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Chile

Oilseeds and Products

Annual

2000

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Report Highlights: Chile's fishmeal and oil sector begins recovery after three years of hard times.

Includes PSD changes: Yes
Includes Trade Matrix: Yes
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Executive Summary

Chile's fish meal production rebounded in 1999 with the increase in fish landings. Fishing restrictions and some lingering effects of the La Nina phenomenon will constrain the expansion of fish landings during this year. Fish oil production will follow the same trend in line with a slightly larger catch.

Fishmeal and fish oil exports increased as a result of a larger output and a strong international demand. Slightly larger shipments are forecast in 2000, based on an expected larger catch.

MEAL, FISH

Production

Total fish landings for reduction in 1999 rebounded significantly after three years of steady decline. Total landings were up from slightly over 2.7 million metric tons in marketing year 1998 to over 4.5 million metric tons in marketing year 1999. Still, production of fishmeal was only about two-thirds the 1995 level of 1.5 million tons reflecting the lingering effects of over exploitation in both the north and south fishing areas and unusual climatic phenomena, first El Nino and then La Nina. To preserve the fish biomass, the Government imposed fishing bans most of last year, mainly for the Jack mackerel species.

PS&D Table — Fish Meal

PSD Table						
Country	Chile					
Commodity	Meal, Fish				(1000 MT)(PERCENT)	
	Revised	1998	Preliminary	1999	Forecast	2000
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Catch For Reduction	5900	4510	6000	5200	0	5300
Extr. Rate, 999.9999	0.152542	0.217295	0.19	0.211538	??	0.215094
Beginning Stocks	80	278	120	339	110	269
Production	900	980	1140	1100	0	1140
MY Imports	0	270	0	250	0	250
MY Imp. from U.S.	0	0	0	0	0	0
MY Imp. from the EC	0	0	0	0	0	0
TOTAL SUPPLY	980	1528	1260	1689	110	1659
MY Exports	610	589	850	800	0	800
MY Exp. to the EC	180	73	100	90	0	100
Industrial Dom. Consum	0	0	0	0	0	0
Food Use Dom. Consump.	0	0	0	0	0	0
Feed Waste Dom. Consum	250	600	300	620	0	650
TOTAL Dom. Consumption	250	600	300	620	0	650
Ending Stocks	120	339	110	269	0	209
TOTAL DISTRIBUTION	980	1528	1260	1689	0	1659
Calendar Year Imports	0	270	0	250	0	250
Calendar Yr Imp. U.S.	0	0	0	0	0	0
Calendar Year Exports	0	589	0	800	0	800
Calndr Yr Exp. to U.S.	0	3	0	5	0	5

Changing climatic conditions, which influence the rate of recovery of the fish biomass, make it difficult to make an accurate forecast the fish catch. However, we expect another moderate increase in landings for CY2000 because climatological and oceanographic reports indicate that ocean temperatures are normalizing which should allow the fish resource base to continue to recuperate. In the northern fishing areas anchovies and Spanish sardines are making a comeback together with ordinary sardines which are normally present in the northern and southern fishing areas. Because Jack mackerels, which represent over 60 percent of the fishing resource, are still below the minimum fishing size, fishing bans imposed by the government in mid January are in effect until April 15 of this year. Fishing bans for Jack mackerels were in effect from January until November 30 last year.

The climatic phenomenon El Nino started to develop along most of the southern Pacific coast three years ago with a maximum increase of the water temperatures during the months of December 1997 and January 1998. Water temperatures started to fall again in April of 1998, which experts considered a normalizing process. However, last May a violent change in ocean conditions took place in the equatorial area dropping water temperatures below normal. This is known as the La Nina phenomenon, which according to weather specialists, is now decreasing. It is expected that the weather should be normal again in the next 4 to 5 months.

The effect of the El Nino is to move the pelagic fish resource (Jack mackerel, Spanish sardines and anchovies) away from the coast due to a reduction of the food available for these fish. On the other hand, the effect of La Nina is to disperse the fish because there is a larger than normal availability of food in the ocean. As a result, fish do not concentrate in schools. Both conditions are undesirable for the fishing industry. Additionally, El Nino causes higher than normal precipitation, while La Nina normally provokes severe drought on land. Industry sources have indicated that this latest El Nino phenomena was the strongest so far registered in the last 150 years.

There are approximately 250 different fish species in Chilean waters. Fishmeal production accounts for over 95 percent of the total oilmeal output in Chile and is manufactured mostly from sardines, anchovies and Jack mackerel, all pelagic species. These three species account for over 90 percent of the total national fish catch.

Pelagic fishing activities in Chile can be divided into two major areas; the northern desert area from Arica to Antofagasta (Regions I and II), the central fishing areas, San Antonio (Region V) and the south central area which includes the area around Concepcion in Region VIII, and the area around Valdivia in Region X.

Over 350 commercial fishing vessels operate in Chilean waters. Some industry sources estimate that around 150 fishing vessels operate in the northern fishing area. The remaining 200 vessels operate in the south central area. The Chilean fishing fleet has demonstrated great mobility in moving south to better fishing conditions. In addition, the fleet has attempted to utilize more specialized fishing techniques designed for the type of fish it is seeking, which has contributed to greater fishing efficiency.

Table 1 - Monthly Fishmeal Production

Month	1997	1998	1999
January	116,651	78,655	81,929
February	133,910	95,364	110,588
March	102,431	58,521	147,882
April	73,160	44,436	121,995
May	152,165	52,526	109,897
June	147,593	56,337	72,538
July	106,934	54,848	36,029
August	101,701	44,272	50,482
September	38,213	27,327	17,608
October	47,001	34,702	48,092
November	69,150	29,511	74,182
December	50,563	35,501	108,964
Total	**1,194,121**	**612,000**	**980,186**

Consumption

In Chile there are no statistics kept on domestic fishmeal consumption. Domestic consumption and final stocks are derived from the known production and export figure. Domestic consumption of fishmeal has increased in the last few years in line with the expansion of the salmon industry. High fishmeal prices during the last two years have encouraged the animal feed industry (other than salmon) to increase the usage of alternative sources of protein, like soybean meal (see table below) and feather meal. The fishmeal industry is attempting to produce increasing amounts of high-quality meal to supply the expanding salmon feeding industry.

Table 2 - Soybean Meal Imports
(January - December, metric tons)

1998	1999

U.S.	39,324	U.S.	7,514
Others:		Others:	
Argentina	120,330	Argentina	163,270
Brazil	86,353	Brazil	276,495
Bolivia	59,278	Bolivia	307,141
Paraguay	44,125	Paraguay	52,841
Total for Others	312,086	Total for Others	799,747
Others not Listed	0	Others not Listed	0
Grand Total	**351,410**	**Grand Total**	**807,261**

Source: Central Bank

Trade

Fishmeal export levels are dependent upon the year's pelagic fish catch, which determines production and availability for export. Due to the drastic slide in fishmeal production over the last three years, Chile increased fishmeal imports dramatically in 1999 in order to assure continued exports to long-term costumers in Asia and still supply the increased demand of the domestic salmon industry.

Japan is Chile's largest export market for fish meal, followed by Taiwan. According to industry sources, Japan and Taiwan prefer higher quality "prime" fishmeal and pay higher prices. Countries like China, on the other hand, normally take lower quality meal. Presently, an estimated 60 percent of Chile's fishmeal production is of the higher quality, or so-called prime fishmeal. The increased production of prime fishmeal has allowed Chile to expand exports to the Far East at a faster rate than Peru, Chile's main competitor.

For CY2000 fishmeal exports are expected to be slightly larger than last year as production is expected to expand. Imports are also expected to remain at about last year’s level.

Export Trade Matrix — Fish Meal

Export Trade Matrix			
Country	Chile		
Commodity	Meal, Fish		
Time period	Jan - Dec	Units:	M.T.
Exports for:	1998		1999
U.S.	2749	U.S.	373
Others		Others	
Japan	172717	Japan	187130
Taiwan	76587	Taiwan	127502
China	61175	China	49214
Iran	27300	Indonesia	40276
Germany	23918	Germany	38991
Canada	17776	Thailand	25367
Spain	16007	Canada	19208
Indonesia	10949	Spain	16288
Turkey	10223	India	12918
Mexico	9669	Mexico	11547
Total for Others	426321		528441
Others not Listed	66936		60419
Grand Total	496006		589233

Import Trade Matrix — Fish Meal

Import Trade Matrix			
Country	Chile		
Commodity	Meal, Fish		
Time period	Jan - Dec	Units:	M.T.
Imports for:	1998		1999
U.S.	0	U.S.	0
Others		Others	
Japan	697	Peru	269472
		Japan	269
Total for Others	697		269741
Others not Listed			
Grand Total	697		269741

Table 3 - Monthly Fishmeal Export Prices
(FOB, US$ per MT)

Month	1997	1998	1999
January	587	688	638
February	575	677	599
March	570	680	536
April	555	690	421
May	552	712	462
June	578	718	451
July	593	717	456
August	613	733	442
September	618	698	462
October	631	709	472
November	643	706	476
December	666	669	477
Average	594	696	475

Source: Central Bank.

Policy

Private businessmen conduct all the fish meal trade. The government is an active administrator of the country's fisheries resources. Principal control is exercised through the basic Fishing Law, which authorizes fishing bans, imposes minimum fish size, and controls the number and permitted size of fishing vessels. Fishing bans have been established to ensure that pelagic species are not over-fished. In addition, existing legislation sets a minimum length for Jack mackerels of 26 cms.; sardines must be at least 20 cms. long.

OIL, FISH

Production

In line with the larger landings, total fish oil output in CY1999 increased and even exceeded our previous estimate. The fish catch had a higher oil content which affected total fish oil output positively. Fish oil extraction in 2000 will depend on the size of the fish catch.

PS&D Table — Fish Oil

PSD Table						
Country	Chile					
Commodity	Oil, Fish				(1000 MT)(PERCENT)	
	Revised	1998	Preliminary	1999	Forecast	2000
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Catch For Reduction	??	??	??	??	??	??
Extr. Rate, 999.9999	0.025424	0.040576	0.030833	0.040385	ERR	0.040566
Beginning Stocks	17	84	15	53	25	43
Production	150	183	185	210	0	215
MY Imports	15	60	10	60	0	60
MY Imp. from U.S.	0	0	0	0	0	0
MY Imp. from the EC	0	0	0	0	0	0
TOTAL SUPPLY	182	327	210	323	25	318
MY Exports	5	64	20	60	0	55
MY Exp. to the EC	0	50	0	50	0	50
Industrial Dom. Consum	12	15	12	15	0	15
Food Use Dom. Consump.	65	75	65	75	0	75
Feed Waste Dom. Consum	85	120	88	130	0	140
TOTAL Dom. Consumption	162	210	165	220	0	230
Ending Stocks	15	53	25	43	0	33
TOTAL DISTRIBUTION	182	327	210	323	0	318
Calendar Year Imports	0	60	0	60	0	60
Calendar Yr Imp. U.S.	0	0	0	0	0	0
Calendar Year Exports	0	64	0	60	0	55
Calndr Yr Exp. to U.S.	0	0	0	0	0	0

Table 4 - Monthly Production of Fishoil
(In MT)

Month	1998	1999
January	9,115	19,104
February	13,134	27,361
March	7,800	37,729
April	7,799	27,461
May	9,947	25,404
June	10,801	12,747
July	9,636	6,500
August	6,619	3,770
September	2,613	1,073
October	3,321	2,727
November	4,105	5,649
December	4,729	13,850
Total	89,619	183,375

Source: Central Bank.

Consumption

Traditionally, fish oil has been used in Chile by the food industry as an ingredient in margarine and low-grade cooking oil and by manufacturers of paint and putty. During the last few years, however, the use by feedmills producing rations for salmon farms has increased dramatically. The feed industry is using fish oil to manufacture pellets by extrusion that are lighter and therefore do not sink as fast as normal pellets when fed to fish (salmon) in cages. This has increased the efficiency of the fish feeding industry. The use of fish oil also improves the flavor of the fish. In the coming years domestic consumption of fish oil will reflect growth in the fish farming sector.

In Chile there are no official statistics on consumption. These are estimated from the known figure of production and exports together with stocks.

Trade

Fish oil exports increased in 1999 when compared to a year earlier due to a larger supply. Imports also increased significantly reflecting the strong demand by the feed industry, mainly for salmon production.

Export Trade Matrix — Fish Oil

Export Trade Matrix			
Country	Chile		
Commodity	Oil, Fish		
Time period	Jan - Dec	Units:	
Exports for:	1998		1999
U.S.	21	U.S.	20
Others		Others	
Australia	2530	Norway	42235
Ecuador	918	Mexico	12540
New Zealand	834	Netherlands	8100
Honduras	125	New Zealand	783
Uruguay	10	Honduras	305
		Vietnam	205
		Ecuador	167
		Israel	42
		Uruguay	27
		Philippines	24
Total for Others	4417		64428
Others not Listed			38
Grand Total	4438		64486

Import Trade Matrix — Fish Oil

Import Trade Matrix			
Country	Chile		
Commodity	Oil, Fish		
Time period	Jan - Dec	Units:	
Imports for:	1998		1999
U.S.		U.S.	
Others		Others	
Indonesia	5402	Peru	60293
Peru	4520		
Panama	2029		
Argentina	81		
Germany	2		
Total for Others	12034		60293
Others not Listed			
Grand Total	12034		60293

Table 5 - Prices
(FOB, US$ per MT)

Month	**1997**	**1998**	**1999**
January	NQ	NQ	894
February	383	692	284
March	195	987	209
April	395	819	205
May	436	862	224
June	1,013	950	195
July	1,400	871	182
August	1,438	986	415
September	987	972	391
October	425	902	229
November	526	691	400
December	564	909	NQ
Average	361	735	208

NQ: Not Quoted, because no sales were made.

Source: Central Bank.