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## Chile

## Tree Nuts

## Annual

## 2007

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**Report Highlights:**

Walnut and almond production and exports are expected to increase this year mainly due to favorable weather conditions together with new-planted areas coming into production.

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Includes PSD Changes: Yes  
Includes Trade Matrix: Yes  
Annual Report  
Santiago [C1]  
[C1]

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## Executive Summary

Chile's walnut production and exports in MY2007/08 (Jan-Dec, 2007) are expected to be larger than the previous year as weather conditions have been excellent in most growing areas together with new orchards coming into production. Walnut production will continue to expand in the coming years as a result of improved technologies, replacement of uprooted orchards with improved varieties and overall increases in planted area. Good weather and new plantings coming into production will have also a positive effect on almond production in MY2007.

## Walnuts

### Production

Production in MY2005/2006 expanded more than previously estimated. Good weather in most growing areas and new orchards coming into production are the main causes for this significant expansion in MY2005/2006. Industry sources have indicated that they expect production to expand further in MY2006/2007 as more new planted areas are coming into production. Additionally, many producers have been adopting improved technologies like pruning and drip irrigation, which will keep expanding total production further in the coming years as yields increase. Producers also are expected to continue to replace aging orchards with improved varieties, increase grafting of their lowest-yielding trees, and expand planted areas. Thus, the long-term forecast is that production will continue to expand. This forecast assumes normal weather conditions throughout the season.

### Crop Area

Although walnuts are planted from the Third Region (Copiapo) down to the Ninth Region (Temuco), over 90 percent of this crop is planted in the central areas, specifically Region Five (San Felipe-Los Andes), the Metropolitan Region (Santiago) and Region Six (Rancagua). The two main factors for the overall increase in planted area are a continuous deterioration in the profitability of alternative fruit crops and the relatively good prices obtained by walnut producers.

<b>Table: CHILE – Walnut Planted Area and Production</b>			
Years	Planted Area (Ha)	Production (MT)	Exports (MT)
1995	6,980	9,800	8,665
1996	7,000	8,800	8,277
1997	7,480	10,950	8,880
1998	7,250	9,955	8,114
1999	7,015	12,000	8,503
2000	7,165	10,000	6,582
2001	7,200	11,800	9,551
2002	7,250	12,400	8,890
2003	7,808	13,800	12,187
2004	7,856	12,500	10,791
2005	8,255	13,900	12,781
2006 1/	8,500	17,700	16,668
2008 2/	9,734	18,500	17,000
2009 3/	9,850	20,000	18,500
1/ Estimated			
2/ Forecasted			
3/ Projected			

## Inputs

All commercial walnut orchards are planted on irrigated land. However, only an estimated 60 percent of the planted area has modern irrigation systems. As a result, when there is not enough water supplied from wells, rivers and streams flowing from the Andes Mountains, water availability becomes an important factor limiting production, mainly in Regions V and VI, where output can be affected significantly. The average orchard size is 10 to 15 hectares, which is double the size of orchards in France and half the size of orchards in the US.

Although a large percentage of walnut trees in production in Chile originate from seeds, budding and grafting of new and improved varieties like Serr and Chandler has increased in recent years. Industry sources indicated that there is still an estimated 30 percent of the total planted area that originated from seeds.

Increasing labor costs are an important factor affecting walnut production and processing. Chile has a competitive quality advantage in shelled walnuts, since almost all shelled walnuts are hand-cracked. Although the premium Chile obtains from this quality advantage has thus far continued to encourage hand-shelling; increased labor costs may mean that Chile could lose this advantage in coming years. Additionally, similar to fruits, returns to Chile's walnut industry during the last season have been falling. In general, prices for exported walnuts have not varied much in dollar terms, but the Chilean peso has gone through a significant revaluation process during the last few years. Also labor costs have been increasing in peso terms. In the case of walnut production, labor represents 70 % of total costs. As reported by some producers, production costs for walnuts are estimated to be between US\$2,300 and US\$2,500 per hectare, in Chile.

## Consumption

As with most other Chilean fruits, domestic walnut consumption is a residual of the export market. If international prices are low, exports fall off and domestic consumption increases as the larger supply drives domestic prices down. However, domestic demand does not drive consumption or determine market prices.

## Trade

The EU is Chile's main export market for walnuts, it accounts for more than 60% of total exports. As production continues to expand due to the increase in planted area, and improvements in orchards begin to bear fruit, total exports should expand further. Industry contacts forecast another increase in exports in CY2007, due to a projected increase in output.

Increasing amounts of mostly unshelled walnuts are being imported. Industry sources indicated that most of these imports correspond to walnuts that are sized and/or shelled and re-exported.

## Stocks

There are no trade or official statistics available on Chile's average stocks. However, exporters normally do not carry over stocks.

## Policy

There are no specific Government policies regulating or benefiting tree nut production in Chile. The general import duty on walnuts is 6 percent except for countries with which Chile has signed trade agreements. The US-Chile Free Trade Agreement lowered duties on US in shell and shelled walnuts to zero as of January 2004. Chilean exports to the US face a zero duty for in-shell walnuts and shelled walnuts since January 2007.

PSD Table									
Country	Chile								
Commodity	Walnuts, In shell Basis						(HA)(1000 TREES)(MT)		
	2005	Revised		2006	Estimate		2007	Forecast	
	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New
Market Year Begin		01/2006	01/2006		01/2007	01/2007		01/2008	01/2008
Area Planted	8500	8500	8500	0	9500	9734	0	0	9850
Area Harvested	5950	5950	5950	0	6100	6250	0	0	6400
Bearing Trees	678	678	678	0	732	750	0	0	768
Non-Bearing Trees	305	305	305	0	408	420	0	0	416
Total Trees	983	983	983	0	1140	1170	0	0	1184
Beginning Stocks	412	300	412	0	200	219	0	300	319
Production	15500	14500	17700	0	16000	18500	0	0	20000
Imports	400	400	775	0	400	600	0	0	600
Total Supply	16312	15200	18887	0	16600	19319	0	300	20919
Exports	13900	13000	16668	0	14300	17000	0	0	18500
Domestic Consumption	2000	2000	2000	0	2000	2000	0	0	2000
Ending Stocks	412	200	219	0	300	319	0	0	419
Total Distribution	16312	15200	18887	0	16600	19319	0	0	20919

Export Trade Matrix			
Country	Chile		
Commodity	Walnuts, In shell Basis		
Time Period	Jan-Dec	Units:	M.T.
Exports for:	2005		2006
U.S.		0 U.S.	0
Others		Others	
Italy	3556	Brazil	4606
Brazil	2677	Italy	3827
Spain	1777	Spain	2036
Germany	1327	Germany	1703
Portugal	1057	Portugal	1276
Switzerland	870	Switzerland	759
Netherlands	276	Argentina	447
Ecuador	269	Netherlands	402
Argentina	165	Ecuador	373
Vietnam	160	Venezuela	301
Total for Others	12134		15730
Others not Listed	647		938
Grand Total	12781		16668

## Almonds

### Production

As a result of rain and frost during the flowering period (end of July, August of CY2005) production fell significantly more than previously estimated in MY2006. For MY2007, excellent weather, together with a larger harvest area will result in a similar than MY2005 crop.

In the coming years total almond production will easily exceed 10,000 metric tons (shelled basis) as producers keep expanding their planted area in response to good economic returns compared to other crops. This forecast assumes normal weather conditions throughout the season. Industry sources indicate that currently close to 80 percent of Chile's planted area is in production.

### Crop Area

Although almond trees are planted from Region IV (La Serena) down to Region VIII (Chillan), over 80 percent of the total planted area is in the central regions, specifically Region VI (Rancagua) and the Metropolitan Region (Santiago). Almonds are planted on irrigated land and average yields are estimated to be between 600 Kg to slightly over one metric ton per hectare. Industry sources report that although many producers are increasing their plantings, total planted area in Chile is not expected to exceed 15,000 hectares, as almonds compete with avocados for the best production areas. Both crops have the same constraints: soil and weather (rainfall and frost). New avocado planting have exploded during the last few years as a result of excellent economic returns. Although Chile has no special advantages in almond production, industry sources indicate that in the next 5 to 7 years an estimated 5000 hectares will be planted every year. Out of this total approximately 250 hectares will replace old aging orchards and 250 hectares will correspond to new-planted area.

### Inputs

Nonpareil is the main variety planted, accounting for 48 percent of the total planted area. Other important planted varieties are: Carmel, Solano and Price. All commercial almond orchards are planted on irrigated land. However, only an estimated 40 percent of the planted area has modern irrigation systems (drip irrigation).

### Trade

Most almonds exported are shelled and sent to markets where Chile has tariff preferences like Argentina, Brazil, Colombia, Venezuela and the European Union (Spain, Italy and the Netherlands). India is also an important market for in-shell almonds. Industry contacts are very optimistic about the benefit of a Chile-India free trade agreement for their sector. They expect duties to be significantly reduced from the current US\$0.80 per Kg for in-shell almonds and US\$2.30 per Kg for shelled almonds.

Chile also imports almonds, mainly from the United States. Industry sources report that imports are mainly used by the confectionery industry and are a smaller size than produced in Chile.

## Policy

There are no specific Government policies regulating or benefiting almond production in Chile. The general import duty on almonds is 6 percent. However, as a result of the US-Chile Free Trade Agreement, US almonds enter Chile duty free.

PSD Table									
Country	Chile								
Commodity	Almonds, Shelled Basis						(HA)(1000 TREES)(MT)		
	2005	Revised		2006	Estimate		2007	Forecast	
	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New
Market Year Begin		01/2005	01/2006		01/2005	01/2007		01/2005	01/2008
Area Planted	0	7150	7150	0	7600	7600	0	0	7800
Area Harvested	0	5860	5860	0	6260	6260	0	0	6380
Bearing Trees	0	1875	1875	0	2160	2160	0	0	2200
Non-Bearing Trees	0	412	412	0	462	462	0	0	490
Total Trees	0	2287	2287	0	2622	2622	0	0	2690
Beginning Stocks	0	425	425	0	275	204	0	225	404
Production	0	4500	4200	0	6000	6600	0	0	6900
Imports	0	1150	1900	0	1150	1900	0	0	1900
Total Supply	0	6075	6525	0	7425	8704	0	225	9204
Exports	0	3400	3921	0	4800	5900	0	0	6500
Domestic Consumption	0	2400	2400	0	2400	2400	0	0	2400
Ending Stocks	0	275	204	0	225	404	0	0	304
Total Distribution	0	6075	6525	0	7425	8704	0	0	9204

Export Trade Matrix			
Country	Chile		
Commodity	Almonds, Shelled Basis		
Time Period	Jan-Dec	Units:	M.T.
Exports for:	2005		2006
U.S.	0	U.S.	0
Others		Others	
Italy	769	Italy	856
Brazil	677	Brazil	586
Mexico	499	Netherlands	442
Netherlands	485	Argentina	424
Argentina	442	Spain	387
Spain	468	Venezuela	357
Venezuela	428	Colombia	265
France	423	Germany	97
Germany	356	U.K.	93
U.K.	288	Ecuador	73
Total for Others	4835		3580
Others not Listed	1135		341
Grand Total	5970		3921