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## Overview

### Higher Vegetable Prices In Prospect

Through mid-1984, prices of most vegetables and vegetable crops will average above the previous year's relatively low levels. Increased consumer demand because of the economic recovery and reduced supplies of some items will push prices up.

The economic recovery has pushed up 1983 demand for food. The physical quantity of grocery store sales through August was up moderately, while sales by eating and drinking places posted even more robust gains. Vegetables, especially fresh, shared in the increased food demand. Also, strong restaurant sales boosted the gain in disappearance of frozen potato products during first-half '83. Use of fresh potatoes and other processed vegetables has also risen.

Next year's economic growth is forecast to top 1983, although the year-to-year gain in 1984 masks a quarterly pattern of decelerating recovery. Nevertheless, these gains portend a modest and gradual strengthening of demand for agricultural products through 1984.

Higher inflation and interest rates are also forecast for 1984, which would partially offset the higher prices and cash returns to farmers because of the strengthened demand. In addition, increased inflation could further boost retail prices because of its effects on marketing costs. Those costs account for about 70 percent of the retail value of fresh vegetables and about 80 percent of processed.

### Drought Has Small Impact On Total Supplies

Weather in 1983 has been one of extremes, with El Nino causing a wet, cool spring that disrupted spring fresh vegetable supplies and delayed planting of summer crops in many areas. Then the worst drought in more than 50 years reduced production in many areas of the Southeast, Northeast, and Midwest. However, the cumulative impact of this year's aberrant weather on total vegetable supplies has been relatively small. With respect to fresh vegetables, the drought's effects were blunted because of the large volumes produced in California, while the scattered nature of potato production limited the drop in the fall crop. However, the weather did contribute to the reduced output of sweetpotatoes, production of which is concentrated in the Southeast. In addition, the drought added to the lower production of processing vegetables in the Midwest, but generally higher carryover stocks will ensure adequate supplies for most items through the 1983/84 season.

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The 1984 weather outlook is, of course, uncertain. But nearly every year a major climatic event influences production. Examples include Florida freezes, El Nino, and drought. However, the heavy spring rains and big 1983 snowpack in the Western States ensure adequate water for irrigation needs in that region.

### Consumption Trends and Highlights

Total per capita consumption of vegetables during 1982 totaled 220.9 pounds (farm-weight equivalent, excluding potatoes and sweetpotatoes), compared with 214.8 in 1981 and 212.9 in 1972. Fresh consumption propelled the gain in 1982, which was 10 pounds more than in 1972 and the highest since 1952. Dietary concerns and the mass-adoption of salad bars by restaurants have spurred the gain in consumption. This year's consumption may decline slightly because of production setbacks, although larger imports may be partially offsetting.

Canned consumption is apparently losing out to fresh. Although 1982 consumption, at 47.9 pounds per person (product weight) was up slightly from 1981, it totaled 8 pounds less than in 1972. Almost all of the vegetables used as side dish items have declined, partly because of concern for salt intake, but also because Americans now consume fewer dishes per meal while frozen french fries have heavily replaced processed vegetables in the restaurant trade. Tomatoes and tomato products have typically maintained their mid-1970's consumption levels because of the popularity of Italian, Mexican, and other ethnic foods. Consumption for 1983 may increase slightly because of gains for tomatoes and tomato products.

Frozen vegetable consumption has grown only slowly over time. Increased use of broccoli and sweet corn have provided most of the growth in recent years. This year's consumption will probably post a strong gain, as large supplies and steady prices have encouraged use.

The recent trends in consumer preferences and most scientific research and dietary guidelines seem to favor more fresh consumption at the expense of processed. These factors, however, have spurred the processed industry into action. The National Frozen Vegetable Council has been formed by some processors to promote its products, while the Wisconsin Canned Vegetable Council has hired a new agency to promote the virtues of private label canned vegetables. Furthermore, a special advertising supplement (reviewed and approved by the American Dietetic Association) in a recent Time magazine attempted to debunk some supposed myths about the nutrition value of processed vegetables.

Per capita consumption of potatoes during 1982 totaled 114.4 pounds (fresh-weight equivalent), up from 112.9 in 1981, but still about 4 pounds less than the 1973-82 average. Fresh use rose to 48.6 pounds from 1981's alltime low, while processed use rose slightly. A strong gain in consumption of potato chips with smaller rises in dehydrated and canned products offset the slight decline in frozen potato product usage to boost the processed total. For 1983, both fresh and processed potato consumption will likely rise.

Since 1960, the proportion of fresh consumption to the total has declined from over 75 percent to 42 percent in 1981 and 1982. This reflects increased away from home consumption and demand for convenience foods that has occurred because of higher real incomes and the increase of women in the labor force. Frozen potato product consumption has gained the most from this change, which in turn was aided by the advent and maturity of fast-food restaurants. Although the product weight of per capita potato consumption has declined, the fresh-weight equivalent has risen.

Among other crops, consumption of sweetpotatoes has displayed no discernible trend over the past decade, while the use of pulses has declined. Mushroom consumption has been rising because of the popularity of the fresh form.

### Commodity Outlook

#### Fresh Vegetables

Production of fresh vegetables and melons during 1983 will likely fall slightly from last year's record output. Increased production during the winter and summer quarters will partially offset the declines in spring and fall output. A substantial drop in onion production contributed the most to the decline.

The depressed grower and retail prices of second-half 1982 carried into early 1983. But the wet spring weather in the major supply areas reduced supplies and boosted prices sharply from a year earlier. Summer shipments of fresh vegetables rose from a year ago, but grower and retail prices also gained substantially. The concomitant rises in vegetable supplies and prices suggest that higher consumer income because of the economic recovery has strongly increased the demand for fresh vegetables and probably contributed the most to the higher prices. This year's weather patterns may have also reduced home garden output, creating extra demand for commercially-produced vegetables.

For all of 1983, the grower price index for fresh vegetables will average about 6 percent higher than in 1982, while the retail price index will rise about 4 percent.

For 1984, the supply and demand factors point to likely gains in supplies and consumption of fresh vegetables, and a rise of 5 to 10 percent in both grower and retail prices. In brief, the following will affect the supply, demand, and prices of fresh vegetables during 1984:

① Consumers' income--Consumers' incomes and consumption expenditures are expected to rise more than in 1983. This could continue the strong fresh vegetable demand that has characterized second-half 1983 and buoy 1984 grower and retail prices.

② Tastes and preferences--The trend toward larger fresh vegetable consumption does not yet appear to have ended. Recent scientific research and dietary guidelines favor fresh. Also, restaurants continue to add salad bars, and promote them as well. The nation's leading fast-food chain, one of the last bastions of "non-salad bar" restaurants, is now test marketing salad bars. Also, many retail grocery stores are now offering salad bars.

- o Imports--Larger Mexican acreage and the peso/dollar exchange rate will likely favor Mexican shipments into the U.S. during first-half 1984 at levels somewhat greater than in 1983.
- o Weather--Weather always plays a primary role in determining supplies.
- o Pests--A recurrence of a whitefly infestation in the desert production areas of California and Arizona could disrupt early 1984 lettuce supplies.
- o Marketing costs--In general, marketing cost increases tend to follow the rate of inflation, which is expected to increase slightly next year. Railroads have reemphasized piggyback transportation of fresh produce. This competition with trucks could temper transportation cost rises next year.
- o Past price trends--Over time, the rate of inflation has explained well over 90 percent of the annual variation in fresh vegetable prices.

### Processed Vegetables

This year's contract production of four major processing vegetables (snap beans, sweet corn, green peas, and tomatoes) fell 9 percent from 1982. Production of all four crops declined. With respect to the side-dish items (beans, corn, and peas), processors, especially freezers, contracted for fewer acres this year because of large 1982/83 supplies, while this year's damp spring and the summer drought contributed to lower yields. Total output of the three crops dropped 18 percent. Although tomato processors had actually raised their 1983 contract tonnage, early and late season rains reduced yields from 1982's record-highs to leave total contract production at 6.8 million tons, compared with 7.1 million in 1982. The wet spring also cut back on the production of broccoli and spinach, but broccoli production and frozen stocks have recovered.

The reduced production of processing vegetables will translate into smaller packs for most items and leave total 1983/84 supplies down from 1982/83. Increased carryover stocks will mitigate the effects of the reduced packs, though.

Canned supplies will decline the most because of sharp reductions in the three major side-dish items--snap beans, sweet corn, and green peas. This year's combined pack of those items will likely total 110 to 120 million cases (basis 24/303), compared with 133.2 in 1982, and the lowest total since 1964. However, because of lower combined carryin stocks, the drop in total supplies of the three items will be greater than the pack decreases. Supplies of canned tomatoes, tomato juice, beets, carrots, and sauerkraut should approach last year's because of higher carryin holdings. Overall, 1983/84 canned supplies will total 6 to 10 percent less than in 1982/83.

Total frozen supplies for 1983/84 will decline only slightly from 1982/83's alltime high, largely because of a 75 percent rise in the carryover. Despite the substantial decline in the packs, 1983/84 supplies will likely fall only 2 to 4 percent from 1982/83, and be about 15 percent above the average for the previous five years. The combined supplies of snap beans, sweet corn, and green peas will be down by a similar percentage as the total.

Despite the reduced processed vegetable supplies for 1983/84, sharp runups of the leading price indexes are unlikely for several reasons. The large frozen vegetable supplies should continue the pattern of stable prices well into 1984 for most frozen items that has prevailed since fall 1982. In addition, the relatively ample stocks of most canned vegetables, especially tomatoes and tomato products will limit price rises. Even though the combined supply of canned beans, corn, and peas will be the smallest in recent memory, per person use of these items has declined in the past decade, which could temper price gains of these items. Also, there may be some substitution of frozen and/or fresh vegetables for those canned items in short supply. Finally, the farm value of most processing vegetables probably declined this year. This, combined with slower rises in marketing costs that accompanies reduced inflation, will ease some of the upward pressure on processed vegetable prices.

For all of 1983, the retail price index for processed vegetables will average about 1 percent higher than in 1982, the smallest rise since the index declined in 1975. The index will probably post a rise of 5 to 9 percent in 1984.

#### Potatoes

The 1983 fall potato crop is estimated at 293 million cwt, 5 percent less than a year ago. Low prices from the 1982 crop and a reduced contracting by some processors lowered acreage, while this year's average yield of 278 cwt is 5 cwt less than a year ago.

Substantial acreage and yield declines lowered the Eastern States output by 19 percent to the lowest regional total in recent memory. Maine barely retained its standing as the third leading producer, as its crop is the lowest since 1927. The Central States' production fell 2 percent, as larger production in the Dakotas did not offset acreage and weather affected cutbacks in other States. Although the Western States' crop declined slightly, their share of fall production rose to 65 percent. Average yields increased but were offset by lower acreage. Washington set a State and national yield record of 520 cwt per acre.

Through mid-1984, the smaller production will boost grower and product prices above year-earlier levels. In addition, demand will also likely support prices. Tablestock shipments have run ahead of a year earlier throughout 1983, including this summer when supplies were substantially less than last year and prices rose. Also, increased restaurant sales have apparently boosted frozen potato product demand. With the increased frozen product disappearance and reduced tonnage contracted for, processors may have to purchase larger quantities of potatoes on the open market, which would bid up prices. Finally, the decline in 1983 world potato production could mean larger exports of potatoes and/or potato production.

Grower prices for the 1983 crop will probably average \$5.25 to \$5.75 per cwt, compared with \$4.45 and \$5.41 in 1982 and 1981, respectively. Meanwhile, retail prices of fresh potatoes through spring 1984 will average about 25 percent higher than the relative lows of a year earlier. Frozen potato product prices, steady since mid-1982, will probably rise in the months ahead because of increased demand, reduced stocks, and increased raw product and cooking oil costs.

The reduced fall supplies and good grower prices should evoke a rise in 1984 spring and summer crop plantings. Although those crops are only a small portion of total annual potato production, they are important in filling the supply gaps between the fall storage crops, and also when the storage supplies are short. Because of the strong 1983 prices and with frozen stocks likely to be significantly drawn down by next summer, 1984 fall crop acreage will also likely gain.

### Sweetpotatoes

The 1983 sweetpotato crop is placed at 11.1 million cwt, the second smallest on record and 22 percent less than last year. Growers responded to last season's low price by sharply reducing planted acreage to the lowest on record. In addition, the cool wet spring delayed planting and combined with this summer's hot and dry weather in the Southeast to lower the average yield to 114 cwt per acre, compared with last year's alltime high of 129 cwt.

Prices have moved up in response to the sharply reduced supplies. In September, growers received an average of \$11.10 per cwt, more than 50 percent higher than a year earlier and the highest ever for that month. Prices could rise contraseasonally during the fall months, and will continue to average sharply above a year earlier into mid-1984. For the 1983 crop, growers will likely receive an average \$13 to \$15 per cwt, compared with \$7.90 in 1982. Season prices achieved a record high of \$13.60 for the 1980 and 1981 crops.

In the recent past, a short crop has tended to prop up sweetpotato prices in the subsequent crop year. This has occurred primarily because the substantial crop reductions in 1977 and 1980 cut back canned sweetpotato packs and supplies, which in turn left 1977/78 and 1980/81 carryover stocks at about 8 percent of use, compared with the 10-year average of 24 percent. As a result, canners' efforts to build up stocks the year after the short crop maintained strong grower prices. However, like other canned vegetables, canned sweetpotato consumption has trailed off in recent years. Therefore, the stocks-to-use ratio at the end of 1983/84 likely won't dip as low as in 1977/78 and 1980/81, in which case, 1984 season prices may not match the expected 1983 season levels.

### Mushrooms

U.S. mushroom growers produced 491 million pounds in 1982/83, 5 percent less than the previous year's record high. However, the industry's structural change from a processing to a fresh market orientation continued. Fresh market output rose 6 percent and accounted for 69 percent of the total outturn, compared with 30 percent in 1972/73 and 48 percent in 1977/78. These industry patterns mirror increased domestic consumption of fresh vegetables and the competitive disadvantage of American canned processors relative to those in Asia.

In 1982/83, the average grower price rose to 88 cents a pound, a record. The higher average prices pushed the value of growers' sales to an alltime high of \$431 million. Of all the vegetable crops, only potatoes, lettuce, fresh-market tomatoes, and processing tomatoes are higher valued.

For 1983/84, growers intend to fill 140 million square feet of bed or tray area, up from 135 million in 1982/83. In addition, yields have climbed steadily in the past 20 years. These data suggest production this year could rise and approach the 1981/82 record production of 517 million pounds. The trend toward more fresh production will probably continue. If the higher output materializes, grower and retail prices of fresh mushrooms should continue to be fairly stable, as they have been in recent years. The larger, more efficient production facilities should also aid steady prices. Meanwhile, canned imports in 1983/84 will probably match or exceed a year earlier. As a result, processing grower prices, as well as wholesale and retail prices of canned mushrooms will also likely be steady in the coming year.

#### Dry Edible Beans

The 1983 dry bean crop totaled 15.5 million cwt, 38 percent less than last year and 52 percent lower than the record 1981 harvest. This year's outturn is the smallest since 1967. Lower grower prices for the 1982 crop forced a big planting decline. Reduced exports, in turn, pressured prices downward.

With tighter supplies, prices have moved up sharply. The September average grower price, at \$24.40 per cwt, stood 68 percent above last year's low level, and doubled the prevalent prices earlier in 1983. Given this year's much smaller crop, prices should remain buoyant through the 1983/84 marketing season. In addition, production shortfalls in other importing and exporting nations presage improved export potential in the coming year. However, the high value of the U.S. dollar, which further inflates prices to importing nations, could limit sales and temper price gains. The 1983 season average grower price will probably be from \$22 to \$28 per cwt, compared with \$13.80 in 1982--the lowest since 1972--and \$21.60 in 1981.

Table 1.--Grower and retail price indexes, 1980-84

Year	Grower Indexes		Retail Indexes	
	Commercial vegetables	Potatoes, Etc. <sup>1/</sup>	Fresh vegetables	Processed vegetables
1977=100		1967=100		Dec. 1977=100
1980	113	129	242	118
1981	136	177	287	132
1982	127	125	288	139
1983	130	126	295	140
1984 <sup>2/</sup>	135	145	320	147

<sup>1/</sup> Includes sweetpotatoes and dry edible beans. <sup>2/</sup> ERS forecast.

SOURCE: SRS and BLS.

Table 2.--Per capita consumption of vegetables (farm-weight equivalent)

Year	Fresh vegetables	Canned vegetables	Frozen vegetables	Fresh potatoes	Processed potatoes
Pounds					
1962	101.3	83.7	16.0	77.5	29.7
1972	96.8	95.8	20.3	56.6	62.2
1980	107.1	88.9	21.1	55.8	61.9
1981	104.9	86.7	23.2	47.2	65.6
1982	109.4	89.6	21.9	48.6	65.8

SOURCE: ERS, USDA.

Table 3.--Processed vegetable supplies and disappearance, 1979/80-1983/84

Year	Canned 1/		Frozen 1/	
	Supply	Disappearance	Supply	Disappearance
	Million cases 24/303's		Million pounds	
1979/80	319	264	2,802	2,166
1980/81	303	254	2,546	2,123
1981/82	280	236	2,588	2,192
1982/83	289	239	2,947	2,252
1983/84	260-270		2,850-2,900	

1/ Eight leading items.

SOURCE: NFPA, AFFI, and SRS.