96th Congress
1st Session

COMMITTEE PRINT

1980 AGRICULTURAL OUTLOOK

Papers Presented at the Agricultural Outlook Conference
Sponsored by the U.S. Department of Agriculture—
Held in Washington, D.C., November 5–8, 1979

PREPARED FOR THE

COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY
UNITED STATES SENATE

DECEMBER 23, 1979

Printed for the use of the
Committee on Agriculture, Nutrition, and Forestry

U.S. GOVERNMENT PRINTING OFFICE
53-457 O WASHINGTON : 1979

OUTLOOK FOR FRUIT AND TREE NUTS

(By Robert W. Bohall and Ben W. Huang, Agricultural Economists, Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture)

GENERAL PRICE OUTLOOK

The 1979–80 season holds promise of plentiful fruit and tree nut supplies for consumers but with moderately lower prices for producers. A record large citrus crop, a near record apple crop, increased supplies of most other noncitrus crops excluding tart cherries and sharply higher prospects for tree nuts will result in lower grower prices for most fruits and tree nuts and reasonable prices at retail. However, good demand in both fresh and processing markets should hold up grower returns and will result in a profitable year for the fruit and tree nut industries.

During the first 9 months of 1979, generally good demand and smaller supplies of many fruits pushed prices received by growers for fresh and processing fruit moderately higher in 1979. The index of prices received by growers for fresh and processing fruit averaged almost 5 percent above the corresponding first 3 quarters a year ago. However, the September index dropped sharply to 217 (1967=100) from 278 in August and was 22 percent below year-earlier level. The sharp decline in the September index primarily reflected larger supplies that lowered prices of peaches and pears, and large supplies of summer fruit dampened citrus prices.

With the seasonal increase in supplies of fresh fruit, fruit prices are likely to continue to decline in the fourth quarter. A record large citrus crop for the 1979–80 season points to the index of prices received by growers for fresh and processing fruit to remain below year-earlier levels at least through midwinter barring severe freezes. However, the 1979 index will still average approximately 4 percent higher than in 1978 reflecting higher prices in the first 3 quarters.

The BLS retail price index for fresh fruit declined in September for the first time in 1979 but was 9.4 percent above a year ago. With the seasonal increase in supplies of fresh fruit, particularly apples and oranges, retail prices have declined. However, inflation and the continued increase in cost of marketing, particularly transportation, may keep retail prices for fresh fruit this fall and winter above a year earlier but the rate of increase will be more moderate than was observed in the first three quarters of 1979. The 1979 retail price index for fresh fruit will still average 10 to 15 percent higher than for 1978.

TABLE 1.—INDEX OF QUARTERLY PRICES RECEIVED BY GROWERS FOR FRESH AND PROCESSED FRUIT

[1967=100]

Year	1st	2d	3d	4th
1975	129	152	140	130
1976	126	126	130	135
1977	142	150	160	200
1978	196	227	263	222
1979	224	238	256	

Source: Agricultural prices, CRB, ESCS.

TABLE 2.—QUARTERLY CONSUMER PRICE INDEXES FOR FRESH FRUIT

Year	1st	2d	3d	4th
1975	150	171	177	147
1976	146	161	170	166
1977	172	190	193	185
1978 [1]	196	223		
1978 [2]	194	222	247	221
1979	218	251	279	

[1] From 1975–June 1978, these indexes were entitled Urban Wage Earners and Clerical Workers, BLS discontinued these indexes as of June 1978.
[2] Starting with January 1978 new index entitled All Urban Consumers, replaces previous index.

Source: Bureau of Labor Statistics.

FRESH CITRUS FRUIT

The first forecast of the 1979–80 U.S. citrus crop (except grapefruit in California, other than desert areas) indicates a record 15.2 million tons, almost 15 percent above the 1978–79 crop and slightly above the previous record set in 1976–77. Larger crops are currently expected for all citrus in Florida which accounts for almost 80 percent of total U.S. citrus production in 1979–80. Smaller total U.S. production than in 1978–79 is estimated for grapefruit and lemons.

Oranges

Dominating the citrus scene is a record orange crop. The 1979–80 orange crop is forecast at 11.1 million tons (256 million boxes), 22 percent greater than last season's crop and 5 percent above the record 1976–77 output. Prospects in Florida are for 200 million boxes, also 22 percent above last season. The larger Florida crop is attributed to an increase in yield as most trees have recovered from the freeze damage in January 1977. Prospects in California are set at 49 million boxes, 32 percent more than last season's freeze damaged crop. Estimates are up for both Navels and Valencias by 25 and 40 percent respectively. Prospects of 3.3 million boxes are up 14 percent from last season in Arizona, while Texas production under the impact of last winter's freeze, is estimated to be 4 million boxes, 37 percent smaller than in 1978–79.

TABLE 3.—U.S. CITRUS FRUIT PRODUCTION: 1977–78, 1978–79 AND INDICATED 1979–80

[1,000 tons]

Crop	1977–78	1978–79	1979–80
Oranges	9,546	9,156	11,133
Grapefruit [1]	3,030	2,746	2,626
Lemons	991	737	695
Limes	18	29	44
Tangelos	221	189	225
Tangerines	228	237	282
Temples	221	212	243
Total [1]	14,255	13,306	15,248

[1] Excludes California grapefruit in "other areas."

Opening free onboard prices for Florida oranges were slightly lower than a year ago in a light, early season volume. Orange prices received by growers for the 1979–80 season are expected to average lower than last season's high prices if the current prospects for a record crop materializes. A record orange crop combined with large carryover stocks of frozen concentrated orange juice (FCOJ) in prospect definitely will put downward pressure on orange prices. Current prospects for fresh oranges through the winter point to grower prices declining seasonally to levels substantially below last year's high prices $6.55 to $9.69 per box. These lower prices should mean lower retail prices even with the continued increase in costs of marketing.

Exports to Japan will continue to improve as Japan has increased its import quota for U.S. oranges. With record orange production in the United States, our exports of oranges are expected to increase. Imports will be smaller this year in view of the record orange crop.

Grapefruit

Prospects for the 1979–80 season (excluding California's other areas) point to a 63.7 million box grapefruit crop, 1 percent less than last season and 10 percent smaller than the 1977–78 season. The smaller crop is due entirely to a sharp decrease in Texas output as the trees damaged by the freeze last winter did not completely recover.

Florida's grapefruit crop, forecast at 51 million boxes, is up slightly from last season. Arizona growers expect to harvest 2.70 million boxes, 20 percent more than last season. The California desert crop is forecast at 3.50 million boxes, 7 percent above the 1978–79 season. The Texas crop, on the other hand, is expected to be 6.5 million boxes, 28 percent below last season's freeze damaged crop.

During the current season smaller supplies in prospect and good processor demand may result in grapefruit prices near to slightly above 1978–79. Carryover stocks of most processed grapefruit products are down going into the 1979–80 season. Both chilled and frozen concentrated grapefruit have shown good growth patterns in recent years. It is possible exports may weaken. The recent gain in U.S. dollar, against the Japanese Yen could dampen our exports to Japan. The Japanese market is of vital importance to grapefruit trade prospects

and further gains in the dollar against the yen would weaken export prospects still further. Moreover, European sales may be down with relatively large Mediterranean crop in prospect. The record orange crop could moderate what otherwise is upward pressure on grapefruit prices.

Lemons

The Arizona-California lemon crop is forecast at 18.3 million boxes 6 percent below last season's freeze damaged crop and 30 percent less than the 1977–78 crop. The Arizona crop at 3.3 million, is down 40 percent from last year, while California's crop, at 15 million boxes, is 8 percent larger.

With a late developing crop, total movement for this season from August 1 through October 13 was sharply behind last season's pace. Deliveries to both fresh and processing markets have been well behind last year. Shipments to export markets were only half of last season's volume. Reflecting a smaller crop, free onboard prices for fresh lemons opened sharply higher. Prices have declined with increased volume, and averaged $16.26 per carton through mid-October, compared with $10.46 a year ago. Prices during the 1979–80 season are expected to average higher than the previous season's high levels.

PROCESSED CITRUS FRUIT

Because of the smaller 1978–79 citrus crop, utilization of the citrus crop for processing decreased to 9.8 million tons, compared with 10.5 million tons during the preceding season. However, processing use still accounted for almost 74 percent of the total crop, the same as the 1977–78 season. More than four-fifths of oranges sold were processed, as were nearly 60 percent of the grapefruit and 38 percent of the lemons.

Florida's 1978–79 pack of FCOJ amounted to 173 million gallons, 7 percent above the previous season. The larger pack was due entirely to the higher juice yield of 1.34 gallons of 45 degree brix concentrate per box, compared with 1.23 gallons the preceding season. The larger pack combined with larger carryover and imports have resulted in total supply of FCOJ during the 1978–79 season substantially larger than the previous season.

Free onboard prices of FCOJ have been steady at $3.55 to $3.60 per dozen 6-ounce cans (unadvertised brands, Florida canneries) except when a promotional allowance reduced prices to $3.25 for the shipments of FCOJ from April 16 through May 18. This compares with $3.30 a year ago. This promotional allowance resulted in substantial improvement in movement. Movement slackened somewhat after the promotional allowance expired, but it has greatly improved in recent weeks. Consequently, shipments this season through October 13 amounted to 171.5 million gallons, up 10 percent from a year ago. But packers' stocks of FCOJ as of October 13 were still sharply above last season's level. It now appears that the carryover at the end of the season will approach 35 to 40 million gallons, compared with 31.9 million gallons last season. With the record Florida orange crop for 1979–80 in prospect, the FCOJ pack is expected to be substantially larger. Thus, total supplies of FCOJ during the coming season will be large and FCOJ prices are expected to ease somewhat.

In response to good demand, Florida's pack of chilled orange juice for the 1978–79 season reached another record 206.2 million gallons (excluding single-strength reprocessed), 11 percent more than last season. Total domestic movement also set a record of 201.2 million gallons in spite of higher prices. However, the carryover at the end of the season at 15.7 million gallons, was almost the same as a year ago. In view of the record Florida orange crop, another record pack of chilled orange juice is expected. Movement will continue to increase but prices are likely to ease along with FCOJ.

FRESH NONCITRUS

The 1979 noncitrus fruit crop (10 major fruits) is forecast at 12.2 million tons, 4 percent above last year and 8 percent above 1977. Larger crops were estimated for all fruit except apples and tart cherries. Cold storage holdings of most fresh noncitrus at the beginning of October were substantially larger than the comparable period a year ago. Pears, other than Bartletts, were the only fruit in smaller supply. Nevertheless, shipping point prices for most noncitrus fruit are generally higher than a year ago. With the prospective good demand from processors, prices received by growers are expected to be relatively firm although competition from citrus will be keen.

TABLE 4.—U.S. NONCITRUS FRUIT: TOTAL PRODUCTION, 1977, 1978, AND INDICATED 1979

[1,000 tons]

Crop	1977	1978	1979
Apples	3,336	3,817	3,791
Apricots	147	126	145
Cherries, sweet	148	155	192
Cherries, tart	105	91	86
Cranberries	105	123	126
Grapes	4,298	4,567	4,739
Nectarines	155	148	185
Peaches	1,492	1,351	1,462
Pears	787	727	803
Prunes and plums	727	643	664
Total	11,300	11,748	12,193

Source: Crop production, CRB, ESCS.

Apples

The final forecast of the 1979 U.S. commercial apple crop placed production at 7.58 billion pounds, 1 percent below last year's record crop. Prospects in the Eastern States are mixed with New York down 13 percent from 1978 and Pennsylvania up 26, the Central States are down sharply with Michigan 24 percent below last season, and the Western States are up 7 percent with a big crop of 2.3 billion pounds in Washington.

Early shipments of fresh apples were running moderately behind last year's pace because of the late harvest. With a smaller crop, domestic use of apples for fresh market is likely to be below last year's levels, while processing use is expected to exceed 3.3 billion pounds used in 1978–79. The record orange crop may weaken demand for fresh apples, but good processor demand is expected with smaller inventories of canned and frozen apple items.

53-457 O - 79 - 15

Opening fee onboard prices for fresh apples at major shipping points were generally moderately to substantially higher than last year, but they have declined with increased volume. Prices are expected to hold relatively firm at levels slightly to moderately above last year despite the downward pressure from an expected large orange crop. Prices will be enhanced by foreign demand. Export prospects to Canada, one of our most important markets, are bright as apple production there is expected to decrease almost 8 percent from 1978. In addition, exports to the Far East and Middle East still look very encouraging.

The smaller crop combined with the expected good demand from the major processors has strengthened the market for processing apples. Apple prices for processing have been agreed to at levels moderately above a year ago.

Cranberries

As of October 1, production of the Nation's cranberry crop was forecast at a record 2.52 million barrels (114,000 metric tons), 3 percent larger than the 1978 crop. Despite the larger crop, season opening prices for fresh Massachusetts cranberries in Chicago wholesale markets were 32 percent higher than a year ago. They are expected to decline as the season progresses. Larger crops are expected for all producing States except Massachusetts. Even with a larger crop, prices for canned cranberry sauce are not expected to decline. There will be good supplies for the holiday season.

Grapes

This season's U.S. grape production is forecast at 4.74 million tons, 4 percent above the 1978 crop. California expects 4.30 million tons, 7 percent more than in 1978, as larger crops of table and raisin varieties more than offset smaller output of wine varieties. Production of wine varieties is forecast at 1.7 million tons, down slightly from last year's record crop.

Total grape production from States other than California is estimated at 438,800 tons, down one-fifth from 1978, reflecting mainly a sharply smaller crop in Washington. New York, the second largest grape-producing State, expects a crop of 170,000 tons, a tenth smaller than 1978. Production in Washington, the third largest grape-producing State, at 95,000 tons, is down almost a half from 1978's large production as a result of extreme cold winter and hot July weather. Michigan's grape crop is also down moderately.

Shipments of table grapes were running substantially above last year's pace through mid-October but have declined seasonally in recent weeks. Demand for fresh grapes so far this season has been good as total unloads through mid-October were 10 percent above last season. Consequently, shipping point prices for California Thompson seedless grapes in early October have strengthened to levels above a year ago. Thompson seedless were selling at $11.75 per 23-pound lug in Kern County, Calif., compared with $10 at the same time last year. Fresh grape prices are expected to remain firm as supplies will continue to decline. With production of standard quality raisins increasing to the normal range after the rain-damaged crop of a year earlier, the field prices for California raisin grapes have settled sharply lower than last

year's unusually high levels. Winery prices to growers of good quality grapes in California are generally below last year's levels. Prices vary greatly by producing areas, supplies, and varieties of grapes. With prospects for another increase in inventories coupled with an uncertain economy, wine prices will be under downward pressure. However, demand for wine continues to increase as per capita consumption for all adults was 3.04 gallons in 1978, up 6 percent from 1977. A further increase is expected in 1979.

Pears

Larger available supplies of Bartlett pears have resulted in lower prices for both fresh market and processing use. California growers and canners have agreed on a field price of $172.50 a ton for No. 1 grade Bartletts, compared with $182.50 last year. The Washington-Oregon Canning Pear Association and processors agreed on the price for No. 1 grade Bartletts at $170 per ton, down from $185 per ton in 1978. In contrast, because of the smaller winter pear crop, opening free on board prices were moderately higher than a year ago. Prices for fresh pears are expected to remain firm this winter. With a slightly smaller fall and winter pear crop in Europe and Canada, export prospects are favorable.

PROCESSED NONCITRUS

Because of a larger noncitrus crop, the 1979–80 pack of most noncitrus fruit is likely to be more than that of a year ago. But total supplies of canned noncitrus fruit are not expected to increase appreciably because of smaller carryover stocks at the beginning of the season. Supplies of most dried fruits are expected to be up, particularly raisins from last year's sharply reduced pack. In contrast, frozen fruit supplies will probably be moderately smaller because of the sharp decrease in freezing tart cherries. Wholesale prices for most processed noncitrus will be firm as a result of higher costs of raw materials and processing.

The 1979–80 pack of most canned noncitrus fruit likely will be larger than last year, reflecting the larger noncitrus crop. Pack data for most canned noncitrus items are not yet available. The volume of Clingstone peaches received by California processors this season totaled 694,254 tons, compared with 607,502 tons last year. Packers' receipts of Bartlett pears this season are expected to be larger than the 227,804 tons received last season because of a larger crop. With larger Clingstone and Bartlett pear crops, the 1979 fruit cocktail pack is expected to be larger than last year. The pack of canned apricots totaled 4.2 million cases (24 No. 2½'s) compared with 3 million cases last season. With smaller carryover stocks of canned apples and applesauce, and the relatively large apple crop in several processing areas, the total pack of canned apple items will be larger. Carryover stocks of canned apple-juice are well above year earlier levels.

In response to smaller supplies, wholesale prices of most canned fruit continued to advance. The September Bureau of Labor Statistics' Wholesale Price Index reached a record high 220.6 (1967 equals 100), almost 10 percent above a year ago. Prices for most canned fruit have been raised, reflecting the higher raw product costs and increased

processing and marketing costs including tinplate, labor, and transportation.

U.S. dried fruit production for the 1979–80 season is expected to total above a year earlier when rain severely dampened the raisin variety grapes. The total raisin tonnage is currently estimated at 283,000 tons, sharply above a year ago. Total dried prune pack, the other major dried fruit item, is placed at 130,000 tons, down slightly from last year.

Because of the sharply larger supplies in prospect, the BLS September wholesale price of raisins declined to $30.16 (15-ounce package, case of 24) from $34.50 in August. But it is still sharply above a year ago. Prices are likely to weaken further when larger quantities become available. Wholesale prices of dried prunes have remained steady at $17.28 (16-ounce package, case of 24) since last February. In view of the supply situation, prices of dried prunes are expected to remain relatively firm throughout the season.

The 1979 U.S. pack of frozen deciduous fruit and berries is expected to be smaller than the 509 million pounds packed in 1978, primarily as a result of the considerably smaller pack of tart cherries. The total pack of frozen cherries was 104.6 million pounds in 1979 down 17 percent from a year earlier, reflecting a sharply smaller crop in Michigan. In contrast, receipts of strawberries delivered to California freezers totaled 129.1 million pounds through early October, compared with 114.7 million a year ago. In addition, imports of frozen strawberries, mainly from Mexico, during the first 8 months of 1979 were also substantially more than the corresponding period a year earlier.

Cold storage holdings of frozen fruits and berries (excluding juices) on September 30 totaled 535 million pounds, 5 percent smaller than a year earlier. Substantial to sharp decreases in volumes of frozen apples, tart cherries, peaches and raspberries more than offset increases in blueberries and strawberries. Despite larger stocks, wholesale prices of frozen strawberries have advanced in the last 3 months. The September BLS wholesale price index of frozen strawberries at 217.9 (1967=100), was 16 percent above year-earlier levels. With the expected smaller supplies wholesale prices for most frozen fruit will remain firm throughout the season.

TREE NUTS

Current prospects for the four major domestic edible tree nuts (almonds, filberts, pecans and walnuts) point to an estimated output of 632,175 tons (in-shell basis), 43 percent larger than 1978. A record almond crop 93 percent above last year's small production is expected and the walnut crop is forecast to be sharply larger than the very small crop in 1978. The pecan crop will be slightly smaller, while filbert production is expected to be sharply smaller. Prices for almonds are not expected to decline appreciably in view of good world demand, and short crops in Spain and Italy, but walnut prices are expected to be below year-earlier levels despite a favorable export market. Prices for pecans will probably be lower because of larger supplies reflecting heavy carryover, but filbert prices will be firm with major producing countries expecting reduced supplies.

PER CAPITA FRUIT CONSUMPTION

Total per capita fruit consumption (fresh and processed) in 1978 reached 212 pounds (fresh weight equivalent), down slightly from 1977. A decrease in citrus consumption more than offset the decrease in noncitrus consumption.

Per capita consumption of all fresh fruit increased from 83.3 to 83.9 pounds between 1977 and 1978, due to the increase in noncitrus fruits except bananas was relatively steady. Despite higher prices, per capita consumption of bananas, the major fresh fruit, increased from 19.5 pounds in 1977 to 20.6 pounds in 1978. This is the highest level since 1952. Per capita consumption of fresh citrus fruit in 1978 was 26.2 pounds, down 0.2 pound from 1977. This is the lowest in the last 10 years.

Per capita consumption of processed fruit declined slightly from 130.4 pounds in 1977 to 128.1 pounds in 1978. This decline was due primarily to the moderate reduction in processed citrus, particularly frozen concentrated orange juice (FCOJ). Because of sharply higher prices, per capita FCOJ consumption declined from 7.65 pounds in 1977 to 6.17 pounds in 1978, the smallest amount since 1972. Per capita consumption of processed noncitrus fruit in 1978 was 46.6 pounds, up 0.9 pound from 1977. This increase was due mainly to the larger volume of canned juice consumed.

Total per capita fruit consumption (fresh and processed) in 1979 is expected to be slightly more than the 212 pounds consumed in 1978. Per capita consumption of all fresh fruit will decrease slightly as the decrease in citrus consumption more than offset the increase in noncitrus consumption. Per capita processed citrus consumption, particularly frozen concentrated orange juice will be up moderately, while that of processed noncitrus fruit consumption is expected to be near last year's level. The 1979 raisin consumption will recover from the low level reached in 1978, but frozen fruit consumption will be down.

Projecting per capita consumption into the 1980's is useful but risky and a number of approaches can be utilized. The authors have used several alternatives to estimate 1983 per capita consumption for fruit. These should not yet be interpreted as official USDA projections.

The first set of 1983 estimates is based on a trend line projection using 1950–78 as a base. Results indicate 1983 fresh per capita consumption declining 16.6 pounds from 1978 and dried 0.6 pound while total fruit consumption is down 8.5 pounds, chilled and frozen 0.50. Frozen per capita consumption would be projected to increase 8.4 pounds over the same period and canned and chilled 0.3 pound.

The second set of estimates are results from a simple demand model which incorporates consumer or wholesale prices of fruit by category, per capita expenditures on nondurables, and per capita consumption of substitute fruits as explanatory variables. The base period was 1950–78 with allowance for the severe Florida freeze of 1963–64. Results indicate per capita consumption of fruits between 1978 and 1983 would increase 8.7 pounds in total, decrease 8.4 pounds on fresh, increase 11.5 for frozen, 2.9 for canned and chilled and 2.7 for dried.

More subjective estimates by Huang-Bohall indicate a growth pattern for total per capita fruit consumption to 1983 reaching 220 pounds

with most of the increase in processing categories particularly frozen and canned and chilled. We expect fresh and dried to remain relatively stable although there are good arguments either way on fresh.

A space is provided for your own estimates and we can check out results in four years.

TABLE 5.—PER CAPITA CONSUMPTION FOR TOTAL, FRESH, FROZEN, CANNED AND CHILLED, AND DRIED FRUIT, 1977, 1978 AND FORECASTS FOR 1979 AND PROJECTION FOR 1983

[Pounds per capita, fresh weight equivalent]

	Total	Fresh	Frozen	Canned and chilled	Dried
1977	213.7	83.3	60.0	60.7	9.7
1978	212.0	83.9	55.1	64.1	8.9
1979 estimate	215.3	83.2	58.0	64.7	9.4
1983 historical trend, 1950–78 [1]	203.5	67.3	63.5	64.4	8.3
1983 simple demand model, 1950–78 base [1 2]	220.7	[3] 75.5	[4] 66.6	[5] 67.0	[6] 11.6
1983 Ben Huang—Robert Bonall subjective projection	220.0	84.0	61.5	65.5	9.0
1983 your estimate					

[1] John Yanagida and Roger Conway ran the trend line analysis and developed the simple demand model. We hope to revise this model and publish results as a special article in a forthcoming issue of the Fruit Situation during 1980.

[2] Per capita consumption of fruit by category equals F.

[3] Consumer or wholesale prices of fruit by category.

[4] Per capita consumer expenditures on nondurables.

[5] Per capita consumption of substitute fruits.

[6] Shift variable to adjust for the 1963–64 Florida freeze.