Foreign Agricultural Service
GAIN Report
Global Agriculture Information Network

Scheduled Report - public distribution

Date: 8/14/1999

GAIN Report #TW9046

Taiwan

Poultry

Annual Poultry Situation

1999

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Report Highlights:
In 1998, poultry production on Taiwan declined for the first time ever because smaller producers were bought out by central authorities in an attempt to prepare the sector for increased competition from imported chicken meat. Last year 9,000 mt of US chicken meat, imports of which were banned from all other sources, entered Taiwan under a 10,000 mt annual quota arrangement agreed to during the US and Taiwan's bilateral WTO pre-accession negotiations. In 1999 Taiwan established a second annual quota of 9,163 mt, this one for non-US suppliers. Despite increased competition from imports, poultry production in 1999 and 2000 is expected to show moderate gains because local producers have begun efforts to promote the consumption of the meat of Taiwan native chickens, a product that does not face competition from foreign suppliers.

Includes PSD changes: Yes
Includes Trade Matrix: Yes
Unscheduled Report
Taipei [TW1], TW

Annual Poultry Situation - Taiwan - 1999

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Executive Summary

Poultry meat production in 1998 totaled 728,000 mt, down 1.5 percent from the 1997 level. This was the first time in the history of poultry production statistics that production fell. The reduction was attributed to decreases in duck and native chicken production, and to slow growth in the broiler sector which is adjusting to competition from previously banned chicken meat imports. The poultry production forecast for 1999 and 2000 is 746,000 mt. The small increase will come from duck and native chicken production which is expected to bounce back despite competition from imports.

In 1998, because only small amounts of chicken meat imports were allowed entry, Taiwan's demand for poultry meat was 99 percent supplied by locally raised birds, with only 1 percent coming from abroad. Per capita poultry meat consumption, 33 kg in 1997 (which represents a 3 kg per capita increase from 1996), increased even more in 1998 because consumers are eating less pork and more chicken. This shift has occurred because pork prices are high as a result of production declines stemming from the 1997 outbreak of Foot and Mouth Disease (FMD) in Taiwan's swine sector.

There are no quantity restrictions on imports of ducks, geese and turkeys. However, chicken meat imports, banned before 1998, are limited to small annual quotas. The US has an exclusive annual quota for 10,000 mt which was established in 1998 in connection with trade liberalization measures adopted by Taiwan in connection with its WTO accession bid. In 1999 Taiwan opened a second chicken meat quota, this one for 9,163 mt, for non-US suppliers. The only non-US supplier that meets Taiwan's food safety and animal quarantine requirements is Australia, but Canada will soon be able to export as well. When Taiwan enters the WTO, both quotas will be replaced by a global tariff rate quota (TRQ). Chicken meat imports in 1999 will be about 19,000 mt, and imports for 2000 will depend on whether or not Taiwan is a WTO member by then. If it has not joined the WTO by then, the non-US poultry quota may be eliminated. In 1998, whole turkey imports were only 200 mt, mostly consumed on Thanksgiving and Christmas. In 1998, frozen turkey thigh imports were up. The increase occurred because this product serves as a substitute for pork in processed meat products and surimi-based foods when pork prices exceed a certain threshold. In preparation for the additional poultry meat imports that are expected after Taiwan becomes a member of the WTO, the local poultry processing industry is modernizing and consolidating; and is planning to expand exports of native/crossbred chicken meat and to begin importing US-style broilers.

Total 1998 poultry egg production was 7.7 billion pieces, of which chicken eggs accounted for 93 percent and duck eggs for the rest. Poultry egg production forecasts for the near future indicate that annual growth will be under one percent. Taiwan per capita egg consumption is stable at about one egg a day. Less than one per cent of egg consumption on Taiwan is supplied by imports. Egg product imports in 1998 added up to only $234,000 worth, roughly equivalent to 6 million in-shell eggs. Of 1998 egg imports, 65 percent (calculated on an in-shell basis) were liquid eggs, 30 percent powdered eggs, and 5 percent stock eggs. Egg exports in 1998 were worth about 10 times more than imports, and were the rough equivalent of 12 million in-shell eggs, with 26 percent being breeding eggs, 64 percent being alkalized or salty duck eggs, and 10 percent being liquid or powdered egg products. Egg and egg product imports and exports in 1999 and 2000 are not expected to change significantly, but the potential does exist for increased imports of liquid and powdered egg products, especially frozen egg whites.

Total Poultry

Table 1. Total Poultry Meat Production, Supply and Demand

PSD Table						
Country:	Taiwan					
Commodity:	Poultry, Meat, Total					
		1998		1999		2000
	Old	New	Old	New	Old	New
Calendar Year Begin		01/1998		01/1999		01/2000
Inventory (Reference)	0	0	0	0	0	0
Slaughter (Reference)	0	0	0	0	0	0
Beginning Stocks	0	0	0	0	0	0
Production	690	728	780	746	0	746
Whole, Imports	2	0	3	0	0	0
Parts, Imports	12	11	15	27	0	23
Intra EC Imports	0	0	0	0	0	0
Other Imports	0	0	0	0	0	0
TOTAL Imports	14	11	18	27	0	23
TOTAL SUPPLY	704	739	798	773	0	769
Whole, Exports	0	0	0	0	0	0
Parts, Exports	5	3	6	3	0	3
Intra EC Exports	0	0	0	0	0	0
Other Exports	0	0	0	0	0	0
TOTAL Exports	5	3	6	3	0	3
Human Consumption	699	736	792	770	0	766
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	699	736	792	770	0	766
TOTAL Use	704	739	798	773	0	769
Ending Stocks	0	0	0	0	0	0
TOTAL DISTRIBUTION	704	739	798	773	0	769
Calendar Yr. Imp. from U.S.	0	0	0	0	0	0

Production

Poultry meat numbers discussed below are reported on a ready-to-cook (RTC) basis. For purposes of this report the term *poultry* includes broilers, native/crossbred birds, spent hens, ducks, geese, and turkeys. Total poultry meat production in 1998 amounted to 728,000 mt, down 1.5 percent from 1997. This was the first time poultry production has declined since statistics have been kept. The reduction is attributed to a decrease in the production of native/crossbred birds and ducks, and to the importation of 9,000 mt of chicken meat from the

US. Before 1998 all chicken meat imports were banned. In 1998, chicken accounted for 87 percent, ducks 9 percent, geese 4 percent, and turkey less than 1 percent of total poultry production. In 1999, because native/crossbred birds and duck production is expected to bounce back, total poultry production is estimated at 746,000 mt, up 2 percent from 1998 year. In the last decade, average annual poultry meat production growth rates have typically been from 3 to 10 percent. The forecast for total poultry production for 2000 remains at the 1999 level due to uncertainty surrounding Taiwan's WTO accession. Taiwan's WTO status in the year 2000 will determine the level of imports that year and import levels will have an indirect impact on production. A breakdown of total poultry meat production in 1998, and forecasts for 1999 and 2000 are shown on Table 2.

Table 2. Total Poultry Production Breakdown

Poultry	1998 Meat Output in MT (% change from last yr)	Poultry Production Forecast for 1999 & 2000
Broilers, import type	272,930 (+2%)	273,000 (+0%)
Native/crossbred*	336,413 (-3%)	345,000 (+3%)
Spent layers	22,297 (+1%)	22,000 (+0%)
Ducks	62,533 (-13%)	72,000 (+14%)
Geese	31,621 (+6%)	32,000 (+0%)
Turkeys	1,718 (+1%)	1,720 (+0%)
Totals	727,512 (-1%)	745,720 (+2%)
Source: Taiwan Agricultural Yearbook, 1999		

*Native/crossbred birds can be 100 percent native stock, or US style broiler chickens that are crossbred with native rooster breeds.

Consumption

According to the Council of Agriculture's (COA's) *Taiwan Food Balance Sheet*, in 1997 per capita meat consumption on Taiwan was 77 kg, down 2 kg from 1996. Of per capita meat consumption, pork accounted for 51 percent (54 percent in 1996), poultry 43 percent (41 percent in 1996), beef 4 percent (same in 1996), and mutton 2 percent (1 percent in 1996). Per capita consumption of poultry meat was 33 kg in 1997, an increase of 3 kg from the previous year. In 1997, per capita consumption of pork fell by 1 kg as compared with 1996. In 1997 poultry consumption rose and pork fell because some consumers avoided pork during part of that year after an islandwide outbreak of FMD occurred in Taiwan's pig sector. Pork prices have been high ever since the FMD outbreak. Per capita poultry consumption is expected to have increased further in 1998 and to increase again in 1999 due to comparatively high prices of pork and increased imports of relatively inexpensive chicken meat products. However, per capita consumption figures for 1998, and estimates for 1999, are not yet available. The average auction price for pigs was NT$4,600 per 100 kg live weight in 1998, compared to NT$6,410 in May 1999. Pig prices in 1998 rose substantially because the pig sector shrunk dramatically after the 1997 FMD outbreak.

Trade

About 99 percent of all poultry meat consumed on Taiwan is locally produced, only one percent is imported. In 1998, Taiwan imported 11,000 mt of poultry meat from the United States, of which 9,000 mt was chicken meat and 2,000 mt turkey. Before 1998, chicken meat imports were banned. This ban was lifted in a move to meet WTO trade liberalization requirements. (Taiwan is not a member of the WTO, but has applied for entry.) Poultry meat exports in 1998 were 3,000 mt, of which 2,000 mt were duck meat going to Japan and 1,000 mt native/crossbred chicken meat going to Hong Kong. The poultry meat import estimate for 1999 is 27,000 mt, with 11,000 mt of chicken meat and 7,000 mt of turkey meat coming from the United States and 9,000 mt of chicken meat coming from Australia. The poultry import forecast for 2000 is 22,000 mt, with 10,000 mt of chicken meat and 3,000 mt of turkey meat expected to come from the United States and 9,000 mt of chicken meat from Australia and other possible sources. If Taiwan does not enter the WTO in 2000, it is possible that the non-USA poultry meat quota will be eliminated, in which case the forecast for 2000 poultry imports will have to be revised downward by 9,000 mt.

In 1999 poultry meat exports are expected to remain at the 1998 level of 3,000 mt, with 2,000 mt of duck meat going to Japan and 1,000 mt of chicken meat going to Hong Kong. All poultry meat is traded as cut meat, none is traded as whole birds, with the exception of minuscule quantities of whole turkey imports for consumption on Thanksgiving and Christmas.

Trade Policy

Current tariff rates for different poultry products are summarized in the table below.

Table 3. Current Tariff Rates for Poultry Meat

Description of Products	Current	Accession	Final
Chicken Meat	40	25 TRQ*	20 TRQ by 2004
Duck Meat	35	35	35
Goose Meat	40	30	25 by 2002
Turkey Meat	10	10	10
Egg Products	40	35	30 by 2000
Poultry Offal	Ban on Imports	25 TRQ	2004

* TRQ = tariff rate quota. In-quota tariff will be 25 percent.

Currently, imports of poultry offal are banned. Upon accession to the WTO, a TRQ will be established for certain poultry offal products, including chicken offal, starting at 1,836 mt a year and growing to 3,672 mt in 2004, with an in-quota tariff of 25 percent. The TRQ will be eliminated by January 1, 2005 at which time a general tariff of 25 percent will be established and all quantity limitations eliminated. Upon accession to the WTO, all quantity restrictions on imports of chicken feet, hearts, and liver will be eliminated immediately, and tariffs on those products will be assessed at 25 percent.

Marketing

Approximately 90 percent of all domestic broilers and ducks are processed in modern, automated poultry facilities, as compared to only 10 percent of native/crossbred birds. Native/crossbred birds are usually retailed live or slaughtered in traditional wet markets. This practice has raised environmental and sanitary concerns among Taiwan's health authorities. The COA is planning to begin encouraging producers of native and crossbred varieties to establish automated processing plants that meet modern sanitation standards. There are also plans to establish a *Tu Gi* (i.e., native bird) logo under which live native poultry will be marketed. Producers will be certified to use the logo if they meet certain standards. Total daily poultry processing capacity on Taiwan is estimated at 400,000 to 500,000 birds.

Table 4. Exchange Rates (NT$ per $1)

Month	1998	1999
January	33.24	32.26
February	33.33	32.34
March	32.39	33.16
April	32.96	33.07
May	33.19	
June	34.30	
July	34.49	
August	34.57	
September	34.71	
October	33.81	
November	32.75	
December	32.40	
Average	33.51	
Source: Taiwan Customs Current exchange rate is about NT$32.20 to $1		

Chickens

Table 5. Chicken Production, Supply and Demand Table

PSD Table						
Country:	Taiwan					
Commodity:	Plty, Meat, Chicken -16 wks					
		1998		1999		2000
	Old	New	Old	New	Old	New
Calendar Year Begin		01/1998		01/1999		01/2000
Inventory (Reference)	0	0	0	0	0	0
Slaughter (Reference)	0	0	0	0	0	0
Beginning Stocks	0	0	0	0	0	0
Production	644	609	650	618	0	618
Whole, Imports	0	0	2	0	0	0
Parts, Imports	7	9	10	20	0	20
Intra EC Imports	0	0	0	0	0	0
Other Imports	0	0	0	0	0	0
TOTAL Imports	7	9	12	20	0	20
TOTAL SUPPLY	651	618	662	638	0	638
Whole, Exports	0	0	0	0	0	0
Parts, Exports	2	1	2	2	0	2
Intra EC Exports	0	0	0	0	0	0
Other Exports	0	0	0	0	0	0
TOTAL Exports	2	1	2	2	0	2
Human Consumption	649	617	660	636	0	636
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	649	617	660	636	0	636
TOTAL Use	651	618	662	638	0	638
Ending Stocks	0	0	0	0	0	0
TOTAL DISTRIBUTION	651	618	662	638	0	638
Calendar Yr. Imp. from U.S.	0	0	0	0	0	0

Taiwan's chicken production falls into two categories: US-style broilers and native/crossbred birds which includes native chickens as well as chickens produced by crossbreeding native roosters with western-style broilers hens. These birds are referred to as native/crossbred birds throughout this report. *Chicken Meat* includes US-style broilers and native/crossbred chickens, but does not include spent hens.

Production

Total production of chicken meat in 1998 was 609,000 mt. The total chicken meat output estimate for 1999 and 2000 is 618,000 mt. The growth in 1999 and 2000 output will be entirely in the native/crossbred category. US-style broiler production is expected to decline or remain at 1998 levels.

US-Style Broilers

Taiwan produced 609,000 mt of chicken meat in 1998; 45 percent from US-style broilers (young chickens) and 55 percent from native/crossbred chickens. In 1998 broiler production increased only 2 percent from the previous year, in comparison with growth rates of 7 to 18 percent in the last 5 years. The low growth in 1998 broiler production was primarily due to 9,000 mt of imports of US chickens. Before 1998 imports of chicken meat were banned. The US obtained a 10,000 mt annual quota during its bilateral WTO pre-accession trade talks with Taiwan. According to the COA, aside from having to compete with imports for the first time, there have been no significant changes in the local poultry production environment in recent years. Broiler production costs in 1998 were estimated at the same level as in 1997: NT$30 per kg for live birds. The average 1998 farm gate price was NT$34 per kg for live birds (equivalent to NT$46 per kg RTC or $0.63 per lb RTC). Broiler feed conversion ratios range from 1.7 to 2.2, and, on average were 2.0, with an average maturation period of 6 weeks and an average market weight of 1.8 to 2.0 kg or 4 to 5 lbs, equivalent to 1.4 kg or 3.2 lbs RTC. No growth in US-style broiler production is expected in either 1999 or 2000. This will be the first time since poultry production statistics have been kept that US-style broiler production have not clocked an increase. No growth is projected because of the 11,000 mt 1999 WTO pre-accession quota for US chicken meat, and a new, 1999 WTO pre-accession quota of 9,163 mt for chicken meat from non-US sources.

Native/Crossbred Chickens

The maturation period for native/crossbred birds, on average, is 13 to 16 weeks, as compared with 6 weeks for US-style broilers. In 1998 native/crossbred chicken production was 336,000 mt, down 9,000 mt or 3 percent from the previous year. Decreases resulted from competition with imports and from farmers who decided to get out of the chicken business. Native/crossbred chickens are normally marketed on a live-bird basis. Therefore, because frozen or chilled supplies do not exist, changes in supply usually lag at least three months behind changes in demand, and prices are somewhat more volatile than for US style broilers. The average 1998 farm gate price for native/crossbred birds was NT$45 per kg for live birds, equivalent to NT$62 per kg RTC or $0.83 per lb RTC. By comparison, in May 1999, the average farm gate price for native/crossbred birds was NT$67 per kg for live birds. Due to attractive farm gate prices, 1999 and 2000 production of native/crossbred birds is expected to rebound to the 1997 level of 345,000 mt.

Production Policy

A buyout program, targeting small and inefficient hog and chicken operations that would have difficulty competing in this market after Taiwan enters the WTO, and additional pork and poultry imports are permitted, ran from 1998 to July 1999. Approximately 12 percent of Taiwan's 1,200 chicken farms, 788 chicken farms in total, took advantage of the buyout program. As a consequence, the efficiency of the Taiwan chicken sector is now higher than a year ago. At the same time, poultry processors have enlarged the scale of their operations in order to cut costs and increase efficiency. The largest chicken processor can handle 190,000 birds daily.

In August, Charoen Pokphand (CP) Taiwan obtained ISO 9001 certification from the Switzerland SGS group which has offices in Taipei. CP Taiwan's poultry processing plant is the first one in Asia to be ISO 9001 certified. This is a first step toward CP Taiwan realizing its ambition to export chicken meat to EU and other markets. The company's goal is to export a total of NT$3 billion in chicken meat by 2005.

Another policy that will lead to further consolidation in the chicken production sector on Taiwan is the COA farm registration program launched in early 1999 in accordance with the new Livestock Administration Law. Poultry farms that raise more than 3,000 birds must register with the COA before September 15, 1999. Farms situated on watersheds, near streams and seashores, or on illegal land will have to shut down.

Consumption

The purchase of US-style broiler meat in western fast food restaurants, and in supermarkets has grown significantly in the last decade, along with the purchase and consumption of many other western foods. In particular, fried chicken breasts and drumsticks have become popular items in fast food chains. For example, on Taiwan McDonald's, Burger King and Pizza Hut outlets all sell fried chicken. Buffalo wings are also becoming popular in western-style restaurants such as T.G.I. Friday. Chicken leg quarters, usually eaten with rice and a vegetable, are a very common choice for lunch on Taiwan. They are typically sold in take-out boxes by ubiquitous small shops.

Native/crossbred broilers, with their distinctive meat texture and flavor, are preferred by Taiwan consumers in the preparation of traditional dishes. The Taiwan agricultural authorities are encouraging farmers to produce more native and crossbred birds and to spend money on advertising to further segregate this product from US-style broiler meat as one strategy to help the Taiwan poultry sector survive trade liberalization. Taiwan consumers also consume large amounts of chicken offal including tails, gizzards, and hearts. Imports of chicken offal are currently banned. However, as mentioned above, imports will be allowed when Taiwan becomes a member of the WTO.

Trade

Table 6. Chicken Meat Imports

Import Trade Matrix			
Country:		Units:	1,000 mt
Commodity:			
Time period:	01/1998		
Imports for	1998		1999
U.S.	9	U.S.	11
Others		Others	
		Australia	9
Total for Others	0		9
Others not listed			
Grand Total	9		20

Table 7. Chicken Meat Exports

Export Trade Matrix			
Country:		Units:	1,000 mt
Commodity:			
Time period:	01/1998		
Exports for	1998		1999
U.S.		U.S.	
Others		Others	
Hong Kong	1	Hong Kong	1
Total for Others	1		1
Others not listed			
Grand Total	1		1

Import Policy

Table 8. Chicken and Chicken Product Tariffs and Import Restrictions

HS Code	Current Tariff Rate	Product Description	*Import Regulation
0207.11.00.00-8	40%	Whole Chicken, Fresh or Chilled	111; QO2; B01; CO1; MWO
0207.12.00.00-7	40%	Whole Chicken, Frozen	111; QO2; B01; CO1; MWO
0207.13.10.00-4	40%	Chicken Cuts, Fresh or Chilled	111; QO2; BO1; CO1; MWO
0207.14.10.00-3	40%	Chicken Cuts, Frozen	111; QO2; B01; CO1; MWO
0210.90.90.11-5	40%	Chicken Meat, Salted or Smoked	111; QO2; B01; CO1; MWO
1602.32.00.11-9	40%	Prepared or Preserved Chicken Meat, Frozen	111; QO2; B01; CO1; MWO
1602.32.00.91-2	40%	Prepared or Preserved Chicken Meat, other than Frozen	111; QO2; B01; CO1; MWO
1602.32.00.21-7	40%	Prepared or Preserved Chicken Meat, Canned	CO1; MWO
111–controlled imports. QO1–chicken meat imports are permitted with quota (US & non-US import quotas) BO1–imports are subject to quarantine inspection CO1–imports are subject to customs inspection MWO–imports from China are banned (Current Exchange Rate: $1=NT$32.26, quoted July 27, 1999)			

With the exception of canned chicken (HS1602.32.00.21-7), imports of chicken and chicken products were banned until June 1998 when an annual 10,000 mt import quota for US chicken meat was implemented. This quota was agreed to by Taiwan as one of the trade concessions included in the Taiwan-US pre-accession WTO agreement. In June 1999, Taiwan established a second quota, this time for 9,163 mt of poultry for all non-US exporters that meet Taiwan's sanitary requirements. When Taiwan enters the WTO these two quotas will become a multilateral 19,163 mt TRQ, growing to 45,990 mt TRQ by 2004. The in-quota tariff for chicken meat will be 25 percent upon accession, decreasing to 20 percent by 2004. The TRQ will become a straight tariff with no quantity restrictions on January 1, 2005.

In accordance with Taiwan's quarantine requirements for imported poultry and poultry products, imports must come from countries free from Highly Pathogenic Avian Influenza (HPAI) and Newcastle Disease (ND). At the present time, only the US and Australia are recognized by Taiwan authorities at the Bureau of Animal and Plant Health Inspection and Quarantine (BAPHIQ) as free of these two diseases. Canada has made application and will soon be included on this list as well.

Table 9. Taiwan's Imports/Exports of Chicken Meat and Chicken Products in 1999

Country	Imports		Exports		Chicken Product Description
	Kilogram	NT$ 000	Kilogram	NT$ 000	
*USA	8,994,000	274,092	0	0	Cuts, frozen
	75	42	0	0	Prepared, frozen
US Subtotal	**8,994,075**	**274,134**	0	0	
S. Korea	**14,491**	**1,193**	0	0	
Philippines	**422**	**42**	**0**	**0**	
Japan	0	0	32,692	3,357	Whole, frozen
	0	0	229,272	16,544	Cuts, frozen
	0	0	76,013	108,665	Prepared, frozen
	563	53	0	0	Prepared, canned
	0	0	300	139	Prepared, other
	0	0	21,000	470	Skin
Japan Subtotal	**563**	**53**	**359,277**	**129,175**	
Hong Kong	0	0	655,993	8,998	Cuts, frozen
	0	0	19,700	1,438	Prepared, frozen
	0	0	146	5	Prepared, canned
	0	0	0	9	Prepared, other
	0	0	1,985,678	18,492	Offal, w/o livers
HK Subtotal	**0**	**0**	**2,661,517**	**28,942**	
Germany	**0**	**0**	**16**	**2**	Prepared, frozen
El Salvador	**0**	**0**	**5,585**	**150**	Prepared, canned
Argentina	**0**	**0**	**73**	**8**	Prepared, other
1998 Total	**9,009,551**	**275,422**	**3,026,468**	**158,277**	
US$ 000		**$8,219**		**$4,709**	

Source: Taiwan Customs Statistics
****Data detailing imports from the US are based on Board of Foreign Trade (BOFT) figures. Import value is an estimate based on Taiwan customs valuations.***

Imports

In 1998, chicken meat imported under the US quota totaled 9,000 mt worth $8.2 million. The un-used portion of the quota, i.e., 1,000 mt, was added to 1999 US import quota. Chicken imports from the US were all frozen leg quarters. On Taiwan, the price of chicken leg quarters is twice as high as the price of a whole chicken (refer to the *Price* section). These imports proved very profitable for Taiwan importers. US quota is available only to the 24 members of the Taiwan Poultry Processing Association (TPPA). Due to the high rate of returns realized on last year's chicken imports, when rules for the non-US quota were established in early 1999, non-TPPA importers demanded a part of the lucrative business. Consequently, 70 percent of the non-US chicken import quota was opened to non-TPPA importers. According to Taiwan authorities at the Bureau of Foreign Trade (BOFT), all 1999 chicken import quotas, 11,000 mt from the US and 9,000 mt from Australia, were allocated during the quota application period in July 1999. All allocated 1999 chicken quota is expected to be used. Quota is tradable at NT$15,000 per mt. In addition to quota imports, Taiwan imported 16 mt of canned ginseng chicken worth $10,000, with 93 percent coming from South Korea, 4 percent from Japan, and 3 percent from the Philippines. Total chicken meat imports for 1999 are estimated at 20,000 mt. Current estimates for 2000 imports are 19,000 mt, 10,000 mt from the US and 9,000 mt from other sources. However, if Taiwan does not enter the WTO in 2000, the non-US chicken meat quota could be eliminated. In that case imports would fall to around 10,000 mt.

Exports

In 1998, exports of chicken and chicken products totaled 3,000 mt worth $4.7 million, of which 2,000 mt were offal and skins worth $600,000, and 1,000 mt (RTC) were chicken meat worth $4.1 million. Hong Kong and Japan are Taiwan's primary export markets for chicken and chicken products. Chicken and chicken product export estimates for 1999 and 2000 remain at 1998 levels.

Price

Table 10. The Farm Gate Price for Taiwan US-Style Broilers (US$ per lb-RTC basis)

Prices Table			
Country:			
Commodity:			
Year:	1999		
Prices in (currency)	USD	per (uom)	Pound
Year	1998		% Change
Jan	0.61	0.77	26.2%
Feb	0.53	0.83	56.6%
Mar	0.61	0.72	18.0%
Apr	0.61	0.76	24.6%
May	0.61	0.75	23.0%
Jun	0.63		-100.0%
Jul	0.77		-100.0%
Aug	0.77		-100.0%
Sep	0.82		-100.0%
Oct	0.66		-100.0%
Nov	0.70		-100.0%
Dec	0.70		-100.0%

In 1998, the average CIF import price of US leg quarters was NT$30 per kg or $0.14 per lb. According to the local poultry processing industry, the average price of imported US chicken leg quarters, upon leaving the Taiwan processing plant, was NT$81 per kg or $1.10 per lb. This figure was calculated taking into account the 40 percent tariff; the 0.3 percent harbor service fee assessed all imports; the 5 percent business tax; additional costs to cover customs clearance, handling, and inland transportation which are estimated at 10 percent CIF; weight loss caused by defrosting and the removal of tails and fat of 8 to 10 percent; and a NT$12 per kg labor cost. The wholesale price of locally produced chicken leg quarters was NT$94 per kg or $1.30 per pound. By comparison, imported frozen chicken leg quarters were $0.20 per lb cheaper, providing a good margin for importers.

Marketing

Because it takes 13 to 16 weeks to grow out a native/crossbred chicken, which is at least 6 weeks longer than a US style broiler, the per bird average production cost for a native/crossbred chicken is NT$40 as compared to NT$30 for a US style broiler. In spite of local consumers' preference for the flavor and meat texture of native chickens, these chickens are not competitive with broilers, especially for HRI use. To increase the competitiveness of native and crossbred birds, the COA has established a logo to promote them. It is hoped that the logo (the three English letters *T-U-G*, which stands for Tu Gi and means *native chicken* in English) will segregate the product from US-style broilers and lead to increased sales. However, the program has not been successful so far because prepared/cooked TUG chickens have been marketed by only one convenience store chain, Family Mart, which has only 167 of the more than 5,000 convenience store outlets on Taiwan. Only native/crossbred birds that are processed in modern facilities can use the TUG logo. Only 10 percent of all native/crossbred chickens are processed in automated processing plants as compared to 90 percent of broilers.

As mentioned above, currently, only the US and Australia meet Taiwan's sanitary and animal quarantine requirements for chicken meat and chicken product imports. However, Taiwan importers are interested in the possibility of importing from Thailand, Brazil, Canada and perhaps even the PRC. In early September 1999, a 40 member delegation of Taiwan poultry processors will visit Thailand to learn more about that potential supplier. Canada will shortly be recognized as free of ND and HPAI. If other potential chicken meat suppliers follow suit, in particular Thailand, the US will have stiff competition for Taiwan's post-WTO accession TRQ. Until accession, the 10,000 mt annual US quota will remain exclusively for US product. All US states can export chicken meat to Taiwan except Pennsylvania State, which is not considered free from poultry diseases of Taiwan concern. Therefore, Pennsylvania product cannot enter this market, nor can product that transits Pennsylvania, unless it is shipped in sealed containers, and FSIS officials certify that the product entered and departed Pennsylvania with all container seals intact.

Turkey

Table 11. Turkey Production, Supply and Demand Table

PSD Table						
Country:	Taiwan					
Commodity:	Poultry, Meat, Turkey					
		1998		1999		2000
	Old	New	Old	New	Old	New
Calendar Year Begin		01/1998		01/1999		01/2000
Inventory (Reference)	0	0	0	0	0	0
Slaughter (Reference)	0	0	0	0	0	0
Beginning Stocks	0	0	0	0	0	0
Production	2	2	2	2	0	2
Whole, Imports	1	0	1	0	0	0
Parts, Imports	5	2	5	7	0	3
Intra EC Imports	0	0	0	0	0	0
Other Imports	0	0	0	0	0	0
TOTAL Imports	6	2	6	7	0	3
TOTAL SUPPLY	8	4	8	9	0	5
Whole, Exports	0	0	0	0	0	0
Parts, Exports	0	0	0	0	0	0
Intra EC Exports	0	0	0	0	0	0
Other Exports	0	0	0	0	0	0
TOTAL Exports	0	0	0	0	0	0
Human Consumption	8	4	8	9	0	5
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	8	4	8	9	0	5
TOTAL Use	8	4	8	9	0	5
Ending Stocks	0	0	0	0	0	0
TOTAL DISTRIBUTION	8	4	8	9	0	5
Calendar Yr. Imp. from U.S.	6	2	6	8	0	5

Production

Turkey production in Taiwan is rather small. Before Taiwan opened its market to turkey imports in 1989, Taiwan annual turkey production was around 4,000 mt. Local production has gradually adjusted to competition from imports, and is currently 2,000 mt a year. Turkey meat production represents less than 1 percent of total poultry production.

Consumption

In general, turkeys are marketed through HRI outlets as ready-to-eat products. Whole turkeys are roasted and served in upscale hotels or western restaurants as holiday fare, especially on Thanksgiving and Christmas Days. In addition, two- or three-joint turkey wings are stewed in soy sauce with Chinese seasonings and sold in small restaurants or by street vendors. Turkey breasts are used in a typical Taiwanese cooked- rice dish called *Turkey Cooked Rice* which is growing in popularity in Chaiyi county in southern Taiwan. Domestic turkeys are marketed fresh or chilled, while imported turkey is always marketed frozen. Because local consumers prefer the meatier flavor of fresh turkey, local turkeys are used primarily in Taiwanese cooked-rice dishes. Imports of frozen turkey thighs have increased significantly recently. This is due to the high prices for pork that have been common ever since the 1997 FMD after which Taiwan's pork production fell by one-third and has never fully recovered. Turkey thigh meat is used as a pork substitute in processed meat products, such as hot dogs and hams, or mixed together with ground, chopped, or diced pork and sold by supermarkets in household consumer packs. Total turkey consumption ranges from 4,000 mt to 10,000 mt. Fluctuations in the consumption of imported turkey cuts, thigh meat in particular, are the primary reason for the wide variation in consumption from one year to the next. Imports of turkey thighs increase when local pig prices rise above NT$5,000/100 kg live weight. The average auction price for pigs was NT$4,600 per 100 kg live weight in 1998, compared to NT$6,410 in May 1999. C&F prices of imported turkey thighs are usually around $0.50 per lb.

Trade

Table 12. Turkey Meat Imports

Import Trade Matrix			
Country:		Units:	Metric Tons
Commodity:			
Time period:	01/1998		
Imports for	1998		1999
U.S.	2038	U.S.	7000
Others		Others	
Total for Others	0		0
Others not listed			
Grand Total	2038		7000

Turkey imports to Taiwan for 1995 and January-April 1999 are shown on the Table 12. For reasons discussed above, during this time, total turkey imports ranged from 2,000 mt to 6,000 mt. Whole turkey imports accounted for only about 200 mt to 260 mt annually. The United States has dominated the Taiwan turkey import market because turkey imports must come from countries designated by BAPHIQ as free from ND and HPAI. The UK exported 10 mt of whole turkeys to Taiwan in late 1997 before the current requirements concerning ND and HPAI were implemented. Between April 1998 and January 1999, when BAPHIQ accepted Australia as ND free, only the United States met these requirements. Canada has applied for ND-free recognition, and should be accorded that status in the near future. Nevertheless, it is likely that the US will continue to be Taiwan's primary source for imported turkey because the US arrived in the market early and, reportedly, has a price advantage over Australia and other potential suppliers. The turkey import estimate for 1999 is 7,000 mt. The increase over 1998 is due to continued high prices for pork and the tendency for imported turkey thighs to substitute for pork when that is the case. Imports for 2000 are expected to drop because it is likely that by then pork prices will have fallen to levels below which frozen turkey thighs are no longer attractive.

Table 13. Annual Turkey Imports for 1995 to January -April 1999

Year	Product Description	Turkey Imports in MT	Turkey Imports in US$
1995	Whole Turkey	197	$370,000
	Turkey Cuts	1,971	$2,606,000
	Total	2,168	$2,976,000
1996	Whole Turkey	264	$474,000
	Turkey Cuts	6,130	$9,088,000
	Total	6,394	$9,562,000
1997	Whole Turkey	216	$373,000
	Turkey Cuts	5,866	$8,093,000
	Total	6,082	$8,466,000
1998	Whole Turkey	241	$413,000
	Turkey Cuts	1,797	$1,976,000
	Total	2,038	$2,389,000
Jan-Apr 1999	Whole Turkey	72	$123,000
	Turkey Cuts	2,497	$2,725,000
	Jan-Apr Total	2,569	$2,848,000
Source: Taiwan Customs Statistics			

Import Policy

Whole turkeys can be imported from all suppliers that meet Taiwan's sanitary and animal quarantine requirements. However, turkey parts can be imported only from the United States. Imports of turkey offal are banned. The tariff on whole turkeys and turkey parts is 10 percent ad valorem.

Table 14. Turkey and Turkey Product Tariffs and Import Restrictions

HS Code	Current Tariff Rate	Product Description	*Import Regulation
0207.24.00	10%	Whole Turkeys, Fresh or Chilled	412; B01; CO1; MWO
0207.25.00	10%	Whole Turkey, Frozen	412; B01; CO1; MWO
0207.26.10	10%	Turkey Cuts, Fresh or Chilled	121; 203; B01; CO1; MWO
0207.27.10	10%	Turkey Cuts, Frozen	121; 203; B01; CO1; MWO

412–whole turkey must meet the following specifications: :1) cannot be cut into pieces 2) cannot include the head, neck, feet, or internal organs.
121–require an import permit issued by BOFT
203–only imports from the US are allowed
BO1–imports are subject to quarantine inspection
CO1–imports are subject to customs inspection
MWO–imports from China are banned
(Current Exchange Rate: $1=NT$32.26, quoted July 27, 1999)

Price

Table 15. CIF Import Prices for Frozen Turkey Parts (US$ per lb)

Prices Table					
Country:					
Commodity:					
Year:	1999				
Prices in (currency)	NTD	per (uom)	Kilogram		
Year	1998	1999	% Change		
Jan	0.60	0.60	0.0%		
Feb	0.43	0.56	30.2%		
Mar	0.42	0.47	11.9%		
Apr	0.44	0.47	6.8%		
May	0.48		-100.0%		
Jun	0.55		-100.0%		
Jul	0.43		-100.0%		
Aug	0.44		-100.0%		
Sep	0.49		-100.0%		
Oct	0.55		-100.0%		
Nov	0.55		-100.0%		
Dec	0.56		-100.0%		

Marketing

There is potential for increasing sales of US turkeys and turkey cuts on Taiwan. Growth in consumption has been slow primarily due to a lack of consumer awareness. Turkey is high in calcium and iron, relatively low in fat and calories, and a healthy source of protein. Because local consumers are health conscious and disposable incomes are relatively high, promotional activities emphasizing turkey's strong points could be successful in increasing demand. But, given the general ignorance of consumers about turkey, promotional activities are essential for increasing sales. TV ads have proven the most effective vehicle for promoting new food products on Taiwan. Currently, there are two supermarket chains that sell smaller, locally produced roasted whole turkeys. When buying whole turkeys, Taiwan consumers prefer smaller ones weighing between 6 and 8 lbs, a size that is difficult to find in the US.

Ducks

Taiwan produced 62,000 mt of duck meat in 1998, a decrease of 13 percent, or 10,000 mt, from the previous year. The 1998 decrease is attributed to typhoon losses and generally unfavorable weather. Duck production is expected to return to the normal level of 72,000 mt in both 1999 and 2000. In 1998 duck meat output from spent layers was 2,000 mt. Taiwan's duck egg, and spent duck meat production has been stable. (Refer to the *Eggs* section for additional information.) In 1998 Taiwan exported 2,000 mt of duck meat to Japan, valued at $5.3 million. Imports of duck meat are limited to whole ducks, and for sanitary reasons can only be imported from the US and Australia. No duck meat has been imported in recent years. All demand is supplied from local sources. Average production scale is 5,000 to 6,000 birds per farm. Maturation takes 12 weeks for Peking ducks, and 11 to 14 weeks for mule ducks. Market weight is 4.5 to 5 kg for Peking ducks and 3.5 to 4 kg for mule ducks. In 1998 the average farm gate price was NT$40 per kg for live ducks, equivalent to NT$57 per kg RTC or $0.77 per lb. The current tariff for duck meat not cut into pieces is 35 percent. This tariff rate will remain in place when Taiwan becomes a member of the WTO.

Geese

In 1998 Taiwan produced 32,000 mt of goose meat, accounting for 4 percent of total poultry meat production. Most goose meat is marketed as a ready-to-eat product through small restaurants. Goose meat can be imported, but no imports have occurred in recent years, neither have exports. All demand is supplied locally. Average production scale is 5,000 to 6,000 birds per farm. Maturation takes 100 days (14 weeks) and average market weight is 4 to 5 kg. Average farm gate price in 1998 was NT$58 per kg for live geese, equivalent to NT$82 per kg RTC or $1.12 per pound. Production forecasts for 1999 and 2000 are 32,000 mt for each year. The current Taiwan tariff rate on all goose meat is 40 percent. Upon accession to the WTO, the tariff rate for chilled goose meat not cut into pieces will be reduced to 28 percent, going down to 25 percent in January 2002. Upon accession, the tariff on chilled goose meat cut into pieces will be lowered to 30 percent and will be lowered further to 25 percent in January 2002. The tariff rate for all frozen goose meat, whether or not it is cut into pieces, will be reduced to 30 percent upon accession, and will be put at 25 percent in January 2002.

Eggs

Production

Table 16. Egg Production, Supply and Demand Table

PSD Table						
Country:	Taiwan					
Commodity:	Poultry, Eggs					
		1998		1999		2000
	Old	New	Old	New	Old	New
Calendar Year Begin		01/1998		01/1999		01/2000
Layers	38	38	39	39	0	40
Beginning Stocks	1850	640	1850	640	1850	640
Production	7950	7678	8100	7731	0	7785
Hatch Eggs, Imports	0	0	0	0	0	0
Shell Eggs, Imports	0	0	0	0	0	0
Other Imports	14	6	15	12	0	18
Intra EC Imports	0	0	0	0	0	0
TOTAL Imports	14	6	15	12	0	18
TOTAL SUPPLY	9814	8324	9965	8383	1850	8443
Hatch Eggs, Exports	0	2	0	2	0	2
Shell Eggs, Exports	10	8	10	8	0	8
Other Exports	0	3	0	3	0	3
Intra EC Exports	0	0	0	0	0	0
TOTAL Exports	10	13	10	13	0	13
Hatch Eggs, Consumption	0	0	0	0	0	0
Shell Eggs, Human	7639	6793	7785	6850	0	6907
Shell Eggs,OT.Use/Loss	0	0	0	0	0	0
Other Dom. Consumption	315	878	320	880	0	883
Total Dom. Consumption	7954	7671	8105	7730	0	7790
TOTAL Use	7964	7684	8115	7743	0	7803
Ending Stocks	1850	640	1850	640	1850	640
TOTAL DISTRIBUTION	9814	8324	9965	8383	1850	8443
Calendar Yr. Imp. from U.S.	0	0	0	0	0	0

Poultry eggs includes hen and duck eggs. No public or private entity on Taiwan maintains statistics tracking hatching eggs numbers. Therefore, hatching eggs are not included in the egg PSD table. Egg production was 7,678 million pieces in 1998, up 0.5 percent from 1997. A breakdown of poultry egg production in 1995 to 1998 is shown in Table 17.

Table 17. Break Down of Total Annual Poultry Egg Production for 1995 to 1998

	Eggs (million pieces)				
Description	1995	1996	1997	1998	% change 1997 to 1998
Chicken Eggs	5,719	6,139	7,104	7,158	**0.008**
Duck Eggs	518	539	531	520	**-2.0%**
Total	6,237	6,678	7,635	7,678	**+0.5%**
Source: Taiwan Agricultural Book					

Seasonal surpluses have been the major problem for Taiwan's hen egg industry. A better balance between demand and supply seems to have been achieved since the ROC Poultry Association established the Layer Production and Marketing Supervisory Committee in September 1997. Committee members include farmers, cooperative officials, egg wholesalers, and agricultural authorities. The committee reports egg production and egg market prices on a daily basis. This information provides chicken egg farmers and wholesalers information they need to adjust egg flows to the market in accordance with fluctuations in demand.

Duck eggs are consumed as salty eggs and alkalized (*thousand-year-old*) eggs, both traditional Chinese foods. Demand for these traditional products does not vary greatly from year to year. Therefore, in recent years, annual Taiwan duck egg production has been stable, at between 520 and 540 million pieces.

Duck layers number approximately 3 million, while hen layers number about 35 million. Total poultry egg production estimates for 1999 and 2000 are 7.7 and 7.8 billion eggs, with 0.7 percent increases forecast for egg production and consumption in both years.

Price

Chicken egg production costs are estimated at NT$20 per kg. According to the COA, hen egg farmers realize reasonable profits when farm gate prices surpass NT$26 per kg. In 1998, the average farm gate price was NT$28 per kg or $0.38 per lb. The average retail price was NT$38 per kg or $0.51 per lb. Farm gate prices are shown in Table 18.

Table 18. Chicken Egg Farm Gate Prices

Prices Table					
Country:					
Commodity:					
Year:	1999				
Prices in (currency)	NTD	per (uom)	KG		
Year	1998	1999	% Change		
Jan	24.28	37.87	56.0%		
Feb	21.71	34.45	58.7%		
Mar	20.98	37.08	76.7%		
Apr	32.77	33.78	3.1%		
May	32.65	30.24	-7.4%		
Jun	28.58		-100.0%		
Jul	25.33		-100.0%		
Aug	24.67		-100.0%		
Sep	32.00		-100.0%		
Oct	27.71		-100.0%		
Nov	37.71		-100.0%		
Dec	37.83		-100.0%		

Consumption

In 1998 per capita annual egg consumption was 353 eggs. Per capita egg consumption is expected to grow less than one percent in the next two years. Most chicken eggs are for table use and sold in traditional markets and supermarkets, prepared as tea-eggs and sold in convenience stores, or prepared as stewed eggs and sold in small restaurants. Approximately 5 percent of all domestic chicken eggs are processed into liquid and powdered eggs. There are only a couple of registered egg processing plants on Taiwan. The bulk of liquid egg product is manufactured in small, unregistered, on-farm processing facilities that use broken eggs. Very little powdered egg product is produced. Currently, Taiwan food regulations do not require that liquid eggs be pasteurized. For most local bakeries, intact yolks are considered a sufficient indication of freshness. However, due to a strong preference for fresh in-shell eggs, consumption of liquid and powdered eggs is minuscule, and almost all the eggs consumed on Taiwan are produced locally. Imported egg powder and liquid egg products account for only 0.1 percent of total consumption. Furthermore, state-of-the-art technology for producing liquid and powdered eggs does not exist on Taiwan. Lysozyme, an antibacterial substance extracted from eggs during the manufacture of egg products, is a highly lucrative by-product of the process. Technology for the extraction of this chemical is not available on Taiwan, and local product can not compete with product from foreign suppliers who can sell egg products cheaper because they realize greater profits on by-products. The 11 percent of egg consumption included in the *Other Consumption* column in the PSD table (Table 16) represents processed chicken eggs (5 percent of total consumption) plus total duck eggs consumed as salty and alkalized eggs (6 percent of total consumption). The 5 percent of total hen egg consumption that was consumed as processed eggs is 60 percent accounted for by liquid eggs, 30 percent accounted for by powdered eggs (most of which was imported), and 10 percent accounted for by plain omelettes manufactured for use in take-out sandwiches. Stocks are estimated as equal to a one month's consumption.

Trade

Table 19. Egg and Egg Product Tariffs and Import Restrictions

HS Code	Product Description	*Import Regulation	Current Tariff Rate	Accession to the WTO	1/1/2000 Final
0407.00.11	Eggs, for breeding or hatching	B01; MWO	20 %	20 %	20 %
0407.00.12	Stock Eggs, pathogen free	B01; MWO	0 %	0 %	0 %
0407.00.90	Eggs, in shell	B01; MWO	40 %	40 %	40 %
0408.11.00	Egg Yolks, Powdered	MWO	40 %	35 %	30 %
0408.19.10	Egg Yolks, Frozen	B01; MWO	40 %	35 %	30 %
0408.19.90	Other Similar Products of Egg Yolks,	MWO	40 %	40 %	40 %
0408.91.10	Whole Eggs, Powdered	MWO	40 %	35 %	30 %
0408.91.20	Egg Whites, Powdered	MWO	40 %	35 %	30 %
0408.91.90	Other Similar Products of Egg Powder	MWO	40 %	40 %	40 %
0408.99.10	Whole Eggs, Frozen	B01; MWO	40 %	35 %	30 %
0408.99.20	Egg Whites, Frozen	B01; MWO	40 %	37 %	34 %
0408.99.90	Other Similar Products of Frozen Eggs,	B01; MWO	40 %	40 %	40 %
BO1–imports are subject to quarantine inspection MWO–imports from China are banned (Current Exchange Rate: $1=NT$32.26, quoted July 27, 1999)					

Table 20. Poultry Eggs & Products 1998 Exports/Imports

	Exports			Imports		
HS Code	Kg	000 pcs	NT$ 000	Kg	000 pcs	NT$ 000
0407.00.11	95,246	1,587	22,269	0	0	0
0407.00.12	0	0	0	600	10	391
0407.00.90	476,817	7,947	55,051	0	0	0
0408.11.00	30	3	6	19,990	2,019	3,320
0408.19.10	363	16	107	13,540	615	927
0408.19.90	1,286	58	179	4,777	216	306
0408.91.10	0	0	0	13,126	954	1,650
0408.91.20	850	215	45	1,079	272	117
0408.91.90	6,438	1,625	550	0	0	0
0408.99.10						
0408.99.20	0	0	0	78,520	2,379	1,145
0408.99.90	4,783	1,207	8,139	0	0	0
Total Imp's (0408)	13,750	3,124	86,346	131,032	6,455	7,856
$ 000 (0408)			$2,569			$234

Note A. Conversion factors for egg products are listed as follow:
egg yolk powder: 0.1010
egg yolk frozen: 0.0454
egg white powder: 0.2525
egg white frozen: 0.3030
whole egg powder: 0.0727

Note B. These conversion factors are calculated on the basis of the following data:
average weight of in-shell eggs: 60 grams
average weight of without shell eggs: 55 grams
average proportion of egg yolk to egg white: 0.4 to 0.6
egg powder yields: 45% for egg yolk; 12% for egg white; 25% for whole egg powder.

Source: Taiwan Customs Statistics

In 1998, Taiwan imported $234,000 worth of eggs and egg products, of which 65 percent was liquid eggs, 30 percent powdered eggs, and 5 percent stock eggs. Taiwan's exports of eggs and egg products in 1998 totaled $2,600,000. Hatching eggs accounted for 26 percent of the total, processed in-shell eggs (duck eggs) for 64 percent, and egg products for 10 percent. In 1998, Taiwan imported 10,000 pathogen-free stock eggs from the United States, and exported approximately 2 million hatching eggs, with 54 percent going to Singapore, 35 percent to Japan, and 11 percent to Thailand.

As stated above, in 1998, Taiwan imported 131 mt (worth $234,000) of liquid and powdered eggs. These imports were the equivalent of approximately 6 million in-shell eggs, a drop of about 90 percent from 1997. Imports of liquid and powdered eggs fluctuate with average local farm gate egg prices which were NT$23 in 1997 and NT$28 in 1998. Imports of eggs and egg products for January through April 1999 totaled $213,000. This indicates that total 1999 imports of liquid and powdered eggs will surpass 1998 imports by a substantial margin. Increased imports are due to high egg prices (refer to Table 18). Import estimates for egg products for 1999 and 2000 have been placed at double and triple those of 1998 respectively. Imports are expected to grow substantially because they are beginning from a small base, and because the food processing industry on Taiwan is becoming increasingly knowledgeable concerning the advantages of using liquid and powdered eggs in some processed food formulations. Reportedly, imported frozen egg whites are the most competitive of the imported egg products. Frozen egg white imports accounted for 92 percent of all imported egg products in 1997 and 37 percent in 1998 (on an in-shell basis), and came exclusively from the EU.

Exports of egg products were primarily cooked in-shell eggs such as salty and alkalized (*thousand-year-old*) eggs. In 1998, Taiwan exported 8 million cooked eggs to the United States (48 percent), Japan (24 percent), Hong Kong (14 percent), and Canada (10 percent) etc. Exports of liquid and powdered eggs were 14 mt, equivalent to 3 million eggs. Powdered eggs produced on Taiwan are used mostly in the production of snack foods, in surimi-based foods, and in the production of hams. Taiwan exports of eggs and egg products are expected to remain at the current level for the near future.

Marketing

About 80 percent of all eggs on Taiwan are distributed from farms to traditional retail outlets in 12 kg cartons. The remaining 20 percent are sold in supermarkets in 10 egg cartons. Four egg cooperatives are responsible for marketing 80 percent of all locally produced eggs. Egg farms are usually small- to medium-sized. Chicken eggs sold in the larger supermarkets are mainly produced in large scale, modern operations. There is a small niche market for some high DHA, high EPA, and low cholesterol (i.e., *healthy*) eggs, which are being produced and marketed by CP Taiwan. On August 3, 1999, Taiwan implemented new *health food* regulations. Manufacturers of so-called *health foods* must apply for Department of Health (DOH) certification before they can advertise themselves as such. Applicants must provide a scientific basis to substantiate the *health food* claim.