Australia, 2011). Shelling can double the price of walnuts sold in the US and Germany (Perez and Pollack, 2005).

1 Product description

This export opportunity survey is intended for exporters interested in selling walnuts in both German and US markets. It covers the markets for walnuts, classified under the following codes:

- HS 080231: Walnuts in shell, fresh or dried;
- HS 080232: Walnuts without shells, fresh or dried;
- SITC 057.76: Walnuts (Edible nuts (excluding nuts chiefly used for the extraction of oil)), fresh or dried, whether or not shelled or peeled;
- CPC 2 21429: Other shelled nuts;
- CPC 2 01376: Walnuts, in shell;
- CPA 01.25.35: Walnuts;
- ISIC 0125: Growing of other tree and bush fruits and nuts;
- TARIC 0802 31: Walnuts, in shell;
- TARIC 0802 32: Walnuts, shelled;
- NAICS 111335: Tree Nut Farming (Walnut farming);
- NACE 01.25.35: Walnuts.

Walnuts (*Juglans*) are edible seeds of the genus *Juglans*, which belongs to the family Juglandaceae (Fruit and Nut Trees, 2007). Walnuts grow on trees characterized by large and aromatic compound leaves. There are about twenty-one species of walnuts. Species of the walnut family have their origin mostly in the North Temperate Zone¹, but also range from Central America along the Andes to Argentina and through tropical Asia to Java and New Guinea (The Columbia Encyclopedia, 2011). Persian walnuts were once used as food on the ancient trade routes across Asia and Europe and the trees became established in China in the East and Europe in the West.

An inedible green fleshy husk encloses the walnut seed. Removing the husk reveals the wrinkly hard walnut shell that holds the edible kernel. In the North Temperate Zone, walnuts are ready for harvesting by August, when the green husk begins to crack. Mechanical shakers shake each tree, causing the walnuts to fall to the ground. Afterwards, mechanical harvesters pick them up for cleaning. A huller removes the green husk and the nut is dried to optimum moisture level (8%) to protect its quality during storage.

¹ The North Temperate Zone extends from the Tropic of Cancer (23.5 degrees north latitude) to the Arctic Circle (65.5 degrees north latitude).

Walnuts are sold both in shell and shelled and are certified for quality in the US according to USDA standards. In-shell walnuts are sized as jumbo, large, medium, or baby. Shelled walnuts are inspected to ensure an end-product that is clean, well-dried, and of specific color as determined in the official walnut color chart (California Walnuts, 2011).

Walnuts have a significant nutritional value due to their high fat content. They are rich in monounsaturated fatty acids and are a good source of important omega-3 essential acids. In 2003, the FDA recognized the nutritional benefits of nuts and their role in heart disease prevention (Tsang, 2006).

Persian walnuts, also referred to as English walnuts (*Juglans regia*), are the primary species of walnut production worldwide. There are hundreds of cultivators of Persian walnuts around the world (Germain, 2003). Persian walnut trees grow in a range of well-drained soils from sand to clay loam and prefer warm temperatures during the growing season. The buds are very sensitive to frost damage. The trees grow to 15 m tall. It takes approximately three to four years for grafted trees to produce full crops and about five or more years for seedling trees (Society of Ontario Nut Growers, 2008).

Black walnuts (*Juglans nigra* and *Juglans hindsii*) are often used as a rootstock for English walnuts. Black walnut trees produce a natural herbicide that inhibits the growth of many vegetative species. Black walnuts are available from commercial sources in the US but production is often from gathering in the wild. The trees are approximately 20-27m tall and have a diameter of about 0.5-1.0 m. Black walnuts are more resistant to frost than Persian walnuts (Medicinal Herbs, 2011).

The Butternut (*Juglans cinerea*), also known as the white walnut, can be found mostly on bottomlands and lower slopes on moist soils. Mature trees seldom grow more than 21 m in height and 90 cm in diameter (LandOwner Resource Center, 1997).

Walnuts are used in many different ways. They may be eaten raw, either by themselves or in products like trail mixes. They are also used in baked goods. The nutmeat is also processed into walnut oil that is ideal for salad dressings.

2 Production, foreign trade and consumption

Production

China and the US account for a majority of the world production. China leads production with 560,000 MT of walnuts in 2010 and a projected volume of 700,000 MT in 2011 (USDA, 2011b). The US is second, producing 456,300 MT in 2010 and is expected to produce 440,000 MT in 2011.

The other world leaders in production are the Ukraine (80,000 MT), Turkey (75,000 MT), the European Union-27 (59,000 MT), Chile (40,000 MT), and India (30,000 MT) (USDA, 2011b). Germany's production volume is a distant thirteenth producing 19,778 MT in 2009, which are the most current production numbers available from the Food and Agriculture of the United Nations database (Food and Agriculture of the United Nations, 2011).

Between 2006 and 2010, the annual average growth rate for the US was 9% with a slight reduction in 2007. 2011 production is projected to decrease slightly (USDA, 2011b).

German production has been relatively stable for four years. Production decreased slightly from 19,754 MT in 2006 to 17,000 MT in 2007, before increasing again to 19,778 MT in 2009. Unfortunately, there is no projected production numbers extending beyond 2009 (Food and Agriculture of the United Nations, 2011).

Most walnut producers in the US are based in California. That state grows 99% of the walnuts in the US and 75% of the world's exports (Borris, Burnke, Kreith, 2011). Most growers are small family farms with an average of 46 acres per walnut farm (Borris, Burnke, Kreith, 2011a). 90% of the farms are located in California, 5% in Oregon, and the remaining 5% are in Washington, Pennsylvania, Michigan, Utah, Iowa as well as in Maine (Perez, Pollack, 2005).

In total, there are 58 processors of walnuts in the US. Top processors include John B. Sanfilippo & Son, Inc., Diamond, and Crain Walnut Shelling, Inc.

Currently, US growers average 227 trees per acre, which represents an increase of ten trees per acre over the last five years. Walnuts are currently grown on 227,000 acres (USDA, 2011c).

Table 1: Top World Producers of Walnuts in Shell in Metric Tons

Rank	Producer	2006	2007	2008	2009	2010	2011 (Projections)
	World	996,310	1,032,410	1,186,730	1,282,240	1,332,700	1,463,500
1	China	425,000	460,000	490,000	560,000	580,000	700,000
2	USA	313,890	297,560	395,530	396,440	456,300	440,000
3	Ukraine	30,000	70,000	80,000	100,000	80,000	90,000
4	Turkey	75,000	85,000	85,000	88,000	85,000	80,000
5	EU - 27	70,000	60,600	70,900	67,000	59,000	60,000
6	Chile	22,200	26,000	30,000	32,500	40,000	46,000
7	India	28,000	31,000	33,000	36,000	30,000	45,000
13	Germany (lm)	19,754	17,000	18,374	19,778	19,778	19,778

lm: based on FAO imputation methodology

Source: Based on USDA (2011), Food and Agriculture of the United Nations (2011)

Foreign trade

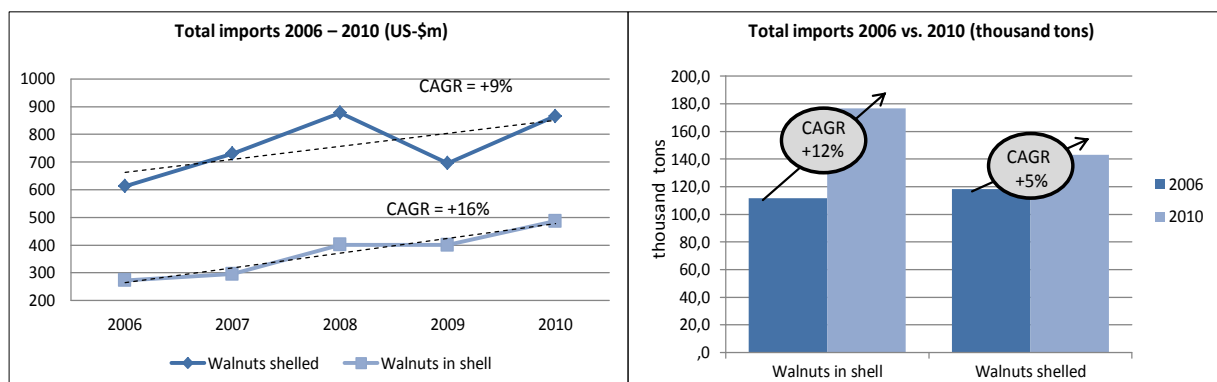
Imports

World imports (general)

As shown in Figure 1, the world market for shelled walnuts and in-shell walnuts has consistently grown in recent years. The total imports of shelled walnuts grew from US\$612 million in 2006 to US\$865 million in 2010, an annual growth rate of 9%. The total quantity imported increased by an annual growth rate of 5%.

After a noticeable decline in 2009, the import value of walnuts in shell grew by 16% per year on average with a total of US\$486 million in 2010. The quantity compound annual growth rate over this time interval is 12%. This imputes to an average market price increase of 4% (Comtrade, 2011).

Figure 1: Total World Imports of Walnuts: Value and Quantity



Source: Comtrade database

World imports of walnuts in shell

In 2010, Hong Kong was the world's major importer of walnuts in shell, with 20% of global imports (US\$95.0 mil.), followed by Italy (US\$90.2 mil.), Turkey (US\$50.5 mil.), Mexico

(US\$47.2 mil.), Spain (US\$46.3 mil.), and Germany (US\$39.6 mil.). Together these top 6 importers account for 77% of the world imports. The US share of world imports is negligible. The average price per MT is US\$2,755. The Russian Federation has the lowest MT value of US\$1,597. Israel pays the most at US\$5,133 per ton. (Due to the negligible amount of imports, the US is not considered.) China (value: +154% / qty: +96%) and Hong Kong (value: +135% / qty: +130%) are leading in terms of import growth, while the Republic of Moldova decreased the quantity imported by 11% since 2006 (Comtrade, 2011).

Table 2: Top World Importers of Walnuts in Shell in 2010

Rank	Importer	Value imported (in US\$ <i>k</i>)	Share of world imports (value in %)	Quantity imported (in tons)	Unit value (US\$/ton)	Import trend: Annual growth rates 2006-2010 (in %)	
						Value	Quantity
	World	486,484		176,539	2,755	16	12
1	China, Hong Kong SAR	95,000	20	32,002	2,969	135	130
2	Italy	90,249	19	26,571	3,397	20	13
3	Turkey	50,519	10	27,369	1,846	54	33
4	Mexico	47,189	10	15,963	2,956	-7	-4
5	Spain	46,314	10	15,242	3,039	2	-3
6	Germany	39,566	8	12,759	3,092	-2	-6
7	China	30,914	6	14,962	2,066	154	96
8	Netherlands	8,909	2	2,885	3,088	-1	-7
9	Brazil	8,557	2	2,299	3,722	12	2
10	Canada	6,333	1	2,079	3,047	4	-2
11	Portugal	5,740	1	1,522	3,771	9	1
12	Republic of Moldova	5,237	1	3,629	1,443	0	-11
13	Russian Federation	5,112	1	3,207	1,597	24	11
14	Switzerland	4,252	1	174	4,364	11	2
15	Israel	4,138	1	815	5,133	51	22
69	USA	20,000	0	3	7,846	-3	-20

Source: Comtrade database

World imports of shelled walnuts

As seen in Table 3, Germany is the world's largest importer of shelled walnuts with a total amount of US\$89.8 mil. and a 10% share of the global volume. Both value and quantity rose in a rather moderate way. The US is ranked 29th with very little imports (US\$4.7 mil.), but the average annual growth rates (value: +46% / qty: +19%) are considered high in comparison to other countries, except from the Russian Federation. The shelled walnut market is roughly twice the size of the in-shell market. The top 15 countries account for 75% of the world's imports. Again, the Russian Federation, on average, has the lowest price level (US\$3,397 per ton). Brazil's import value is US\$11,250 per MT, while the average unit value is US\$6,049 per MT (Comtrade, 2011).

Table 3: Top World Importers of Shelled Walnuts in 2010

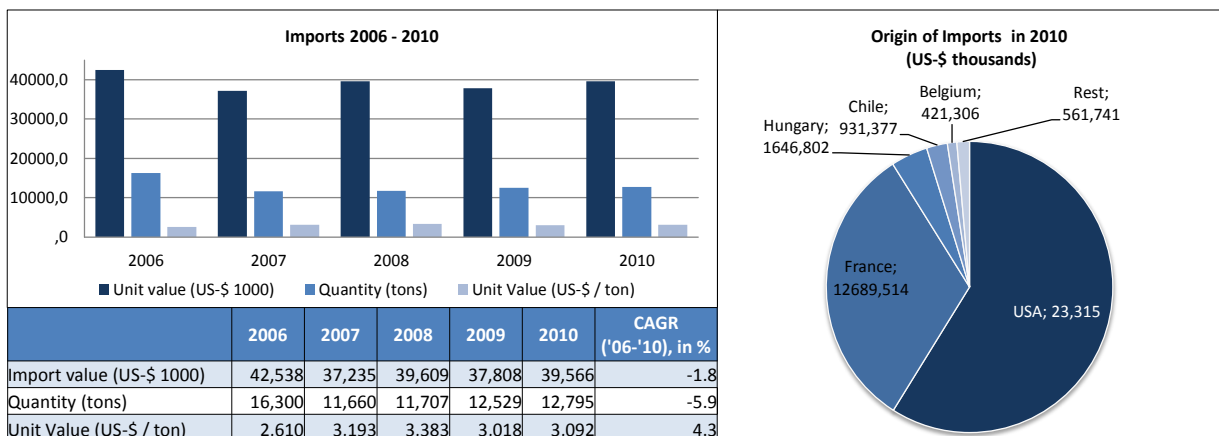
Rank	Importer	Value imported (in US\$K)	Share of world imports (value in %)	Quantity imported (in tons)	Unit value (US\$/ton)	Import trend: Annual growth rates 2006-2010 (in %)	
						Value	Quantity
	World	865,707		143,122	6,049	9	5
1	Germany	89,816	10	13,667	6,572	4	3
2	Japan	71,697	8	9,436	7,598	1	-4
3	Spain	65,978	8	8,641	7,636	13	8
4	Republic of Korea	62,961	7	8,137	7,738	14	4
5	Russian Federation	56,807	7	16,720	3,397	47	40
6	Canada	44,409	5	6,755	6,574	11	5
7	France	41,008	5	7,020	5,841	3	-2
8	United Kingdom	37,620	4	5,333	7,055	4	-1
9	Italy	37,339	4	4,340	8,603	12	7
10	Brazil	31,339	4	2,786	11,250	25	13
11	Netherlands	26,541	3	3,494	7,597	26	18
12	Australia	25,028	3	4,442	5,634	7	6
13	Austria	21,177	2	3,105	6,820	6	-1
14	Turkey	19,081	2	3,291	5,798	-11	-22
15	Greece	18,488	2	2,484	7,442	-4	-11
69	USA	4,784	1	1,317	3,633	46	19

Source: Comtrade database

German imports of walnuts in shell

In 2010, 12,795 MT of walnuts in shell were imported into Germany. This equals a value of US\$39.6 mil. (Figure 2). Germany's most important trading partners are the US (US\$23.3 mil.; 8,419 MT) and France (US\$12.7 mil.; 3,405 MT). Together they deliver 92% of the total German imports. Further notable trading partners are Hungary (US\$1.6 mil.; 482 MT), Chile (US\$0.9 mil.; 217 MT), Belgium (US\$0.4 mil.; 161 MT), and Greece (US\$0.2 mil.; 200 MT) (Comtrade, 2011).

Figure 2: German Imports of Walnuts in Shell



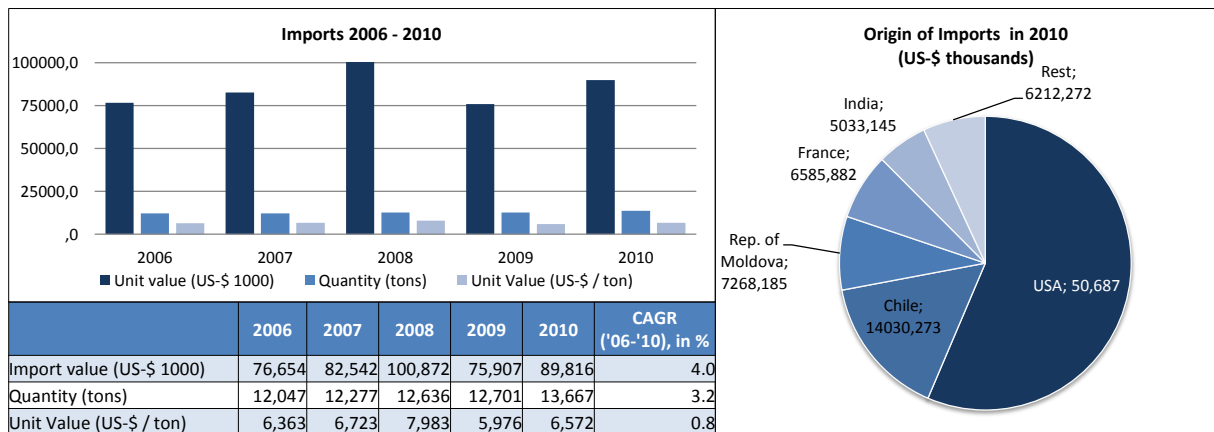
Source: Comtrade database

German imports have declined slightly since 2006. Between 2006 and 2010, the import value decreased by 1.8% per annum, while the import volume decreased by 5.9% on average. However, the unit value increased US\$3,092 per MT in the same period. Imports from Belgium and Greece were recorded in 2010 for the first time. Vietnam has reported significant growth rates (value: +508%; qty: +486%) since the time of first recording in 2009, but has only exported 7 MT to Germany in 2010 (Comtrade, 2011). (For more information please see Annex 2.)

German imports of shelled walnuts

Similar to the world market, German imports (value) of shelled walnuts are approximately twice as high as those of walnuts in shell. In 2010, Germany imported US\$89.8 mil. (13,677 MT) of in-shell walnuts. Germany's most important trading partner is the US (US\$50.7 mil.; 7609 MT), followed by Chile (US\$14.0 mil.; 14,030 MT), the Republic of Moldova (US\$7.3 mil.; 7,268 MT), France (US\$6.6 mil.; 6,586 MT), and India (US\$5.0 mil.; 5,033 MT). Imports have increased moderately since 2006 (value: +4.0%; qty: +3.2%), while the average unit value increased by 0.8% per year. While imports from the US also have a slight increase (value +5.8%), imports from Chile (value: +29.9%) and the Republic of Moldova (value: +25.1%) show ongoing growth at rapid pace. Imports from France (value: -16.0%) and further smaller trading partners have declined (Comtrade, 2011). (For more information please see Annex 2.)

Figure 3: German Imports of Shelled Walnuts



Source: Comtrade database

US imports of walnuts in shell

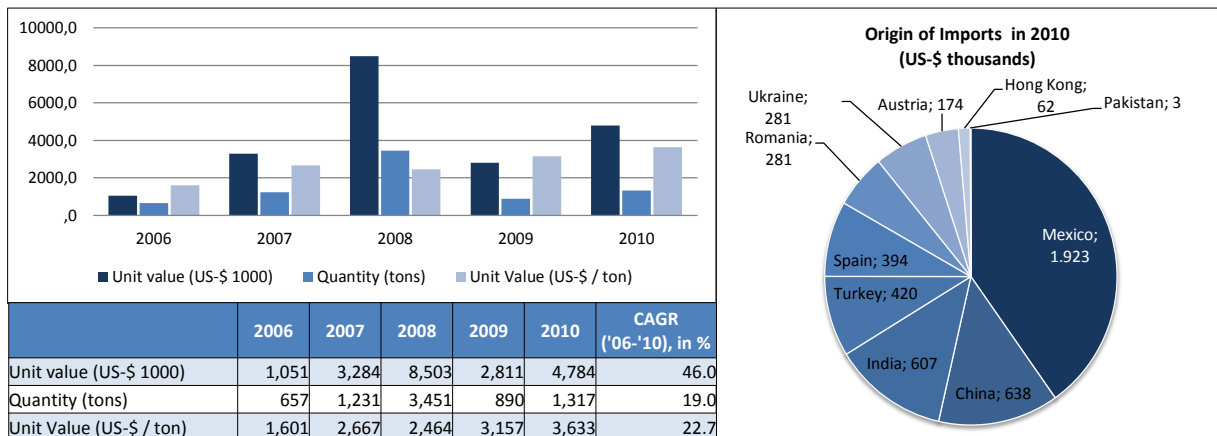
In 2010, the US imported US\$20,305 worth of in-shell walnuts from China and France. The inflows in this commodity class are declining (value: -3.4%). In the light of domestic production, such declines have virtually no impact in the world market (Comtrade, 2011).

US imports of shelled walnuts

Imports of shelled walnuts are also very small, but show relatively strong increases (value: +46.0%; qty: +19.0%) in comparison to the domestic production of 456,300 MT. The unit value in 2010 was US\$3,633 per MT (22.7% average annual growth since 2006), while the total

imports equaled about US\$4.8 mil. or 1,317 MT. The high average annual growth rates are considered a result of the massive increase of imports in 2008 (3,450 MT, +280% in comparison to 2007). The most important (recent) trading partners of the US are Mexico (since 2007, US\$1.9 mil.; 350 MT), China (US\$0.6 mil.; 350 MT), India (since 2007, US\$0.6 mil.; 90 MT), Turkey (since 2010, US\$0.4 mil.; 60 MT), and Spain (US\$0.4 mil.; 336 MT) (Comtrade, 2011). (For more information please see Annex 2.)

Figure 4: US Imports of Shelled Walnuts

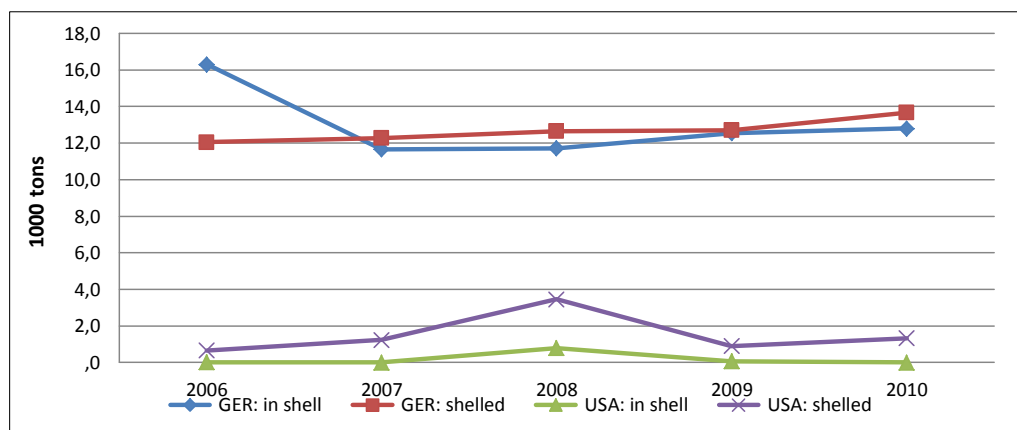


Source: Comtrade database

Comparison of US and German imports

The US has a huge production capacity and therefore does not require significant import quantities. Germany is a typical import country for both shelled and in-shell walnuts. The US imports of shelled nuts are increasing noticeably, while the German imports remain almost constant (Comtrade, 2011).

Figure 5: US and German Imports of Walnuts



Source: Comtrade database

Exports

World exports of walnuts in shell

In 2010, global exports of walnuts in shells valued US\$679.3 mil. or 219,112 MT. The average unit value was US\$3,100 per MT. Worldwide, the exported value increased annually by

25.3%, while the quantity increased by 17.1% at the same time. The US (US\$359.3 mil.), France (US\$87.0 mil.), Mexico (US\$78.7 mil.), Chile (US\$54.9 mil), and Hong Kong (US\$41.5 mil.) top the list of exporters of walnuts in shells and, together, account for 91.4% of the global export volume.

The US is the world's largest exporter of walnuts in shells. In 2010, they exported 116,183 MT, which equaled US\$359.3 mil., realizing unit values on world market level of US\$3,092 per ton. Exporters in the US succeeded in increasing their overseas sales by 31.9% (+21.8% in qty).

Italy exported its commodities for the highest unit value (US\$4,655 / MT), while the value per MT of Dutch products was about US\$1,366 (lowest) (Comtrade, 2011). (Please note that differences between import and export data may occur due to different bases of calculation of the Comtrade database.)

Table 4: Top World Exporters of Walnuts in Shell in 2010

Rank	Exporter	Value exported (in US\$ k)	Share of world exports (value in %)	Quantity exported (in tons)	Unit value (US\$/ton)	Export trend: Annual growth rates 2006-2010 (in %)	
						Value	Quantity
	World	679,277		219,112	3,100	25	17
1	USA	359,273	53	116,138	3,092	32	22
2	France	87,035	13	25,707	3,386	12	2
3	Mexico	78,035	12	18,547	4,244	11	0
4	Chile	54,924	8	12,833	4,28	37	25
5	China, Hong Kong SAR	41,509	6	19,982	2,077	97	101
6	Ukraine	19,258	3	11,116	1,733	-9	-7
7	Germany	4,873	1	1,289	3,78	-2	-7
8	Argentina	4,652	1	1,015	4,582	29	14
9	Netherlands	4,430	1	3,242	1,366	-3	10
10	Italy	3,409	1	732	4,655	12	-1

Source: Comtrade database

World exports of shelled walnuts

In 2010, global exports of shelled walnuts amounted to 196,944 MT or US\$1.1 bil. From 2006 onwards, total exports have been rising in both value (+15.3% p.a.) and quantity (+12.6% p.a.). The average unit value shows an annual increase of 2.4%. The values per MT vastly differ between US\$2,911 (Ukraine) and US\$12,272 (Chile).

The US is the world's main exporter. In 2010, it exported 71,945 MT for US\$463.2 mil. eventually resulting in an average unit price of US\$6,438, which is about US\$1,000 above the world level. Together with Mexico (US\$108.4 mil.), Chile (US\$103.0 mil.), Ukraine (US\$82.2 mil.), and the Republic of Moldova (US\$59.3 mil.) this amounts to 76% of the world exports. Germany's share of world exports is 2.1%, which equals US\$22,384 or 2,647 MT with an average unit price of US\$8,457 (Comtrade, 2011).

Table 5: Top World Exporters of Shelled Walnuts in 2010

Rank	Exporter	Value ex-ported (in US\$k)	Share of world ex-ports (value in %)	Quantity exported (in tons)	Unit value (US\$/ton)	Export trend: Annual growth rates 2006-2010 (in %)	
						Value	Quantity
	World	1,075,851		196,944	5,463	15.3	12.6
1	USA	463,180	43	71,946	6,438	17.0	7.0
2	Mexico	108,446	10	33,424	3,245	15.4	33.1
3	Chile	103,061	10	8,398	12,272	21.9	9.9
4	Ukraine	82,220	8	28,249	2,911	-1	24
5	Republic of Moldova	59,296	6	9,472	6,260	12.3	0.8
6	India	39,109	4	7,133	5,483	11.5	11.5
7	Romania	32,456	3	6,615	4,907	8.9	4.7
8	France	27,094	3	2,872	9,435	0.5	-3.0
9	Turkey	23,496	2	3,171	7,410	91.0	86.2
10	China	23,432	2	4,606	5,087	-19.5	-23.1
11	Germany	22,384	2	2,647	8,457	9.0	6.9

Source: Comtrade database

German exports of walnuts in shell

As shown in Table 6, exports of in-shell walnuts from Germany are very small with a total of 1,289 MT shipped in 2010. This represents 0.6% of the global exports (Comtrade, 2011).

Table 6: Top 10 German Exports of Walnuts in Shell in 2010

Rank	Exporter	Value ex-ported (in US\$k)	Share of exports (value in %)	Quantity exported (in tons)	Unit value (US\$/ton)	Export trend: Annual growth rates 2006-2010 (in %)	
						Value	Quantity
	World	4,873		1,289	3,780	-2	-7
1	Italy	1,067	22	282	3,786	18	14
2	Netherlands	533	11	151	3,535	-13	-19
3	Spain	505	10	135	3,739	10	7
4	United Kingdom	384	8	100	3,850	-5	-7
5	Austria	335	7	85	3,953	-24	-28
6	Slovakia	333	7	92	3,627	-20	-24
7	Poland	310	6	92	3,381	130	123
8	Greece	252	5	63	3,971	10	7
9	Belgium	236	5	65	3,645	77	77
10	France	231	5	43	5,399	17	3

Source: Comtrade database

German exports of shelled walnuts

As seen in Table 7, Germany exported 2,647 MT (1.3% of global exports) of shelled walnuts in 2010 with the largest exports being to the United Kingdom (334 MT), Austria (293 MT), and Sweden (304 MT) (Comtrade, 2011).

Table 7: Top 10 German Exports of Shelled Walnuts in 2010

Rank	Exporter	Value ex-ported (in US\$ k)	Share of exports (value in %)	Quantity exported (in tons)	Unit value (US\$/ton)	Export trend: Annual growth rates 2006-2010 (in %)	
						Value	Quantity
	World	22,384	100	2,647	8,457		7
1	United Kingdom	3,069	14	334	9,188	4	2
2	Austria	2,455	11	293	8,391	-1	-6
3	Sweden	2,374	11	304	7,808	21	21
4	Netherlands	2,279	10	253	9,008	8	1
5	Spain	2,135	10	250	8,549	1	0
6	Denmark	1,454	6	164	8,890	24	24
7	France	1,280	6	132	9,711	-13	-17
8	Poland	1,077	5	150	7,182	51	54
9	Italy	1,034	5	112	9,244	69	60
10	Luxemburg	963	4	129	7,485	74	106

Source: Comtrade database

US exports of walnuts in shell

Table 8 shows that the US exported 116,183 MT of in-shell walnuts to the world including the following major destinations: Hong Kong (29,608 MT), Turkey (22,652 MT), and Italy (14,386 MT). Between 2006 and 2010, exports rose by 22% per year on average in quantity, while the total value rose by 32% – which in turn indicates a rising unit value (US\$3,092 per MT in 2010) (Comtrade, 2011).

Table 8: Top 10 US Exports of Walnuts in Shell in 2010

Rank	Exporter	Value ex-ported (in US\$ k)	Share of exports (value in %)	Quantity exported (in tons)	Unit value (US\$/ton)	Export trend: Annual growth rates 2006-2010 (in %)	
						Value	Quantity
	World	359,273		116,183	3,092	32	22
1	China, Hong Kong SAR	88,463	25	29,608	2,988	148	133
2	Turkey	75,795	21	22,652	3,346	71	61
3	Italy	43,453	12	14,386	3,020	14	7
4	China	41,154	11	13,058	3,152	211	188
5	Spain	25,410	7	9,054	2,806	1	-4
6	Germany	20,173	6	7,529	2,679	2	-5
7	United Arab Emirates	17,030	5	4,938	3,449	85	67
8	Netherlands	6,721	2	2,289	2,937	-6	-12
9	Canada	6,690	2	2,105	3,178	4	-3
10	Vietnam	5,643	2	1,977	2,855	58*	37*

Source: Comtrade database

US exports of shelled walnuts

Table 9 shows that the US exported 71,946 MT of shelled walnuts in 2010 with the leading destinations being Japan (10,930 MT), Republic of Korea (9,262 MT), and Germany (8,748 MT). While the average unit value was US\$6,438 per MT (+10% since 2006), China has the

lowest price level (unit value of US\$5,307 per MT). The Republic of Korea imports shelled nuts from the US for US\$7,137 per MT on average (Comtrade, 2011).

Table 9: Top 10 US Exports of Shelled Walnuts in 2010

Rank	Exporter	Value ex-ported (in US\$ k)	Share of exports (value in %)	Quantity exported (in tons)	Unit value (US\$/ton)	Export trend: Annual growth rates 2006-2010 (in %)	
						Quantity	Quantity
	World	463,180		71,946	6,438	17	7
1	Japan	69,642	15	10,930	6,372	11	1
2	Republic of Korea	66,108	14	9,262	7,137	19	6
3	Germany	56,561	12	8,748	6,466	9	0
4	Canada	45,185	10	6,675	6,769	12	2
5	Spain	43,786	9	6,577	6,658	17	7
6	Israel	23,161	5	3,449	6,716	9	4
7	Australia	21,011	5	3,623	5,799	3	2
8	China	12,882	3	2,427	5,307	11	0
9	Other Asia, nes	12,683	3	1,947	6,515	28	22
10	Netherlands	11,745	3	1,719	6,833	49	22

Source: Comtrade database

Apparent consumption

The world consumption of walnuts in shell and shelled walnuts has increased from 965,620 MT to 1,274,250 MT since 2006. Table 10 shows that in 2010 China led the world by consuming 404,100 MT of walnuts, the US was second and Germany fourth (not considering the EU-27 in aggregate). Other major consumers of walnuts are Turkey (132,000 MT), Japan (35,000 MT), and the Russian Federation (25,000 MT).

Table 10: Top World Consumption of Walnuts in Metric Tons

Rank	Consumer	2006	2007	2008	2009	2010
	World	965,620	1,012,335	1,115,650	1,249,104	1,274,250
1	China	404,100	433,600	492,100	568,100	590,500
2	EU-27	143,500	151,000	158,200	157,700	165,000
3	USA	206,669	181,124	276,063	208,600	269,491
4	Turkey	85,800	108,300	115,100	121,654	132,000
5	Germany	44,350	37,030	39,468	41,014	42,304
6	Japan	38,200	28,400	22,200	30,300	35,000
7	Russia	18,200	14,800	20,500	22,000	25,000
8	India	15,500	16,000	16,000	18,600	19,500
9	Vietnam	6,200	4,200	8,900	10,900	18,300
10	South Korea	18,200	14,800	20,500	22,000	22,100

Source: Based on USDA (2011), Food and Agriculture of the United Nations (2011)

Table 11 shows that US consumption of walnuts in 2010 was 269,013 MT with the consumption peaking in 2008 when the production increased faster than exports. With the increase of exports after 2008 there has been a steady increase of consumption in the US. Consumption is nearing its peak this year in 2010. Consumption per capita was 0.31 kg of walnuts in 2010

up from 0.24 kg in 2006; a gradual increase over that time period (converted to kg by the authors) (USDA, 2011b). German consumption peaked in 2006 with 44,349 MT, followed by a drop in 2007 to 37,029 MT, and then steady increase to 42,304 MT in 2010. This equals about 0.53 kg per capita.

Table 11: Comparison of German and US Consumption²

		Value in Metric Tons				
		2006	2007	2008	2009	2010
Germany	Production	19,754	17,000	18,374	19,778	19,778
Germany	Imports	28,346	23,937	24,343	25,230	26,462
Germany	Exports	3,751	3,908	3,249	3,994	3,936
Germany	Consumption	44,349	37,029	39,468	41,014	42,304
		Value in Metric Tons				
		2006	2007	2008	2009	2010
USA	Production	313,890	297,560	395,530	396,440	456,300
USA	Imports	663	1,233	4,239	964	1,320
USA	Exports	107,884	117,669	123,706	188,804	188,129
USA	Consumption	206,669	181,124	276,063	208,600	269,491

Source: Based on USDA (2011), Food and Agriculture of the United Nations (2011)

² The estimation is based on the following assumption: apparent consumption of tomato juice in both countries equals the local production of plus the total imports to that particular country from the world minus the total exports from that country to the world.

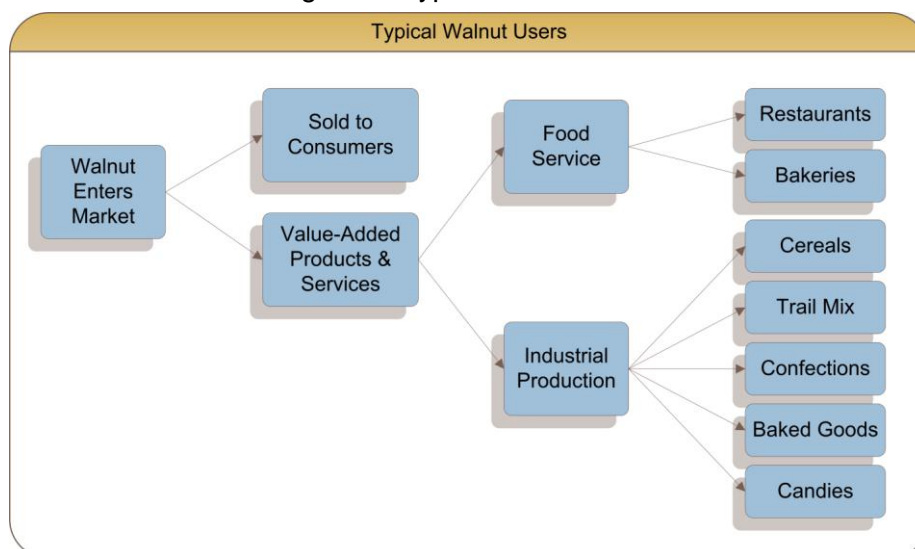
3 Market characteristics

Market demand is increasing in both Germany and the US due to an increased awareness about walnuts and their health benefits. Both markets already enjoyed a traditional appreciation for the walnut in association with seasonal and religious holidays, but are rediscovering the walnut for its health benefits and diverse food applications. Walnuts are commonly used in healthy salads, cereals, and trail mixes as well as pastries, ice creams, and candies. This broad range of uses appeals to multiple market segments and consumer demographics (Ibrahim, Florkowski, 2007). It is difficult to identify a demographic segment that is not represented somewhere in the range of foods where walnuts are used.

Shelled walnuts are purchased by food service providers such as restaurants and bakeries as well as industrial food producers for a large variety of processed foods. In addition to being used as an ingredient, walnuts are increasingly demanded through retail channels purely as a snack food (Perez and Pollack, 2005).

In-shell walnuts are primarily sold through retail channels for direct consumption. Sales are much stronger in winter holiday seasons and many retailers only sell in-shell walnuts during those months (Euromonitor International, 2011).

Figure 6: Typical Walnut Users



Source: Authors

Consumers are increasingly demanding locally grown products, provided the local alternative is less expensive and is of good quality. The reality is that both retail and commercial consumers are primarily concerned with price and quality, and are usually not aware of the origin

of the product. This, in turn, presents an opportunity for globally sourced walnuts (Euromonitor International, 2011).

Consumers typically prefer a less bitter walnut and the industrial food production sector has particularly selective quality standards. Chinese walnuts are primarily consumed domestically due to the lower quality and bitterness of the nuts, while US walnuts are exported to the world market because of its higher quality and sweeter taste (Liu, 2010). Any exporter interested in entering these markets needs to meet or surpass the quality and price standards set by US producers to meet established market demands. Demand for lower to mid-level quality walnuts are supplied through bulk food or discount markets as well as in high-production food items such as breads and cereals. Premium walnuts are marketed through specialty shops, independent food stores, open markets, finer bakeries, and high-end candy, fruit, and nut products. Mid-grade walnuts are typically marketed through supermarkets, hypermarkets, and grocery stores (Euromonitor International, 2011).

Niche market differentiators in both countries include organic and pesticide free walnuts. In response to this demand, the US produced organic walnuts worth US\$11.1 mil. in 2008 (Boriss, Burnke, Kreith, 2011).

Competitive environment

Walnuts in the US and German markets compete primarily on quality and cost, particularly at the wholesaler level. As long as the product meets minimum standards, competition at the wholesale, retail, food service, and food processing levels are almost exclusively based on low cost (Euromonitor International, 2011).

Given its high production levels, the US presents significant challenges to exporters interested in competing in the market. California produces 99% of the domestic supply with imports in 2009 at a paltry US\$2.8 mil. (Boriss, Burnke, Kreith, 2011).

Germany does have walnut production but it is inconsequential and almost exclusively in-shell. Germany is one of the largest importers in the world with the largest competitor being the US who ship directly or through the Netherlands (USDA, 2011a).

The primary suppliers are China and the Republic of Moldova who import in-shell walnuts, shell them, and re-export them (New Rural Industries Australia, 2011). To encourage walnut processing, China does not impose tariffs or value-added taxes to walnuts that are imported for this purpose (Branson, 2004). Shelling walnuts nearly doubles the unit price and reduces the product volume, which, in turn, decreases freight costs (Perez and Pollack, 2005). This option may be advantageous to compete in the German and US markets from a cost perspective. Australia and other Southern Hemisphere producers are growing competitively due to their ability to produce fresh walnuts when the US and Germany are not able to grow (New Rural Industries Australia, 2011).

Demand trends

As indicated in Chapter 2, market demand for walnuts has been steadily growing in recent years both in Germany and the US. Growing production in China has increased the global walnut supply. However, China primarily serves domestic demand so the net effect on global supply and demand is negligible (USDA, 2011b). World supply, however, is significantly impacted by weather conditions in the US. Cool springs typically cause a decrease in US production and exportable products, providing market opportunities to newcomers that are capable of meeting the world's growing demand (USDA, 2011b).

4 Market access

German market access

Import tariff

The base tariff rate for importing shelled and in-shelled walnuts into the EU is around 8% on average. The bound rate of duty for in-shelled and shelled walnuts is 4.0% and 5.1% respectively (WTO, 2011). The primary difference between the two rates is that the base rate is charged on walnuts coming from countries without trade agreements with the EU, while the bound rate represents the rate that is charged on walnuts from countries that have a trade agreement. Since the US has a trade agreement with the EU, exporters of walnuts into Germany will be charged with a bound tariff rate. It should be noted that interested exporters can obtain further information on the tariff situation from the office of European Union and Regional Affairs at the US Department of Commerce (Export.Gov, 2011). The department's primary responsibility is to provide up-to-date tariff information for US-German trade.

Regulations, sanitary, and phytosanitary measures

Walnuts imported into Germany are subject to phytosanitary controls and are checked for compliance with the quality standards and labeling requirements of the EU. The safety standards are complex. Such regulatory situations may further complicate exports to the German market (USDA GAIN Report, 2009).

The Commission Regulation 1221/2008, first implemented in July 2009, clearly defines the phytosanitary controls for goods imported into the EU. The regulation includes a general marketing standard and specific standards for certain products. The general marketing standards apply to in-shell walnuts as well as 15 other fresh fruits and vegetables. Shelled walnuts are exempted from the general marketing standard (EC 1221/2008, 2009).

The general marketing standards include minimum quality and maturity requirements. The product must be:

- Intact;
- Clean;
- Free from any pest and damages;
- Free from external moisture;
- Free from any external smell or taste;
- In such condition that it can withstand transportation and handling and arrives in good order and condition at the final destination.

The latter minimum maturity requirement is that the products must be sufficiently developed and shall display satisfactory ripeness (EC 1221/2008, 2009).

There are two main agencies responsible for walnut imports into Germany: the Federal Ministry of Food, Agriculture and Consumer Protection and the Bundesamt für Verbraucherschutz und Lebensmittelsicherheit (Spring, 2010). Importers of walnuts into Germany can contact these agencies for up-to-date information on the import regulations.

Quotas

Walnut import into Germany is not subject to any quota (see EU Council Regulation 7/2010).

Import Certificates

A certificate of conformity is to be issued at the point of entry. Moreover, the phytosanitary certificate PPQ577 issued by the Animal and Plant Health Inspection Service (APHIS) of the US Department of Agriculture is required for all walnuts shipped to Germany (USDA Germany, 2009). Additionally, some exporters of walnuts to Germany may need an additional certificate of origin. It should be further mentioned that the Modernized Customs Code (MCC), which was introduced in the first half of 2008, provides an opportunity to use simplified importing procedures such as paperless documentation or centralized clearance (Export.Gov, 2011).

US market access

Import tariff

The tariff rate in the US for in-shell walnuts is 7 cents per kg and 26.5 cents per kg for shelled walnuts. These rates are charged on walnuts coming from countries that have trade agreements with the US (Agriculture Issue Center, 2004).

Import requirements

The quality of in-shell walnuts must meet or exceed the quality grades produced in the US. Shelled walnuts must meet or exceed USA Commercial Grade quality standards detailed in the USA Standard for Shelled Walnuts. The only exception is the minimum size where not more than 5% may pass through a round opening 6/64 inch in diameter (USDA Agriculture Marketing Service, n.d.).

Import certificates

All walnuts imported into the US must have inspection certifications prior to importation. They can be obtained from the Federal or Federal-State Inspection Service, Fruit and Vegetable Programs, Agricultural Marketing Service, USDA. The agency is designated as the governmental inspection agency for the purpose of certifying the grade and size of walnuts prior to importation into the US and will issue the official inspection certificates required on all walnut imports (USDA Agriculture Marketing Service, n.d.).

5 Prices

US and German walnut pricing

US walnut pricing

The price for shelled walnuts has significantly decreased since the 1980s when the price peaked at US\$2.50 per pound. The wholesale market price in 2010 was around US\$2.11 per pound. In the same year, the average grower was receiving US\$2,110 per ton or US\$1.05 per pound (AGMRC, n.d.).

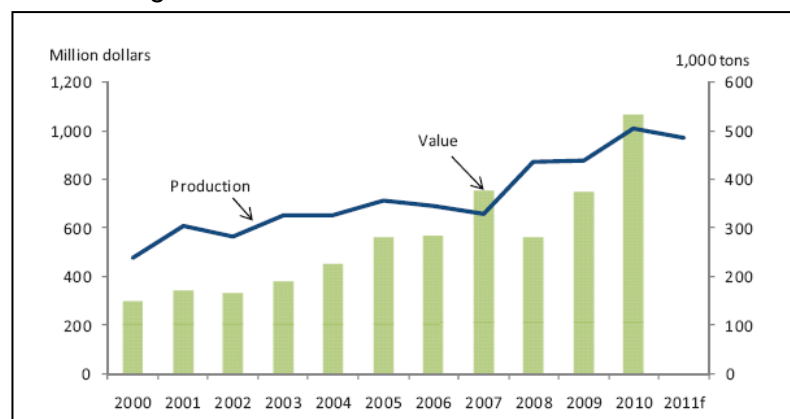
German walnut pricing

The producer price for shelled walnuts in 2009 was US\$2,067/MT or US\$0.94 per pound. The producers in 2008 received approximately US\$0.67 per pound (FOASTAT, 2009). Distributors sell in-shell walnuts for US\$1.25 per pound (FOB) for 220-pound bags (Alibaba, n.d.).

Price-determining factors

Price development at the producer level has two main influencing factors. The first is the natural supply of walnuts. Typically, the crop for walnuts alternates each year with a larger crop one year followed by a lower yielding crop the next year. The second determining factor is the weather. Like many agricultural products, temperature and moisture level affect the yield of walnut trees (USDA, 2011a). The level of production influences the price or total value. As seen in Figure 7, continued price increases may be expected if demand and/or value stays above production levels.

Figure 7: Walnut total Production and Value



F = forecast

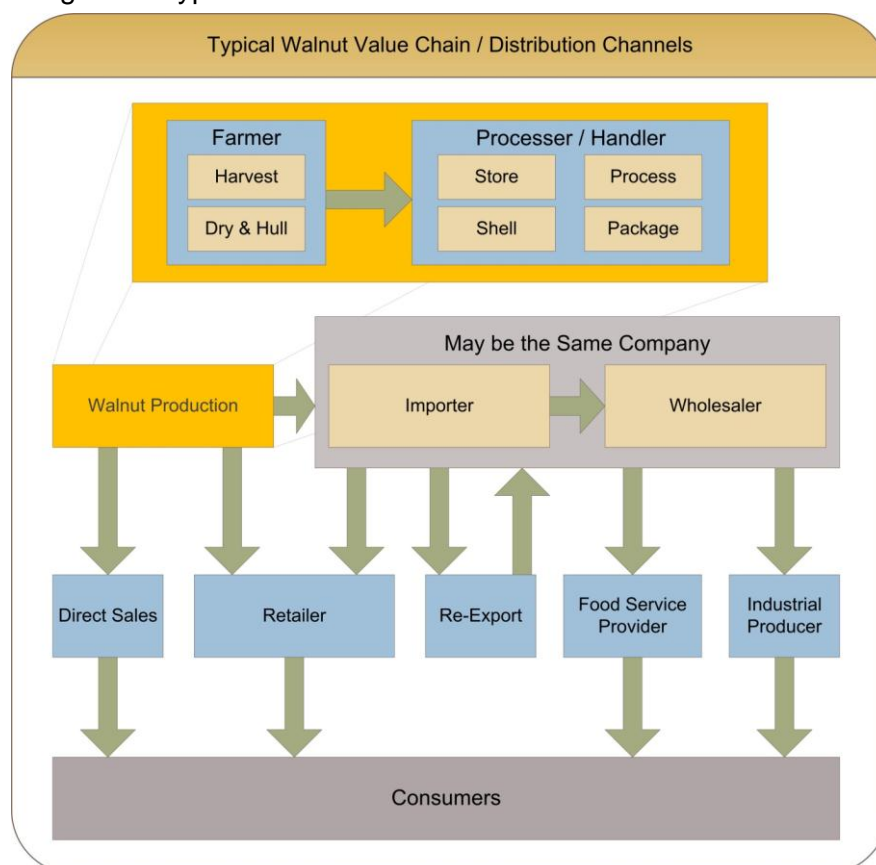
Source: USDA; National Agricultural Statistics; Noncitrus Fruits and Nuts Summary (various issues)

6 Distribution channels

The US accounts for the highest share of imported walnuts into Germany, while the US consumes almost exclusively domestically produced walnuts. Therefore, their respective distribution channels tend to be overlapping. Because the US has virtually no import market for walnuts, the details of how it might be done are open to speculation.

The overall supply chain is technically similar for both markets. It starts with the harvester who typically also dries and hulls the walnuts. The walnuts are then shipped to a processor or handler who stores them in facilities at 55-65% relative humidity and 32-38 degrees Fahrenheit or 0-3.3 degrees Celsius away from odors and light (California Walnuts, 2008).

Figure 8: Typical Walnut Value Chain and Distribution Channels



Source: Authors

High-production areas such as California have an extensive network of processors and handlers. There are over 52 handlers listed by the California Walnut Commission alone with Diamond Foods being the largest in the US. The processors shell (if necessary), package, ship, and market the walnuts (Perez and Pollack, 2005). The packaging depends on the customers' needs and can vary significantly (see chapter 8 for more information). Other harvest-

ers may ship the in-shell walnuts longer distances to processors in countries such as China or the Republic of Moldova (New Rural Industries Australia, 2011).

Walnuts imported into either Germany or the US, handle source selection, negotiate prices, and arrange shipment (Euromonitor International, 2011). The largest port of entry for walnuts in Germany is Hamburg. Walnuts are also imported into the Netherlands and then re-exported into Germany (Perez and Pollack, 2005).

When imported walnuts reach port, they are moved to a temporary port storage facility. From there, wholesalers, or large retail chains with the buying power to bypass wholesalers, pick up their shipment. In many cases, the importer and wholesaler are the same company. Wholesalers then distribute the walnuts to retailers, food service providers, and industrial food producers (Euromonitor International, 2011).

7 Commercial practices

There are three major ways to locate walnuts available for import:

- Directly from the grower;
- Through wholesalers;
- Through buyer websites such as www.alibaba.com or www.21food.com.

Regular terms and conditions of purchase can include (as for any other product):

- Indemnity clause;
- Assignment-delegation clause;
- Delay remedies;
- Shipping charges;
- Shipment delivery dates;
- Defective goods remedies;
- Order cancellation remedies or notice period;
- Specification requirements;
- Applicable laws.

8 Packaging and labeling

To ensure food safety and avoid contamination of diseases and pests countries impose certain import regulations. For fresh fruits and vegetables, including walnuts, there is a set of established guidelines.

The WTO has set packaging and labeling standards, which are mainly covered in the Agreement on TBT and the Agreement on the Application of SPS. The agreements may cover different issues however. Specific guidelines are set by each country and have features that operate within the WTO overall agreements. Walnuts are considered a fresh fruit. Therefore, the relevant guidelines applying to walnuts are as follows:

- SPS measures deal with: additives in food or drink, contaminants in food or drink, poisonous substances in food or drink; certification: food safety, animal or plant health, processing methods with implications for food safety, labeling requirements directly related to food safe, plant/animal quarantine, declaring areas free from pests or disease, preventing disease or pests spreading to a country, other sanitary requirements for imports;
- TBT measures deal with: labeling of food, drink and drugs, grading and quality requirements for food, packaging requirements for food.

Although such guidelines are set and agreed to under the WTO, they are subject to further specification. Countries may set their own rules and regulations under these guidelines for the export/import of walnuts.

Typically, importing into countries requires an import license. For walnuts, as well as other fruits and vegetables, labels typically require the common name, net quantity declaration, business name and address, grade name, and country of origin as well as other information mandatory in a particular country such as letter size or placement.

Germany follows all EU directives, regulations, and obligations. Recycling of packaging waste requires a license agreement with a German national recycling company. Also, a green dot must be imprinted on the package indicating that the material used is recyclable. Jute bags are a natural product and are recommended for importing walnuts into Germany. The Lebensmittel-Kennzeichnungs-Verordnung (Food Labeling Ordinance of December 1999) includes the labeling requirement for products in Germany. For walnuts, the requirements include the company name and address of seller and buyer (or importer), place and date of issue, number, kind of packages, precise description of the product, volume or quantity in normal commercial units, invoice price, terms of delivery, and payment (Europe, 2011). The language of the labeling must be in German, but could also have further languages on

the label. Walnuts are transported to a packing plant where they are graded into the two distinctive markets: in-shell and shelled.

In-shell walnuts

The sizing of the in-shell nuts follows the drying process. In-shell walnuts are sized as jumbo, large, medium, or baby according to USDA standards in the US. Walnuts are packaged by weight in giant sacks. Unshelled walnuts can be packaged in net bags (1.5-2.5 kg), poly sacks (5 or 10kg), cartons (10kg), and also flat jute fabric bags (55 kg) (Justia US Law, n.d.).

Shelled walnuts

Walnuts for both consumer and industrial use are sent to the shelling department where they are mechanically cracked. The shelled material is then screened. The products are categorized into a series of sizes, air-separated from shells, and moved through electronic color grader and shell sorters. Finally, they are hand-sorted by trained sorters and certified for quality before they are ready for packaging. Once shelled, the walnuts are physically inspected to ensure that the end-product is clean, well-dried, and of specified color, as determined by the official walnut color chart. Walnuts kernels are best transported with a water content of 2-3% in which water vapor cannot penetrate (TIS, n.d.). Vacuum packaging is not suitable as it promotes rancidity. The kernels can be packed in lined boxes with parchment paper to keep the nutmeat dry (TIS, n.d.).

California walnuts meet strict quality control standards

California walnuts are produced under stringent quality controls reputed to be the world's toughest. Handlers also meet individual customers' standards and specifications. In the US, walnuts are grown and processed under the strict regulation of the California Walnut Board, USDA/DFA and the US Food and Drug Administration (FDA). A food safety control program and quality control regime (HAACP) is in place that meets the standards imposed by all regulatory authorities.

9 Sales promotion

Trade fairs and exhibitions

Trade shows and trade fairs are commonplace where importers and exporters make contracts in Germany. The following list provides the most relevant trade fairs for companies that deal with walnuts.

Germany

International Green Week

Berlin, Germany

Organizer: Messe Berlin GmbH

Messedamm 22

14055 Berlin, Germany

Tel.: +49 30 30380

Fax: +49 30 30382325

E-mail: central@messe-berlin.de

Web: <http://www.gruenewoche.de/en>

Fruit Logistica

Berlin, Germany

Organizer: Messe Berlin GmbH

Messedamm 22

14055 Berlin, Germany

Tel.: +49 30 30380

Fax: +49 30 30382325

E-mail: central@messe-berlin.de

Web: <http://www.fruitlogistica.de/en>

Biofach

Nürnberg, Germany

NürnbergMesse GmbH

Messezentrum

90471 Nürnberg, Germany

Tel.: +49 911 86060

Fax: +49 911 86068228

E-mail: info@nuernbergmesse.de

<http://www.biofach.de/en>

Anuga

Cologne Germany

Koelnmesse GmbH

Messeplatz 1

50679 Köln, Germany

Tel.: +49 221 8210

Fax: +49 221 8212574

E-mail: info@koelnmesse.de

Web: <http://www.anuga.de/de/anuga/diemesse/index.php>

The United States

IFE Americas

Miami Beach, USA

Organizer: World Trade Center Miami

1007 N. America Way, Suite 500

Miami, FL 33132, USA

Tel.: +1 305 8717910

Fax: +1 305 8717904

E-mail: info@worldtrade.org

Web: <http://www.worldtrade.org>

BioFach America

Baltimore, USA

Organizer: NürnbergMesse GmbH

Messezentrum

90471 Nürnberg, Germany

Tel.: +49 911 86060

Fax: +49 911 86068228

E-mail: info@nuernbergmesse.de

Web: <http://www.biofach.de/en>

Trade magazines

Fruchthandel Magazin

The German publication *Fruchthandel Magazine* is a journal specialized in fruit trade. Readers of this publication include:

- Importers, exporters, direct mail sellers, trading agencies;
- Wholesale and distribution agents;
- Nutrition retailers and specialized retailers;
- Food-service and convenience-producers;
- Producers and associations of producers;
- Packaging companies and delivering companies;
- Marketing associations and agencies;
- Scientific institutions and government agencies.

Publisher contact information:

Dr. Rolf M. Wolf Media GmbH

Lindemannstrasse 12

40237 Düsseldorf

Germany

Tel.: +49 211 991040

Fax: +49 211 6911746

E-mail: info@fruchthandel.de

<http://www.fruchthandel.de>

Associations

Germany

Deutscher Fruchthandelsverband e. V.

The German fruit trade association (DFHV) is the national association for fruit and vegetable trade in Germany.

Deutscher Fruchthandelsverband e.V.

Bergweg 6

53225 Bonn, Germany

Tel.: +49 228 911450

Fax: +49 228 9114545

E-mail: info@dfhv.de

Web: <http://www.dfhv.de>

Bundesverband des Deutschen Lebensmittelhandels e. V. (BVL)

The National Association of the Nutrition Traders is responsible for nutrition trading. The assignment of the BVL is especially the protection of interests of nutrition trading companies in terms of legislation, public authorities, and the community.

Bundesverband des Deutschen Lebensmittelhandels e. V.

Am Weidendamm 1A

10117 Berlin, Germany

Tel.: +49 30 72625080

Fax: +49 30 72625085

E-mail: bvl@einzelhandel.de

Web: <http://www.lebensmittelhandel-bvl.de>

The United States

California Walnut Board

The California Walnut Board represents the walnut growers and handlers of California. The board promotes usage of walnuts in the US through publicity and educational programs. The California Walnut Board provides information about relevant domestic agencies.

Public Relations

Torme Lauricella

847 Sansome Street

San Francisco, CA 94111-1539, USA

Tel.: +1 415 9561791

Media and Creative

Evans Hardy + Young, Inc

829 De La Vina Street

Santa Barbara, CA 93101, USA

Tel.: +1 805 9635841

Tradeshows

East-West Promotions

120 Alpine Terrace

Oakland, CA 94618, USA

Tel.: +1 510 6016063

The California Walnut Commission (CWC)

The California Walnut Commission is an agency of the State of California that works in concurrence with the Secretary of the California Department of Food and Agriculture (CDFA).

California Walnut Commission

101 Parkshore Drive, Suite 250
Folsom, CA 95630, USA
Tel.: +1 916 9327070
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E-mail: info@walnuts.org

The California Walnut Commission founded marketing and advertising agencies overseas.
The contact address of the German office is:

Press office California Walnut Commission
c/o Fleishman-Hillard Germany GmbH
Hanauer Landstraße 182c
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Contact person: Carolin Herrmann
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E-mail: walnuss@fleishmaneuropa.com
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California Department of Food and Agriculture
1220 N Street
Sacramento, California, USA 95814
Tel.: +1 916 6540466 (Sacramento): General Information
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10 Market prospects

Shelled walnut imports have grown worldwide over the last four years. On average, the increase has been 12.5% per year as regards value and 5.8% per year as regards quantity. This indicates a robust market and a strong price increase of almost 7%.

The US market has always had a strong production capacity and high consumption of more than 175,000 MT per year. As the world's second largest producer, the US exceeds its consumption by more than 150%. Only small quantities of walnuts have been imported as a consequence. However recently, the US market for shelled walnuts has experienced an increase in imports of 46% in value and 19% in quantity. This development presents a good opportunity for exporters, but only under the precondition that they are able to match a unit value less than half of the world market price (US\$3633/MT). In-shell walnuts have been declining by 20% in quantity. Due to the very small amount it does not seem to be a viable option for export. Although the market price is high, the market demand of 3 tons does not make it particularly attractive.

In contrast, Germany has a small production capacity for walnuts (19,778 MT in 2010) and comparatively high consumption (42,304 MT in 2010) – so it has always been a large and consistent importer. In 2010, Germany was the 6th largest importer of in-shell walnuts and even the biggest when it comes to shelled walnuts worldwide. Both types have been sold in Germany and the demand for both products has been constantly high. Consumption has increased by 4% on average for the last 5 years, and is still rising.

In terms of shelled walnuts, a quantity increase of roughly 4% (to a total volume of 13,667 MT in 2010) and a value increase of 3% for the last four years appears reasonable for further exports from new suppliers. However, the data suggests that there was also a slight price decline in said period. Nevertheless, there are opportunities for new suppliers to fill the widening gap of more than 541 MT per year. This may amount to a potential sales volume of US\$3.5 mil., not counting the already existing market demand with its volume of US\$90 mil. which is open to competition. Against this background, Germany is one of the best and most lucrative markets to be targeted for walnut trade worldwide.

Annex

Annex 1: Selected potential importers

Bedemko Inc. Worldwide

200 Hamilton Avenue

White Plains, New York 10601

USA

Tel.: +1 914 6831119

Fax: +1 914 6831482

Web: <http://www.bedemco.com>

Bösch Boden Spies GmbH

Heidenkampsweg 73

20097 Hamburg

Germany

Tel.: +49 40 3330160

Fax: +49 40 33301666

Web: <http://www.boesch-boden-spies.com>

Diamond Foods

P.O. Box 1727

Stockton, CA 95201

USA

Tel: +1 209 4676000

Fax: +1 209 4676714

Web: <http://www.diamondfoods.com>

Herbert Kluth GmbH & Co.KG

Heidekoppel 31

24558 Henstedt-Ulzburg

Germany

Tel.: +49 4193 96620

Web: www.kluth.de

H. PICKERD GMBH & CO. KG

Raiffeisenstraße 19

30938 Burgwedel

Germany

Tel.: +49 5139 8976

Fax: +49 5139 8976

Web: www.pickerd.de

Michael Priestoph GmbH

Friedensallee 120

22763 Hamburg

Germany

Tel.: +49 40 3070130

Fax: +49 40 307013760

Web: www.priestoph.net

Nutwork Handelsgesellschaft mbH

Banksstraße 28

20097 Hamburg

Germany

Tel.: +49 40 60090600

Fax: +49 40 60090690

Web: www.nutwork.de

Richard Janssen

Industriestrasse 180

50999 Köln

Germany

Tel.: +49 2236 962360

Fax: +49 2236 962363

Web: <http://richardjanssen.com>

Seeberger KG

Hans-Lorensen Straße 36

89079 Ulm

Germany

Tel.: +49 731 40930

Fax: +49 731 4093665000

Web: www.seeberger.de

Turkhan Foods

17641 French Camp Road

Ripon, CA 95366

USA

Tel.: +1 209 9829933

Fax: +1 209 2547192

Web: <http://turkhanfoods.com>

Univeg Deutschland GmbH

Breitenweg 29-33

28195 Bremen

Germany

Tel.: +49 421 30921

Fax: +49 421 13617

Web: www.univeg.de

Zieler & Co

Liebigstraße 101

22113 Hamburg

Germany

Tel.: +49 40 41928680

Fax: +49 40 419286820

Web: www.zieler.de

Annex 2: Additional import data

Top 10 German Imports of Walnuts with Shell in 2010

Rank	Exporter	Value imported (in US\$k)	Share of world imports (value in %)	Quantity imported (in tons)	Unit value (US\$/ton)	Import trend: Annual growth rates 2006-2010 (in %)	
						Quantity	Quantity
	World	39,566		12,795	3,092	-2	-6
1	USA	23,315	59	8,419	2,769	-3	-6
2	France	12,690	32	3,405	3,727	1	-6
3	Hungary	1,647	4	482	3,419	-1	-2
4	Chile	931	2	217	4,288	-14	-18
5	Belgium	421	1	161	2,610	n.a.*	n.a.*
6	Greece	200	1	23	8,736	n.a.*	n.a.*
7	Italy	167	0	36	4,624	7	-3
8	Netherlands	132	0	39	3,380	35	38
9	Spain	30	0	5	5,643	98	61
10	Vietnam	30	0	7	4,481	508**	486**

Source: Comtrade database

* First imports stated in 2010
** 2009-2010

Top 10 German Imports of Shelled Walnuts in 2010

Rank	Exporter	Value imported (in US\$k)	Share of imports (value in %)	Quantity imported (in tons)	Unit value (US\$/ton)	Import trend: Annual growth rates 2006-2010 (in %)	
						Quantity	Quantity
	World	89,816		13,667	6,572	4	3
1	USA	50,687	56	7,908	6,409	6	5
2	Chile	14,030	16	2,050	6,846	30	39
3	Republic of Moldova	7,268	8	1,006	7,226	25	20
4	France	6,586	7	870	7,570	-16	-16
5	India	5,033	6	943	5,337	1	3
6	China	1,326	1	213	6,220	-21	-26
7	Ukraine	1,277	1	179	7,119	-8	-14
8	Italy	957	1	144	6,647	39	48
9	Austria	855	1	108	7,942	-12	-13
10	Greece	333	0	43	7,806	-5	-16

Source: Comtrade database

Top 10 US Imports of Shelled Walnuts in 2010

Rank	Exporter	Value imported (in US\$k)	Share of imports (value in %)	Quantity imported (in tons)	Unit value (US\$/ton)	Import trend: Annual growth rates 2006-2010 (in %)	
						Quantity	Quantity
	World	4,784		1,317	3,633	46	19
1	Mexico	1,923	40	350	5,496	137*	107*
2	China	638	13	350	1,822	61	117
3	India	607	13	90	6,732	-21*	-18*
4	Turkey	420	9	60	7,011	n.a.**	n.a.**
5	Spain	394	8	336	1,173	-17	-12
6	Romania	281	6	40	7,034	162	134
7	Ukraine	281	6	40	7,034	n.a.***	n.a.***
8	Australia	174	4	21	8,450	-26*	-49*
9	China, Hong Kong SAR	62	1	30	2,067	-12	-24
10	Pakistan	3	0	0	10,050	-21	-32

Source: Comtrade database

* 2007-2010, ** 2010 only, *** 2008 and 2008 only

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