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NORTHEAST VEGETABLE INDUSTRY SITUATION AND OUTLOOK

by

R. Brian How

October 1972

No. 72-22

NORTHEAST VEGETABLE INDUSTRY SITUATION AND OUTLOOK*

R. Brian How

The vegetable industry in the Northeast is deceptive in its complexity and importance. Recent income statistics indicate that farm cash receipts from vegetables, including potatoes and dry beans, in the North Atlantic states totaled \$335 million in 1971 or 10.3 percent of the total. Specific estimates were provided for 22 crops, plus a total for 25 additional miscellaneous commodities. The vegetable industry ranked after dairy and poultry in terms of cash receipts, but ahead of meat animals, fruit, and horticultural products. While each of these individual crops has its own particular supply and demand characteristics there are some things we can say about the industry in general, and about sub-groups within the industry. I would like first to make some general observations about two or three important factors that influence the current vegetable situation, then look at industry trends for some important individual commodities and commodity groups specifically as they relate to the Northeast position, and finally consider the adjustment process in progress in the Northeast vegetable industry and consequent implications for the future.

Unusual weather conditions

The major factor influencing the current vegetable situation in the Northeast, at least in New York and Pennsylvania, has been the abnormal weather conditions during the early part of this season. Over much of this region May was wetter than usual, with 2 to 4 inches more rainfall than normally recorded at many New York stations. Weather continued cool and wet into June with widespread low temperatures, including frost at some locations the night of June 11. The crowning blow, however, was dealt June 20-25 when tropical storm Agnes moved into the region and hovered over Pennsylvania and western New York. Up to 14 inches of rain fell during this period in parts of western New York, and rivers and lakes crested at all time highs. For example, at Salamanca, New York, the Allegheny River established a new record 7 feet above the previous level. At Harrisburg, Pennsylvania, over 9 inches of rain fell on June 22 alone, and 18.5 inches in the month of June while temperatures averaged 3° below normal. In Pennsylvania, 50 persons lost their lives in the storm and more than 250,000 were made homeless at least temporarily. In New York, 24 died and over 100,000 had to be evacuated.

Such a storm has a very unequal impact, wiping out some and leaving others relatively untouched. But it is safe to say that vegetable growers, handlers, and processors in the area were among the hardest hit. Massive sheet erosion occurred, many plantings were completely eliminated, while

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other fields were severely damaged from excessive moisture. The full effects of the storm were not apparent immediately, but loss of nutrients and an unusual buildup of insects and diseases aggravated by moisture and temperature conditions eventually took a toll. Replanting was impossible except for short season crops such as snap beans, and the outcome of such plantings is still in doubt at time of writing. Processing firms operated on reduced schedules well below planned production, and in some cases had to shut down in mid-season because of shortages caused by the storm.

Prices of most vegetables have skyrocketed. Processors have had to pay premiums to reduce the margin between preplanting contract prices and open market quotations. Prices of fresh vegetables most affected, such as tomatoes, have attained record levels. From our standpoint the significant question is what this will all do to the ongoing adjustment process taking place in the industry. Will these high prices encourage undesirable shifts in production next season? Will this disaster speed up the consolidation of farm operations that has been the trend for many years? Or will the economic signals be so confusing that needed adjustments will be delayed? One safe conclusion is that one should keep in perspective the frequency with which such an event, such as tropical storm Agnes, is likely to occur in planning for the future.

Continuing inflation

Another condition affecting the Northeast industry is the continuing inflation in costs not matched by corresponding increases in prices received. Beginning about the mid-1960's we have experienced rapid increases in operating costs such as wage rates and farm machinery prices. Land values have continued to climb and with them the fixed costs - the so-called dirty five - of depreciation, interest, repairs, taxes and insurance. For example, from 1965 to 1971 total depreciation expense on North Atlantic farms increased by one-third, taxes by 50 percent, while interest paid on farm mortgage debt doubled. Such increases force readjustment, and these can often be made less painfully in some other regions. For some crops the adjustments have enabled outflow of product to be maintained with little or no increase in price. The bulk farm price of potatoes, for example, has shown very little, if any, upward trend in recent years. The contract price of snap beans for processing declined about 30 percent following the adoption of the mechanical harvester, and has remained relatively stable in recent years.

Many growers of vegetables for fresh market, operating under severe economic pressure, have expressed concern with what they feel are excessive gross margins being obtained by food retailers (Table 1, Figure 1). Retailers in turn point to rising costs, particularly for labor, and reduced profit margins. Likewise, consumers are becoming agitated over food prices, and their concern is reflected in government and the political arena. The Price Commission has already taken steps to stem widening retail-wholesale margins for non-processed products, but pressure seems to be building up for direct price control at the farm level as well. Given the great many different forms and channels under which fresh vegetables are sold this seems bound to lead to inequities and inefficiencies if adopted.

Concern for farm labor

A third major influence on the industry is the growing concern by the general public, labor organizations, and government agencies to improve the lot of the farm worker, and in particular the seasonal migrant worker. Again,

like the proposed remedies for inflation, the current activities seem to focus on the symptoms rather than the disease. Most members of the vegetable industry are already committed to improving wages, housing, and working conditions for their employees. Legislation establishing minimum wages and regulations governing housing and working conditions are probably necessary to protect against exploitation by a few, but fail to strike at the source of low earnings and unsatisfactory living conditions. The current effort to build union support through the lettuce boycott has received support from many who were unfamiliar with the facts of the case. All this has contributed to the effort by many Northeast vegetable growers to mechanize production of labor-intensive crops or change to other enterprises.

I would like now to comment on some specific commodities or commodity groups. A logical grouping seems to be potatoes, vegetables for processing, vegetables for fresh market, and dry beans.

Potatoes

Pricewise this could be an encouraging season for potato growers. After so many years of depressed prices, particularly the last two, the industry has finally reduced acreage. This, coupled with unfavorable growing conditions in the East and Central states, reduced supplies to a more manageable level (Table 2, Figure 2). Even the state of Washington where acreage has been expanding rapidly in recent years cut back acreage sharply.

Potato consumption per capita in all forms and especially in processed form continues to expand, riding on the growth of convenience, snack, and fast food business. One cloud on our horizon is the development of the extruded potato chip-like product made from dehydrated flakes or granules. This could have a serious impact on the growing of potatoes for chips in the Northeast, and we are planning to study this at Cornell.

This coming season will provide the first test of the National Potato Research and Promotion plan. Collections of one cent per hundredweight, recommended by the National Promotion Board and approved by the USDA, on all Irish potatoes sold for human food or seed by growers with more than 5 acres could generate about \$2 million annually for advertising, promotion, marketing research, and market development. The challenge will be to use this money most effectively.

Processed vegetables

U.S. total consumption of processed vegetables has been growing fairly steadily, but production of the 10 major commodities in total has moved in cycles (Table 3, Figure 3). One peak occurred in 1962, led by tomatoes but including green peas, sweet corn, and red beets. From this the industry took several years to recover, but after working off the inventory came back again in 1967 and 1968 with two big years in a row for snap beans and green peas, and all time records for red beets, sweet corn, and tomatoes in 1968. Four years later we seem headed for another big year in spite of uncooperative weather conditions locally, which is the worst of all possible conditions. With a big tomato crop in the making in California and a larger than average crop of sweet corn for processing we are already half a million tons ahead of last year for those crops for which we have estimates. The general shortage of fresh fruits and vegetables may provide continued strength to the processed vegetable market even with heavier than usual supplies. Let us turn now to two processing crops particularly important in the Northeast.

Tomatoes for processing

The processing tomato industry has really been revolutionized in the past quarter century, from the development of the cultural practice package that could produce better than 20 or 25 tons of marketable fruit per acre to the bulk processing storage, shipment, and final packaging of tomato products. Prodded by legislation prohibiting the import of Mexican braceros, the California industry made the change to mechanical harvesting with only a brief interruption in the upward trend in state average yields. New York was not able to adopt the necessary system and has largely opted out of commercial farm production. Faced with competition from tomato solids produced in both Europe and California, the future of the Northeast tomato growing industry is in doubt although there will likely continue to be a place for the secondary manufacture and packaging of tomato solids (Table 4, Figure 4).

Snap beans for processing

Ten years ago the North Atlantic states grew about 40 percent of the U.S. snap beans for processing, but we have gradually lost ground so that today we normally grow about one-third of the U.S. total (Table 5, Figure 5). This year we will have only about one-quarter, largely thanks to tropical storm Agnes in New York and Pennsylvania, yet the national crop is less than one percent below last year's large production. This is disastrous for some growers and will place tremendous stress on the processing industry in this region, where heavy fixed costs require using facilities to the fullest to survive competition. One glimmer of hope may rest in the fact that compared with last year, production in Wisconsin is also down from the large 1971 crop, with the offsetting increase coming in Oregon and the West.

We have been studying the impact of the narrow row high density snap bean harvester on the snap bean industry. The narrow row system does not yet appear economical in New York but may eventually be adopted in areas where irrigation is practiced.

Vegetables for fresh market

The Northeast in a normal year still grows commercially a wide range of vegetables for fresh use, marketed in a variety of ways. We have market gardeners on the outskirts of cities who take their produce to local markets or to chain store warehouses. Some have built up a clientele for direct store delivery. Others operate roadside markets or supply such outlets, or encourage customers to come and pick their own. Some growers make a success of serving local markets, but the opportunities here are limited. In view of the current interest in vegetable production and consumption, however, the prospects for growth in sales to local markets appear very good.

In addition to firms concentrating on local sales we still have general areas such as the muck lands of Orange County and other sections of New York, and the upland soils of south Jersey where growers specialize in the production of a few crops on a large scale and ship to distant markets. These large operations can handle and move large volumes, but must compete directly with other areas. Here such factors as scale of operations, length of season, year-to-year variability in supplies become critical to success. The important factor to remember is that the fresh vegetable industry for any particular commodity is a composite of different systems that may be heading in different directions at the same time.

Tomatoes for fresh market

Production of tomatoes for fresh market in the Northeast, at least as reported, has trended downward for the past ten years, although we may have reached a new equilibrium (Table 6, Figure 6). At least there are many interesting developments in cultural practices such as plastic mulches and greenhouses that may help overcome some climatic limitations. Perhaps the marketing channels and methods need to be tied in better to local markets.

Sweet corn for fresh market

Sweet corn for fresh market is widely grown in the Northeast, under all of the different systems mentioned earlier (Table 7, Figure 7). If we disregard this year, it seems that a downward production trend in the Northeast may have reversed itself about the mid-1960's or at least been arrested. There are indications this may be due to increasing production for local sales, with some possible contraction in output by large specialized operations such as those in the Hudson Valley of New York. If consumers really can become concerned with flavor and texture this commodity would seem to have good prospects for growth.

Dry onions

Both the dry onion crops for early summer harvest in New Jersey and for late summer harvest in New York have been under heavy competitive pressure in recent years. We have had a series of difficult growing seasons even prior to this year. Production had been expanding in the West, particularly California where dehydration is so important (Table 8, Figure 8). Prices this season should be much more favorable than the past two years, but should not obscure the fact that only adequate sized well-managed operations capable of securing high yields will be able to survive in the Northeast.

Dry edible beans

This has been a disastrous growing season generally for dry beans in New York which has sharply reduced production at the same time other areas, such as Michigan, expanded output following a relatively short crop last year (Table 9, Figure 9). The situation is further complicated by the fact that each class of dry beans has its own distinct market demand and official estimates of production by classes is not due until December. As of now, Red Kidney supplies nationally are apparently short and prices are strong, but the market for Black Turtle Soup beans is weak primarily from lack of export demand but also perhaps uncertainty about supplies from Michigan (Table 10, Figure 10).

Conclusion

The general trends discussed so far for several commodities do not reveal a great deal of optimism for the future of the industry in the Northeast. But, as I have already indicated, the industry is composed of diverse parts subject to different kinds of pressure. We need to look behind the adjustments that are being made to see why these are taking place.

Essentially this industry involves an intensive and highly seasonal production process resulting in a bulky and perishable food product. As I see it the industry is attempting, faced with uncertain weather, rising

costs, and labor unrest to adapt to the obstacles inherent in this kind of system. If we accept this then we will be in a better position to understand and perhaps help determine future trends.

Processing, for example, reduced perishability and in some cases bulkiness and enabled production of some commodities to be shifted in time and place to more favorable growing locations, but did little for seasonability except where enterprises could be combined. Now the development of initial processing and bulk storage such as is underway for both tomatoes and extruded potato chips reduces both seasonality of processing plant employment and inventory, and transportation costs to the point of secondary processing. We may have to gear up to more secondary processing.

Fresh vegetable operations in the West have reduced overhead per unit and seasonality by combining operations in several locations in the production of commodities such as lettuce. Here in the East some onion growers, for example, have reduced seasonality of operations by supplementing local growing and storing with packing of bulk carloads received from Central or Western states. We could cite other adaptations, I am sure, to the basic characteristics of the industry that place us at a competitive disadvantage. Our challenge will be to help the Northeast industry adopt modifications that overcome basic limitations.

Tables and Figures

TABLE 1
U.S. FARM VALUE AND RETAIL PRICE, 10 POUNDS POTATOES

Year	U.S. Farm Value	Retail Price Per 10 Lbs.	Farm Retail Spread	Farmers Share
	cents	cents	cents	percent
1959	19.2	61.1	41.9	31
60	24.3	69.4	45.1	35
61	16.3	60.3	44.0	27
62	16.9	60.3	43.4	28
1963	17.0	61.9	44.9	27
64	27.2	75.7	48.5	36
65	36.9	93.6	56.7	39
66	22.4	74.6	52.2	30
1967	21.0	74.4	53.4	28
68	21.2	76.0	54.8	28
69	23.4	81.0	57.6	29
70	25.7	89.0	63.3	29
1971	21.6	85.9	64.3	25
72				

Source: Farm Retail Spreads for Foods Products, ERS, USDA,
Misc. Publ. No. 741.

FIGURE I.
U.S. FARM VALUE AND RETAIL PRICE, 10 POUNDS
POTATOES

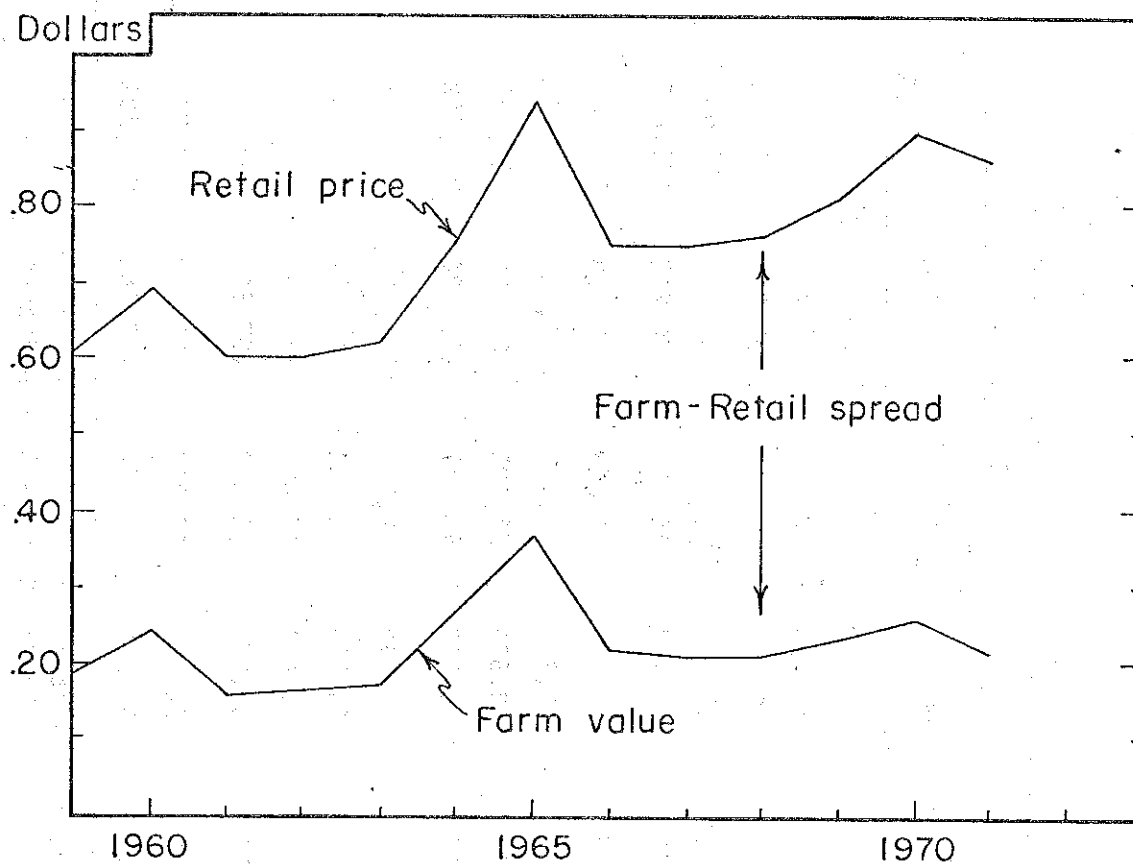


FIGURE 2.
U.S. POTATO PRODUCTION

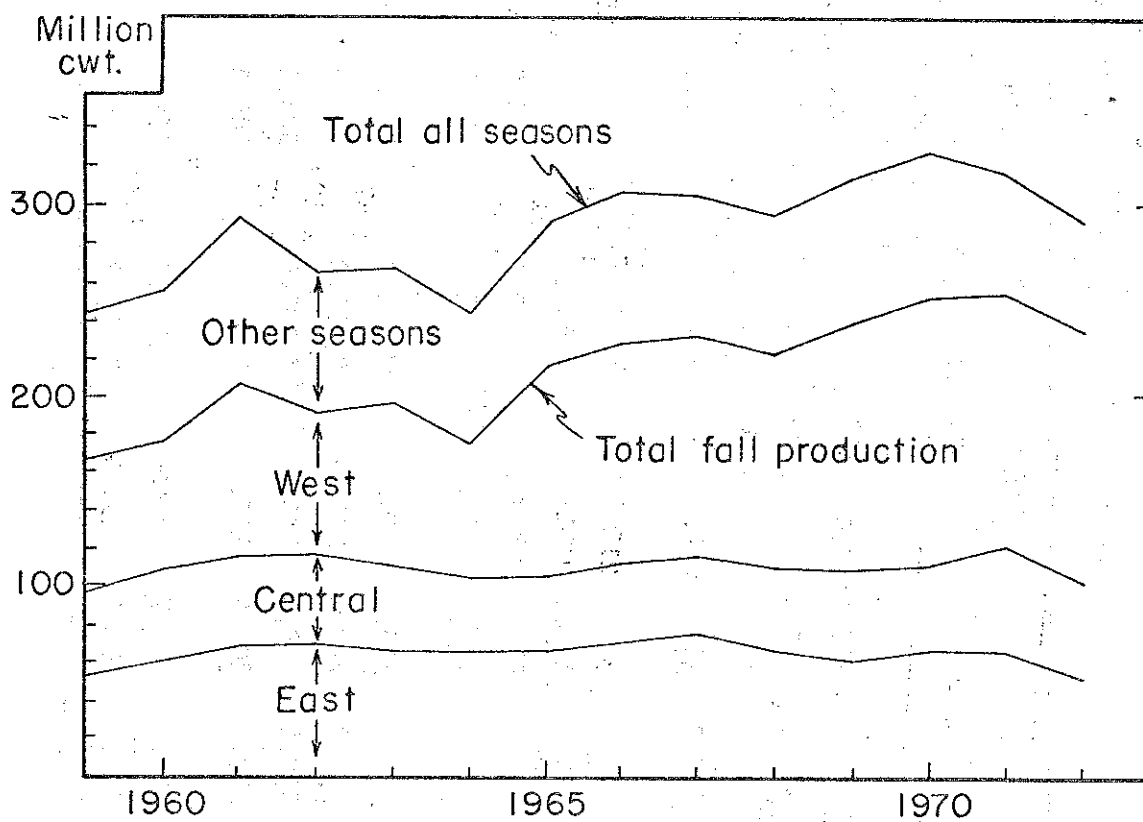


FIGURE 3.
10 VEGETABLES FOR PROCESSING: U.S. PRODUCTION

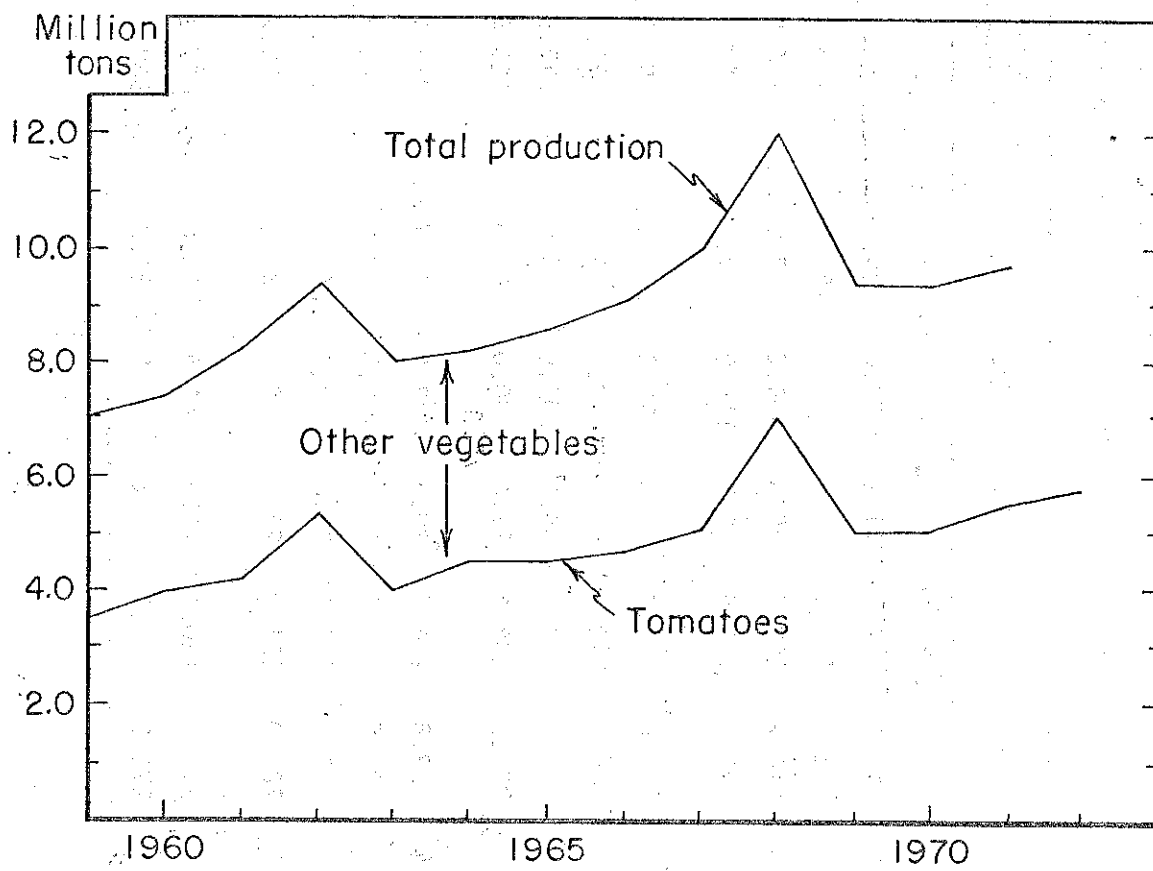


TABLE 4

TOMATOES FOR PROCESSING: U.S. PRODUCTION

Year	New York	N.J.	Pa.	Del.	Md.	Va.	Total 6 States	Other States	U.S. Total	
	- 1,000 tons -									
1959	110.1	176.4	150.0	17.1	70.0	39.1	562.7	2,976.3	3,539.0	
60	113.8	271.8	153.6	27.2	94.6	43.2	704.2	3,349.6	4,053.8	
61	121.0	316.2	162.5	30.3	109.2	57.0	796.2	3,461.7	4,257.9	
62	115.1	375.2	163.5	35.3	110.9	67.5	867.5	3,526.4	5,393.9	
1963	81.0	255.0	103.5	24.3	79.3	48.1	591.2	3,508.5	4,099.7	
64	81.6	246.0	119.2	23.8	99.4	56.7	626.7	3,956.6	4,583.3	
65	89.6	349.7	131.1	35.9	105.0	66.6	777.9	3,723.2	4,501.1	
66	62.1	299.5	104.4	17.4	80.0	47.0	610.4	4,050.2	4,660.6	
1967	90.4	322.8	154.5	20.5	72.8	55.7	716.7	4,470.7	5,187.4	
68	84.7	329.0	177.0	19.0	92.0	63.0	764.7	6,210.2	6,965.9	
69	66.0	221.8	139.5	13.4	47.9	42.4	531.0	4,366.7	4,897.7	
70	39.3	280.0	151.0	24.7	59.9	35.3	590.2	4,468.7	5,058.9	
1971	35.0	216.0	120.1	16.6	44.4	35.0	467.1	5,046.8	5,513.9	
72	24.2	174.0	74.7	7.1	37.8	31.2	342.0	5,445.1	5,787.1	

FIGURE 4.
TOMATOES FOR PROCESSING: U.S. PRODUCTION

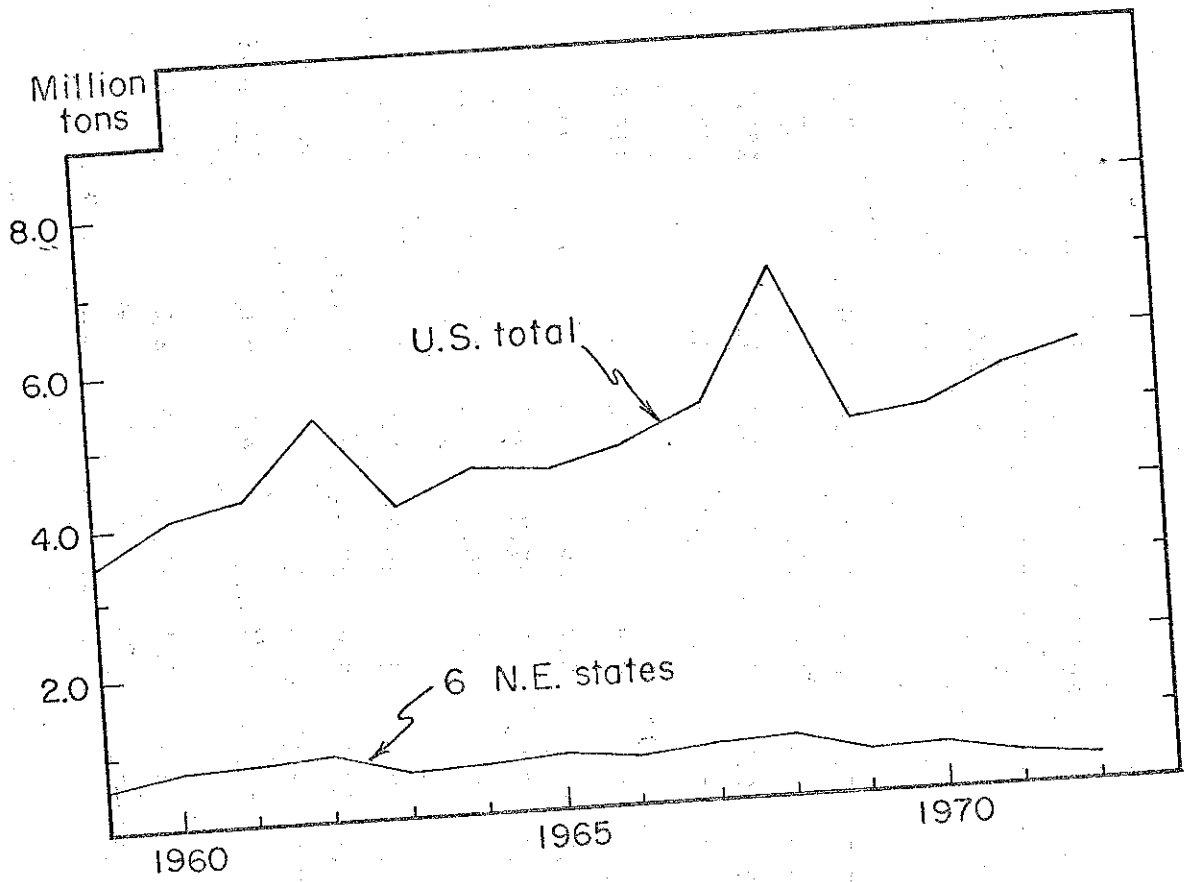


TABLE 5
SNAP BEANS FOR PROCESSING: U. S. PRODUCTION

Year	New York	Pa.	Del.	Md.	Va.	N.Car.	Total States	Other States	U.S.
- 1,000 tons -									
1959	67.5	8.7	6.3	13.4	2.8	5.0	103.7	262.2	365.9
60	68.0	13.1	7.5	19.5	4.2	3.4	117.5	290.5	407.0
61	79.9	10.1	7.7	20.7	3.5	4.7	126.6	352.0	478.6
62	83.6	11.7	8.6	19.4	3.4	5.4	132.1	318.7	450.8
1963	77.6	10.4	7.4	16.5	2.2	5.5	119.6	354.8	474.4
64	91.3	12.9	6.7	15.2	2.2	5.3	133.6	336.3	469.9
65	90.2	17.0	9.4	27.2	2.2	6.7	152.7	388.0	540.7
66	92.3	7.4	5.5	15.7	3.4	3.4	127.7	394.2	521.9
1967	105.2	18.5	15.8	20.2	4.8	6.8	171.3	465.5	636.8
68	96.3	17.6	13.6	22.1	6.3	5.9	161.8	464.9	626.7
69	97.0	12.4	14.6	13.9	3.4	3.6	144.9	423.6	568.5
70	102.8	11.6	15.2	18.7	4.0	3.8	156.1	414.0	570.1
1971	96.8	13.7	14.1	17.0	4.2	2.6	148.4	445.5	593.9
72	70.4	9.6	12.4	15.6	5.9	2.1	116.0	473.5	589.5

FIGURE 5.
SNAP BEANS FOR PROCESSING: U.S. PRODUCTION

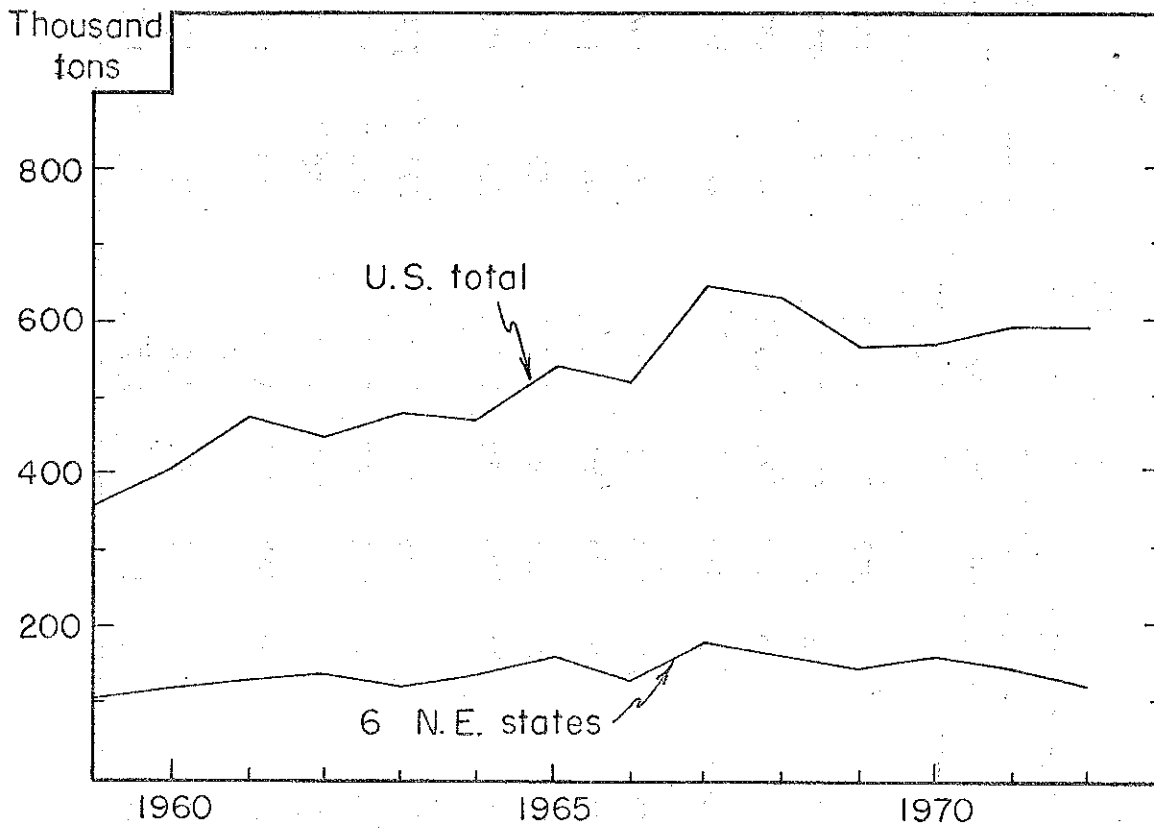


TABLE 6
TOMATOES FOR FRESH MARKET: PRODUCTION

Year	Early Summer				Late Summer				Total
	N.J.	Md.	Va.	Total	Mass.	Conn.	N.Y.	Pa.	
	- 1,000 hundredweight -								
1959	760	252	350	1,362	202	162	466	340	1,070
60	803	264	475	1,542	247	217	624	352	1,440
61	886	260	428	1,574	209	182	576	396	1,363
62	803	270	625	1,698	220	188	564	374	1,346
1963	766	270	460	1,496	185	174	528	340	1,227
64	766	262	504	1,532	185	174	472	352	1,183
65	900	284	450	1,634	185	168	500	342	1,195
66	722	238	460	1,420	180	156	420	297	1,053
1967	666	273	460	1,399	171	168	441	326	1,106
68	665	252	442	1,359	166	192	494	300	1,152
69	578	266	370	1,214	150	171	390	300	1,011
70	570	247	330	1,147	143	150	437	294	1,024
1971	618	238	345	1,201	150	143	444	294	1,031
72	488	192	290	1,270	126	122	300	252	800

FIGURE 6.
TOMATOES FOR FRESH MARKET: PRODUCTION SELECTED STATES

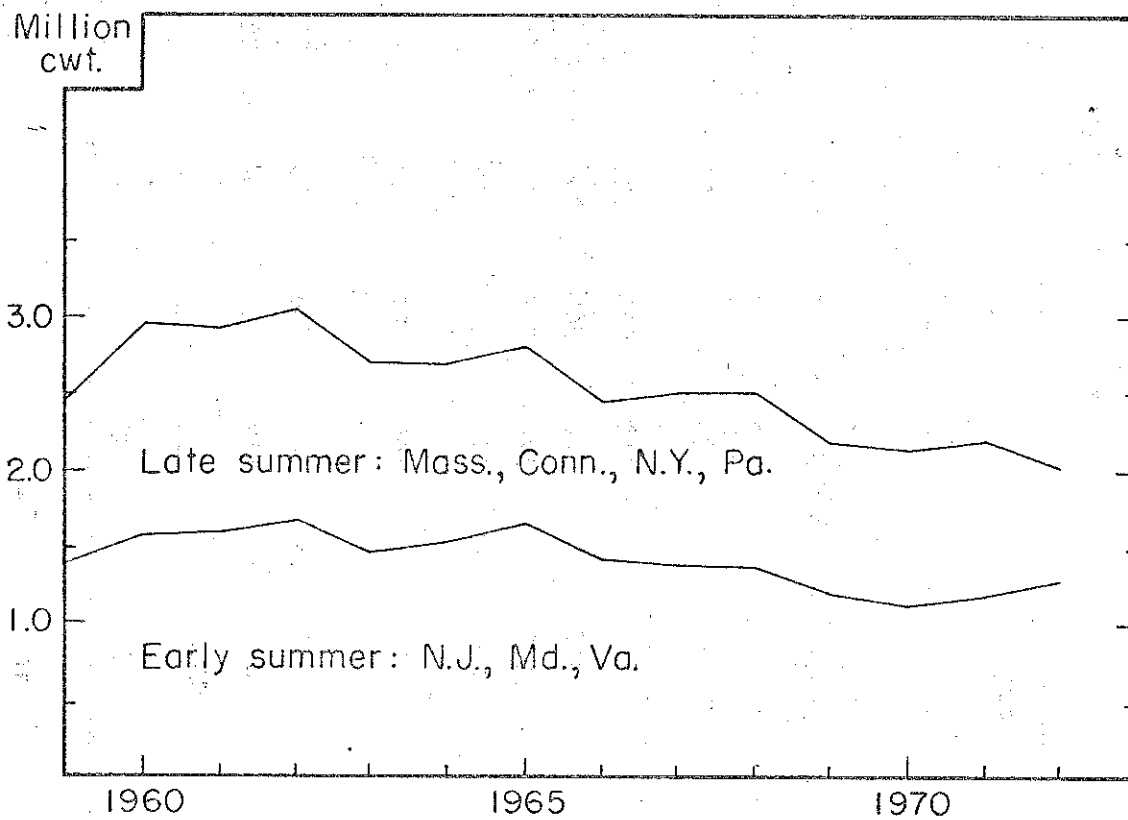


TABLE 7
SWEET CORN FOR FRESH MARKET: PRODUCTION

Year	Early Summer	Late Summer			Total 5 States		
	New Jersey	N.H.	Mass.	Conn. N.Y. Pa.			
1959	1,120	126	559	318	1,200	875	3,078
60	945	112	602	343	1,200	825	3,082
61	1,012	128	616	343	1,000	800	2,987
62	1,050	135	609	325	975	775	2,819
1963	1,015	144	559	325	1,018	690	2,736
64	910	128	540	300	1,056	675	2,699
65	1,120	128	546	332	1,034	675	2,715
66	800	112	595	312	900	560	2,479
1967	855	105	581	338	982	688	2,694
68	848	117	602	338	978	660	2,695
69	863	105	638	358	910	693	2,704
70	896	112	668	364	1,032	678	2,854
1971	777	98	733	354	960	654	2,799
72	715	85	638	239	760	490	2,212

- 1,000 hundredweight -

FIGURE 7.
SWEET CORN FOR FRESH MARKET: PRODUCTION
SELECTED STATES

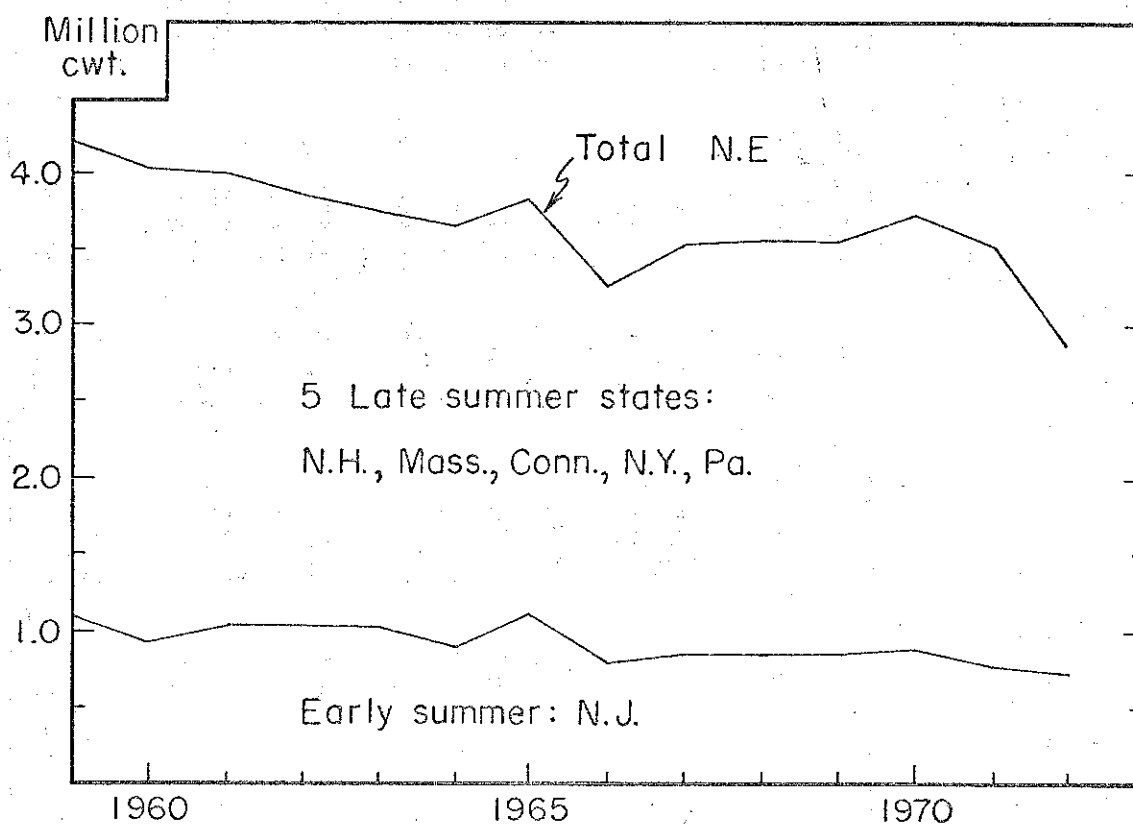


TABLE 8
ONION PRODUCTION

Year	Early Summer		Late Summer				Group Total
	New Jersey	Group Total	New York	Central States	California	Other Western States	
1959	345	2,221	4,788	4,264	3,243	6,207	18,502
60	385	2,475	5,175	4,381	3,276	6,143	18,975
61	322	2,165	4,371	4,113	2,740	5,993	17,217
62	390	2,258	4,964	3,937	3,663	6,426	18,990
1963	392	2,133	4,819	4,108	4,158	5,744	18,829
64	351	2,403	4,480	3,785	3,264	6,298	17,827
65	377	2,333	5,412	4,464	4,104	6,818	20,798
66	368	3,000	3,602	3,439	4,520	6,588	18,149
1967	414	3,063	4,200	3,652	5,360	5,815	19,027
68	432	3,262	3,752	3,476	5,298	7,691	20,217
69	368	2,942	3,762	3,040	5,896	7,230	19,928
70	350	2,933	4,760	3,481	5,874	7,478	21,593
1971	306	2,881	4,123	2,924	7,142	7,295	21,484
72	272	2,402	2,300	3,332	6,466	7,631	19,729

- 1,000 hundredweight -

FIGURE 8.
DRY ONIONS: LATE SUMMER PRODUCTION

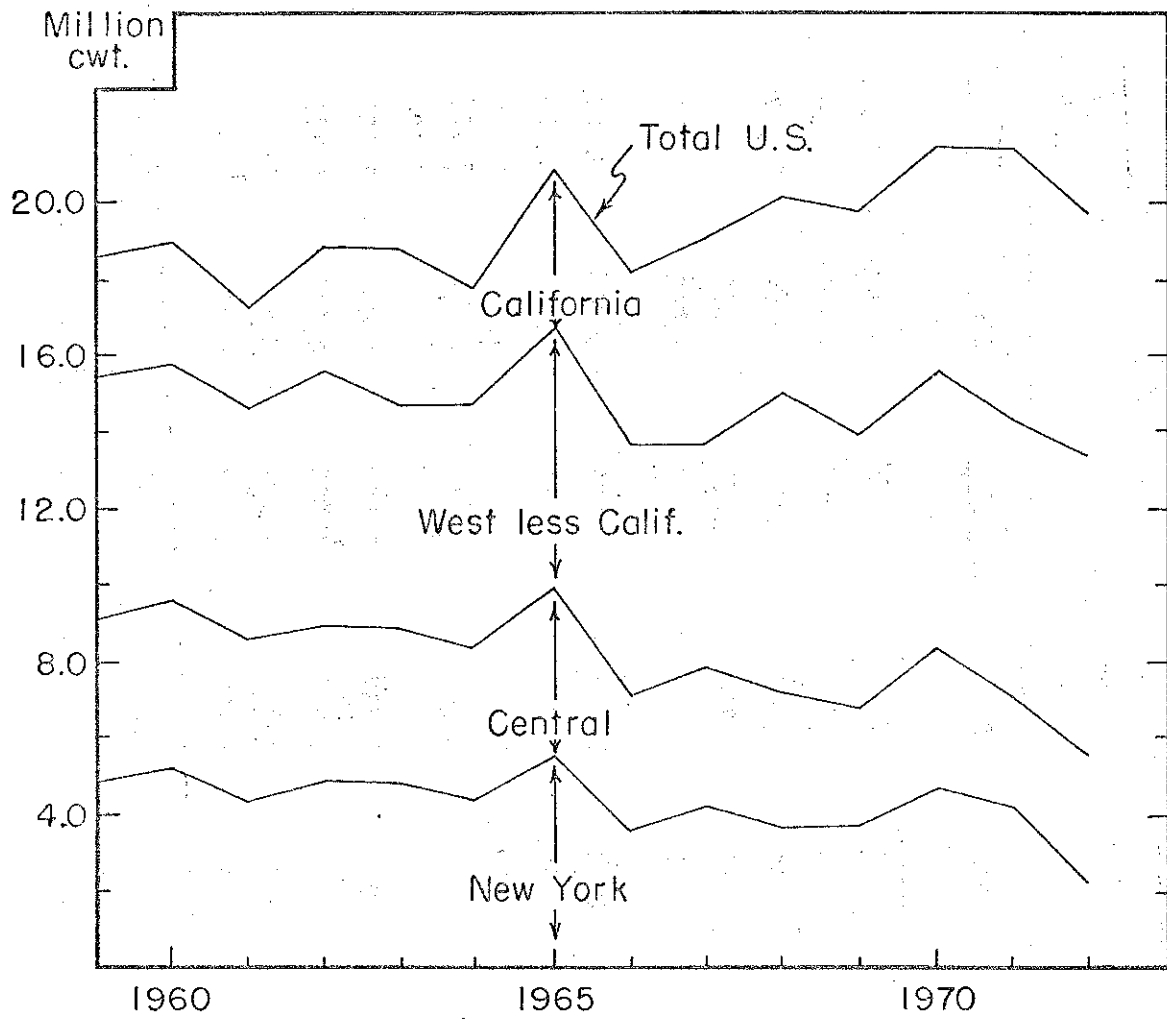


FIGURE 9.
 DRY EDIBLE BEANS: U.S. PRODUCTION

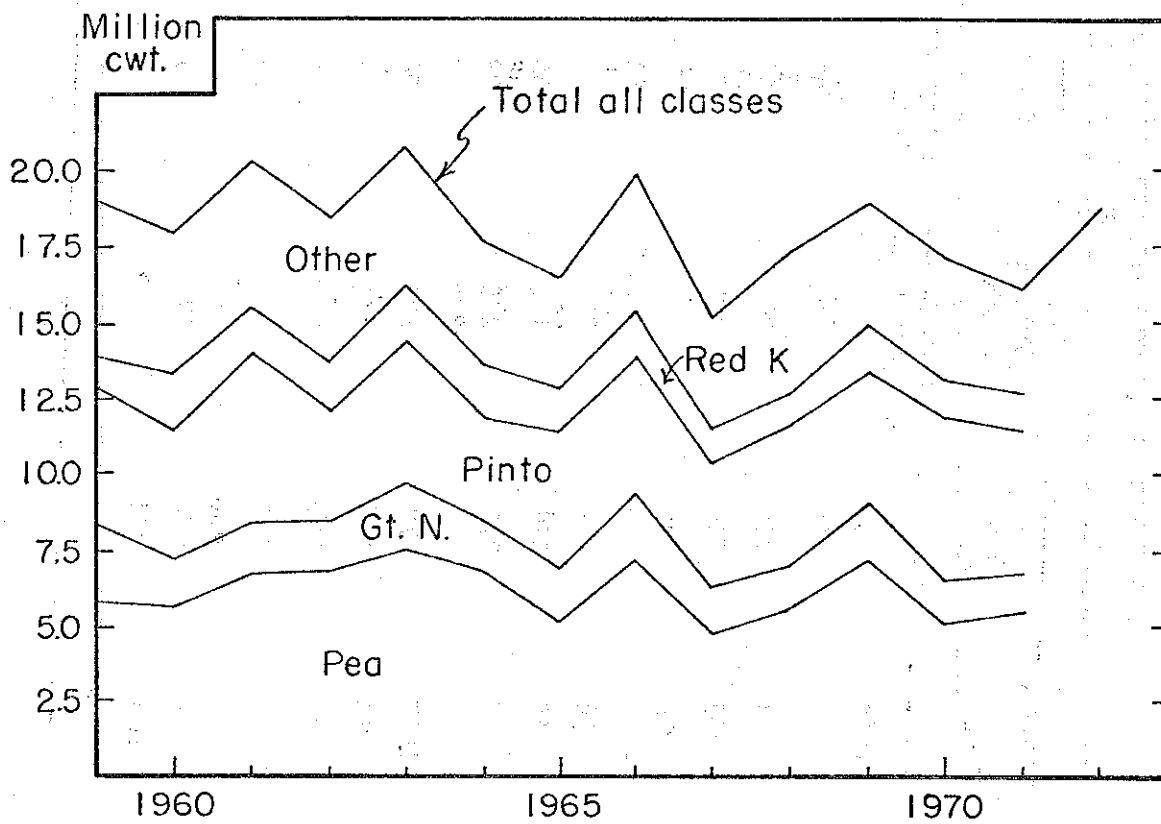


TABLE 10
NEW YORK PRODUCTION OF DRY EDIBLE BEANS

Year	Red Kidney	Black Turtle Soup	Other	Total All Classes
- 1,000 hundredweight -				
1959	653	82	99	837
60	984	144	91	1,219
61	958	220	153	1,331
62	884	317	73	1,274
1963	774	103	91	968
64	798	308	60	1,166
65	562	192	88	842
66	877	295	128	1,300
1967	673	321	108	1,102
68	503	314	87	904
69	618	223	56	897
70	458	227	63	748
1971	468	279	47	794
72				365

FIGURE 10.
DRY EDIBLE BEANS: NEW YORK PRODUCTION

