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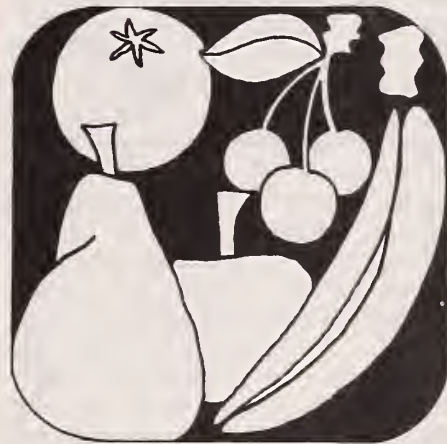
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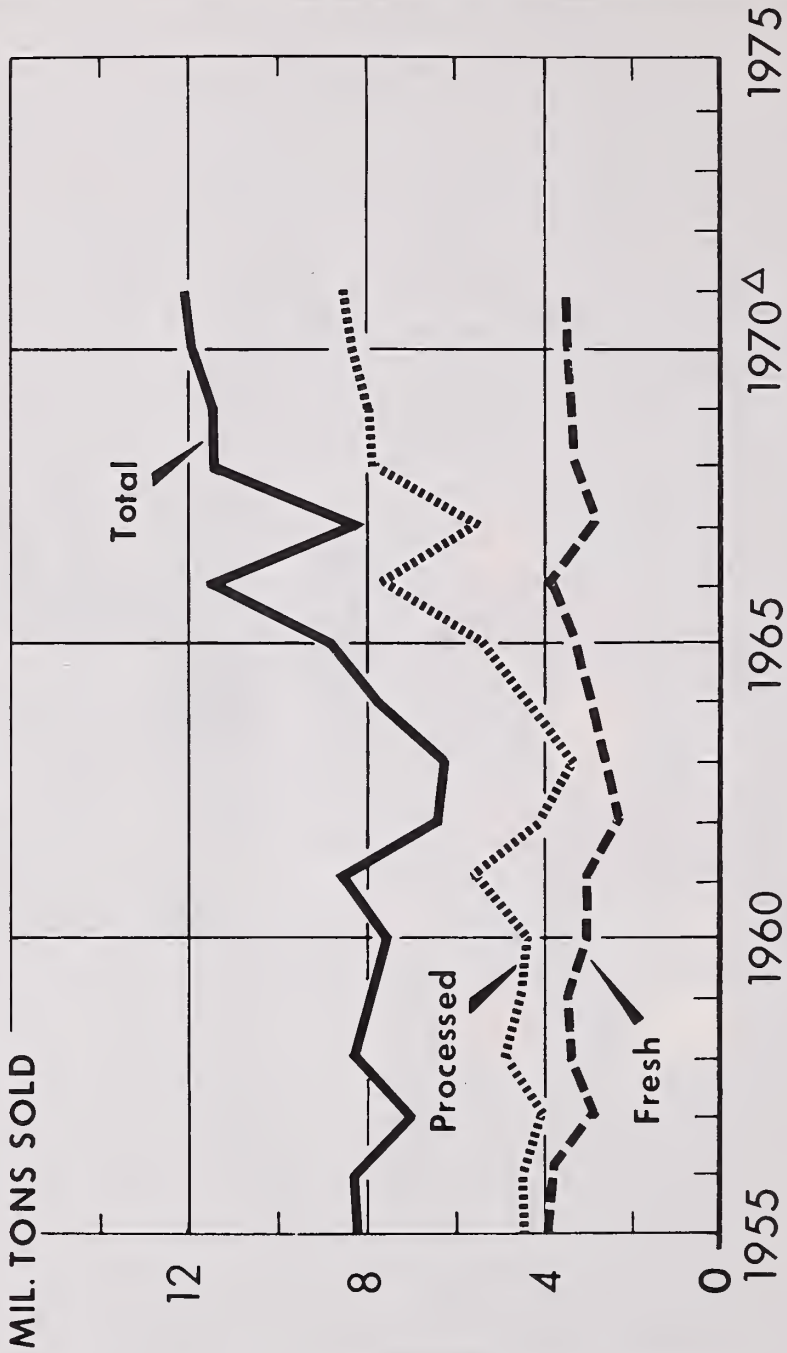
# FRUIT Situation

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# U. S. CITRUS UTILIZATION\*



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NEG. I RS 2502-72 (10) ECONOMIC RESEARCH SERVICE

# THE FRUIT SITUATION

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## SUMMARY

Large citrus crops are predicted. Further reductions are estimated for non-citrus output. Fresh fruit prices at all levels have been high in recent months, reflecting the much smaller non-citrus harvests this past summer and strong consumer demand. September's index of prices received by farmers for fruit was 17 percent above a year ago. Average prices will probably decline during the late fall and may slip below last year's levels by midwinter as the new citrus crop moves to market.

Record orange production is in prospect for the 1972/73 season. The forecast of 124.5 million boxes of early, midseason, and Navel oranges is 30 percent greater than last year's crop and 18 percent over the previous year. Valencia oranges may also be more plentiful during the later stages of the crop year on the basis of incomplete production forecasts. However, demand for oranges for use in frozen concentrated juice is apparently expanding at a rapid rate. And, fresh orange demand may benefit from the shorter supplies and higher prices for non-citrus fruit, especially during the early stages of the season.

Grapefruit supplies are expected to be down slightly from the record levels of a year ago. Larger stocks of processed grapefruit products may weigh on average prices, but fresh fruit demand is expected to be strong. Increased exports of fresh grapefruit apparently contributed to an expanded demand last season, and further increases are in prospect for the new crop.

Production of non-citrus fruit during 1972 is estimated to total 19 percent below a year ago and 13 percent under 1970. Fruits harvested and sold during the summer and early fall months account for most of the decline. Consequently, most price effects at the farm level have already been felt. However, processed product supplies have also been affected and higher prices are likely to prevail for most canned, frozen, and dried non-citrus items over the entire marketing season.

The apple harvest is expected to fall 7 percent below last season's production. Smaller crops in the East and Central States more than offset a substantial increase in the West, primarily Washington State. Prices for processing apples will probably average well above last year's level, resulting not only from a smaller supply in major processing areas but also from an expanding demand for juice apples. Fresh market prices could feel some downward pressure, particularly in the West, due

to the larger Washington supply. But early season demand should be strong following the short supplies of other fruit during the summer.

Output of domestic tree nuts will be smaller during the 1972/73 season. Total production of 4 major nut crops (almonds, filberts, pecans, and walnuts) is

estimated at 369,750 tons, 9 percent below last year. Only the almond crop is forecast above a year ago. Inventories at the beginning of the new season were also generally lower. Record exports of almonds and walnuts last season reflected an expanding foreign demand. Prices of domestic tree nuts are expected to be higher.

## RECENT DEVELOPMENTS AND OUTLOOK

### CITRUS FRUIT

#### Oranges

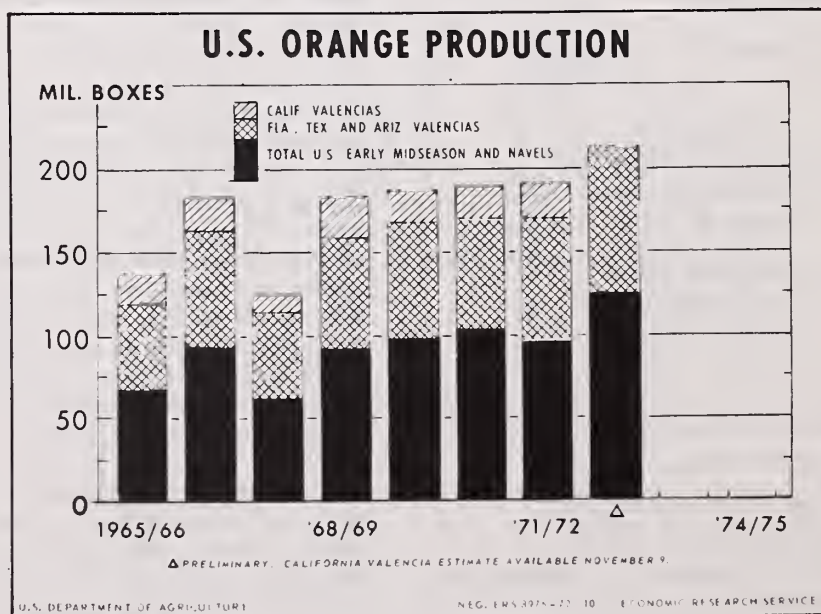
The first production forecast of the 1972/73 season indicates a record-large orange crop is in the making. Total production for all producing areas and varieties except California Valencias is estimated at 212.8 million boxes. This is one-fourth larger than the corresponding total for each of the past 2 seasons.

The biggest gain is expected for Florida's early and midseason varieties. Supplies of these oranges were curtailed last season as a result of freeze damage in January 1971. Production this season is expected to rebound to a record 92 million boxes, one-third larger than last year and 12 percent over the previous record of 1970/71. Other areas and varieties are also facing potential record crops. The California Navel and miscellaneous variety crop is estimated at 27 million boxes, up 21 percent from last season's record output and over 50 percent above 1970/71. Texas and Arizona also expect larger crops of early oranges with combined

output forecast at 5.5 million boxes. This brings the expected total of early, midseason, and Naval varieties to 124.5 million boxes, 30 percent above last season and 18 percent over the previous year.

Florida Valencia orange supplies may also be sharply higher during the second half of the new crop year. The forecast of 82 million boxes is 20 percent over last season's crop and 36 percent above 1970/71. Texas producers expect to harvest about 2.3 million boxes of Valencias, up slightly from last year, while Arizona's 4 million box forecast is identical to last season's output. The first USDA forecast for California Valencias will be made in December.

Orange prices during the 1971/72 season averaged \$2.95 per box (equivalent packinghouse door returns), 20 percent above the previous season. Prices for the 1970/71 crop started relatively low and advanced sharply after a midwinter freeze reduced supplies. In contrast, prices were especially high during the first weeks of the 1971/72 season, then tapered to more moderate levels and remained relatively stable.



Florida early and midseason varieties returned an average of \$2.91 per box at the packinghouse door last season, almost \$1.00 over the previous crop. Florida Valencias averaged \$2.96 per box but this was only 6 percent above the year-earlier level. The 1971/72 season average price for all Florida oranges has been estimated at \$2.93 per box, up 28 percent from the preceding year.

California Navel and miscellaneous varieties averaged \$3.68 per box last year, slightly below the \$3.76 recorded for 1970/71. The California Valencia price for the season still in progress has been estimated at \$2.68 per box, 5 percent lower than a year earlier. The California State average is placed at \$3.20 per box, almost equal to 1970/71.

The larger supplies in prospect will undoubtedly put downward pressure on orange prices. However, other considerations may alleviate some of this pressure. The much smaller non-citrus fruit harvests of the past summer and the slightly smaller apple crop might increase the demand for oranges and other citrus fruit. Although the extent of competition between citrus and non-citrus fruit is not known precisely, there would appear to be some possibilities for demand substitution, particularly for fresh fruit early this season.

A second consideration involves the upward trend in demand for processed orange products, especially frozen concentrated orange juice. Per capita consumption of this product on a single strength basis has increased from less than 5 pounds in 1950 to over 20 pounds per person for each of the past 2 years. Chilled orange juice consumption has also increased from negligible quantities during the early 1950's to over 4 pounds per person in recent years. These increases along with total population growth support a sharply increasing demand for processed orange products and, in turn, oranges for processing. Nearly four-fifths of the total U.S. orange crop was processed during the past 2 seasons.

Prices for frozen concentrated orange juice have been steady in 1971/72. Florida packers have quoted a price of \$1.88 per dozen 6-ounce cans, f.o.b. plant, for over a year. This steady price contrasts with a much lower price early in the 1970/71 season which advanced to the higher level by midsummer. The net effect is an average price to date during the 1971/72 season well above that for the year-earlier period.

Product movement has lagged below a year ago for most of the current marketing season, reflecting the wide price discrepancy during the early portions of the 2 seasons. However, during recent months while prices have been identical to year-earlier levels, sales have been sharply higher. Industry spokesmen now expect total product movement to finish the season near or above last year's level. Stocks of processed product have appeared large all season, reflecting the larger season pack, the reduced rate of product movement, and the fact that inventories dropped to very low levels at the end of the 1970/71 season. However, if present rates of

movement can be maintained, inventory levels at the end of the sales year may be only moderately above the short stocks of a year ago. Thus, evidence still indicates that an expanding demand for processing oranges will at least partially offset the larger expected crop.

Export demand for fresh oranges also appears to have strengthened during the 1971/72 season. Nearly 8.5 million boxes had been exported from the beginning of the season last November 1 through August. This quantity is 20 percent above the similar period a year earlier and 9 percent above the total amount moved last season.

## Grapefruit

Supplies of this fruit may be a little smaller than last year's record levels. The total forecast for all U.S. grapefruit estimated to date is 2 percent below last season but 4 percent above the 1970/71 crop from the same areas. Florida expects 45 million boxes, 4 percent below a year ago but 5 percent over the 1970/71 output. Texas' supplies are estimated at 10.4 million boxes, up 13 percent from last season and 3 percent above the previous crop. Arizona is expected to harvest 2.6 million boxes, only slightly more than the last 2 crops, while California's Desert Valleys may be down 6 percent from last season to a total of 3 million boxes. The production estimate for California's "other areas" will be made in December. Last year these areas produced 1.9 million boxes.

Grapefruit prices for 1971/72 were generally higher than a year earlier. The average U.S. price of \$2.83 per box (equivalent packinghouse door returns) was 18 percent above the previous season's average despite the moderately larger supply.

Expanded export demand for fresh grapefruit contributed to last season's higher prices. Over 5 million boxes were exported, an increase of nearly 87 percent from the previous season. A lifting of import restrictions by Japan contributed most to the increase. Japan took almost half of all U.S. grapefruit exports last season compared to only minor quantities in earlier years. A further expansion of this trade is anticipated during the coming season.

Market conditions for processed grapefruit products, however, could exert opposite price pressure. Large packs of canned and frozen concentrated grapefruit juice last season, coupled with lagging or constant sales, have left Florida stocks at sharply higher levels at the beginning of the new processing season. Product prices weakened midway through the last pack year but strengthened again during the summer. Prices appeared to be holding firm in recent weeks. The reduced crop prospects for the season and the expected strong fresh market demand may keep prices to growers firm for the immediate future, but processors are not likely to bid aggressively for raw product early in the season.

## Other Citrus Fruit

The only indication of 1972/73 lemon crop prospects is provided by the estimate for Arizona. The 4.5 million box forecast is 31 percent above last season's output. The forecast for California, which produced 13.6 million boxes last season, will be available on November 9.

Supplies of tangelos, tangerines, and temples are expected to be slightly below last season. The smaller supplies along with reduced competition from fresh non-citrus fruit are indications of higher prices relative to last season. On the other hand, if orange prices should weaken in the face of larger supplies this season, prices of these specialty items will probably also move lower.

## NON-CITRUS FRUIT

Moderately to sharply higher prices have typified the situation to date for 1972 non-citrus fruits. Adverse weather last winter and spring seriously damaged many of these crops. Consequently, total U.S. production is estimated to be 19 percent below a year ago and 13 percent under 1970 (Table 1). Many of these deals are now a matter of history. But the later-harvested and storage crops are still of concern along with the market conditions facing processed non-citrus fruit items.

### Apples

The 1972 crop is expected to total 141.8 million boxes or just under 6 billion pounds. A crop this size would be 7 percent smaller than last year's total production and 3 percent under the volume of apples utilized last season. It would also be the smallest crop since 1968.

Regional Apple Production

Area	1970 <sup>1</sup>	1971 <sup>1</sup>	Indicated 1972
	<i>Billion pounds</i>	<i>Billion pounds</i>	<i>Billion pounds</i>
East . . . . .	2.89	2.91	2.65
Central . . . . .	1.22	1.27	1.24
West . . . . .	2.18	1.93	2.06
Total U.S. . . .	6.29	6.11	<sup>2</sup> 5.96

<sup>1</sup> Production having value. <sup>2</sup> Does not add due to rounding.

Relatively more of the total apple supply will be centered in the West this year, especially Washington State. Washington's apple harvest is expected to total 34.5 million boxes this season, up 21 percent from last year's utilization. The Central States expect a slightly smaller supply, while Eastern output may be down sharply from last year and well below the volume utilized last season.

The larger proportion of Western apples may result in nearly as many apples available for fresh marketing as a year ago. However, the relative scarcity of fruit this past summer and the smaller total apple crop prospects may keep fresh apple prices above year-earlier levels in the immediate future. As the season progresses other factors can be expected to influence fresh market prices. Information concerning apple quality and condition during the storage season will be important price determinants. Prices of other fresh fruits, including oranges, will also influence the prices which consumers are willing to pay for fresh apples. And the margins of retailers and other segments of the marketing system will affect the prices received by growers. (See special article on apple prices and price spreads.)

Prices for processing apples should average well above the somewhat distressed levels of last season. Carryover stocks of canned apples are smaller than a year ago but applesauce stocks are larger. However, the smaller crop prospects in major processing States will probably lower the total season's supply of both products relative to a year earlier. Continued sharp increases in demand for apple juice, especially for use in wines, are expected to add further strength to the market for processing apples. While imports are filling part of the increasing juice demand, domestic producers are also likely to benefit through higher prices for juice apples this season.

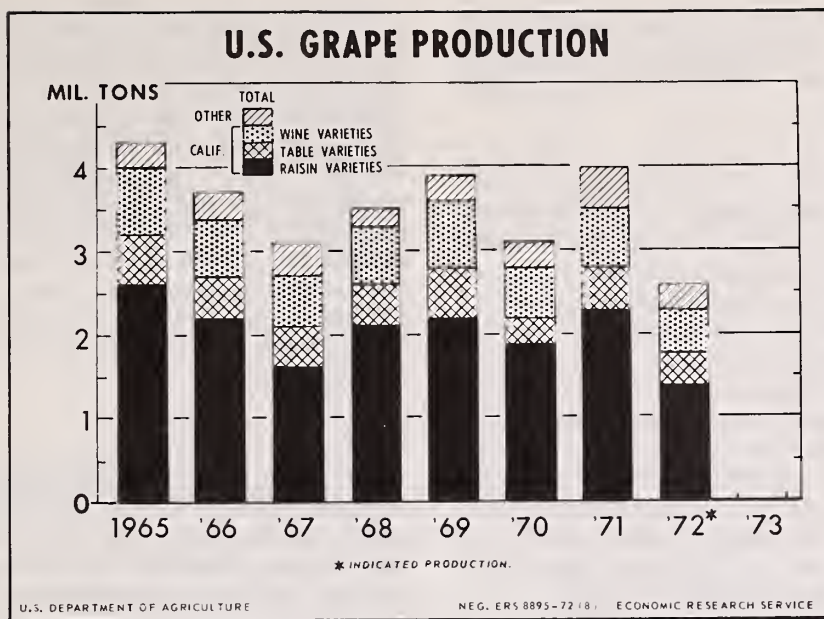
### Grapes

Production prospects for grapes deteriorated further according to the October crop estimate. U.S. grape production at 2.6 million tons is expected to be more than one-third smaller than last year and 15 percent under the 1970 crop. While the forecast for California grapes remained unchanged, prospects for New York, Pennsylvania, Michigan, and Washington declined relative to earlier estimates.

Total production from States other than California and Arizona is now estimated at 303,600 tons, down 32 percent from last year and 12 percent below 1970. Most of the production in these States is of the Concord variety. While some of the grapes go into wine, most are used for canned or frozen concentrated grape juice. The smaller crop prospects suggest a sharply reduced pack of these products during the 1972 season. Grape prices in most of these areas will average well above the relatively low levels of last season with product prices at other levels in the marketing system reflecting the higher raw product costs.

The production of raisin variety grapes (primarily Thompson Seedless) in California is estimated at 1,450,000 tons, 37 percent below last year and 23 percent under 1970. Less than one-half of these grapes were actually used for raisins last year with most of the remainder crushed for wine. Indications are that an even smaller proportion of the crop was dried this season. The Raisin Administrative Committee has estimated the 1972 season's output of Thompson Seedless raisins in





California at 91,695 tons. This is only slightly more than one-half the tonnage delivered last season and below what the industry expected. According to the sliding price scale adopted earlier, the grower price would be \$476 per ton. However, trade reports indicate that the price has risen above this level as a result of the much smaller pack. The grower price is now reported to be over \$500 per ton. Raisin prices at wholesale and retail are likely to advance further in response to the higher grower price.

The production of wine variety grapes in California is forecast at 570,000 tons, down about a fourth from last year. As indicated above, large quantities of other grapes are also used for wines and the total crush this season may not be quite as small as crop prospects indicate. However, the demand for wines in the United States is apparently increasing at a rapid rate. Consequently, prices for grapes crushed for wine will probably advance even further this season from their relatively high levels of recent years.

Table grape unloads as well as fresh grape exports were running a little ahead of last season early in the marketing season. However, movement has slowed in recent weeks. Shipping point prices have been sharply higher relative to year-earlier levels and will probably remain firm reflecting the smaller season's supply.

#### Pears

The Nation's pear crop is estimated at 599,100 tons, 15 percent below last year's large crop, but 12 percent above 1970. Prices were sharply higher due to the smaller supplies and higher prices of other fresh non-citrus fruit.

Supplies of winter pears from the Pacific Northwest will be down sharply from last season. For varieties other than Bartletts in Oregon and Washington, output has been estimated at 99,000 tons, one-third below last year and only slightly above 1970. Prices will probably average well above last season's level throughout the storage and marketing season.

#### Plums and Prunes

Output of plums and prunes in Michigan, Idaho, Washington, and Oregon has been estimated at 42,000 tons. This estimate represents an 8 percent increase from an earlier forecast but a one-third reduction from last season's output. Shipping point prices have been sharply higher this season, in some cases nearly double the year-earlier levels.

The latest estimate of dried prune production in California was revised downward even further from earlier forecasts. The 77,000 ton (dried basis) estimate is 41 percent below the delivered tonnage from the 1971 crop. Early reports indicate prices to growers are well above year-earlier levels. Average wholesale prices advanced early last summer but fell back somewhat on the basis of Price Commission rulings. Further advances will probably be forthcoming reflecting the much smaller supply available for marketing and the higher prices paid by packers to prune producers.

#### Cranberries

Another large crop of cranberries is in prospect for 1972. While the estimated production of 2.11 million barrels is 7 percent below last year's total production, it

is 29 percent above the quantity utilized last season and 14 percent above the 1970 utilization. Season-opening wholesale prices in New York and Chicago appeared similar to year-earlier levels.

### Processed Non-Citrus Fruit

Supplies of canned non-citrus fruit for 1972/73 will probably be the smallest in several years. Complete carryin and pack data are available for only 6 items so far this season (Table 14). Supplies of these items are about one-tenth smaller than a year ago but 30 percent below their total as recently as 1969/70.

Supplies of canned clingstone peaches are down from their burdensome levels of recent years and may be the smallest in over 10 years. Fruit cocktail supplies are only slightly below last year but well below their levels of 3-4 years ago. Statistical data are not yet available for canned pears. However, supplies will probably be moderately under a year ago due to the smaller pear crop and the strong demand for fresh market fruit.

The coming season's packs of canned apples and applesauce can be expected to be smaller this year judging from the reduced apple crop prospects in major processing areas. However, processors did not pack as much product as they might have last season because of unfavorable market conditions. Consequently, supplies of these products should be sufficient to meet market needs.

USDA announced the purchase of 421,800 cases (6 - No. 10 cans/case) of U.S. Grade A applesauce in early October for distribution through the child nutrition program. The cost of the purchase was \$1.9 million excluding transportation charges. The Department has also offered to buy canned fruit cocktail and canned pineapple for child nutrition outlets for delivery in January 1973.

Canned fruit prices have been generally above year-earlier levels in recent months. Smaller supplies, higher raw product costs, and increased processing and marketing costs will probably result in firm or advancing retail prices during most of the 1972/73 season.

Stocks of frozen fruit at the end of September totaled almost 530 million pounds, 14 percent below last year and one-fifth under 1970 (Table 15). Strawberries registered the sharpest decrease. Stocks of frozen apples, peaches, and red raspberries also were significantly lower. Average wholesale prices for frozen strawberries have been well above year-earlier levels in recent months. Smaller supplies and higher costs may continue to exert upward pressure on frozen fruit prices during the coming months.

## TREE NUTS

### Almonds

Almond production in California is forecast at a record 150,000 tons (in-shell basis). This would be 12

percent larger than last year and 21 percent over 1970. However, trade reports indicate that deliveries are not coming up to earlier expectations. The domestic demand for almonds has increased markedly in recent years but export sales have produced an even bigger market lift. Last season 38,770 tons of shelled almonds moved into export channels, an increase of nearly 40 percent from the previous year. Additional quantities of unshelled almonds and almond meats contained in mixed nuts or other confections were also exported. World supplies of almonds are expected to be larger this year but prices in foreign markets are firm, reflecting an apparently expanding demand.

### Pecans

Production of pecans (both native and improved varieties) is forecast at 186.3 million pounds, one-fourth smaller than last year's crop but 20 percent above 1970. Only partially offsetting the smaller new crop supplies are larger holdings of both shelled and unshelled pecans. So, the total supply may be only moderately below last year's level. Nevertheless, prices to growers will probably average above the 33 cents per pound reported for last season.

### Walnuts

The 1972 crop is estimated at 116,200 tons, down 15 percent from last year and only 4 percent above 1970. Exports of walnuts, like almonds, increased markedly last season. Exports of unshelled walnuts from the beginning of the season last October through August were nearly 10,500 tons, up 67 percent from a similar period a year earlier. However, the bulk of the crop is still used domestically. Smaller supplies and continued strong demand have exerted upward pressure on the market in recent weeks.

### Other Tree Nuts

Domestic production of filberts is expected to total 10,200 tons, 10 percent below last year's crop. However, world production has been estimated at 322,200 tons, up 4 percent. Imports from January through August were well below the year-earlier level but may increase in light of the larger world supplies.

Production estimates for 1972-crop Macadamia nuts from Hawaii are not yet available. Last year a crop of 5,700 tons were produced.

## SPECIAL MARKETING TEAM REPORTS

In January 1972, Secretary Butz established several special study teams within USDA. These teams were instructed to examine problems relating to the marketing of specified agricultural commodities and recommend actions to improve farm prices and net farm income. One team was given responsibility for studying the special problems of the apple industry. Robert

Bohall of the Economic Research Service was designated as team leader. Another team, headed by Norman C. Healy of the Agricultural Marketing Service, was appointed for the canning peach industry. The teams consulted extensively with members of the apple and peach industries and experts in State and Federal governments in making their studies.

The reports of these study teams have now been released. Single copies of the reports may be obtained on request from the Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. The recommendations of each of the fruit industry teams are summarized below:

### Apple Marketing Team Recommendations

#### Priority Recommendations

1. *Quality—U.S. Grades and Standards.*—There is a need to determine the desirability of revising the U.S. Standards for grades of apples to better control quality. The team recommends that changes be made in the following areas:

a. Make condition part of grade in the Standards. With this change, decay, breakdown, and other deterioration developing on apples during storage or in transit would be scored against the grade, as is done for most other fresh produce.

b. Eliminate the U.S. No. 1 grade and other lower grades that are rarely used.

c. Lower color requirements for red and red-striped varieties by 10 percent for Extra Fancy and Fancy grades.

d. Establish national controlled atmosphere (CA) standards for condition.

2. *Legislation.*—Legislation is needed to:

a. Amend the Agricultural Marketing Act of 1937, as amended, and extend to all producing areas the opportunity for marketing orders for fresh apples and apples for processing.

b. Enable the apple industry to respond quickly and effectively to problems created by imports. This would include amending Section 303 of the Tariff Act of 1930, as amended, by deleting the requirement that the imported article be a dutiable one; amending Section 301 of the Trade Expansion Act of 1962 (the so-called "escape clause" provisions) by deleting or modifying the requirements for a Tariff Commission finding that the injury resulting from the increased imports is, *in major part*, a result of a trade agreement concession, amending the Anti-Dumping Act of 1921, as amended, by placing a time limitation on Treasury's investigation of a "dumping" case.

3. *Packaging.*—Research is needed to improve the performance of consumer packages for apples. Improved versions of the polyethylene bag package, including substitute semirigid or rigid consumer packages and suitable shipping containers, should be developed and tested. It is recommended that the USDA (Agricultural

Research Service (ARS) and Economic Research Service (ERS)) along with the land-grant colleges and other universities place increased emphasis on this area as soon as possible.

4. *Market Information.*—Improved marketing information is needed for apples. USDA agencies for information are AMS, ERS, Statistical Reporting Service (SRS), and Foreign Agricultural Service (FAS). Emphasis should be placed on AMS truck shipments data, ERS margins, and SRS objective crop estimates.

5. *U.S. Government Purchases.*—The team recommends early announcement dates of offers to purchase fresh apples and processed apple products under Section 6 (school lunch) and Section 32 (child nutrition and needy persons) programs.

6. *Tree Removal.*—A tree removal program to encourage removal of outdated varieties, old standard trees producing poor quality fruit, and trees serving only as hosts for disease and insects should be considered. The program could be developed under title VIII of the Agricultural Act of 1970 and would be administered by the Agricultural Stabilization and Conservation Service (ASCS). The team recommends that the program be developed on a grower bid basis to provide maximum incentive for evaluating the profitability of specific orchard blocks.

7. *Exports.*—It is recommended that the apple industry should strengthen its export market position by establishing an industry fact-finding team to evaluate the export potential in Latin America and the Far East. Through this assemblage of facts, the U.S. apple industry would be in a better position to judge what tools would be needed to effectively expand exports of fresh apples. This might include the formation of national or regional export associations under the Webb-Pomerene Export Trade Act of 1918.

#### Legislation

1. *Imports.*—The apple industry, in concert with other horticultural industries, should seek legislation that is more responsive to the existence of a threat from foreign imports. Virtually all of the Federal statutes providing import relief require—either in the act itself or through administrative interpretation—a finding of injury, which is more or less a "postmortem" approach. Administrative interpretation has almost consistently refused to accept a threat as a decisive determinant for relief.

2. *State Grades.*—State legislation is needed in 13 States that would eliminate State grades for apples to lessen confusion in trading. (North Carolina amended its Apple Branding Law, effective July 1, 1972, to require all apples sold or offered for sale in closed containers in the State to bear on the container, bag, or other receptacle, the applicable U.S. grade, or be marked "Unclassified," "Not Graded," or "Grade Not Determined.") Other States should be encouraged to have similar laws.)

3. *Labor*.—There is a need for labor legislation that would provide ground rules for collective bargaining between farmworkers and growers such as H.R. 13981 (Quie Bill).

Office of the Special Representative for Trade Negotiations.

## Research

The Marketing team would be remiss if it did not indicate the general feeling of representatives of the apple industry, college and State personnel, USDA employees, and others regarding research needs. The Team recommends that future expansion of research programs in support of the apple industry be in the direction of marketing. The message consistently came across loud and clear that production problems are under reasonable control and that the serious unsolved problems are in marketing. The USDA, in conjunction with State experiment stations, land-grant colleges and other universities, State departments of agriculture, and the industry, should continue to expand research efforts in support of the apple industry. The appropriate USDA agencies that would be involved are listed in parenthesis.

1. *Maturity Indices*.—Objective methods and incies for determining immaturity and ripeness for commercially important varieties need to be developed. This type of research is needed immediately on a regional basis. (ARS and AMS.)

2. *Consumer Needs*.—It is recommended that an indepth appraisal be made of (a) consumer requirements for apples and apple products in the household market; and (b) hotel, restaurant, and institutional requirements of the away-from-home market. Emphasis should be placed on determining the desired characteristics of fresh apples, market potentials for apple juice, and the present and future product forms needed by the away-from-home market. (ERS, SRS, ARS, and other.)

3. *Labor and Mechanical Harvesting*.—Apple harvesting now requires large numbers of workers for a short period of time. There is a need to expand efforts to develop mechanical harvesting systems for the orchards of today and the future.

There is also a need to develop improved cultural systems that will distribute the annual labor requirements for apple production more evenly during the year and encourage fulltime employment of farmworkers.

4. *Coordination*.—Coordinated national research programs for apples are urgently needed and the USDA (CSRS and others) can help in providing leadership and support. Special efforts should be made to encourage States with a national, rather than a regional, interest in an area or commodity, such as apples, to develop coordinated research proposals for funding. There is a need to insure that regional research is being focused on industry problems and not on "like to do" projects with little regard for industry priorities.

5. *Sorting Equipment*.—There is a need to develop and evaluate equipment to detect, grade, and segregate poor-condition apples, including bruised apples and apples with invisible water core. (ARS.)

6. *Processing Prices*.—Research in major processing regions is needed so that the price to growers can be

## Supportive Needs

### 1. *Quality*

a. *National Apple Maturity Committee*.—A National Apple Maturity Committee should be established to act in an advisory capacity to evaluate current or new objective and subjective indices of maturity and methods of predicting proper harvest dates. Representatives from the USDA (AMS and ARS), State experiment stations, and State departments of agriculture should be included.

b. *State Maturity Committees*.—Maturity Committees should be initiated by State departments of agriculture in States where they are not currently operating. Such committees with State and industry representatives would specify general release dates for harvesting major varieties.

c. *State Branding Laws*.—State departments of agriculture should increase surveillance and enforcement of State branding laws, at the retail level, to keep off-quality produce from being sold.

b. *Processing Grades and Standards*.—Improved quality standards should be developed for apples for processing and processed apples, in particular, apple juice.

### 2. *Domestic Demand*

a. *Government Purchase Programs*.—There is a need to take a systematic look at the present distribution of fresh fruit under school lunch and needy persons programs. Emphasis should be placed on determining the adequacy of the system for handling, storing, and maintaining the quality of fruit both in the distribution system and at the local school.

b. *New Product Development*.—It is recommended that an apple product review group should be established to evaluate and explore the feasibility of joint action in developing and commercializing new apple products. Membership would consist of representatives from the USDA (ERS, SRS, and ARS), the landgrant colleges and other universities, and the apple industry.

### 3. *Supply*

a. *Reclamation Projects*.—There is a need to insure that adequate longrun evaluation is made of the agricultural aspects of Bureau of Reclamation projects.

b. *Foreign Labor*.—The Department of Labor should be encouraged to provide continued support and improve avenues for the importation of foreign workers during periods of peak seasonal demand as areas utilizing foreign workers continue to adjust to a changing farm labor situation.

### 4. *Removal of Foreign Trade Barriers*

Efforts toward removal of trade barriers in foreign markets should be intensified. This action can be accomplished through the Department of State and the

better based on quality delivered. This includes studies on raw product sampling techniques, characteristics for optimum processing, and pricing formulas. (ARS.)

7. *Packaging.*—Increased efforts are necessary to develop, test, and adopt improved packaging that considers the total marketing system, is standardized, can be accomplished mechanically, requires less materials, reduces repackaging during marketing, and protects the apple during distribution. (ARS and ERS.)

8. *Retail Handling.*—Studies of apple merchandising practices in supermarkets are needed to determine handling procedures, shelf-life, turnover, and rate of deterioration under different holding conditions. (ARS and ERS.)

9. *Truck Transportation.*—Research is needed to solve problems associated with truck shipments of fresh apples. Emphasis should be placed on mechanical refrigeration, loading patterns, air circulation, shock absorber systems, and loading capacities of trucks. (ARS.)

## Extension

USDA Extension Service personnel, in conjunction with the Cooperative State Extension Service, should provide leadership to develop teams of Federal, State, and industry personnel to set educational goals and assign responsibility to prepare and present materials for well-developed, coordinated, industry-wide educational programs. Several types of programs are needed.

1. *Marketing Specialists.*—The USDA Extension Service and some State extension services should increase the number of fruit marketing specialists. The use of regional fruit marketing specialists should be considered.

2. *Production Management.*—There is a need for nationwide programs for apple growers with emphasis on evaluation of individual orchard blocks, farm labor management, and financial management.

3. *Firm Organization.*—Advice and counsel is needed on the benefits and drawbacks of alternative industry organizations including cooperatives, joint ventures, mutual participation contracts, marketing orders, and bargaining associations.

4. *Quality.*—Improved education programs for growers and fruit handlers are needed to make greater use of existing information on ways to maintain quality.

5. *Retail Handling.*—The team recommends an educational program to train warehouse and retail store workers to properly handle, store, and display loose and consumer-packed apples.

6. *Direct Marketing.*—Additional education programs and materials are needed to aid direct marketers such as roadside stands and pick-your-own operations.

## Industry

State and Federal institutions can help the apple industry in many ways. However, the major improvements in apple marketing will continue to come from

the industry itself. Some of these possibilities are listed below.

1. *Standardization.*—The team recommends that growers through their industry organizations establish packaging committees to standardize containers, reduce the number of apple sizes packed, set minimum performance standards for shipping containers, and evaluate experimental containers.

2. *Promotion.*—It is recommended that the apple industry expand its present promotional programs on two levels: First, its national programs, particularly its consumer-oriented programs, with greater emphasis on good-tasting apples, health, the youth market, the away-from-home market, etc; and second, stronger State and regional programs aimed at retailers, improved coordination to achieve more regional effort as opposed to State-versus-State programs, and stronger regional organization to achieve greater and more equitable participation by many States not presently able to carry their share in promotion programs.

3. *Processor Pricing.*—There is a need for apple processors to establish a variable payments system that reflects the value of higher quality fruit.

4. *School Lunch Contacts.*—The apple industry needs to improve contacts with school lunch managers by (a) having field representatives work with school district agents within States on timing of shipments, proper handling, storage practices, etc. and (b) working with schools at the local level to encourage use of fresh apples and processed apple products.

5. *Juice Apple Production.*—The team feels that the potential of the juice market needs to be evaluated. Producers and research personnel should be encouraged to examine the economic feasibility of producing juice apples.

6. *Labeling.*—All Consumer packages and shipping containers should be labeled with recommended handling and storage instructions for apples. Container marking recommendations of container committees such as that of the Produce Marketing Association should be adopted.

7. *Labor.*—Producers need to reevaluate approaches towards employment of agricultural labor. Over the long run, it will be in the interest of employers to provide year-round employment individually or collectively for their employees.

8. *Communication and Support.*—It is a final recommendation of the team that the apple industry in the future must take greater responsibility and initiative as individuals and through its organizations in solving industry problems. This will include providing guidance, direction, and meaningful support for research, extension, and service programs of both State and Federal Governments. At the same time these institutions should continue to be responsive to the needs of the apple industry and keep communication lines open.

## Canning Peach Marketing Team Recommendations

Intensified research on mechanical harvesting, thinning, and pruning is essential to increase production efficiency.

Researchers should continue their efforts in developing high-flavor varieties of cling peaches that may have more consumer appeal than current varieties and that are also acceptable to growers and canners. State and Federal funds should be provided to help subsidize the high cost of thorough testing of promising varieties in the field, in the cannery, and among consumers.

Tax experts and economists should be assigned by the U.S. Department of Agriculture to study needed changes in the tax structure to eliminate tax shelters that adversely affect farmers.

Research on new and improved peach products and new methods of processing should be expanded. Intensive efforts should be made to encourage the industry to adopt promising research results.

The Food and Drug Administration should be urged to revise its regulations to simplify the introduction and market testing of new products.

USDA should undertake coordinated long-range consumer and institutional market research in cooperation with appropriate industry groups representing canned peaches and other canned fruits.

All canned peaches should be labeled with grade based on U.S. standards oriented to current consumer preferences.

### Clingstone Canning Peaches

State and Federal officials should assume leadership in improving working relationships between growers and processors.

Marketing orders should not be used as a crutch in an attempt to handle chronic surpluses.

Long-term contracts and a procedure for multiyear pricing should be developed.

The raw product grading system should be overhauled to provide a more definitive economic relationship between the quality of the raw product and its price.

The industry generic promotion program should be continued at the present level.

Greater effort should be made to coordinate the generic promotion, with the promotion carried on by individual canners to obtain maximum benefits from the total industry effort.

Promotion efforts should be reevaluated as additional information is gained through market research on consumer preferences and attitudes.

USDA and the California Department of Agriculture should assist the canning cling peach industry in assessing the advantages and disadvantages of establishing an Export Marketing Board to coordinate the marketing of canned peaches in foreign trade.

USDA, through the Foreign Agriculture Service, should continue to make funds available to promote and merchandise canned peaches and canned peach products.

USDA should actively monitor the subsidization practices of foreign governments and take prompt action as necessary to assure that U.S. producers and marketers can compete in world markets for canned peaches on a fair and equitable basis.

### Freestone Canning Peaches

In cooperation with the State experiment stations, the USDA should establish a research team to develop and carryout a coordinated long-term research program on peach tree decline in the Southeast.

The USDA should continue and strengthen its work with the southeastern peach industry to develop improved processing varieties and techniques better adapted to the unique problems of the area.

## Analysis of Apple Prices and Price Spreads

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**Abstract**—“*Analysis of Apple Prices and Price Spreads*”: Washington Red Delicious apple prices increased at all marketing levels between 1960/61 and 1971/72. The shipping point-retail price spread; packing, storage, and selling costs; and returns to Washington growers all increased. Washington growers maintained their share of the consumers' dollars for fresh apples, although their returns were highly variable. Growers of bagged Eastern McIntosh and Midwestern Jonathan apples for the fresh market and of Eastern processing apples for applesauce received less than 20 percent of the consumer's dollar during the past few years.

**Key Words:** Apples, prices, price spreads, costs, margins.

In January 1972, the Secretary of Agriculture appointed a special Apple Marketing Study Team to examine the marketing problems of the apple industry. <sup>1</sup>The team met with industry leaders in a series of regional meetings in the spring of 1972. Retail pricing of apples and marketing margins from growers to retailers were among the hottest issues brought up at each meeting. Many growers believed their returns had not been increasing and that other segment in the marketing system had been taking an increasing proportion of the consumer dollar. Growers felt that all others engaged in marketing apples (shippers, packers, processors, wholesalers, and retailers) were covering their costs of operation, plus a profit. Shippers were equally concerned over retail margins and the effect of markups on sales of their product. Growers and shippers felt the chain retailer was treating fresh apples unfairly by putting higher margins and prices on apples than on other fruits. Thus, the Apple Marketing Team asked the Economic Research Service to do a special analysis of apple prices and price spreads. Attention was focused on both fresh apples and applesauce. Data used were from continuing research on prices and margins of fruits and vegetables. The article presents the results of the analysis.

The results indicate that Washington State growers have maintained their share of the consumer dollar for fresh apples at about 25 percent over the last 12 years, although their returns have been highly variable, depending on the size of the apple crop. Growers of

bagged Eastern McIntosh and Midwest Jonathans for the fresh market and of Eastern processing apples for applesauce received less than 20 percent of the consumer's dollar during the past 2 or 3 seasons. Data on varieties other than Washington Red Delicious were insufficient to determine if their results represent a longrun trend.

### Fresh Apples

Retail prices of fresh apples have increased sharply since 1960. The U.S. average retail price (BLS) of fresh all-purpose apples was 40 percent higher in 1971 than 11 years earlier. Retail prices increased for most apple varieties, and increases were sharper for the more popular varieties. Red Delicious is probably the variety most preferred for fresh use. The season average retail price of Washington Red Delicious apples in New York City was \$4.55 per carton higher in 1971/72 than 11 seasons earlier (Table A).

Both the retail price in New York City and the supply of Washington Red Delicious apples trended upward during the decade. Retail price changes were responsive to seasonal supply changes in 10 of the 11 seasons (top portion, Figure A). Reduced supplies resulted in higher apple prices in 7 seasons, and increased supplies resulted in lower prices in 3 seasons. Increased supplies in 1966/67 did not result in a lower retail price mainly because of much smaller apple crops in other producing areas.

The retail value of a 42-pound tray-packed carton of Washington Red Delicious apples in New York increased 48 percent between 1960/61 and 1971/72, shipping point prices increased 57 percent, and grower returns

<sup>1</sup> Recommendations of the Apple Marketing Team are summarized beginning on page 9 of this report.

Table A.—Apples, Washington Red Delicious: Season average prices, spreads, costs, and returns, New York City, 1960/61-1971/72<sup>1</sup>

Season	Retail price per pound	Retail value per carton <sup>2</sup>	Shipping point-retail spread		Shipping point price (fob) (returns to grower and packer)		Packing storage and selling cost <sup>3</sup>		Grower returns	
			Per carton	Percentage of retail value	Per carton	Percentage of retail value	Per carton	Percentage of retail value	Per carton	Percentage of retail value
	Cents	Dollars	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
1960/61 ...	23.4	9.44	5.38	57	4.06	43	1.75	19	2.31	24
1961/62 ...	23.6	9.50	5.13	54	4.37	46	1.74	18	2.63	28
1962/63 ...	23.0	9.26	5.41	58	3.85	42	1.74	19	2.11	23
1963/64 ...	21.1	8.51	5.15	61	3.36	39	1.74	20	1.62	19
1964/65 ...	24.9	10.03	5.93	59	4.10	41	1.78	18	2.32	23
1965/66 ...	25.8	10.39	5.77	56	4.62	44	1.79	17	2.83	27
1966/67 ...	26.5	10.67	6.21	58	4.46	42	1.80	17	2.66	25
1967/68 ...	29.6	11.93	5.79	49	6.14	51	1.82	15	4.32	36
1968/69 ...	34.0	13.71	6.91	50	6.80	50	2.29	17	4.51	33
1969/70 ...	29.7	11.96	7.70	64	4.26	36	2.34	20	1.92	16
1970/71 ...	33.8	13.64	7.60	56	6.04	44	2.34	17	3.70	27
1971/72 ...	34.7	13.99	7.62	54	6.37	46	2.46	18	3.91	28

<sup>1</sup> Combination Fancy and Extra Fancy, size 138 or larger, 42 pounds net weight per tray-packed carton. Season: October through April, 1960/61 through 1966/67; October through June, 1967/68 through 1971/72. <sup>2</sup> Returns to retailer for salable apples

(4-percent allowance for loss incurred during marketing process). <sup>3</sup> Based on f.o.b. packed price minus equivalent packing-plant-door returns for all Washington apples used fresh.

increased 69 percent (\$1.60) (Table A and bottom portion Figure A). The shipping point-retail spread (payment for marketing services performed beyond the shipping point) increased 42 percent. Packing, storage, and selling costs at the shipping point increased 41 percent.

A simple trend line was fitted to the data contained in Table A. Results indicated that the retail price of Washington State Red Delicious sold in New York City increased an average of 48 cents per carton per year in 1960/61-1971/72. During the same period the shipping point-retail spread increased 25 cents per carton per year; shipping point prices went up 23 cents; packing, storage, and selling costs rose 7 cents; and grower returns on the average rose 16 cents per carton.

Also, the market shares or percentage of retail value going to growers and other market factors remained almost constant over the period. If anything, the grower's share increased slightly. However, their returns are highly variable depending on the supply of apples available.

Comparable prices and spreads for Eastern Red Delicious and Eastern McIntosh were available for only the last 5 season, and for Midwestern Jonathans just 2 seasons later were available. Season average retail prices of Eastern Red Delicious and bagged Eastern McIntosh were 7 to 11 cents per pound lower than Washington Red Delicious in New York City during the 5 seasons (Tables A and B). Seasonal retail price changes were also smaller for both Eastern Red Delicious and McIntosh. The shipping point-retail spread per pound was considerably less for Eastern Red Delicious than for the other 2 varieties. The shipping point-retail spread was less than one-half the retail value of Eastern Red

Delicious and more than one-half for both Washington Red Delicious and Eastern McIntosh in most seasons.

Packing, storage, and selling costs were lower in the East than in Washington State each season. Retail prices of Eastern Red Delicious were lower than for Washington Red Delicious. So despite lower packing, storage, and selling costs and a smaller shipping point-retail spread, grower returns per carton for Eastern Red Delicious were also smaller in 4 of the 5 seasons. However, growers of Eastern Red Delicious received a larger percentage of the retail value than did growers of Washington Red Delicious in all 5 seasons. Grower returns for Eastern McIntosh decreased each season and represented only 9 percent of their retail value in 1971/72. Michigan growers of bagged Jonathans, sold in Chicago, received 17 percent of the retail value in both of the last 2 seasons.

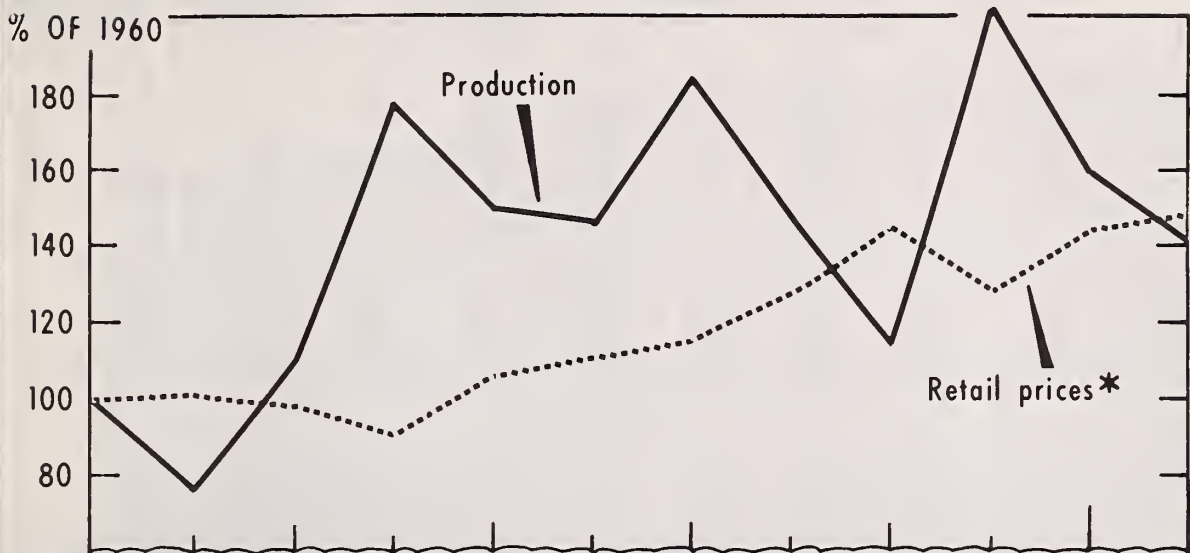
### Applesauce

Prices and margins for applesauce were available for only the last 6 seasons. The retail price of a No. 303 can of applesauce averaged 21.4 cents in Pittsburgh in 1971/72, 4.6 cents higher than in 1965/66. The retail value of a case of 24 cans increased from \$4.04 to \$5.14 (Figure B and Table C). Retail prices increased each year, with larger increases occurring in 1967/68 and 1968/69. Most of the retail price increases were taken by marketing agencies as larger marketing margins. The return to Eastern growers for processing apples in a case of applesauce was only 78 cents in 1965/66 and only 74 cents in 1971/72. Growers received slightly more in intervening years, exceeding \$1.00 per case in 1967/68 and 1968/69. Growers received almost one-fourth of the retail value of canned applesauce in those 2 years, up

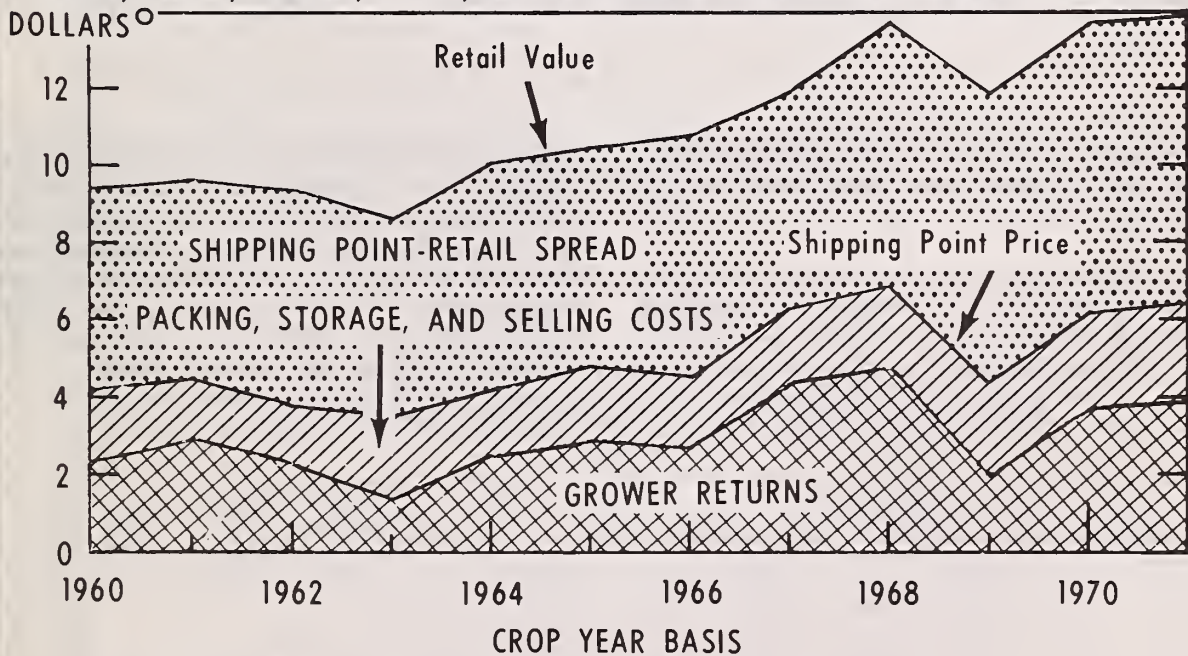


# WASHINGTON RED DELICIOUS APPLES

INDEXES OF PRODUCTION AND RETAIL PRICE IN NEW YORK CITY



PRICE, VALUE, SPREAD, COSTS, AND GROWER RETURNS SOLD IN NEW YORK CITY



\*COMBINATION FANCY AND EXTRA FANCY, SIZE 138 OR LARGER.

○ PER 42-POUND TRAY PACKED CARTON, COMBINATION FANCY AND EXTRA FANCY, SIZE 138 OR LARGER. SOURCE ECONOMIC RESEARCH SERVICE, USDA.

Figure A

Table B.—Apples: Season average prices, spreads, costs, and returns for Eastern Red Delicious and Eastern McIntosh sold in New York City, 1967/68-1971/72, and Midwest Jonathans sold in Chicago, 1970/71-1971/72

Variety and season	Retail price per pound	Retail value per carton <sup>1</sup>	Shipping point-retail spread		Shipping point price (fob) (grower and packer returns)		Packing storage and selling cost <sup>2</sup>		Grower returns	
			Per carton	Percentage of retail value	Per carton	Percentage of retail value	Per carton	Percentage of retail value	Per carton	Percentage of retail value
Eastern Red Delicious <sup>3</sup>	<i>Cents</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>Percent</i>
1967/68 .	22.1	8.91	3.26	37	5.65	63	1.69	19	3.96	44
1968/69 .	25.1	10.12	4.11	41	6.01	59	2.07	20	3.94	39
1969/70 .	22.8	9.18	4.87	53	4.31	47	2.10	23	2.21	24
1970/71 .	22.7	9.16	4.00	44	5.16	56	2.10	23	3.06	33
1971/72 .	23.5	9.48	4.41	47	5.07	53	2.17	23	2.90	30
Eastern McIntosh (bagged) <sup>4</sup>										
1967/68 .	20.9	7.23	3.74	52	3.49	48	1.59	22	1.90	26
1968/69 .	23.8	8.22	4.40	53	3.82	47	1.96	24	1.86	23
1969/70 .	21.7	7.52	4.55	61	2.97	39	1.97	26	1.00	13
1970/71 .	22.9	7.93	5.09	64	2.84	36	1.97	25	.87	11
1971/72 <sup>1</sup>	24.2	8.36	5.52	66	2.84	34	2.05	25	.79	9
Midwest Jonathan (bagged) <sup>4</sup>										
1970/71 .	17.5	6.05	3.24	54	2.81	46	1.79	29	1.02	17
1971/72 .	18.5	6.39	3.47	54	2.92	46	1.87	29	1.05	17

<sup>1</sup>Returns to retailer for salable apples (4-percent allowance for loss incurred during marketing process). <sup>2</sup>Partly estimated. <sup>3</sup>Combination fancy and extra fancy, size 138 and larger, 42

pounds net weight per tray-packed carton. <sup>4</sup>Fancy, 2¼ inches and larger, 12/3-lb. film bags, 36 pounds net weight per master container.

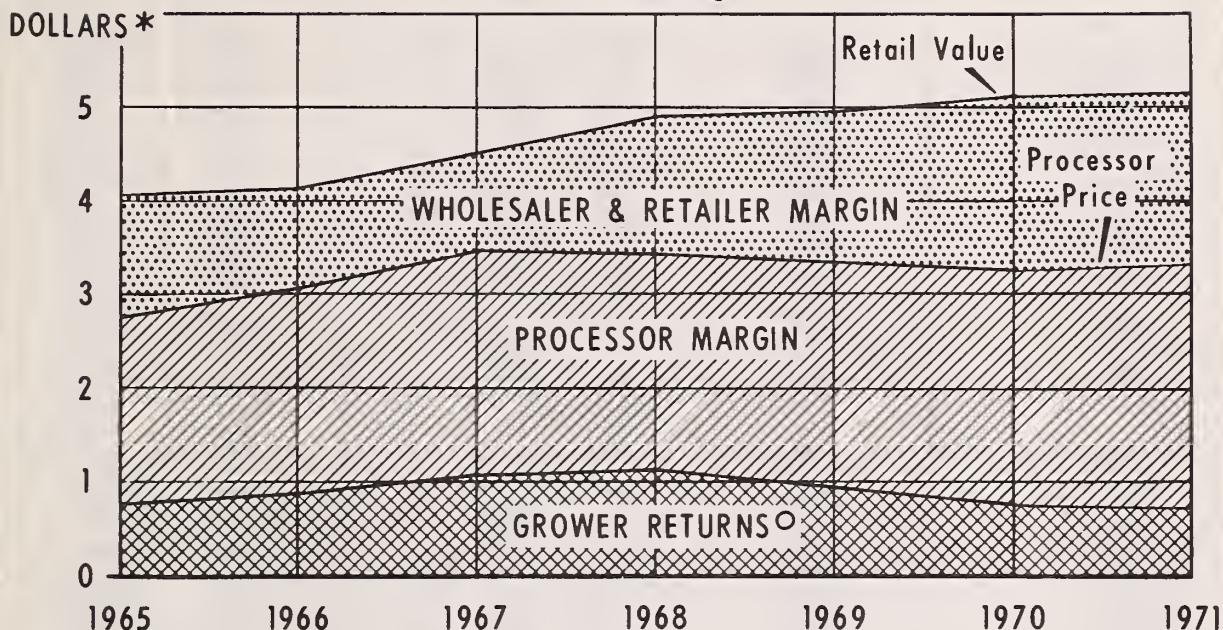
from about 20 percent in the 2 preceding years. Grower returns were 14 percent of the retail value in 1971/72, lowest of the 7 years.

Both the processor margin (the amount received by those who perform the functions of processing, warehousing, and selling) and the wholesaler and retailer margin (the amount received by those who perform the

functions of transporting from the processor to the consuming city, wholesaling or brokerage, intracity transportation, and retailing) per case increased during the 7 years. The processor margin represented about one-half of the retail value of applesauce for each year. The wholesaler and retailer margin per case increased rather sharply after 1967/68 and was more than one-third of the retail value the past 2 seasons.

# CANNED APPLESAUCE

Retail Value, Processor Price, Grower Returns, and Marketing Margins  
Sold in Pittsburgh



\* DOLLARS PER CASE OF 24 NO. 303 CANS, CROP YEAR BASIS. ○ RETURNS FOR 31 POUNDS (FARM WEIGHT) OF APPLES FOR CANNING AND FREEZING RECEIVED BY GROWERS IN N.Y., PA., MD., AND VA. SOURCE ERS, USDA.

Figure B

Table C.—Applesauce, canned: Season average prices, grower returns, and margins per case of 24/303 cans, and grower returns and margins as a percentage of retail price in Pittsburgh, 1965/66-1971/72

Season	Retail price per No. 303 can <sup>1</sup>	Retail value per case of 24/303 cans <sup>1</sup>	Processor price per case of 24/303 cans <sup>1,2</sup>	Grower return <sup>3</sup>		Margin					
						Total		Wholesaler and retailer		Processor	
				Per case	Percentage of retail price	Per case	Percentage of retail price	Per case	Percentage of retail price	Per case	Percentage of retail price
	Cents	Dollars	Dollars	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
1965/66 .	16.8	4.04	2.76	0.78	19	3.26	81	1.28	32	1.98	49
1966/67 .	17.2	4.12	3.06	.88	21	3.24	79	1.06	26	2.18	53
1967/68 .	18.8	4.51	3.49	1.10	24	3.41	76	1.02	23	2.39	53
1968/69 .	20.4	4.90	3.45	1.15	23	3.75	77	1.45	30	2.30	47
1969/70 .	20.5	4.93	3.35	.95	19	3.98	81	1.58	32	2.40	49
1970/71 .	21.3	5.11	3.25	.78	15	4.33	85	1.86	37	2.47	48
1971/72 .	21.4	5.14	3.32	.74	14	4.40	86	1.82	36	2.58	50

<sup>1</sup> Fancy grade. <sup>2</sup> F.o.b. Eastern plants. <sup>3</sup> Returns for 31 pounds (farm weight) of apples for canning and freezing received by growers in New York, Pennsylvania, Maryland, and Virginia.

Table 1.—U.S. fruit and tree nuts: Production, average 1964-68, 1969-71, and indicated 1972

Crop	Average 1964-68	1969	1970	1971	1972
	<i>1,000 tons</i>	<i>1,000 tons</i>	<i>1,000 tons</i>	<i>1,000 tons</i>	<i>1,000 tons</i>
<b>Noncitrus fruit:</b>					
Apples .....	2,872	3,376	3,147	3,055	2,978
Apricots .....	184	231	176	150	132
Cherries, sweet .....	103	127	122	140	94
Cherries, tart .....	140	152	118	139	153
Cranberries .....	72	91	<sup>1</sup> 102	<sup>1</sup> 113	105
Figs .....	58	58	49	44	<sup>2</sup> Jan, 1973
Grapes .....	3,630	3,898	3,119	3,997	2,637
Nectarines .....	65	66	66	69	70
Peaches .....	1,643	1,833	1,508	1,444	1,261
Pears .....	601	712	537	701	599
Prunes and plums .....	563	482	776	558	378
Strawberries <sup>3</sup> .....	244	243	247	259	225
<b>Total .....</b>	<b>10,175</b>	<b>11,269</b>	<b>9,967</b>	<b>10,669</b>	<b><sup>4</sup>8,632</b>
<b>Tree nuts:</b>					
Almonds .....	77	122	124	134	150
Filberts .....	9	7	9	11	10
Pecans .....	102	113	77	124	93
Walnuts .....	88	106	112	137	116
<b>Total .....</b>	<b>276</b>	<b>348</b>	<b>322</b>	<b>406</b>	<b>369</b>
<b>Citrus fruit:<sup>5</sup></b>					
Oranges .....	6,411	8,023	8,223	8,234	<sup>2</sup> Dec.
Grapefruit .....	1,967	2,186	2,472	2,613	<sup>2</sup> Dec.
Lemons <sup>6</sup> .....	612	590	625	634	<sup>2</sup> Nov.
Limes .....	23	29	35	44	50
Tangelos .....	66	113	122	176	171
Tangerines .....	196	185	233	196	177
Templets .....	200	234	225	239	225
<b>Total .....</b>	<b>9,475</b>	<b>11,360</b>	<b>11,935</b>	<b>12,136</b>	<b><sup>2</sup>Dec.</b>

<sup>1</sup>Includes cranberries put in set aside under the cranberry marketing orders. <sup>2</sup>Month indicates crop report containing datum. <sup>3</sup>Alabama, Connecticut, and Maine included in 1964-68

average and excluded in later years. <sup>4</sup>Excluding figs. <sup>5</sup>1969 indicates 1969/70 crop. <sup>6</sup>September-August crop year beginning 1970/71, November-October in earlier season.

Table 2.—Citrus fruits: Production, 1970/71, 1971/72 and indicated 1972/73<sup>1</sup>

Crop and State	1970/71	1971/72	1972/73
	1,000 boxes <sup>2</sup>	1,000 boxes <sup>2</sup>	1,000 boxes <sup>2</sup>
<b>Oranges:</b>			
<b>Early, Midseason and Navel varieties:<sup>3</sup></b>			
California .....	17,900	22,300	27,000
Florida .....	82,100	68,800	92,000
Texas .....	4,000	3,800	4,500
Arizona .....	760	900	1,000
Total .....	104,760	95,800	124,500
<b>Valencias:</b>			
California .....	19,600	21,000	<sup>4</sup> Dec. 1
Florida .....	60,200	68,200	82,000
Texas .....	2,200	2,000	2,300
Arizona .....	2,800	4,000	4,000
Total .....	84,800	95,200	<sup>4</sup> Dec. 1
<b>All Oranges:</b>			
California .....	37,500	43,300	<sup>4</sup> Dec. 1
Florida .....	142,300	137,000	174,000
Texas .....	6,200	5,800	6,800
Arizona .....	3,560	4,900	5,000
Total oranges .....	189,560	191,000	<sup>4</sup> Dec. 1
<b>Grapefruit:</b>			
Florida, all .....	42,900	47,000	45,000
Seedless .....	31,100	36,100	34,000
Pink .....	10,900	12,300	11,000
White .....	20,200	23,800	23,000
Other .....	11,800	10,900	11,000
Texas .....	10,100	9,200	10,400
Arizona .....	2,520	2,540	2,600
California, all .....	5,040	5,100	<sup>4</sup> Dec. 1
Desert Valleys .....	3,260	3,200	3,000
Other areas .....	1,780	1,900	<sup>4</sup> Dec. 1
Total grapefruit .....	60,560	63,840	<sup>4</sup> Dec. 1
<b>Lemons:</b>			
California .....	13,300	13,600	<sup>4</sup> Nov. 1
Arizona .....	3,150	3,080	4,500
Total lemons .....	16,450	16,680	<sup>4</sup> Nov. 1
<b>Limes:</b>			
Florida .....	880	1,100	1,250
<b>Tangelos:</b>			
Florida .....	2,700	3,900	3,800
<b>Tangerines:</b>			
Florida .....	3,700	3,200	2,600
Arizona .....	390	570	700
California .....	1,140	600	700
Total tangerines .....	5,230	4,370	4,000
<b>Temples:</b>			
Florida .....	5,000	5,300	5,000

<sup>1</sup>The crop year begins with bloom of the first year and ends with completion of harvest the following year. <sup>2</sup>Net content of box varies. Approximate averages are as follows: Oranges-California and Arizona, 75 lbs.; other States, 90 lbs.; Grapefruit-California, Desert Valleys, and Arizona, 64 lbs.; other California areas, 67 lbs.; Florida, 85 lbs. and Texas, 80 lbs.; lemons-76 lbs.; Limes-80

lbs.; Tangelos-90 lbs.; Tangerines-California and Arizona, 75 lbs.; Florida, 95 lbs.; and Temples-90 lbs. <sup>3</sup>Navel and Miscellaneous varieties in California and Arizona. Early and Midseason varieties in Florida and Texas, including small quantities of tangerines in Texas. <sup>4</sup>Month indicates crop report containing data.

Table 3.—Six citrus fruits: Production and use, United States, 1967/68 through 1971/72<sup>1</sup>

Fruit and season	Production <sup>2</sup>	Utilization of production			
		Fresh		Processed <sup>1</sup>	
		Quantity	Percentage	Quantity	Percentage
	<i>1,000 tons</i>	<i>1,000 tons</i>	<i>Percent</i>	<i>1,000 tons</i>	<i>Percent</i>
<b>Oranges:</b>					
1967/68 .....	5,436	1,369	25.2	4,067	74.8
1968/69 .....	7,898	1,809	22.9	6,089	77.1
1969/70 .....	8,023	1,790	22.3	6,233	77.7
1970/71 .....	8,223	1,784	21.7	6,439	78.3
1971/72 .....	8,234	1,753	21.3	6,481	78.7
<b>Grapefruit:</b>					
1967/68 .....	1,781	887	49.8	894	50.2
1968/69 .....	2,207	910	41.2	1,297	58.8
1969/70 .....	2,186	951	43.5	1,235	56.5
1970/71 .....	2,472	988	40.0	1,484	60.0
1971/72 .....	2,613	1,080	41.3	1,533	58.7
<b>Lemons:</b>					
1967/68 .....	641	358	55.8	283	44.2
1968/69 .....	600	336	56.0	264	44.0
1969/70 .....	590	356	60.3	234	39.7
1970/71 .....	625	370	59.2	255	40.8
1971/72 .....	634	351	55.4	283	44.6
<b>Limes:</b>					
1967/68 .....	29	14	48.3	15	51.7
1968/69 .....	28	15	53.6	13	46.4
1969/70 .....	29	15	51.7	14	48.3
1970/71 .....	35	16	45.7	19	54.3
1971/72 .....	44	19	43.2	25	56.8
<b>Tangelos:</b>					
1967/68 .....	76	63	82.9	13	17.1
1968/69 .....	81	55	67.9	26	32.1
1969/70 .....	113	63	55.8	50	44.2
1970/71 .....	122	73	59.8	49	40.2
1971/72 .....	176	86	48.9	90	51.1
<b>Tangerines:</b>					
1967/68 .....	163	126	77.3	37	22.7
1968/69 .....	197	136	69.0	61	31.0
1969/70 .....	185	138	74.6	47	25.4
1970/71 .....	233	162	69.5	71	30.5
1971/72 .....	196	134	68.4	62	31.6
<b>Temples:</b>					
1967/68 .....	202	126	62.4	76	37.6
1968/69 .....	202	94	46.5	108	53.5
1969/70 .....	234	127	54.3	107	45.7
1970/71 .....	225	100	44.4	125	55.6
1971/72 .....	239	81	33.9	158	66.1
<b>Total:</b>					
1967/68 .....	8,328	2,943	35.3	5,385	64.7
1968/69 .....	11,213	3,355	29.9	7,858	70.1
1969/70 .....	11,360	3,440	30.3	7,920	69.7
1970/71 .....	11,935	3,493	29.3	8,442	70.7
1971/72 .....	12,136	3,504	28.9	8,632	71.1

<sup>1</sup> 1971/72 preliminary. <sup>2</sup> Production having value.

Data prepared from citrus production and utilization reports, SRS, USDA.

Table 4.—Selected citrus fruits: Use for processing by percentages of total production, Florida and California, 1967/68 through 1971/72

State, variety, and season	1967/68	1968/69	1969/70	1970/71	1971/72 <sup>1</sup>
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
<b>ORANGES:</b>					
Florida:					
Total <sup>2</sup> .....	81.1	88.5	88.7	89.0	90.9
Temple .....	37.8	53.3	45.7	55.4	66.4
Other early and midseason .....	81.7	88.7	89.7	90.0	91.2
Valencia .....	84.3	90.9	91.1	90.4	92.4
California:					
Total .....	38.7	40.5	32.0	31.4	35.1
Navel and miscellaneous .....	39.0	23.3	24.5	18.0	25.6
Valencia .....	38.4	52.9	41.0	43.6	45.3
<b>GRAPEFRUIT:</b>					
Florida:					
Total .....	55.3	64.7	61.9	65.1	63.7
Seedless .....	41.6	52.1	50.9	53.4	53.6
Pink .....	26.5	37.9	34.4	35.5	36.5
White .....	51.5	61.1	60.4	63.1	62.4
Other (seeded) .....	90.7	93.3	94.1	95.9	97.4
<b>TANGERINES:</b>					
Florida:					
Total .....	23.8	31.6	20.6	28.1	30.4

<sup>1</sup>Preliminary. <sup>2</sup>Including Temples.

Table 5.—Oranges and grapefruit processed: Use by type of product, Florida, 1967/68 through 1971/72<sup>1</sup>

Crop and season	Frozen Concentrates	Chilled products		Other porcessed	Total processed
		Juice	Sections and salads		
	<i>1,000 boxes</i>	<i>1,000 boxes</i>	<i>1,000 boxes</i>	<i>1,000 boxes</i>	<i>1,000 boxes</i>
<b>ORANGES:<sup>2</sup></b>					
1967/68 .....	61,970	15,975	837	6,764	85,546
1968/69 .....	92,125	17,843	773	9,350	120,091
1969/70 .....	100,739	18,640	841	8,206	128,426
1970/71 .....	103,521	19,772	703	8,834	132,830
1971/72 .....	104,399	19,509	535	7,726	132,169
<b>GRAPEFRUIT:</b>					
1967/68 .....	1,792	1,288	1,612	13,506	18,198
1968/69 .....	6,550	1,631	1,676	15,976	25,833
1969/70 .....	4,579	1,824	1,158	15,577	23,138
1970/71 .....	6,819	2,348	1,091	17,682	27,940
1971/72 .....	8,725	3,206	994	17,036	29,961
<b>TANGERINES:</b>					
1967/68 .....	491	---	---	175	666
1968/69 .....	944	---	---	129	1,073
1969/70 .....	586	---	---	31	617
1970/71 .....	1,000	---	---	39	1,039
1971/72 .....	961	---	---	11	972

<sup>1</sup>1971/72 preliminary. <sup>2</sup>Includes tangelos, Temples and murcotts.

Table 6.—Citrus fruit for processing: Season average price per box delivered to processing plant, by kind, variety, State, and United States, 1967/68 through 1971/72

Kind, variety and State	1967/68	1968/69	1969/70	1970/71	1971/72 <sup>1</sup>
	<i>Dollars (equivalent packinghouse door returns)</i>				
Oranges:					
Florida:					
Temple .....	1.97	2.01	1.51	1.78	1.85
Other early and midseason .....	2.46	2.33	1.91	1.90	2.85
Valencia .....	2.93	2.59	1.90	2.76	2.95
California:					
Navel and miscellaneous .....	.84	.56	.42	.60	.26
Valencia .....	1.80	.92	1.18	1.22	1.40
Grapefruit:					
Florida:					
Seedless .....	1.75	1.12	2.01	2.31	2.45
Seeded .....	2.03	1.40	2.07	2.35	2.60
Texas .....	1.44	.65	1.05	1.15	1.57
California .....	.80	.45	.68	1.04	.94
Arizona .....	1.00	.65	1.05	.50	.85
Lemons:					
California .....	1.88	1.78	1.86	2.18	1.86
Arizona .....	1.65	1.65	2.05	1.70	1.85
Tangerines:					
Florida .....	2.29	1.82	1.65	1.77	1.65
California .....	1.38	.70	.88	.70	.76
Arizona .....	1.31	1.26	.75	1.00	.50
Tangelos:					
Florida .....	1.64	1.60	1.30	1.35	1.75
Limes:					
Florida .....	2.21	1.80	1.68	1.68	2.00

<sup>1</sup>Preliminary.

Table 7.—Frozen concentrated orange and grapefruit juice: Packs, movement, and stocks, Florida, 1967/68 through 1971/72

Item and season	Beginning stocks	Pack	Imports <sup>1</sup>	Total supply	Season movement	Ending stocks
	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>
Orange: <sup>2</sup>						
1967/68 .....	27,225	83,697	3,644	114,566	101,681	12,885
1968/69 .....	12,885	103,750	4,293	120,928	103,528	17,400
1969/70 .....	17,400	124,947	1,455	143,802	117,236	26,566
1970/71 .....	26,566	125,187	8,557	160,310	137,742	22,568
1971/72 .....	22,568	134,229				
Grapefruit:						
1967/68 .....	2,936	1,814	---	4,750	3,759	991
1968/69 .....	991	5,920	---	6,911	5,482	1,429
1969/70 .....	1,429	4,294	---	5,723	5,256	467
1970/71 .....	467	6,870	---	7,337	6,189	1,148
1971/72 .....	1,148	8,798	---	9,946		

<sup>1</sup> Beginning 1968/69, includes foreign and domestic imports and reprocessed frozen concentrated tangerine juice. <sup>2</sup> 45° Brix in gallons including concentrated orange juice for manufacture.

Prepared from reports of Florida Cannery Association.



Table 8.—Canned citrus products: Packs, movement, and stocks, selected items, Florida, 1967/68 through 1971/72

Item and season <sup>1</sup>	Packers' carryin	Pack	Total supply	Season movement	Packers' carryout
<i>1,000 cases (basis equivalent cases of 24 No. 2 cans)</i>					
<b>CANNED JUICE:<sup>2</sup></b>					
Orange:					
1967/68 .....	2,149	9,817	11,966	10,918	1,048
1968/69 .....	1,048	11,386	12,434	10,443	1,991
1969/70 .....	1,991	11,223	13,214	12,115	1,099
1970/71 .....	1,099	11,599	12,698	11,385	1,313
1971/72 .....	1,313	10,800	12,113	10,341	1,772
Grapefruit:					
1967/68 .....	3,632	13,300	16,932	13,273	3,659
1968/69 .....	3,659	15,445	19,104	17,470	1,634
1969/70 .....	1,634	16,423	18,057	17,249	808
1970/71 .....	808	19,110	19,918	18,335	1,583
1971/72 .....	1,583	20,874	22,457	18,207	4,250
Blend:					
1967/68 .....	768	2,043	2,811	2,287	524
1968/69 .....	524	2,295	2,819	2,384	435
1969/70 .....	435	2,192	2,627	2,332	295
1970/71 .....	295	2,186	2,481	2,088	393
1971/72 .....	393	1,807	2,200	1,877	323
Tangerine:					
1967/68 .....	52	49	101	95	6
1968/69 .....	6	92	98	67	31
1969/70 .....	31	47	78	57	21
1970/71 .....	21	35	56	38	18
1971/72 .....	18	16	34	31	3
<b>CANNED FRUIT:</b>					
Grapefruit sections:					
1967/68 .....	895	3,412	4,307	3,670	637
1968/69 .....	637	3,396	4,033	3,510	523
1969/70 .....	523	3,325	3,848	3,169	679
1970/71 .....	679	3,300	3,979	3,353	626
1971/72 .....	626	2,574	3,200	2,790	410
Citrus salad and sections:					
1967/68 .....	163	342	505	358	147
1968/69 .....	147	299	446	338	108
1969/70 .....	108	297	405	313	92
1970/71 .....	92	234	326	244	82
1971/72 .....	82	262	344	203	141

<sup>1</sup> Season beginning October 1, approximately. <sup>2</sup> Single strength.

Prepared from reports of Florida Canners Association.

Table 9.—Chilled citrus products: Packs, movement, and stocks, Florida, 1967/68 through 1971/72

Item and season <sup>1</sup>	Beginning stocks	Pack <sup>2</sup>	Total supply	Season movement	Ending stocks
	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>
<b>Orange juice, s.s.:</b>					
1967/68 .....	11,766	98,305	110,071	98,064	12,007
1968/69 .....	12,007	94,479	106,486	93,882	12,604
1969/70 .....	12,604	107,940	120,544	106,064	14,480
1970/71 .....	14,480	112,388	126,868	112,090	14,778
1971/72 .....	14,778	116,970	131,748	111,756	19,992
<b>Grapefruit juice, s.s.:</b>					
1967/68 .....	1,062	6,065	7,127	6,300	827
1968/69 .....	827	7,719	8,546	7,479	1,067
1969/70 .....	1,067	9,430	10,497	10,128	369
1970/71 .....	369	12,949	13,318	12,394	924
1971/72 .....	924	17,358	18,282	15,261	3,021
<b>Grapefruit sections:</b>					
1967/68 .....	402	2,294	2,696	1,982	714
1968/69 .....	714	1,988	2,702	2,005	697
1969/70 .....	697	1,992	2,689	2,157	532
1970/71 .....	532	2,038	2,570	1,976	594
1971/72 .....	594	1,784	2,378	2,057	321
<b>Orange sections:</b>					
1967/68 .....	343	1,290	1,633	1,246	387
1968/69 .....	387	807	1,194	996	198
1969/70 .....	198	1,611	1,809	1,132	677
1970/71 .....	677	962	1,639	968	671
1971/72 .....	671	819	1,490	1,063	427
<b>Citrus salad:</b>					
1967/68 .....	1,202	5,601	6,803	5,950	853
1968/69 .....	853	5,608	6,461	5,403	1,058
1969/70 .....	1,058	4,929	5,987	4,903	1,084
1970/71 .....	1,084	4,535	5,619	4,644	975
1971/72 .....	975	3,822	4,797	4,485	312

<sup>1</sup>Season beginning October 1, approximately. <sup>2</sup>Packs of chilled juices include products of fresh fruit and frozen concentrate and excludes reprocessed single strength bulk.

Prepared from reports of Florida Cannery Association.

Table 10.—Citrus fruit: United States exports of selected fresh and processed items, by areas of destination, 1966/67-1970/71<sup>1</sup>

Item and season	Canada	Europe				Other	Total
		United Kingdom	Common Market	Other	Total		
	<i>1,000 boxes<sup>2</sup></i>	<i>1,000 boxes<sup>2</sup></i>	<i>1,000 boxes<sup>2</sup></i>	<i>1,000 boxes<sup>2</sup></i>	<i>1,000 boxes<sup>2</sup></i>	<i>1,000 boxes<sup>2</sup></i>	<i>1,000 boxes<sup>2</sup></i>
<b>Fresh fruit:</b>							
<b>Oranges<sup>3</sup>:</b>							
1966/67 .....	5,101	231	2,143	752	3,126	1,560	9,787
1967/68 .....	3,361	6	273	21	300	960	4,621
1968/69 .....	4,507	75	2,129	259	2,463	1,813	8,783
1969/70 .....	4,628	132	1,298	209	1,639	2,159	8,426
1970/71 .....	4,638	112	992	108	1,212	1,974	7,824
<b>Grapefruit:</b>							
1966/67 .....	2,486	35	661	117	813	44	3,343
1967/68 .....	1,826	8	377	71	456	53	2,335
1968/69 .....	2,498	10	380	40	430	72	3,000
1969/70 .....	2,279	7	434	62	503	96	2,878
1970/71 .....	2,180	10	314	27	351	158	2,689
1971/72 .....	2,087	30	438	27	495	2,435	5,017
<b>Lemons and limes:</b>							
1966/67 .....	443	78	1,466	369	1,913	1,022	3,378
1967/68 .....	449	46	1,413	314	1,773	1,236	3,458
1968/69 .....	500	23	999	249	1,271	1,289	3,060
1969/70 .....	436	51	1,222	341	1,614	1,687	3,737
1970/71 .....	455	39	1,121	349	1,509	1,889	3,853
	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>	<i>1,000 gallons</i>
<b>Canned juice, s.s.:</b>							
<b>Orange:</b>							
1966/67 .....	6,321	198	2,589	1,346	4,133	652	11,106
1967/68 .....	5,455	29	3,740	3,272	7,041	690	13,186
1968/69 .....	4,337	14	2,034	2,215	4,263	683	9,283
1969/70 .....	4,781	80	2,987	3,461	6,528	825	12,134
1970/71 .....	5,017	137	3,015	2,123	5,275	639	10,931
<b>Grapefruit:</b>							
1966/67 .....	2,233	235	1,968	742	2,945	180	5,358
1967/68 .....	2,344	6	1,476	442	1,924	204	4,472
1968/69 .....	3,066	5	1,524	410	1,939	221	5,226
1969/70 .....	3,448	50	1,303	239	1,592	1,009	6,049
1970/71 .....	3,182	136	1,291	229	1,656	281	5,119
<b>Orange juice concentrate:</b>							
<b>Hot pack:</b>							
1966/67 .....	139	---	363	197	560	259	958
1967/68 .....	122	---	278	137	415	187	724
1968/69 .....	115	---	315	155	470	185	770
1969/70 .....	157	81	688	336	1,105	378	1,640
1970/71 .....	111	47	616	387	1,050	256	1,417
<b>Frozen:</b>							
1966/67 .....	2,942	487	573	215	1,275	201	4,418
1967/68 .....	2,804	440	533	272	1,245	177	4,226
1968/69 .....	2,919	377	379	359	1,115	193	4,227
1969/70 .....	3,552	505	945	612	2,062	202	5,816
1970/71 .....	3,836	526	719	2,424	3,669	203	7,708

<sup>1</sup> Season beginning September 1 for fresh grapefruit; November 1 for all other items. <sup>2</sup> Box weights, pounds: Oranges, 70; grapefruit, 80; lemons, 76. Figures revised for these weights.

<sup>3</sup> Includes tangerines.

Table 11.—Fresh and processed citrus fruits: Average retail prices, selected cities, United States, by months, 1967-72

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
<b>FRESH</b>												
Oranges (dozen):												
1967 .....	73.9	71.3	70.3	70.2	71.9	71.8	73.7	77.5	83.5	89.4	84.1	86.2
1968 .....	89.6	71.7	93.5	90.1	92.8	90.3	94.3	103.0	109.3	111.9	106.2	86.0
1969 .....	83.0	82.7	82.9	82.5	82.4	81.9	83.5	86.6	86.2	86.1	86.4	81.6
1970 .....	78.7	80.6	81.2	79.2	80.1	83.6	87.8	90.5	91.9	99.0	94.5	89.7
1971 .....	83.9	86.8	87.7	87.5	91.2	93.8	96.5	101.5	103.7	102.9	98.8	96.3
1972 .....	92.9	91.7	91.2	88.2	88.7	92.7	95.4	101.3				
Grapefruit (each):												
1967 .....	12.4	12.1	11.6	11.8	12.0	12.9	14.4	16.5	17.0	15.3	13.5	13.7
1968 .....	13.8	14.0	14.2	14.9	16.6	17.2	17.5	18.5	18.7	20.4	18.1	15.0
1969 .....	14.0	13.9	13.2	13.2	13.5	14.1	15.3	19.1	20.2	18.0	14.1	13.9
1970 .....	14.1	14.9	14.7	14.9	15.7	18.6	21.1	20.9	20.4	18.6	14.6	13.9
1971 .....	13.8	14.3	14.6	15.9	16.6	20.2	22.7	23.8	23.2	20.8	17.1	16.3
1972 .....	16.3	16.3	16.7	16.4	17.7	19.5	20.5	24.2				
Lemons (pound):												
1967 .....	25.2	24.3	24.5	24.3	24.0	23.2	23.2	23.4	24.4	25.8	26.9	26.7
1968 .....	27.6	27.3	27.0	27.5	27.5	26.7	25.9	26.0	25.9	26.2	27.0	26.0
1969 .....	27.0	28.3	28.2	28.3	28.1	28.5	28.6	29.5	29.5	30.8	31.3	31.8
1970 .....	31.6	31.1	31.5	31.0	30.9	30.3	29.9	30.6	31.2	32.1	32.5	31.9
1971 .....	31.9	32.4	32.5	32.8	32.9	32.9	33.2	32.8	32.7	33.1	33.4	33.8
1972 .....	34.1	34.5	34.6	34.6	34.6	34.4	33.7	34.6				
<b>CHILLED JUICE</b>												
Orange (quart):												
1967 .....	39.6	38.1	37.3	36.3	35.8	35.7	35.9	35.2	35.5	35.9	36.8	37.5
1968 .....	38.6	39.3	39.7	40.4	41.2	41.3	41.7	42.3	43.5	42.8	42.8	43.1
1969 .....	43.0	43.3	44.4	45.1	44.9	45.2	45.0	45.2	45.3	45.3	45.2	45.0
1970 .....	44.5	44.6	44.6	44.3	44.3	44.0	44.3	44.6	44.2	44.5	44.3	43.9
1971 .....	43.6	42.8	42.8	43.7	44.6	45.2	46.2	46.7	47.1	47.0	47.3	47.5
1972 .....	47.4	47.4	47.4	47.6	47.4	47.4	47.4	47.8				
<b>FROZEN</b>												
Concentrated orange juice (6-oz. can):												
1967 .....	22.8	19.8	19.3	18.3	18.2	17.9	17.0	17.6	17.6	17.6	18.0	19.3
1968 .....	19.4	19.9	20.1	20.6	21.0	21.2	21.4	21.4	21.7	22.1	22.3	22.2
1969 .....	22.6	23.1	24.3	24.9	25.3	24.6	24.5	24.4	24.2	23.9	23.7	23.7
1970 .....	23.5	23.5	22.8	22.5	22.5	22.5	22.3	22.4	22.3	21.9	21.8	21.6
1971 .....	21.5	21.6	21.6	22.1	22.3	23.2	23.9	24.5	25.0	25.0	24.9	24.9
1972 .....	24.9	25.0	25.1	25.1	25.0	24.9	25.0	24.9				
Concentrated lemonade (6-oz. can):												
1967 .....	12.6	12.6	12.6	12.6	12.4	12.2	12.0	11.9	12.0	12.2	12.4	12.5
1968 .....	12.4	12.6	12.6	12.6	12.4	12.3	11.9	12.1	12.1	12.4	12.4	12.5
1969 .....	12.4	12.5	12.5	12.6	12.7	12.6	12.4	12.7	12.8	12.8	12.9	13.0
1970 .....	13.1	13.1	13.2	13.3	13.4	13.2	13.0	13.1	13.0	13.3	13.4	13.6
1971 .....	13.6	13.7	13.7	13.8	13.8	13.9	13.9	14.0	14.1	14.2	14.1	14.3
1972 .....	14.3	14.4	14.4	14.4	14.3	14.3	14.1	14.1				

Data from Bureau of Labor Statistics, U.S. Department of Labor.

Table 12.—Apples, commercial crops<sup>1</sup>: Production, 1970, 1971, and indicated 1972

State and area	1970	1971	1972	State and area	1970	1971	1972
	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>		<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>
<b>Eastern States:</b>				<b>Central States cont'd:</b>			
New England .....	316.9	337.4	305.6	Iowa .....	14.0	10.6	14.6
New York .....	945.0	925.0	850.0	Missouri .....	56.2	56.2	60.0
New Jersey .....	99.0	110.0	95.0	Kansas .....	11.6	15.0	9.0
Pennsylvania .....	510.0	505.0	400.0	Kentucky .....	16.4	19.4	15.5
Delaware .....	12.0	12.0	12.0	Tennessee .....	9.0	9.4	8.5
Maryland .....	69.0	69.0	57.0	Arkansas .....	7.7	8.6	7.9
Virginia .....	463.0	480.0	450.0	Total .....	1,220.0	1,270.7	1,243.5
West Virginia .....	242.0	275.0	210.0				
North Carolina .....	223.0	185.0	250.0	<b>Western States:</b>			
South Carolina .....	13.0	15.0	20.0	Idaho .....	60.0	90.0	40.0
Total .....	2,892.9	2,913.4	2,649.6	Colorado .....	63.0	74.0	6.0
				New Mexico .....	25.5	12.0	3.0
<b>Central States:</b>				Utah .....	27.5	25.0	5.0
Ohio .....	135.0	150.0	135.0	Washington .....	1,390.0	1,200.0	1,450.0
Indiana .....	83.0	90.0	75.0	Oregon .....	115.0	125.0	99.0
Illinois .....	94.1	103.0	100.0	California .....	500.0	400.0	460.0
Michigan .....	710.0	720.0	720.0	Total .....	2,181.0	1,926.0	2,063.0
Wisconsin .....	58.0	65.0	72.0				
Minnesota .....	25.0	23.5	26.0	United States .....	6,293.9	6,110.1	5,956.1

<sup>1</sup> In orchards of 100 or more bearing trees.

Table 13.—Tree nuts: Production in principal States; 1970, 1971, and indicated 1972

Crop and State	1970	1971	1972	Crop and State	1970	1971	1972
	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>		<i>Tons</i>	<i>Tons</i>	<i>Tons</i>
<b>Almonds:</b>				<b>Pecans:</b>			
California .....	124,000	134,000	150,000	North Carolina .....	550	3,250	300
				South Carolina .....	450	5,500	500
<b>Filberts:</b>				Georgia .....	27,000	45,000	27,500
Oregon .....	8,750	11,000	9,900	Florida .....	1,700	2,000	2,250
Washington .....	510	370	300	Alabama .....	7,500	18,500	12,000
2 States .....	9,260	11,370	10,200	Mississippi .....	2,950	8,000	5,000
<b>Walnuts:</b>				Arkansas .....	2,300	3,750	2,100
English:				Louisiana .....	7,250	14,000	6,500
California .....	108,000	135,000	115,000	Oklahoma .....	4,000	9,500	1,750
Oregon .....	3,800	2,000	1,400	Texas .....	19,000	12,000	32,500
2 States .....	111,800	137,000	116,400	New Mexico .....	4,600	2,100	2,750
				Total .....	77,300	123,600	93,150
<b>Macadamia nuts:</b>				Improved varieties <sup>1</sup> .....	40,760	71,550	45,825
Hawaii .....	6,608	5,700	N.A.	Native and seedling .....	36,540	52,050	47,325
				Total 5 tree nuts .....	328,968	411,670	---

<sup>1</sup> Budded, grafted, or topworked varieties. N.A.—Data not available temporarily.

Table 14.—Canned noncitrus fruits: Cannery carryin, pack, and supplies, current season, with comparisons

Item and season <sup>1</sup>	Carryin	Pack	Total supply	Item and season <sup>1</sup>	Carryin	Pack	Total supply
	<i>1,000 equivalent cases, 24 No. 2½'s</i>				<i>1,000 equivalent cases, 24 No. 2½'s</i>		
Total—6 items:				Fruit cocktail: <sup>2</sup>			
1968/69 .....	8,024	56,599	64,623	1968/69 .....	2,836	16,570	19,406
1969/70 .....	11,764	60,264	72,028	1969/70 .....	3,316	16,686	20,002
1970/71 .....	<sup>3</sup> 14,765	45,878	60,643	1970/71 .....	<sup>3</sup> 3,426	13,081	16,507
1971/72 .....	13,463	42,475	55,938	1971/72 .....	3,453	13,334	16,787
1972/73 .....	10,137	40,141	50,278	1972/73 .....	4,336	12,051	16,387
Apricots: <sup>2</sup>				Peaches, California Clingstone:			
1968/69 .....	970	4,513	5,483	1968/69 .....	3,051	29,867	32,918
1969/70 .....	1,037	5,543	6,580	1969/70 .....	5,637	31,479	37,116
1970/71 .....	<sup>3</sup> 2,067	3,766	5,833	1970/71 .....	<sup>3</sup> 7,375	24,878	32,253
1971/72 .....	1,696	3,262	4,958	1971/72 .....	6,763	21,839	28,602
1972/73 .....	561	3,041	3,602	1972/73 .....	3,890	21,494	25,384
Cherries, RSP:				Peaches, California Freestone:			
1968/69 .....	25	1,132	1,157	1968/69 .....	962	3,986	4,948
1969/70 .....	100	1,505	1,605	1969/70 .....	1,562	4,104	5,666
1970/71 .....	152	978	1,130	1970/71 .....	<sup>3</sup> 1,415	2,512	3,927
1971/72 .....	102	1,041	1,143	1971/72 .....	1,064	2,463	3,527
1972/73 .....	243	1,299	1,542	1972/73 .....	792	1,863	2,655
Cherries, sweet:							
1968/69 .....	180	531	711				
1969/70 .....	112	947	1,059				
1970/71 .....	<sup>3</sup> 330	663	993				
1971/72 .....	385	536	921				
1972/73 .....	315	393	708				

<sup>1</sup>Season beginning July 1 for RSP cherries and June 1 for all other items. <sup>2</sup>California only. <sup>3</sup>1970/71 cannery carryin excludes cyclamate packs.

Prepared from reports of National Cannery Association and Cannery League of California.

Table 15.—Stocks of frozen fruits: End of September, 1970, 1971, and 1972

Frozen fruit	1970	1971	1972
	<i>Thousand pounds</i>	<i>Thousand pounds</i>	<i>Thousand pounds</i>
Apples .....	58,072	39,580	23,421
Apricots .....	15,536	12,994	14,596
Blackberries .....	26,792	21,076	21,303
Blueberries .....	33,316	31,311	33,184
Boysenberries .....	8,686	6,251	4,125
Cherries .....	108,965	123,489	122,150
Grapes .....	3,532	4,441	3,528
Peaches .....	56,992	51,621	42,678
Raspberries, Red .....	24,038	20,611	16,256
Raspberries, Black .....	3,880	2,455	2,306
Strawberries .....	218,937	194,367	148,725
Other frozen fruits .....	105,467	107,562	97,305
Total frozen fruits .....	664,213	615,758	529,577

## OUTLOOK CONFERENCE SCHEDULED FOR FEB. 20-22, 1973

The 1973 National Agricultural Outlook Conference has been set for Feb. 20 through 22, at the U.S. Department of Agriculture in Washington, D.C.

Central theme of the Conference will be "The Future Structure of Agricultural Production and Marketing." Such topics as the long-range expansion of demand for agricultural products, input requirements of the food industry, significant trends in organization and control of the food and fiber sector of the economy, impact of environmental developments on agricultural production and marketing, and future

developments in the export market will be explored in depth.

The 1973 outlook for U.S. agriculture and the general economy will receive particular attention at the Conference. Sessions on the 1973 outlook for major commodities and rural family living will make up an important part of the Conference as usual. The Conference, sponsored by USDA's Economic Research Service and Extension Service, will feature presentations and panel discussions by leading authorities in agriculture and business.

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## SPECIAL ARTICLE

### Analysis of apple prices and price spreads

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