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## Thailand

## Sugar

## Sugar Annual Report

## 1999

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### Report Highlights:

Thai sugar cane output is forecast at 48.5 million metric tons in MY 199/2000 while sugar production will total 5 million metric tons. The economic crisis is creating problems within Thailand's sugar industry. Sugar exports in 2000 are forecast at 3.2 million tons.

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Includes PSD changes: Yes  
Includes Trade Matrix: Yes  
Annual Report  
Bangkok [TH1], TH

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## EXECUTIVE SUMMARY

Post forecasts that sugarcane production will be about 48.5 million metric ton in MY 1999/2000 and sugar output (raw value) will total 5.0 million metric tons. Given the current low price of cane and high input costs, crop recovery next season may be rather limited.

Unusual rainfall in the late monsoon season provided adequate moisture to most major cane areas in the central, the lower north and northeast regions. As a result, the MY 1998/99 cane production increased sharply to an estimated 50.5 mmt. A slight increase in area harvested has also added in raising output as some growers intend to switch to other crops because of low cane price. Cane yield is forecast to be 51.87 tons/ha next year, compared with 53.44 tons/ha in MY 1998/99. MY 1999/2000 sugar production is estimated to be down slightly in response to smaller sugar cane supplies with same quality cane expected.

The economic crisis is having repercussion throughout the industry as limited, and high cost, finance makes an impact on all operations. Although liquidity has been assured for this season and the next, it will impose an added a cost burden on the industry for the future. Despite the changed value of the baht over the past twenty months, there is now a combination of lower world prices as well as the costs of the new financing packages. It remains to be seen to what extent this has affected Thailand's ability to remain a low-cost producer.

Domestic consumption of sugar is estimated to be up slightly in MY 1998/99 and will increase slightly in MY 1999/2000. The production of high fructose syrup (HFS) will gradually increase, as it is utilized as a substitute for sugar in the soft drink and food industries.

Thai sugar exports dropped sharply to 2.4 mmt in MY 1997/98 and expected to be up slightly to 3.2 mmt in MY 1998/99. However, with tough competition from Brazil, Thai sugar exports in the year 2000 are forecast to be about the same as this year. Floating currency situation since July, 1997 has a great impact on millers' financial status, forcing them to use packing credits provided by the Royal Thai Government (RTG) through the EXIM bank. It is reported that some \$552.1 million of packing credit was utilized in 1998.

PSD Table						
Country: Thailand						
Commodity: Sugar Cane Centrifugal						
		1998		1999		2000
	Old	New	Old	New	Old	New
Market Year Begin		12/1997		12/1998		12/1999
Area Planted	0	1010	0	1010	0	1000
Area Harvested	0	930	0	945	0	935
Production	0	42201	0	50500	0	48500
TOTAL SUPPLY	0	42201	0	50500	0	48500
Utilization for Sugar	0	42201	0	50500	0	48500
Utilizatn for Alcohol	0	0	0	0	0	0
TOTAL UTILIZATION	0	42201	0	50500	0	48500

## PRODUCTION/CROP ASSESSMENT

Based on normal weather situation, 1999/2000 sugar cane production is forecast at 48.5 mmt, a drop of 2 mmt from the previous season due to several reasons: planted area is likely to decline because of low sugar prices; some sugar cane which was reserved for planting material was cut for delivery to sugar mills at the end of 1998/99 crushing season as some growers plan to shift to other crops; and, some cane planters did not received an adequate advance credit to invest in their farms.

Thailand's 1998/99 sugar cane production is currently forecast at 50.5 mmt, up 20 percent from the previous year as the weather turned to be good at the end of the monsoon season. An additional rain provided excellent growth to most cane in Central region at least a month before harvest. A long, cool period during maturity stage provided high sucrose content to sugar cane. As a result, both cane and sugar yield appear to be better than 1997/98.

The average MY 1998/99 cane yield is now estimated at 8.55 tons/rai (53.44 tons/ha), compared with 7.26 tons/rai (45.38 tons/ha) in 1997/98. Additional moisture at the end of monsoon is the key factor that has impact on increasing cane yield. Producers still burn their cane before harvest but in a lower percentage than the previous year as millers agree to pay 10 baht per ton premium to producers for the fresh cut cane and deduct 20 baht per ton for burned cane.

Crop alternatives to sugar cane remain cassava, upland rice and eucalyptus. However, some cash crops, such as sweet corn and vegetables currently become more attractive to farmers. The supply of cane is concentrating in the upper northeast where growing conditions seem to be good with an ideal climatic for cane.

## CONSUMPTION

There are 46 sugar mills in Thailand with a total official registered milling capacity of 608,097 tons per day in 1998/99, same as 1997/98, compared with an average capacity of 431,092 tons per day in 1996/97. Average extraction rate is about 103.15 in 1998/99, up slightly from 100.6 kgs/ton last year. A longer period of cool weather during cane maturity stage along with more fresh cane being harvested, contribute to a better cumulative extraction rate.

## POLICY

There is no change in five-year plan (1998-2003) production policy as reported in TH7036, dated 04/03/97. Adequate moisture seems to be one of the key factors that lead Thailand to achieve its production goal. The financial crisis has disrupted the ability of mills and the banks to provide key pre-finance to growers and, as a result, inputs have been affected. Financial assistance was changed from commercial banks to the Bank for Agriculture and Agricultural Cooperatives when some 15 billion baht of fresh funds was made available through BAAC to finance operation for the current season. A great deal of work has been accomplished to restructure and restore financing to the industry. Credit lines of 10 billion baht were set up to finance the 1999/2000 season well enough in advance to encourage cane availability for next crushing season.

## PRICE

The transaction value of cane between growers and millers is based on the sucrose content of cane measured by C.C.S. (Commercial Cane Sugar System). The final sugar cane revenue received by the farmer is derived from a revenue sharing system in place since 1982/83. This system was designed to be a 70/30 price sharing formula for farmers and millers (See details in TH7036, dated 04/03/97).

The final cane price has been split into different assessments for different regions since 1996/97 (See table 6). The 1998/99 initial cane price is agreed at 600 baht per ton--500 baht is the actual cane price; 21 baht will come from "Sugar Fund"; 79 baht is the loan from BAAC which growers have to pay back within five years under the conditions of one year grace period. Payment will start in the year 2000 with 10.75 percent interest rate. With present world sugar prices of less than 7 cent/lb and the current exchange rate of 40 baht/usd, the actual final cane price cannot be higher than 500 baht/ton. However, some mills continue to pay a premium to producers to secure adequate supplies. An extra 150-200 baht/ton is reportedly paid to producers this year for transporting cane at a volume of over 1,000 tons from a distance of 100 kilometers from field to the mills.

PSD Table						
Country: Thailand						
Commodity: Sugar						
		1998		1999		2000
	Old	New	Old	New	Old	New
Market Year Begin		12/1997		12/1998		12/1999
Beginning Stocks	1007	851	327	959	247	1236
Beet Sugar Production	0	0	0	0	0	0
Cane Sugar Production	4600	4245	4220	5227	4220	5000
TOTAL Sugar Production	4600	4245	4220	5227	4220	5000
Raw Imports	0	0	0	0	0	0
Refined Imp.(Raw Val)	0	0	0	0	0	0
TOTAL Imports	0	0	0	0	0	0
TOTAL SUPPLY	5607	5096	4547	6186	4467	6236
Raw Exports	2500	1439	1800	2000	1800	2000
Refined Exp.(Raw Val)	1200	1000	800	1200	800	1200
TOTAL EXPORTS	3700	2439	2600	3200	2600	3200
Human Dom. Consumption	1580	1698	1700	1750	1700	1800
Feed Dom. Consumption	0	0	0	0	0	0
TOTAL Dom. Consumption	1580	1698	1700	1750	1700	1800
Ending Stocks	327	959	247	1236	167	1236
TOTAL DISTRIBUTION	5607	5096	4547	6186	4467	6236

## PRODUCTION

Sugar output for MY 1999/2000 is forecast at 5.0 mmt (raw value), a slight drop from current year's level due to expected decrease in cane production. The 1998/99 estimate has been revised to 5.227 mmt, up 23 percent from the previous estimate as a result of higher cane production along with better sugar conversion rate. The sucrose content in the current year appears to be higher than the previous season's level. Sugar output is divided into three quotas: Current Quota A--1.75 mmt of plantation white sugar for domestic consumption; Quota B--800,000 tons of raw sugar to cover long term export contracts; and Quota C (the balance)--for export to the international market. Mills must give priority to the production of plantation white sugar for the local market, and raw sugar for Quota B, over sugar for export under Quota C.

## CONSUMPTION

While raw sugar is produced only for the export market, both plantation white and refined sugar are produced primarily for domestic use. Domestic consumption continued to increase slightly in 1998/99. Industrial consumption is currently about 40 percent of total utilization. Per capita consumption gradually increased slightly from 26.30 kgs in 1996 to about 27.50 kgs in 1997 and 29.17 kgs in 1998.

Sugar consumption increased in line with the expansion of most domestic industry that produces dairy products, pharmaceutical products, food and beverages. Some 60 percent of local consumption is in the form of household consumption, 12 percent is utilized by food and fruit industries, 11 percent goes to beverage industry, 9 percent goes to dairy products, 6 percent goes to pharmaceutical products, and the remainder is used by other food industries (see table 5). It should be noted that some portion of sales to households are resold to small and medium industrial users.

The use of high fructose syrup (HFS) continues to expand. The current sole factory producing HFS in Thailand has production capacity of 200 tons/day in MY 1999, the same as last year. Output of HFS dropped to 43,585 tons in 1998 but expected to be up slightly to 50,000 tons in 1999. The raw material being used in producing HFS is mainly cassava (tapioca) starch. Nearly 70 percent of domestically produced HFS is currently consumed by the beverage industry--55% in soft drink, 30% goes to brewery industries, mainly for beer; 5% in heavy syrup; 1.5% in natural fruit juices, 2% in bakery industry; and the balance goes to various sauces and other food products.

Revised consumption data in 1996/97 changed the ending stocks from 1,007 to 851 tmt.

## STOCKS

There will a big surplus of sugar in Thailand in 1998/99 and 1999/2000 as exports decline significantly with a slight increase in domestic consumption while production continues to be a sizeable volume.

## TRADE

Sugar is one of Thailand's major export products, with earning of \$628.39 million in 1998, compared with \$1,014 million in 1997 (down 18 percent from 1997 in term of local currency). As usual, Quota C (export) sales are concluded 6 months prior to the start of the crushing season in November by seven exporting companies: The Thai Sugar Trading Corp., Ltd. (TSTC), Thailand Sugar Corp., Ltd. (TSC), Siam Sugar Export Corp., Ltd. (SSEC), The Sugar Industry Trading Co., Ltd. (SITCO), K.S.L. Export Trading (KSL), Pacific Sugar Corp., Ltd. (PSC) and

TISS Co., Ltd. that belongs to the Thai Identity Sugar Group of Companies which started its sugar exports in 1995.

The Thai Cane and Sugar Corporation (TCSC), an organization comprised of millers, producers and the government, designed to handle long-term contracts, is responsible for pricing and selling the 800,000 metric tons of raw sugar under Quota B. One-half of this amount is allocated to three international sugar brokers. The other half is sold to local millers who export the sugar through the six exporting companies listed above.

In recent years, Thai sugar producers have had the flexibility of supplying sugar to the market either as raw or plantation white and refined, depending on the relative strength of demand for the different qualities reflected in the premium structure. Sugar exports were a record at 4.53 mmt (raw value) in CY 1996, but declined sharply to 2.4 mmt (raw value) in 1998 due to drastic drop in sales to South Korea, China, Malaysia, and Japan. Japan, South Korea, and the Philippines were the major purchasers of raw sugar in 1998. Indonesia was the top buyer of plantation white and refined sugar. Some 30-40 tmt were reportedly smuggled to the neighboring countries through the border. Post forecasts that Thailand's 1999 sugar exports could be up to 3.2 million tons in order to lower stocks due to limited storage facilities.

More than half of the 1998/99 sugar under Quota B has already been sold in advance with an average price of nearly 7 cents/lb (\$150/ton) including premium, a big drop from 12.48 cents/lb. (\$ 275/ton) including 0.92 cents/lb. premium in 1997/98. Very low sugar prices in the world market make millers reluctant to do forward export contracts under Quota C.



Export Trade Matrix			
Country: Thailand		Units:	MTRV
Commodity: Centrifugal Sugar			
Time period: JAN-DEC			
Exports for	1997		1998
U.S.	28,284	U.S.	21,082
Others		Others	
Indonesia	1,293,851	Indonesia	778,611
Korea, Rep. of	710,402	Japan	697,216
Japan	703,729	Korea, Rep. of	163,560
Malaysia	382,698	Philippines	156,158
China	236,002	China	89,389
Iran	118,580	Malaysia	87,356
Pakistan	92,616	Russia	77,976
Russia	85,158	Cambodia	62,873
Sri Lanka	79,338	Saudi Arabia	41,040
UAE	60,154	Tanzania	26,703
Total of Others	3,762,528	Total of Others	2,180,882
Others not listed	416,233	Others not listed	184,286
Grand Total	4,207,045	Grand Total	2,386,250

**POLICY**

Due to GATT, Thailand has set an import quota for sugar since 1995 as follows:

Year	Import Quota (M.T.)	Tariff-rate	
		Within Quota	Outside Quota
1995	13,105.00	65%	103%
1996	13,177.78	65%	102%
1997	13,250.56	65%	101%
1998	13,323.33	65%	100%
1999	13,396.11	65%	99%

The RTG continues to provide packing credits to the sugar industry as follows:

Packing Credit	1991	1992	1993	1994	1995	1996	1997	1998
	----- Million Baht -----							
Total allocated amount	6,350	NA	NA	NA	NA	NA	NA	NA
Actual utilization	1,378	2,319	335	146	134	0	134.6	552.1
Source: Bank of Thailand and EXIM Bank.								

These credits provide discount-rate financing by the Bank of Thailand to interested millers and exporters, allowing them to offer credit terms to buyers. The Bank of Thailand transferred the packing credit facility to the EXIM bank on February 1, 1994. The actual amount of authorized credit utilized has continued to drop sharply since 1993 and was nil in 1996 as millers secured credit through commercial banks which could provide them a better offer at 90 percent of the product value at 450 baht/bag (100 kilos), 100 baht/bag higher than the packing credit given by EXIM bank. In addition, the interest rate charged by commercial banks in 1996 was about 2% below EXIM bank which collected about 8.5-8.75%. However, the economic crisis has forced sugar exporters to use \$134.6 million of packing credit in 1997 and 552.1 in 1998. The interest rate was 13% in 1997-1998 and reduced to 10% and 9% in Feb 5 and Mar 8, 1999, respectively.



## SUPPLEMENTAL TABLES

TABLE 1 THAILAND: Planted Area of Sugarcane by Region and Province					
Region/Province	1993/94	1994/95	1995/96	1996/97	1997/98
	----- Hectares -----				
Northeast:	224,992	286,390	310,520	326,203	328,832
Udon Thani	69,289	72,857	76,175	77,757	78,100
Khon Kaen	32,376	42,089	43,038	51,631	52,596
Chaiyaphum	33,060	56,374	62,334	67,714	68,529
Nakhon Ratchasima	45,010	58,503	62,616	66,156	66,731
Buriram	14,215	14,632	15,746	13,563	12,600
Loei	11,329	12,408	14,284	15,372	15,709
Kalasin	5,292	7,451	9,271	9,668	10,215
Mukdahan	8,142	12,175	12,782		11,296
Nakhon Phanom	1,422	1,399	2,712	1,668	1,546
North:	187,169	211,777	235,189	239,239	222,212
Nakhon Sawan	42,523	54,071	63,382	63,913	59,188
Kampheang Phet	67,804	70,376	74,276	76,404	70,208
Uttaradit	14,313	14,548	15,384	13,259	12,758
Lampang	9,565	6,787	5,974	7,409	7,217
Uthai Thani	13,870	17,867	21,062	23,958	18,348
Sukhothai	21,590	25,668	28,205	26,541	25,819
Central:	444,664	443,798	458,918	444,743	392,536
Kanchanaburi	122,435	126,145	129,381	130,842	118,393
Ratchaburi	50,720	53,401	54,129	53,117	50,788
Chon Buri	46,520	39,734	39,059	32,708	25,968
Suphan Buri	88,271	93,502	98,136	95,818	82,595
Nakhon Pathom	18,007	18,327	18,494	16,797	15,345
Prachuab Khiri Khan	12,110	12,175	12,107	11,251	11,829
Rayong	12,605	9,090	9,052	8,552	7,281
Chachoeng Sao	15,646	11,476	14,072	13,530	12,418
South:	---	---	---	---	---

Country Total 1/	856,824	941,965	1,004,627	1,010,184	943,580	

TABLE 2 THAILAND: Sugarcane Production by Region and Province					
Region/Province	1993/94	1994/95	1995/96	1996/97	1997/98
	----- Metric Tons -----				
Northeast:	9,381,852	15,469,060	19,064,379	17,782,489	15,353,041
Udon Thani	2,731,829	4,011,713	4,786,197	4,139,408	3,555,993
Khon Kaen	1,290,094	2,370,416	2,762,924	2,800,441	2,393,946
Chaiyaphum	1,293,355	2,883,174	3,830,806	4,030,402	3,155,356
Nakhon Ratchasima	2,143,878	3,208,883	3,914,600	3,615,865	3,043,213
Buriram	538,019	787,045	824,307	723,636	636,805
Loei	522,155	730,183	955,857	814,609	785,889
Kalasin	354,292	408,867	527,513	501,501	531,595
Mukdahan	384,462	574,807	666,993		592,987
Nakhon Phanom	48,710	77,463	142,439	82,924	80,946
North:	8,348,818	11,724,992	13,737,074	13,372,021	10,258,143
Nakhon Sawan	1,855,960	3,098,919	3,625,560	3,554,445	2,703,247
Kamphaeng Phet	3,172,190	4,076,979	4,828,730	4,975,791	3,252,559
Uttaradit	661,472	669,656	718,936	569,112	553,698
Lampang	348,311	290,436	277,212	275,120	261,471
Uthai Thani	620,850	952,777	1,159,327	1,183,944	892,968
Sukhothai	988,844	1,439,645	1,701,074	1,360,970	1,142,643
Central:	20,092,205	23,403,287	25,172,307	25,239,428	17,854,351
Kanchanaburi	5,776,575	6,682,538	6,484,032	7,113,885	5,335,241
Ratchaburi	2,232,467	2,428,068	2,561,802	2,716,465	2,265,186
Chon Buri	1,874,058	1,950,928	2,268,616	1,632,467	1,113,262
Suphan Buri	4,166,460	5,383,354	6,185,052	6,414,039	3,671,385
Nakhon Pathom	925,961	1,115,659	1,097,845	1,051,185	702,991
Prachuab Khiri Khan	441,358	617,875	581,259	557,388	526,979
Rayong	530,142	465,136	482,989	401,365	336,527
Chachoeng Sao	643,386	546,122	710,220	658,189	554,664
South:	---	---	---	---	---
Country Total 1/	37,822,875	50,597,339	57,973,760	56,393,938	43,465,535

TABLE 3 THAILAND: Sugarcane Yield by Region and Province						
Region/Province		1993/94	1994/95	1995/96	1996/97	1997/98
		----- Kilograms/Hectare- -----				
Northeast:		41,699	54,014	61,395	54,514	46,690
	Udon Thani	39,427	55,063	62,832	53,235	45,531
	Khon Kaen	39,847	56,319	64,197	54,239	45,515
	Chaiyaphum	39,121	51,144	61,456	59,521	46,044
	Nakhon Ratchasima	47,631	54,850	62,518	54,656	45,604
	Buriram	37,849	53,788	52,350	53,354	50,539
	Loei	46,088	58,850	66,919	52,992	50,029
	Kalasin	66,945	54,875	56,900	51,875	52,040
	Mukdahan	47,222	47,213	52,181		52,496
	Nakhon Phanom	34,256	55,381	52,519	49,700	52,372
North:		44,606	55,365	58,409	55,894	46,164
	Nakhon Sawan	43,646	57,313	57,202	55,614	45,672
	Kamphaeng Phet	46,785	57,931	65,011	65,125	46,328
	Uttaradit	46,214	46,031	46,731	42,924	43,399
	Lampang	36,417	42,794	46,406	37,134	36,232
	Uthai Thani	44,763	53,325	55,044	49,417	48,669
	Sukhothai	45,801	56,088	60,311	51,277	44,256
Central:		45,185	52,734	54,851	56,751	45,485
	Kanchanaburi	47,181	52,975	50,116	54,370	45,064
	Ratchaburi	44,015	45,469	47,328	51,141	44,601
	Chon Buri	40,285	49,100	58,081	49,911	42,870
	Suphan Buri	47,201	57,575	63,025	66,940	44,451
	Nakhon Pathom	51,423	60,875	59,362	62,581	45,813
	Prachuab Khiri Khan	36,445	50,750	48,011	49,542	44,549
	Rayong	42,058	51,169	53,356	46,934	46,222
	Chachoeng Sao	41,121	47,588	50,469	48,648	44,666
South:		---	---	---	---	---
Country Total 1/		44,143	53,715	57,707	55,825	46,065

TABLE 4. Sugar Utilization by Domestic Industry, 1995-1998.

Type of Industry	1995	1996	1997	1998
	----- Metric Tons -----			
<b>BEVERAGES</b>				
Refined Sugar	90,306	88,708	98,765	114,100
White Sugar	47,547	46,774	69,982	79,558
Sub-Total	137,853	135,482	166,747	193,658
<b>CAKE &amp; BREAD</b>				
Refined Sugar	44,290	46,066	57,669	13,600
White Sugar	1,413	1,006	15,641	8,054
Sub-Total	45,703	47,072	73,310	21,654
<b>ALCOHOL BASE DRINK</b>				
Refined Sugar	1,917	2,975	0	0
White Sugar	13	1,467	0	0
Sub-Total	1,930	4,442	0	0
<b>FRUIT&amp;FOOD PROD.</b>				
Refined Sugar	23,999	26,634	36,110	66,547
White Sugar	15,937	20,336	32,040	145,579
Sub-Total	39,936	46,970	68,150	212,126
<b>DAIRY PRODUCTS</b>				
Refined Sugar	31,462	32,239	35,069	34,310
White Sugar	42,419	47,686	63,134	115,761
Sub-Total	73,881	79,925	98,203	150,071
<b>CONFECTIONARY PROD.</b>				
Refined Sugar	1,001	1,829	3,882	4,047
White Sugar	2,818	5,501	4,731	18,567
Sub-Total	3,819	7,330	8,613	22,614
<b>PHARMACEUTICAL PROD&amp;MISSELLANEOUS</b>				
Refined Sugar	35,542	53,295	77,580	102,944
White Sugar	1,417	1,044	2,016	3,962
Sub-Total	36,959	54,339	79,596	106,906
<b>TOTAL INDUSTRIAL USE</b>	<b>340,081</b>	<b>372,560</b>	<b>494,619</b>	<b>707,029</b>



SOURCE: Thai Cane and Sugar Corporation Limited.

TABLE 5. Average Prices of Domestic Plantation White Sugar and Sugarcane.

Calendar Year	Plantation White Sugar		Actual Sugarcane
	Wholesale (Bht/100 kg)	Retail (Bht/Kg)	
1980	1,011	11.65	650
1981	1,019	11.51	510
1982	1,075	11.94	381
1983	1,091	12.00	421
1984	1,162	12.00	380
1985	1,097	12.00	388
1986	1,099	12.00	408
1987	1,097	12.00	462
1988	1,098	12.00	527
1989	1,098	12.00	596
1990	1,099	12.00	442
1991	1,099	12.00	480
1992	1,099	12.00	516
1993	1,099	12.00	533
1994	1,099	12.00	569
1995	1,099	12.00	538
1996	1,099	12.00	2/
1997	1,099	12.00	600 3/
1998	1,100	12.50	NA

1/ The purchasing cane based on C.C.S. system starts in 1993/94 crushing season with the standard quality of cane at 10 C.C.S.

2/ The first year that sugar cane price calculation breaks into 12 zones as shown in table 6.

3/ The initial cane price for 1996/97 season.

SOURCE: Office of the Cane and Sugar Board, Ministry of Industry.

TABLE 6. Average Final Prices of Sugarcane by Zone, First applied in 1996/97.

Zone	Number of Sugar Mill	Baht/M.T. at 10 C.C.S.	
		1996/97	1997/98
North 1	4	572.12	728.98
North 2	3	535.57	693.97
North 3	1	526.47	654.96
North 4	1	541.77	698.18
North 5	1	526.25	692.21
Central 1	1	514.65	650.69
Central 2	1	551.82	700.16
Central 3	2	564.93	675.04
Central 4	14	567.05	701.69
Central 5	1	538.81	640.02
East	5	556.66	683.82
Northeast	12	575.29	715.26

SOURCE: Office of The Cane and Sugar Board, Ministry of Industry.

TABLE 7 Monthly Exports (F.O.B.) Prices for Raw Sugar (Bht/Ton).

Year/Month	1995	1996	1997	1998
January	7,059	6,652	6,700	13,936
February	7,363	6,796	6,679	11,263
March	7,127	6,595	6,580	10,826
April	7,235	6,487	6,634	10,372
May	7,289	6,510	6,598	10,306
June	7,746	7,019	6,711	10,459
July	7,697	7,055	8,081	11,400
August	7,661	7,574	8,388	10,514
September	7,839	7,537	9,254	9,013
October	7,738	7,954	9,780	7,728
November	7,431	7,384	9,676	7,839
December	7,221	6,347	12,197	10,109
Average	7,439	6,686	7,195	10,361

SOURCE: Thailand Sugar Corp., Ltd. (TSC),  
The Sugar Trading Corp., Ltd. (TSTC),  
Siam Sugar Export Corporation (SSEC),  
The Sugar Industry Trading Co., Ltd. (SITCO),  
K. S. L. Export Trading Co., Ltd. (KSL),  
Pacific Sugar Corp., Ltd. (PSC).

TABLE 8 Monthly Exports (F.O.B.) Prices for White Sugar (Bht/Ton).

Year/Month	1995	1996	1997	1998
January	7,528	7,842	7,599	15,342
February	7,674	7,730	7,916	13,781
March	8,100	7,576	8,017	12,618
April	8,443	7,902	7,986	11,700
May	8,065	7,835	8,333	11,660
June	8,583	8,270	7,997	11,731
July	8,619	7,994	8,703	11,153
August	8,673	7,959	10,303	11,482
September	8,490	8,385	10,431	11,217
October	8,304	8,980	11,193	10,498
November	8,301	8,799	12,248	7,358
December	9,308	8,601	14,905	9,071
Average	8,335	7,882	8,777	12,527

SOURCE: Thailand Sugar Corp., Ltd. (TSC),  
The Sugar Trading Corp., Ltd. (TSTC),  
Siam Sugar Export Corporation (SSEC),  
The Sugar Industry Trading Co., Ltd. (SITCO),  
K. S. L. Export Trading Co., Ltd. (KSL),  
Pacific Sugar Corp., Ltd. (PSC).

TABLE 9. Exports of Raw Sugar, CY 1995-1998, Metric Ton Raw Value.

Destination	1995	1996	1997	1998
China	1,236,453	500,526	233,932	85,609
Indonesia	---	54,378	160,005	25,804
Iran	---	28,728	---	---
Japan	530,636	737,457	703,729	697,216
Korea, Rep.	378,943	623,209	710,402	163,560
Malaysia	291,891	367,924	382,698	84,251
Mozambique	13,338	2,052	23,598	15,185
Philippines	113,917	223,843	11,286	134,714
Romania	---	25,650	---	---
Russia	42,169	44,118	85,158	77,976
Singapore	8,208	83,106	43,092	7,182
Sri Lanka	73,564	57,559	47,093	12,312
Tanzania	20,520	35,223	2,052	18,981
Ukraine	39,769	14,364	28,728	---
United States	16,539	32,740	28,284	21,082
UAE	---	72,254	34,474	6,156
Vietnam	44,118	15,390	31,550	---
Others	43,495	41,389	38,569	73,027
Total	2,853,560	2,959,910	2,564,650	1,423,055

SOURCE: Six exporting companies, namely, TSC, TSTC, SSEC, SITCO, K.S.L., PSC and TISS.

TABLE 10. Exports of White &amp; Refined Sugar, CY 1995-1998 (MTRV).

Destination	1995	1996	1997	1998
Bangladesh	---	---	25,358	---
Brunei	---	3,210	---	3,210
Cambodia	22,276	38,411	55,430	62,873
China	225,499	---	2,070	3,780
India	---	---	25,470	13,973
Indonesia	332,064	632,468	1,133,846	752,807
Iran	112,350	329,560	118,580	---
Jordan	---	44,380	---	---
Kenya	---	22,819	15,525	2,381
Laos	12,295	11,412	16,849	14,973
Maldives	---	3,105	---	---
Pakistan	---	29,725	92,616	---
Philippines	77,401	126,151	---	21,444
Russia	2,675	2,140	---	---
Saudi Arabia	42,881	34,890	---	---
Singapore	4,863	8,455	15,502	6,111
Sri Lanka	20,314	34,007	32,245	6,210
Syria	---	27,820	---	---
Tanzania	---	10,455	29,187	26,703
UAE	22,656	59,449	25,680	---
Vietnam	68,116	2,087	19,053	8,280
Yemen	8,570	89,658	---	---
Others	21,340	57,823	34,984	40,451



Total	973,300	1,568,025	1,642,395	963,196
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SOURCE: Six exporting companies, namely, TSC, TSTC, SSEC, SITCO, K.S.L., PSC and TISS.

TABLE 11 THAILAND: Average Quality of Cane Measured by C.C.S.

Year	North	Central	East	Northeast	Average
1977/78	9.99	9.65	10.09	11.60	9.85
1978/79	10.20	10.47	10.23	11.22	10.38
1979/80	10.30	9.43	10.82	10.63	9.74
1980/81	9.58	9.49	9.72	10.91	9.63
1981/82	9.85	9.94	9.97	10.58	9.97
1982/83	10.01	10.31	10.01	11.33	10.32
1983/84	9.95	10.45	10.12	11.88	10.47
1984/85	10.57	10.26	10.77	11.87	10.59
1985/86	10.27	10.80	10.59	11.79	10.82
1986/87	10.65	10.53	10.49	11.60	10.66
1987/88	9.97	9.67	9.58	11.43	9.98
1988/89	10.66	10.63	10.67	11.67	10.80
1989/90	10.46	10.18	10.44	11.23	10.46
1990/91	10.80	9.79	9.92	10.95	10.18
1991/92	11.22	10.54	10.65	11.63	10.91
1992/93 1/	11.66	11.05	11.90	12.58	11.60
1993/94	11.74	11.10	11.79	12.40	11.58
1994/95	11.35	10.98	11.09	11.95	11.30
1995/96	11.87	11.45	11.45	12.15	11.76

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1996/97	11.37	11.61	11.69	12.47	11.84
1997/98	11.36	11.54	11.39	12.52	11.79
1998/99	10.98	10.20	10.73	11.89	11.11

1/ The first year that Office of the Cane & Sugar Board did the research and reported C.C.S. of cane which previously done by the sugar mills.

Source: Office of The Cane and Sugar Board, Ministry of Industry.

TABLE 12 THAILAND: Business Tax rates for Cane and Sugar, 1980/81 to Present.

Year	Sugar Cane	Business tax applied for Export&Local Trade	Export of Raw&White Sugar	Local Trade of White Sugar
	----- Percent -----			
1980/81	0.75	7.7	3.3	7.7
1981/82	0.75	7.7	1.65	7.7
1982/83	0.75	7.7	1.65	7.7
1983/84	0.75	9.9	1.65	3.3
1984/85	0.75	9.9	1.65	3.3
1985/86	---	9.9	---	---
1986/87	---	9.9	---	---
1987/88	0.75	9.9	---	1.65
1988/89	0.75	9.9	---	1.65
1989/90	0.75	9.9	---	1.65
1990/91	0.75	9.9	4.4	9.9
1991/92	0.75	7.0 1/	---	7.0 1/
1992/93	0.75	0.0 1/	---	7.0 1/
1993/94	0.75	0.0 1/	---	7.0 1/
1994/95	0.75	0.0 1/	---	7.0 1/
1995/96	0.75	0.0 1/	---	7.0 1/
1996/97	0.75	0.0 1/	---	7.0 1/
1997/98	0.75	0.0 1/	---	10.0 2/
1998/99	0.75	0.0 1/	---	7.0 3/

1/ The value added tax of 7% became effective on Jan 1, 1992 and applied only to domestic

sales, it does not apply to exports.

2/ The government revised the value added tax from 7 to 10 percent on August 10, 1997.

3/ The value added tax is revised to 7 percent on April 1, 1999.

Source: Office of Cane & Sugar Board, Ministry of Industry.