# THE SWEETENER MARKET--TRENDS AND PROSPECTS

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## THE SWEETENER MARKET -- TRENDS AND PROSPECTS 1/

Sugar is the primary sweetener in the United States. Domestically refined beet sugar processed from U. S.-grown sugar beets accounts for about 30 percent of U. S. sugar consumption, while the remaining 70 percent consists of refined cane sugar. About 30 percent of domestic sugar consumption (about 43 percent of cane sugar consumption) is supplied by raw sugar processed from sugarcane grown in Florida, Louisiana, Hawaii, Puerto Rico, and the Virgin Islands. Nearly all the remaining 40 percent of domestic consumption consists of imports of raw sugar from 30 or more countries. A negligible portion of consumption consists of imported refined sugar, mostly cane. Both imported and domestic raw cane sugar are processed into refined cane sugar in the 25 refineries in the United States, located mostly on the East and Gulf Coasts.

The corn sweetener industry manufactures dextrose (refined corn sugar) and corn sirup from hydrolized corn starch. 2/ These corn sweeteners are produced by the corn-wet-milling industry. 3/

Non-caloric sweeteners consist of saccharin and cyclamate, which are manufactured from petroleum or coal-tar products. Saccharin is about 300 times sweeter than sugar and cyclamate is about 30 times sweeter.

### Trends in Consumption

#### Caloric Sweeteners

Per capita consumption of caloric sweeteners has generally increased during postwar years, but per capita consumption of sugar has remained about the same during this period (table 12). The most interesting facets of sweetener consumption are the increasing consumption in the form of commercially processed foods and the substitution occurring among sweeteners. More than half the sugar and practically all the dextrose and corn sirup consumed since 1960 were embodied in commercially processed foods compared with a smaller proportion in earlier years (table 13). Related to this trend were increased deliveries of sugar and other sweeteners in bulk as well as various combinations of blended liquid and dry sweeteners. Conversely, there has been a decline in the proportion of sugar purchased in packages of less than 50 pounds. This trend likely will continue in future years, but the decline will be smaller.

#### Non-Caloric Sweeteners

Estimated consumption of non-caloric sweeteners is shown in table 14. Saccharin production has generally increased over the past 6 decades based on trade estimates. Cyclamate production has increased substantially

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2/ Starch is inverted or hydrolized by an acid or enzyme into simpler sugars.
3/ So-called because the corn is processed in a water medium as opposed to dry corn milling.

Table 12.--Sugars and other caloric sweeteners: Per capita consumption, 1950-64 1/

| Year | Cane and beet sugar 2/ | Corn sugar (dextrose) | Sirups | | | | | Edible cane molasses | Honey | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sugar cane | Corn | Sorgo | Maple 3/ | Refiners | | | |
| | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. |
| 1950 | 100.6 | 4.5 | 0.7 | 9.2 | 0.3 | 0.2 | 0.3 | 0.4 | 1.6 | 117.8 |
| 1951 | 94.0 | 4.1 | .7 | 9.0 | .3 | .2 | .4 | .5 | 1.7 | 110.9 |
| 1952 | 97.1 | 3.9 | .4 | 8.7 | .2 | .2 | .3 | .7 | 1.6 | 113.1 |
| 1953 | 97.2 | 4.0 | .4 | 8.8 | .2 | .2 | .3 | .4 | 1.4 | 112.9 |
| 1954 | 95.6 | 3.7 | .3 | 8.8 | .2 | .2 | .3 | .4 | 1.3 | 110.8 |
| 1955 | 96.3 | 3.7 | .3 | 9.0 | .2 | .2 | .2 | .4 | 1.4 | 111.7 |
| 1956 | 97.8 | 3.5 | .3 | 9.0 | .2 | .2 | .2 | .4 | 1.2 | 112.8 |
| 1957 | 95.0 | 3.2 | .3 | 8.9 | .2 | .2 | .2 | .2 | 1.2 | 109.4 |
| 1958 | 96.8 | 3.7 | .2 | 9.5 | .2 | .2 | .3 | .3 | 1.4 | 112.6 |
| 1959 | 96.4 | 3.9 | .2 | 9.9 | .2 | .2 | .2 | .3 | 1.4 | 112.7 |
| 1960 | 97.6 | 3.7 | .2 | 10.2 | .1 | .2 | .3 | .3 | 1.5 | 114.1 |
| 1961 | 97.7 | 3.7 | .2 | 10.6 | .1 | .2 | .2 | .3 | 1.4 | 114.4 |
| 1962 | 97.2 | 3.9 | .2 | 11.5 | 4/ | .2 | .2 | .4 | 1.5 | 115.1 |
| 1963 | 96.1 | 4.5 | .2 | 12.3 | 4/ | .2 | .2 | .3 | 1.5 | 115.3 |
| 1964 5/ | 95.8 | 4.4 | .2 | 13.7 | 4/ | .2 | .2 | .3 | 1.6 | 116.4 |

1/ Military takings have not been subtracted from total supply, so per capita estimates are for the total population. Includes quantities used in commercially processed foods. Data for 1909-49 are in U. S. Food Consumption, Stat. Bul. 364. 2/ Refined; measured approximately at wholesale level of distribution. 3/ Includes sirup equivalent of maple sugar. 4/ Not available. 5/ Preliminary.

since production began in 1950. Between 1959 and 1963, production of non-caloric sweeteners almost doubled and from 1963 to 1964 it more than doubled. Also, imports of both saccharin and cyclamate have increased substantially in most recent years. Domestic price reduction apparently lowered saccharin imports in 1964. Recent price reductions in domestic cyclamate may reduce cyclamate imports in 1965 or 1966.

The soft drink industry is the biggest user of non-caloric sweeteners. Saccharin or cyclamate is seldom used alone in soft drinks, but rather in combination with each other, frequently in a ratio of 1 part saccharin to 10 parts cyclamate. The main reason for blending saccharin and cylamate is that though the sweetness is additive, the somewhat bitter aftertastes

Table 13.--Per capita deliveries of sugar and corn sweeteners, by type of product or business of buyer, United States, selected years, 1950-64, 1/

| Product or business of buyer | Sugar 1950 | Sugar 1955 | Sugar 1960 | Sugar 1964 | Corn sirup 1950 | Corn sirup 1955 | Corn sirup 1960 | Corn sirup 1964 | Dextrose 1950 | Dextrose 1955 | Dextrose 1960 | Dextrose 1964 | Total 1950 | Total 1955 | Total 1960 | Total 1964 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. | Lb. |
| Industrial food buyers | | | | | | | | | | | | | | | | |
| Cereal and bakery products | 8.4 | 10.6 | 11.6 | 11.3 | 0.5 | 0.6 | 0.9 | 1.9 | 2.3 | 2.0 | 2.2 | 2.4 | 11.2 | 13.2 | 14.7 | 15.6 |
| Confectionery products | 9.2 | 8.0 | 8.9 | 9.0 | 3.9 | 3.5 | 3.6 | 3.6 | .2 | .2 | .2 | .4 | 13.3 | 11.7 | 12.7 | 13.0 |
| Dairy products | 3.3 | 3.6 | 4.0 | 4.6 | .2 | .4 | .7 | 1.3 | .2 | .1 | .1 | .1 | 3.7 | 4.1 | 4.8 | 6.0 |
| Beverages | 9.9 | 10.7 | 12.7 | 14.5 | 2/.2 | 2/.2 | 2/.4 | 2/.6 | 2/.5 | 2/.3 | 2/.3 | 2/.4 | 10.6 | 11.2 | 13.4 | 15.5 |
| Canned, bottled, frozen foods, jams, jellies, and preserves | 7.3 | 7.9 | 8.8 | 8.9 | .5 | 1.0 | 1.2 | 1.9 | .5 | .3 | .3 | .3 | 8.3 | 9.2 | 10.3 | 11.1 |
| Blended corn sirup | --- | --- | --- | --- | 1.7 | 1.4 | 1.6 | 1.9 | --- | --- | --- | --- | 1.7 | 1.4 | 1.6 | 1.9 |
| Corn sirup solids | --- | --- | --- | --- | 4/ | 4/ | .8 | .6 | --- | --- | --- | --- | 4/ | 4/ | .8 | .6 |
| Other food buyers | 3.3 | 3.3 | 3.3 | 3.7 | .4 | .3 | .1 | 3/ | .2 | .3 | .3 | .4 | 3.9 | 3.9 | 3.7 | 4.1 |
| Total | 41.4 | 44.1 | 49.3 | 52.0 | 7.4 | 7.4 | 9.3 | 11.8 | 3.9 | 3.2 | 3.4 | 4.0 | 52.7 | 54.7 | 62.0 | 67.8 |
| Non-food buyers | .5 | .6 | .7 | .6 | .3 | .2 | .3 | .3 | .2 | .3 | .6 | .7 | 1.0 | 1.1 | 1.6 | 1.6 |
| Non-industrial food buyers | | | | | | | | | | | | | | | | |
| Hotels, restaurants, institutions | .4 | .4 | .7 | .7 | --- | --- | --- | --- | --- | --- | --- | --- | .4 | .4 | .7 | .7 |
| Wholesale grocers, jobbers, dealers | 40.0 | 33.4 | 28.0 | 24.7 | .2 | .1 | 3/ | .1 | .2 | .1 | .1 | .1 | 40.4 | 33.6 | 28.1 | 24.9 |
| Retail grocers, chain stores, supermarkets | 15.4 | 13.5 | 13.5 | 12.6 | --- | --- | --- | --- | --- | --- | --- | --- | 15.4 | 13.5 | 13.5 | 12.6 |
| All other deliveries, including Government | 1.2 | .9 | 1.0 | 1.4 | --- | --- | --- | --- | .1 | .1 | 3/ | 3/ | 1.3 | 1.0 | 1.0 | 1.4 |
| Total | 57.0 | 48.2 | 43.2 | 39.4 | .2 | .1 | 3/ | .1 | .3 | .2 | .1 | .1 | 57.5 | 48.5 | 43.3 | 39.6 |
| Total, all buyers | 98.9 | 92.9 | 93.2 | 92.0 | 7.9 | 7.7 | 9.6 | 12.2 | 4.4 | 3.7 | 4.1 | 4.8 | 111.2 | 104.3 | 106.9 | 109.0 |
| By container size (sugar only) | | | | | | | | | | | | | | | | |
| Consumer packages (less than 50 lbs.) | 37.9 | 32.4 | 31.8 | 28.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Bulk deliveries unpackaged | 4/ | 4/ | 12.7 | 19.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Other | 4/ | 4/ | 48.7 | 44.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

1/ Dry weight basis. 2/ Includes corn sweeteners used by breweries. 3/ Less than 0.05 pounds. 4/ Not available.

NOTE: Deliveries of sweeteners in 1950 were considerably higher than normal because of U. S. military activity in Korea.

Table 14.--Non-caloric sweeteners: Production, imports and consumption United States, 1957-59 and 1963-64

| Year | Production 1/ | Imports 2/ | Apparent consumption: Total | Sugar equivalent 3/: Total | Sugar equivalent 3/: Per capita |
|---|---|---|---|---|---|
| | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 tons | Pounds |
| | | | Saccharin | | |
| 1963 | 1,429 | 1,121 | 2,550 | 383 | 4.0 |
| 1964 | 2,443 | 785 | 3,228 | 484 | 5.0 |
| | | | Cyclamate | | |
| 1963 | 4,286 | 446 | 4,732 | 71 | 1.2 |
| 1964 | 9,772 | 1,043 | 10,815 | 162 | 1.7 |
| | | | Total, non-caloric sweeteners | | |
| 1957 | 2,060 | 125 | 2,185 | --- | --- |
| 1958 | 2,350 | 237 | 2,587 | --- | --- |
| 1959 | 2,992 | 304 | 3,296 | --- | --- |
| 1963 | 5,715 | 1,567 | 7,282 | 454 | 5.2 |
| 1964 | 12,215 | 1,828 | 14,043 | 646 | 7.7 |

1/ Total non-caloric sweeteners reported by U. S. Tariff Commission beginning 1957; not available for 1960-62. Saccharin and cyclamate production estimated on basis of trade information. 2/ Saccharin reported by U. S. Bureau of the Census, cyclamate by U. S. Tariff Commission; total derived. 3/ Estimated, assuming saccharin to be 300 times sweeter than sugar and cyclamate 30 times sweeter than sugar.

are masked significantly. About half the cyclamate output and a tenth of the saccharin output in 1964 were used in commercial soft drinks. An estimated 15 percent of cyclamate consumption was in pre-sweetened soft drink bases.

Retail sales of non-caloric sweeteners are estimated to have accounted for more than one-third of saccharin and about 15 percent of cyclamate output in 1964. Processed low-calorie foods are estimated to use 2 to 3 percent of saccharin production and about 15 percent of cyclamate. Liquid diet foods (containing about 225 calories per container, for weight control) used about 2 to 3 percent of saccharin output and about 15 percent of cyclamate production in 1964. About one-third of 1964 saccharin output and perhaps 5 percent of cyclamate output were used for nonfood purposes, such as tooth paste, pharmaceuticals, and tobacco curing. Use of non-caloric sweeteners in liquid diet foods may stabilize in future years; consumption of these foods apparently has leveled off. However, since annual consumption of commercial soft drinks continues to rise, significantly increased use of non-caloric sweeteners in soft drinks is expected.

## Trends in Sources of Supply, 1950-64

### Sugar

Since 1934, the U. S. Government has regulated domestic production and imports under the U. S. Sugar Act. During 1950-64, some noticeable changes occurred in sources of supply. Imports from Cuba, which formerly supplied about 30 percent of the U. S. market, were suspended by Presidential Proclamation in 1960. Increased supplies were imported from 30 or more countries during 1960-65 (table 15).

Domestic production of U. S. mainland beet and cane sugar increased substantially between 1950 and 1964. Domestic production of sugar beets and sugarcane has become almost completely mechanized, yields of sugar crops per acre have risen substantially, and output per farm has increased considerably. About the same number of companies produced sugar in the United States in 1964 as in 1950. However, there were somewhat fewer plants processing sugarcane and sugar beets. Only Florida, in which 10 raw cane mills operated in 1964 compared with only 3 in 1960, was the exception. While the number of processing plants declined somewhat, domestic sugar output in most areas increased considerably. Thus, output of cane and beet sugar per plant rose substantially in recent years, much of it due to large capital investment in expanded plant facilities.

A comparison of world and U. S. sugar production shows similar trends (table 16). Between 1950 and 1964, world sugar output almost doubled, from 36.0 million tons to 70.1 million. Beet sugar production accounted for 40 percent of the total in 1950, increasing to 46 percent in 1964. During 1950-64, the United States produced about 10 percent of the world production of both cane and beet sugar.

### Corn Sweeteners

The United States grows about half the world corn output on about 30 percent of world acreage. About $2\frac{1}{2}$ percent of annual U. S. production is processed into corn sweeteners.

Total corn sweetener production increased from 1.1 million tons in 1952 to 1.9 million in 1964. From 1952 to 1964, corn sirup output almost doubled, while dextrose production increased about 42 percent. At present, 9 firms operate 13 factories producing corn sirup, with little change since 1950. However, the number of dextrose producers increased from 2 in 1959 to 4 in 1965.

Table 15.--Sugar: Sources of United States supply, selected years, 1950-64 1/

| Item | 1950 | 1955 | 1960 | 1964 | Percent of total supply 1950 | 1955 | 1960 | 1964 |
|---|---|---|---|---|---|---|---|---|
| | 1,000 tons | 1,000 tons | 1,000 tons | 1,000 tons | Pct. | Pct. | Pct. | Pct. |
| Domestic | | | | | | | | |
| Beet sugar | 1,748 | 1,797 | 2,165 | 2,699 | 21.2 | 21.4 | 22.7 | 29.5 |
| Cane sugar: | | | | | | | | |
| Florida | 2/ | 2/ | 177 | 336 | 2/ | 2/ | 1.9 | 3.7 |
| Louisiana | 2/522 | 2/499 | 442 | 569 | 2/6.3 | 2/6.0 | 4.6 | 6.3 |
| Hawaii | 1,145 | 1,052 | 845 | 1,110 | 13.8 | 12.5 | 8.9 | 12.2 |
| Puerto Rico | 1,052 | 1,080 | 896 | 793 | 12.7 | 12.9 | 9.4 | 8.7 |
| Virgin Islands | 11 | 10 | 7 | 16 | .1 | .1 | .1 | .2 |
| Total, domestic | 4,478 | 4,438 | 4,532 | 5,523 | 54.1 | 52.9 | 47.6 | 60.6 |
| Foreign | | | | | | | | |
| European beet sugar 3/ | --- | 3 | 15 | 1 | --- | 4/ | .2 | 4/ |
| Cane sugar: | | | | | | | | |
| North America | | | | | | | | |
| Cuba | 3,264 | 2,861 | 2,395 | --- | 39.5 | 34.1 | 25.0 | --- |
| Mexico | 2 | 13 | 400 | 480 | 4/ | .2 | 4.2 | 5.3 |
| Dominican Republic | 20 | 33 | 451 | 398 | .2 | .4 | 4.7 | 4.4 |
| British West Indies 5/ | --- | --- | 93 | 142 | --- | --- | 1.0 | 1.6 |
| Costa Rica | --- | 1 | 10 | 41 | --- | 4/ | .1 | .4 |
| El Salvador | --- | --- | 6 | 21 | --- | --- | .1 | .2 |
| French West Indies | --- | --- | --- | 34 | --- | --- | --- | .4 |
| Guatemala | --- | --- | 6 | 37 | --- | --- | .1 | .4 |
| Haiti | 2 | 3 | 33 | 15 | 4/ | 4/ | .3 | .2 |
| Nicaragua | 6 | 8 | 40 | 50 | .1 | .1 | .4 | .6 |
| Panama | --- | 1 | 6 | 20 | --- | 4/ | .1 | .2 |
| Other | --- | --- | --- | 6 | --- | --- | --- | .1 |
| Total: | | | | | | | | |
| Excluding Cuba | 30 | 59 | 1,045 | 1,244 | .3 | .7 | 11.0 | 13.8 |
| Including Cuba | 3,294 | 2,920 | 3,440 | 1,244 | 39.8 | 34.8 | 36.0 | 13.8 |
| South America | | | | | | | | |
| Brazil | --- | --- | 100 | 182 | --- | --- | 1.1 | 2.0 |
| Peru | 31 | 56 | 275 | 233 | .4 | .7 | 2.9 | 2.6 |
| Argentina | --- | --- | --- | 20 | --- | --- | --- | .2 |
| Columbia | --- | --- | --- | 28 | --- | --- | --- | .3 |
| Ecuador | --- | --- | --- | 58 | --- | --- | --- | .6 |
| Other | --- | --- | --- | --- | --- | --- | --- | --- |
| Total | 31 | 56 | 375 | 521 | .4 | .7 | 4.0 | 5.7 |
| Eastern Hemisphere | | | | | | | | |
| Philippines | 474 | 977 | 1,155 | 1,217 | 5.7 | 11.6 | 12.1 | 13.3 |
| Australia | --- | --- | --- | 215 | --- | --- | --- | 2.4 |
| Republic of China | --- | 1 | 10 | 81 | --- | 4/ | .1 | .9 |
| India | --- | --- | --- | 111 | --- | --- | --- | 1.2 |
| South Africa | --- | --- | --- | 120 | --- | --- | --- | 1.3 |
| Fiji Islands | --- | --- | --- | 55 | --- | --- | --- | .6 |
| Other | --- | --- | --- | 22 | --- | --- | --- | .2 |
| Total: | | | | | | | | |
| Excluding Philippines | --- | 1 | 10 | 604 | --- | --- | .1 | 6.6 |
| Including Philippines | 474 | 978 | 1,165 | 1,821 | 5.7 | 11.6 | 12.2 | 19.9 |
| Total, foreign | 3,799 | 3,957 | 4,995 | 3,586 | 45.9 | 47.1 | 52.4 | 39.4 |
| Total, all sources | 8,277 | 8,395 | 9,526 | 9,109 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Raw value basis; final charges against sugar quotas. 2/ Florida is included with Louisiana for 1950 and 1955. 3/ Includes Canada. 4/ Less than 0.05 percent. 5/ Includes British Guiana.

Table 16.--Cane and beet sugar: World and U. S. production, 1950-64 1/

| Crop year 2/ | World | | | United States | | | United States as percent of world | | |
|---|---|---|---|---|---|---|---|---|---|
| | Cane | Beet | Total | Cane | Beet | Total | Cane | Beet | Total |
| | 1,000 tons | 1,000 tons | 1,000 tons | 1,000 tons | 1,000 tons | 1,000 tons | Pct. | Pct. | Pct. |
| 1950 | 21,463 | 14,526 | 35,989 | 2,835 | 2,015 | 4,850 | 13.2 | 13.9 | 13.5 |
| 1951 | 24,145 | 14,459 | 38,604 | 2,660 | 1,541 | 4,201 | 11.0 | 10.7 | 10.9 |
| 1952 | 23,565 | 13,934 | 37,499 | 3,010 | 1,519 | 4,529 | 12.8 | 10.9 | 12.1 |
| 1953 | 24,136 | 17,488 | 41,624 | 2,926 | 1,873 | 4,799 | 12.1 | 10.7 | 11.5 |
| 1954 | 25,385 | 16,604 | 41,989 | 2,902 | 1,999 | 4,901 | 11.4 | 12.0 | 11.7 |
| 1955 | 25,927 | 17,804 | 43,731 | 2,891 | 1,730 | 4,621 | 11.2 | 9.7 | 10.6 |
| 1956 | 27,667 | 17,945 | 45,612 | 2,825 | 1,971 | 4,796 | 10.2 | 11.0 | 10.5 |
| 1957 | 28,709 | 20,364 | 49,073 | 2,624 | 2,213 | 4,837 | 9.1 | 10.9 | 9.9 |
| 1958 | 31,334 | 23,201 | 54,535 | 2,284 | 2,213 | 4,497 | 7.3 | 9.5 | 8.2 |
| 1959 | 32,210 | 21,809 | 54,019 | 2,690 | 2,302 | 4,992 | 8.4 | 10.6 | 9.2 |
| 1960 | 34,362 | 26,452 | 60,814 | 2,592 | 2,475 | 5,067 | 7.5 | 9.4 | 8.3 |
| 1961 | 31,998 | 24,045 | 56,043 | 3,076 | 2,431 | 5,507 | 9.6 | 10.1 | 9.8 |
| 1962 | 31,716 | 23,140 | 54,856 | 2,992 | 2,595 | 5,587 | 9.4 | 11.2 | 10.2 |
| 1963 | 33,983 | 25,370 | 59,353 | 3,289 | 3,086 | 6,375 | 9.7 | 12.2 | 10.7 |
| 1964 3/ | 37,983 | 32,085 | 70,068 | 3,331 | 3,316 | 6,647 | 8.8 | 10.3 | 9.5 |

1/ Centrifugal sugar, raw value. (About 10-15 percent of world production consists of non-centrifugal type sugar, not shown here.) 2/ Crop years; the harvesting season generally begins in the fall of year shown or early the following year, except in certain Southern Hemisphere countries where it begins in May or June of year indicated. 3/ Preliminary.

## Non-Caloric Sweeteners

Prior to 1950 there was 1 major saccharin producer; there were 2 in 1951, and 3 in 1963. Cyclamate was not commercially produced before 1950. During 1950-61, there was only 1 cyclamate producer, except during 1955-59, when there were 2 producers, and in 1962-63, when there were 3.

## Prices for Sweeteners

United States raw sugar prices normally are higher than world sugar prices due to limitations on production and imports under the Sugar Act (table 17). Between 1950 and 1964, U. S. raw sugar prices were generally stable, except in 1963, but world prices were quite volatile. There is considerable incentive for foreign quota holders to supply sugar to the United States because the U. S. price is usually above the world price. Most foreign

Table 17.--Sugar and corn sweetener prices per pound, specified areas, 1950-64 and last 12-month average

| Year | Raw cane sugar spot prices | | Refined sugar wholesale prices 3/ | | | | | Refined sugar retail price 4/ | Wholesale price, New York | |
|---|---|---|---|---|---|---|---|---|---|---|
| | World price 1/ | New York price 2/ | Beet sugar, Chicago-West | Cane sugar: Gulf | Cane sugar: South East | Cane sugar: Pacific Coast | Cane sugar: North East | | Dextrose | Corn sirup 5/ |
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1950 | 4.98 | 5.93 | 7.80 | 8.00 | 8.00 | 8.09 | 8.00 | 9.74 | 7.23 | 7.93 |
| 1951 | 5.67 | 6.06 | 8.12 | 8.38 | 8.37 | 8.45 | 8.38 | 10.12 | 7.57 | 8.84 |
| 1952 | 4.17 | 6.26 | 8.41 | 8.55 | 8.60 | 8.67 | 8.62 | 10.30 | 7.92 | 9.18 |
| 1953 | 3.41 | 6.29 | 8.42 | 8.60 | 8.68 | 8.70 | 8.72 | 10.56 | 7.99 | 9.12 |
| 1954 | 3.26 | 6.09 | 8.35 | 8.55 | 8.59 | 8.50 | 8.72 | 10.51 | 7.96 | 9.12 |
| 1955 | 3.24 | 5.95 | 8.29 | 8.50 | 8.48 | 8.53 | 8.59 | 10.42 | 7.85 | 9.03 |
| 1956 | 3.48 | 6.09 | 8.38 | 8.60 | 8.64 | 8.75 | 8.77 | 10.57 | 7.91 | 8.90 |
| 1957 | 5.16 | 6.24 | 8.62 | 8.95 | 9.00 | 9.12 | 9.15 | 11.03 | 8.32 | 9.17 |
| 1958 | 3.50 | 6.27 | 8.68 | 9.06 | 9.13 | 9.21 | 9.27 | 11.26 | 8.33 | 9.18 |
| 1959 | 2.97 | 6.24 | 8.67 | 9.28 | 9.19 | 9.10 | 9.33 | 11.43 | 8.13 | 9.10 |
| 1960 | 3.14 | 6.30 | 8.77 | 9.39 | 9.40 | 8.96 | 9.43 | 11.63 | 8.13 | 9.12 |
| 1961 | 2.91 | 6.30 | 8.59 | 9.23 | 9.25 | 8.84 | 9.40 | 11.77 | 8.10 | 9.00 |
| 1962 | 2.98 | 6.45 | 8.95 | 9.03 | 9.17 | 9.07 | 9.60 | 11.70 | 8.04 | 8.73 |
| 1963 | 8.50 | 8.18 | 10.34 | 11.30 | 11.45 | 10.71 | 11.94 | 13.58 | 9.10 | 9.19 |
| 1964 | 5.87 | 6.90 | 9.38 | 9.82 | 9.90 | 9.85 | 10.68 | 12.81 | 9.73 | 9.37 |
| Oct. 1964-Sept. 1965 | 2.45 | 6.63 | 9.01 | 9.30 | 9.38 | 9.18 | 10.05 | 11.77 | 9.50 | 9.46 |

1/ Spot prices for bagged sugar, f.a.s. Cuba in 1950-60. Beginning 1961, bagged sugar, f.o.b. Greater Caribbean ports.

2/ Spot prices for bagged sugar plus 0.5 cents per pound Cuban duty. Beginning 1961, spot prices for bulk sugar, plus 0.625 cents per pound, most favored nation duty.

3/ Wholesale basing point offer prices in 100-pound paper bags, not delivered prices.

4/ Average retail price of refined beet and cane sugar sold in major cities of the United States in a 5-pound package. Bureau of Labor Statistics data.

5/ Dry basis; derived from data for dextrose in 100 pound bags and corn sirup in drums.

Sugar Reports, U. S. Department of Agriculture, Agricultural Stabilization and Conservation Service.

sugar-producing countries consider the U. S. sugar market a premium market and strive to supply the United States with sugar when allocated quotas, even during those infrequent periods when the U. S. price is less than the world price.

The difference between refined beet sugar basis prices in Chicago and refined cane sugar prices in the Northeast widened between 1950 and 1964. During recent years, refined sugar prices in the Southeast, Gulf, and Pacific Coast areas generally remained between prices for beet sugar in the Chicago-West area and cane sugar in the Northeast. Wholesale prices of corn sirup in New York increased less though dextrose prices increased slightly more than Northeast wholesale refined sugar prices from 1950 to recent months.

While sugar and corn sweetener prices increased to some extent during 1950-64, non-caloric sweetener prices declined recently. Cyclamate sold for 72 cents per pound in October 1965, down from $1.95 per pound in January 1963. Likewise, while the decline was considerably less, calcium saccharin is currently selling for $2.10 per pound and sodium saccharin for about $1.40 per pound in contrast to $2.50 and $1.70 per pound, respectively, as recently as July 1964. These recent price reductions presumably were made to meet import price competition.

The sweetener industry has offered an increasing amount of services to their customers. Engineering services are provided to industrial users who wish to change to bulk blends or specification purchases. Increasing sales of bulk dry and bulk liquid sweeteners, bulk blends, and specification sweeteners reflect the growth of non-price competition. Bulk caloric sweetener blends are offered by sugar and corn sweetener companies alike. Similarly, non-caloric sweetener blends also are offered by both saccharin and cyclamate producers.

## Current Outlook for Consumption and Prices

Per capita consumption of total caloric sweeteners increased slightly since the early 1950's but little change is occurring this year. Of the anticipated per capita consumption of about 96 pounds of sugar (refined basis) in 1965, about 30 percent will be beet sugar and the remainder cane sugar. Sugar consumption in 1966 probably will be near per capita consumption in 1965. Consumption of corn sirup in 1965 is about 14.0 pounds per capita and dextrose about 4.5 pounds. Per capita consumption of corn sirup in 1966 may increase slightly, but per capita dextrose consumption probably will remain about the same as in 1965. On a sugar equivalent basis, per capita consumption of saccharin probably will exceed 6.0 pounds in 1965 and for cyclamate 2.0 pounds. Both figures are expected to be somewhat higher in 1966.

United States raw sugar prices in 1966 likely will remain about steady. Corn sirup and dextrose prices probably will change little in 1966. Changes in non-caloric sweetener prices are less certain, but a price rise is unlikely. Prices have declined sharply in recent years, but may be approaching a price floor. There is substantial productive capacity in these industries.

United States consumers and industrial food users can look forward to obtaining a greater variety of sweeteners during 1966. A somewhat larger proportion of sweetener intake in 1966 will be embodied in commercially processed foods and beverages than in 1965. Sweetener prices are expected to continue low relative to those for other foods. Prices of commercial foods containing sweeteners probably will tend to rise somewhat more than sweetener prices during 1966. Sweetener costs are usually only a minor portion of total food manufacturing costs, with the exception of certain types of candy.