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Appendix A

The Net Output of Agriculture

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The Net Output of Agriculture

THIS appendix describes the construction, and offers some notes on the coverage, of the indexes of agricultural output appearing in Chapters 2 and 3. In Table A-1 will be found the entire body of basic data underlying the computation of these indexes; sources of material are indicated in detail in notes following the table. Table A-2 shows the farm value of net output for each product in selected years. Table A-3 contains the indexes of net output of crops and livestock products, respectively, mentioned in Chapter 2. In Table A-4 will be found continuous series for milk production, in original units which, while not used directly in the construction of the indexes, afford a basis for Chart 30 in Chapter 3.

Gross and Net Output

The gross output of crops is the amount harvested, of dairy products the total amount produced, and of livestock the number or weight sold plus or minus additions to or deductions from inventory. As explained in Chapter 1, an index of agricultural output computed from the gross output of individual products would involve duplication, since it would include commodities that never leave agriculture but are used up in the productive process itself. From the data for gross output we therefore deducted in the case of each product the amounts used for further production, i.e. crops used for seed and feed and, in the case of milk, the amount fed to calves. For many commodities these deductions are small, or do not have to be made at all: as noted in Chapter 3, they are most important in the case of the grains and hay. In Table A-1, which contains the basic data underlying our group and combined indexes, deductions for seed and feed have

been made wherever necessary. The quantity data in that table therefore relate to net output rather than to gross output. For recent years the disposition studies of the Department of Agriculture make the transition from gross output to net output a comparatively simple matter. For early years we had to construct what appeared to us as the best estimates of seed and feed requirements that could be devised. The sources of the original data and the adjustments made are indicated in footnotes to the table.

Method of Construction of the Output Indexes

As in Solomon Fabricant's *The Output of Manufacturing Industries, 1899-1937* (National Bureau of Economic Research, 1940), the first report in this series, the standard basis of comparison adopted was that usually known as the Edgeworth formula:

$$\frac{\Sigma q_1 (p_0 + p_1)}{\Sigma + q_0 (p_0 + p_1)}$$

where the q 's refer to quantities, the p 's to prices,¹ and the suffixes identify the years to be compared. This is equivalent to the ratio of the values of the outputs in the two years, these values being computed in constant prices: for each commodity the price chosen is its mean for the two years considered. The formula has the advantage that the weighting system is revised for each new comparison and, when computed for successive pairs of years, additional commodities can be included as data become available. The index takes the form of a chain of such comparisons. However, it may readily be shown that a series of successive year-to-year comparisons between, say, 1899 and 1939, may offer a result which differs significantly from that obtained in a single direct comparison between the years in question. At different points in this study we have been interested both in year-to-year changes and in long term trends. Some form of compromise had therefore to be adopted. In fact the construction of each of our

¹ So far as possible average prices received by farmers during the crop year or marketing season were used.

indexes involved the following steps. First, comparisons were made between 1899 and 1909, 1909 and 1919, 1919 and 1929, and 1929 and 1937.² Second, a chain index was computed for the entire period 1897³ to 1939, and this annual series was then fitted into the framework provided by the four comparisons just mentioned. That is, for the years 1899–1909 we adjusted the chain index by distributing the discrepancy between it and the direct comparison 1899–1909 in an even fashion over the decade in question. For 1897 and 1898 and for 1938 and 1939 the chain comparisons were left undisturbed. In this way the comparison between 1899 and 1937 as reported by the index involves four links only; that between 1899 and 1939 involves six links. The comparison between, say, 1909 and 1921, is made in three links, two of which (1919–20 and 1920–21) involve a small adjustment of the type mentioned.

As a check upon the results a value for the combined index was also computed with the use of a single direct comparison between five-year averages centered upon 1899 and 1937 respectively. Thus the standard method of construction described above and used in computing the data in Tables 1, 5 and 6 leads to a rise of 47.7 percent between 1897–1901 and 1935–39, whereas according to a direct Edgeworth comparison between the two periods the expansion of output was 42.1 percent. The latter calculation omits some products, data for which are not available in 1897–1901. The output of these products (especially truck crops) expanded rather rapidly, and this explains why the direct comparison reports a smaller rise in farm output over forty years than does our basic index.

Coverage of the Basic Index

The most convenient way of assessing the coverage of our basic index of agricultural output is to measure it against the United

² Except for 1937 these are Census years. The year 1937 was selected instead of 1939 because many calculations had to be made before data for the latter year were available.

³ The calculations were carried back to 1897 in order that five-year averages might go back to 1899.

States Department of Agriculture estimates of gross farm income. This is preferable to a comparison with Census data, since the latter are expressed in terms of gross rather than of net output. As explained in Chapter 1, gross income is comparable with net rather than with gross output.

To carry out such a comparison for 1937, the most recent year in our chain of decennial Edgeworth comparisons, it would be simplest to compute the total value of those products included in our index by multiplying 1937 net output by 1937 farm price (as is done in Table A-2), and then to express this total as a percentage of gross farm income. However, since gross income is reported for calendar years, while our output data relate partly to crop years, such a comparison could not be made. We circumvented this difficulty by summing instead the official (calendar-year) income estimates for all products included in our index, and expressed the aggregate as a percentage of gross farm income as a whole. The result indicates that in 1937 our index covers 93 percent of agricultural production as defined in the gross income estimates of the Department of Agriculture.⁴

For earlier years the coverage is naturally lower, but it cannot be computed accurately owing to the absence of detailed estimates of farm income. We can, however, gauge approximately the limits of the error to which our output index is subject on account of changing coverage. This may be done as follows. Let us assume that the output of the products omitted in any given year (say 1919) was actually zero in the preceding Edgeworth comparison year (1909), but that the prices were the same in both years. We can then compute an index—for 1909—whose coverage includes the omitted products. The assumption is the most extreme it is possible to make, for we know that most of the omitted products, although produced in smaller quantities, were available; and the output of some may actually have been as large or larger in the year for which data are not available.

The computation was carried out for the links 1919–29, 1909–19 and 1899–1909, with the following results (1929: 100):

⁴ The most important items omitted are forest products, nursery products, the output of farm gardens, seeds, and horses and mules.

For 1919 the index is lowered from 87.1 to 86.6

"	1909	"	"	"	"	"	77.4	"	76.0
"	1899	"	"	"	"	"	69.5	"	67.4

The error is of course cumulative, since we are working with a chain of several Edgeworth comparisons. If we consider only two Edgeworth years at a time, we find that the change is about the same in 1899 as in 1909, and smallest in 1919.

We can now make our assumption somewhat more realistic, restricting our computation to the 1909-19 comparison. For most of the crops which are excluded from the comparison between these two years we have Census value figures. The total value of these crops amounts to \$105 million in 1909, as against roughly \$290 million in 1919. When we take into account the unusually high price level which obtained in 1919, it seems fair to say that the output of omitted products in 1909 must have been at least 50 percent of the output of these same products in 1919. On this assumption we obtain an index for 1909 (1919: 100) of 88.4, which is only half a point below the value computed for our basic index. There can be little doubt that this represents the maximum degree of upward bias present in our index for the decade in question. In the same manner we can allow for the possibility of downward bias. Assume that the output of omitted items fell as much as 50 percent between two reference years, say 1909 and 1919. This is a violent assumption, which is no doubt far from the truth. It yields an index for 1909 (1919: 100) of 90.5 compared with 88.9 for our basic index unadjusted for omitted items.

We can conclude, at least for the period since 1909, that changes in coverage do not affect our basic index by more than about one percentage point per decade in either direction.

Crop Years

The production and price data in Table A-1, and the various indexes of output computed from them, relate to crop years in the case of crops, and to calendar years in the case of livestock

and livestock products. The crop year corresponds to the marketing season. "Crop year 1935" normally means a twelve-month period starting some time in 1935 and ending some time in 1936.

The following information was taken from *Crops and Markets*, November 1937, and *Farm Production, Disposition and Value of Principal Crops, 1938-40* (U. S. Agricultural Marketing Service, 1941); the reader is referred to these publications for further details. The months given are in each case the first month of the crop year or marketing season; marketing usually extends over twelve months, although in the case of some products the season is shorter. Thus "crop year 1935" for wheat extends from July 1, 1935 to June 30, 1936; for corn from October 1, 1935 to September 30, 1936; and so forth. In the case of fruits and vegetables the crop year given is for fresh consumption; production for canning or processing sometimes has a different marketing season. In the case of many products, a few states have a slightly different crop year from that shown. For a number of items no single crop year can be given, since the marketing season varies with the variety or the region; these exceptions are rice, potatoes, peanuts, tobacco, apples, snap beans, beets, cabbage, celery, peppers.

February—Asparagus.

March—Maple sugar and sirup, California Valencia oranges

April—Cantaloups, sweet corn, onions

May—Apricots, peaches, plums, prunes, watermelons

June—Figs, grapes, pears

July—Wheat, oats, barley, rye, flaxseed, sweetpotatoes, sorgo sirup, broomcorn, hay

August—Cotton, cottonseed, almonds

September—Buckwheat, dry edible beans, sugar beets, hops, cranberries, Florida oranges, grapefruit

October—Corn, sugarcane, soybeans, olives, California navel oranges, walnuts, pecans

November—Lemons, carrots, cauliflower, cucumbers, eggplant, lettuce, peas, spinach, tomatoes

December—Strawberries

Composition of Combined and Group Indexes

The combined (or basic) index for the net output of agriculture, shown in Tables 1, 5 and 6, and Chart 1, includes for all or part of the period all products shown in Table A-1. In any particular year, it includes all products for which both quantities and prices are given in that table.

As explained in the text, the groups shown in Tables 5 and 6 and Charts 3 and 5 are neither exhaustive nor free from duplication. The composition of these groups is as follows:

Grains—Wheat, corn, oats, rye, barley, rice, buckwheat, flaxseed

Potatoes and related products—Potatoes, sweetpotatoes, dry edible beans

Hay—Hay

Cotton—Cotton, cottonseed

Tobacco—Tobacco

Sugar crops—Sugar beets, sugarcane, sugarcane sirup, sorgo sirup, maple sirup, maple sugar

Wool—Wool, mohair

Meat animals—Cattle, calves, sheep and lambs, hogs

Poultry and eggs—Chickens, eggs

Milk and milk products—Whole milk, butter, butterfat

Fruit, noncitrus—Apples, apricots, figs, grapes, peaches, pears, plums, prunes, cranberries, strawberries

Fruit, citrus—Oranges, lemons, grapefruit

Oil crops—Flaxseed, peanuts, soybeans, cottonseed

Truck crops—Artichokes, asparagus, snap beans, beets, cabbage, cantaloups, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, peas, peppers, spinach, tomatoes, watermelons

Tree nuts—Almonds, pecans, walnuts

TABLE A-1

PHYSICAL OUTPUT AND FARM PRICE OF INDIVIDUAL PRODUCTS, 1897-1939

A general note appears at the end of this table, followed by specific notes numbered in the same manner as the columns to which they refer.

Year	(1) WHEAT		(2) CORN		(3) OATS		(4) BARLEY		(5) RICE	
	Net Output Price		Net Output Price		Net Output Price		Net Output Price		Net Output Price	
	Mil. bu.	¢ per bu.	Mil. bu.	¢ per bu.	Mil. bu.	¢ per bu.	Mil. bu.	¢ per bu.	Mil. bu.	¢ per bu.
1897	576.1	80.9	457.5	26.0	248.9	21.0	51.3	34.3	5.91	73
1898	714.9	57.9	470.3	28.5	252.7	25.1	49.1	38.9	7.28	82
1899	574.1	58.8	529.2	29.8	281.2	24.5	59.1	38.8	7.86	82
1900	531.3	62.1	532.4	35.0	283.6	25.3	48.3	40.7	8.54	74
1901	704.4	63.1	343.2	60.0	239.9	39.7	61.9	45.4	11.11	74
1902	630.2	63.0	554.8	40.1	323.1	30.5	73.1	45.3	12.84	76
1903	585.4	69.3	503.0	41.9	265.6	33.7	74.7	44.7	17.33	77
1904	484.5	92.6	537.3	43.6	303.5	30.9	83.1	41.2	17.69	65
1905	627.0	74.7	590.8	40.6	331.3	28.8	85.8	39.4	14.52	94
1906	662.5	66.0	606.6	39.1	306.8	31.7	89.6	41.8	16.09	90
1907	542.1	86.6	522.8	50.5	240.3	44.4	75.3	66.5	18.94	85
1908	561.6	96.7	513.3	65.0	248.8	49.2	85.4	56.6	20.41	81
1909	614.9	99.1	574.6	61.6	331.3	42.8	90.1	55.8	21.48	79
1910	560.4	90.8	599.7	51.6	335.2	35.6	73.9	60.7	22.69	67
1911	507.7	86.9	487.9	68.0	245.3	44.9	81.0	82.5	20.51	80
1912	633.6	80.7	589.3	55.3	400.1	33.7	103.7	50.9	21.37	93
1913	639.1	79.4	393.4	70.4	280.4	38.6	77.4	52.5	22.09	86
1914	788.9	97.4	488.5	70.8	314.1	43.9	85.5	53.7	21.16	92
1915	900.3	96.1	546.4	68.0	412.2	38.3	94.1	52.0	23.54	90
1916	517.3	143.4	452.5	116.6	318.2	48.7	69.2	80.4	36.66	88
1917	501.9	204.7	653.9	145.9	447.1	70.1	75.1	123.2	31.43	189
1918	769.9	205.0	419.1	152.2	386.7	68.5	89.2	95.1	36.69	191
1919	825.3	216.3	510.1	151.3	292.8	76.7	49.7	124.4	39.12	266
1920	734.1	182.6	741.9	61.8	431.7	53.8	68.5	84.4	48.68	118
1921	697.8	103.0	639.1	52.3	265.1	32.2	53.1	47.8	36.18	94
1922	712.2	96.6	533.7	74.5	300.0	37.4	61.7	49.9	39.01	92
1923	615.7	92.6	621.0	82.5	324.9	40.7	62.8	54.6	30.69	110
1924	706.0	124.7	450.4	106.1	412.3	47.8	68.9	74.2	30.07	134
1925	561.7	143.7	619.8	69.9	373.6	38.9	74.2	61.4	30.07	148
1926	714.7	121.7	498.5	74.5	272.7	40.0	50.9	57.9	39.06	113
1927	740.7	119.0	537.6	85.0	230.1	47.1	79.5	68.9	41.68	90
1928	774.1	99.8	567.0	84.0	290.1	40.7	108.7	56.8	41.26	91
1929	681.1	103.6	490.1	79.9	228.3	41.8	76.7	53.9	36.69	99
1930	648.4	67.1	358.0	59.6	215.1	32.2	79.6	40.5	42.05	78
1931	687.6	39.0	470.7	32.0	190.0	21.3	36.8	32.8	41.99	48
1932	548.5	38.2	587.2	31.9	210.1	15.7	75.0	22.1	39.09	41
1933	401.6	74.4	437.0	52.2	96.6	33.5	45.4	43.5	35.07	77
1934	360.1	84.8	170.1	81.5	58.9	48.0	39.8	68.6	36.49	79
1935	455.6	83.2	409.5	65.5	203.7	26.3	98.6	37.8	36.52	77
1936	441.9	102.6	245.1	104.4	120.7	44.9	52.3	78.4	46.60	83
1937	668.3	96.3	595.0	51.8	224.4	30.1	87.7	54.0	50.22	65
1938	730.3	56.1	629.6	50.0	175.8	23.7	96.3	36.6	49.46	64
1939	585.1	69.1	704.7	56.7	154.3	31.1	106.5	40.3	50.44	72

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(6) RYE		(7) FLAXSEED		(8) BUCKWHEAT		(9) POTATOES		(10) SWEET POTATOES	
	<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>	
	Mil. bu.	¢ per bu.	Mil. bu.	¢ per bu.	Mil. bu.	¢ per bu.	Mil. bu.	¢ per bu.	Mil. bu.	¢ per bu.
897	22.1	42.6	12.20	78	9.23	41.9	166.5	49.8	34.1	53.5
898	20.6	44.1	17.36	90	7.73	44.8	201.9	38.0	41.6	(55.0)
899	17.8	49.5	18.45	98	7.05	56.1	229.0	36.1	34.7	58.1
900	18.5	50.1	14.27	146	7.39	55.8	218.1	38.7	37.5	55.6
901	21.3	55.0	25.47	133	9.79	56.3	174.2	69.0	39.5	63.1
902	24.3	50.0	34.33	105	8.66	59.5	249.1	42.7	40.2	63.6
903	20.2	53.5	24.21	81	9.15	60.8	232.1	55.1	43.4	64.0
904	19.6	69.2	21.28	99	10.02	62.5	293.6	40.8	45.5	66.4
905	22.2	60.3	27.28	84	10.38	58.3	252.6	55.1	48.0	63.8
906	21.0	58.5	26.15	102	9.53	59.4	286.8	45.6	47.4	68.3
907	19.8	72.6	22.50	96	9.12	69.9	279.8	54.7	47.0	77.7
908	19.9	72.8	19.48	116	9.40	77.7	256.4	67.8	51.1	73.2
909	19.9	73.0	18.14	142	9.10	72.3	326.6	56.8	48.4	76.2
910	18.6	72.9	9.94	228	8.68	67.5	289.9	58.8	49.5	78.9
911	19.7	80.7	17.01	197	8.04	75.8	254.0	94.3	45.3	92.0
912	25.4	65.0	27.11	129	8.59	67.8	336.0	55.7	46.5	86.8
913	26.5	61.0	14.28	123	5.67	76.2	280.9	68.2	45.9	83.7
914	28.6	82.3	12.36	131	6.91	80.6	302.0	55.9	44.4	85.2
915	32.8	84.0	10.60	168	6.56	81.6	285.9	68.1	51.9	76.1
916	26.1	112.4	10.75	231	5.33	126.6	224.4	152.8	50.5	96.6
917	39.8	173.4	7.48	311	6.93	167.1	333.0	125.5	59.7	128.2
918	59.7	149.6	11.97	358	7.47	163.9	296.1	118.8	56.3	151.5
919	58.6	145.9	5.86	442	6.14	158.7	251.8	193.6	64.2	169.0
920	45.0	146.4	10.27	233	5.72	125.4	304.1	125.3	63.2	141.7
921	40.0	84.0	7.51	165	5.16	87.9	270.6	113.3	60.5	113.1
922	78.8	63.9	9.44	208	4.99	89.5	332.4	65.9	64.3	100.4
923	36.5	59.3	14.70	212	4.59	95.8	309.5	92.5	52.4	120.6
924	43.7	95.3	29.59	218	4.43	107.4	321.3	68.6	36.8	149.6
925	30.5	79.0	20.78	226	4.54	87.2	254.6	170.5	41.1	165.1
926	21.9	83.0	17.04	203	4.80	87.1	273.0	131.4	51.9	117.4
927	38.3	83.5	23.74	192	5.09	86.9	315.4	101.9	58.2	109.0
928	25.5	83.6	17.38	194	4.65	89.9	341.7	52.3	48.5	118.0
929	20.6	85.7	13.61	281	4.13	96.3	284.4	131.6	53.3	117.1
930	18.5	44.5	19.71	161	3.53	78.9	288.4	91.4	44.6	108.2
931	10.8	34.1	10.33	117	3.29	42.3	318.6	45.9	54.8	72.7
932	14.2	28.1	10.52	88	3.01	43.4	311.8	37.7	70.9	54.2
933	6.0	62.7	6.03	163	3.06	55.8	287.6	82.3	61.7	69.5
934	1.4	71.8	4.38	170	3.01	58.6	326.5	44.6	63.6	79.8
935	28.6	39.5	13.15	142	3.20	55.0	319.0	59.2	68.2	70.4
936	4.9	80.9	4.54	190	2.58	85.2	280.5	114.0	52.6	93.2
937	24.1	68.6	6.49	187	2.74	66.9	333.9	52.8	61.6	82.5
938	25.8	33.8	6.79	159	2.60	54.4	312.9	55.8	62.9	73.3
939	15.8	44.0	18.25	146	2.35	62.8	307.2	68.7	59.6	74.9

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(11)		(12)		(13)		(14)		(15)	
	DRY EDIBLE		SUGAR BEETS		SUGARCANE		SUGARCANE		SORGO SUGAR	
	BEANS						SIRUP		SIRUP	
	<i>Net Output</i>	<i>Price</i>	<i>Net Output</i>	<i>Price</i>	<i>Net Output</i>	<i>Price</i>	<i>Net Output</i>	<i>Price</i>	<i>Net Output</i>	<i>Price</i>
Mil.	\$ per	Th.	\$ per	Th.	\$ per	Mil.	¢ per	Mil.	¢ per	
bags	bag	s.t.	s.t.	s.t.	s.t.	gal.	gal.	gal.	gal.	
1897	2.46	..	410	(4.19)	4,384	3.60	..	..	..	..
1898	2.58	..	360	(4.19)	4,361	4.20	..	..	..	..
1899	2.70	2.52	835	(4.19)	2,138	4.40	..	..	..	..
1900	3.04	..	853	(4.19)	4,561	4.60	..	..	..	..
1901	3.37	..	1,770	4.50	4,550	4.00	..	..	..	..
1902	3.70	..	1,991	5.03	5,222	3.50	..	..	..	..
1903	4.03	..	2,180	4.97	3,892	3.70	..	..	..	..
1904	4.36	..	2,176	4.95	5,810	4.00	..	..	..	..
1905	4.69	..	2,799	5.00	5,474	4.30	..	..	..	..
1906	5.03	..	4,448	5.10	3,808	3.70	..	..	..	..
1907	5.36	..	3,956	5.20	5,516	3.80	..	..	..	..
1908	5.69	..	3,586	5.35	5,796	4.10	..	..	..	..
1909	6.02	3.30	4,285	5.06	4,389	3.83	21.6	46.3	..	..
1910	5.57	3.44	4,249	5.45	5,222	3.69	24.2	47.2	..	..
1911	6.16	3.57	5,315	5.50	6,010	4.29	25.1	46.6	..	..
1912	6.25	3.44	5,648	5.82	2,292	3.73	26.3	44.6	..	..
1913	5.56	3.40	5,886	5.69	4,326	3.13	26.6	45.5	..	..
1914	6.64	4.00	5,585	5.45	3,256	3.75	24.4	45.0	..	..
1915	6.56	4.86	6,511	5.67	2,034	4.55	24.9	49.4	..	..
1916	5.46	9.32	6,228	6.12	4,171	5.29	27.9	58.6	..	..
1917	8.17	10.02	5,980	7.39	3,845	7.10	29.1	64.4	..	..
1918	8.78	7.30	5,949	10.00	4,220	7.28	33.4	79.4	..	..
1919	7.38	7.19	6,421	11.74	1,899	14.00	23.1	108.4	30.95	108.4
1920	5.41	4.23	8,538	11.63	2,593	5.76	23.1	103.5	32.90	106.4
1921	5.20	4.78	7,782	6.35	4,228	3.63	23.3	47.6	28.80	60.4
1922	6.70	5.99	5,183	7.91	3,787	5.83	22.7	54.4	18.85	70.4
1923	8.18	5.53	7,006	8.99	2,427	7.09	19.3	71.4	14.76	83.4
1924	7.63	6.07	7,508	7.95	1,228	5.58	17.9	69.7	12.13	93.4
1925	9.90	5.00	7,381	6.39	2,644	4.05	15.7	76.9	10.71	93.4
1926	8.97	4.70	7,223	7.61	864	4.92	16.8	72.9	14.88	83.4
1927	8.37	5.78	7,753	7.67	962	4.61	17.0	75.6	12.05	83.4
1928	9.12	7.74	7,101	7.11	1,873	3.85	18.3	69.3	10.68	90.4
1929	10.62	6.83	7,315	7.08	3,120	3.73	19.7	71.7	9.38	89.4
1930	12.46	4.04	9,199	7.14	2,910	3.31	17.4	58.0	8.88	78.4
1931	11.33	2.08	7,903	5.94	2,524	3.21	15.2	50.3	17.89	42.4
1932	9.68	1.98	9,070	5.26	3,307	2.98	18.4	40.1	15.51	37.4
1933	11.26	2.78	11,030	5.13	3,069	3.18	22.0	45.8	15.87	47.4
1934	9.79	3.51	7,519	5.16	3,403	2.33	25.6	45.5	14.52	50.4
1935	12.55	2.94	7,908	5.76	4,573	3.15	26.0	42.4	13.35	54.4
1936	9.54	5.38	9,028	6.05	5,419	3.67	22.7	42.8	11.89	56.4
1937	13.96	3.08	8,784	5.27	5,892	2.90	25.1	44.4	11.92	56.4
1938	13.35	2.54	11,615	4.65	6,741	2.70	22.2	44.4	11.40	55.4
1939	12.77	3.24	10,781	4.76	5,783	2.84	24.9	42.9	10.23	58.4

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(16) MAPLE SIRUP		(17) MAPLE SUGAR		(18) PEANUTS		(19) SOYBEANS		(20) HOPS	
	Net Output Mil. gal.	Price \$ per gal.	Net Output Th. lb.	Price ¢ per lb.	Net Output Mil. lb.	Price ¢ per lb.	Used for		Net Output Mil. lb.	Price ¢ per lb.
							Crushing Th. bu.	Price \$ per bu.		
897	..	..	..	..	198	3.2	..	..	43.1	9.3
898	..	..	..	..	223	3.8	..	..	41.1	13.0
899	..	..	..	..	252	3.5	..	..	49.2	8.2
900	..	..	..	..	270	3.2	..	..	45.0	12.0
901	..	..	..	..	285	3.8	..	..	39.9	12.3
902	..	..	..	..	301	4.0	..	..	38.8	22.9
903	..	..	..	..	318	5.1	..	..	39.0	22.9
904	..	..	..	..	337	4.5	..	..	44.3	27.2
905	..	..	..	..	356	4.4	..	..	49.1	14.9
906	..	..	..	..	376	4.9	..	..	60.3	11.4
907	..	..	..	..	399	4.1	..	..	54.0	9.9
908	..	..	..	..	423	4.4	..	..	39.0	10.9
909	..	..	..	..	449	4.9	..	..	40.0	22.2
910	..	..	..	..	472	4.7	..	..	44.0	15.8
911	..	..	..	..	494	4.6	..	..	51.7	41.8
912	..	..	..	..	516	4.7	..	..	53.4	18.3
913	..	..	..	..	538	4.7	..	..	62.9	22.8
914	..	..	..	..	561	4.4	..	..	43.4	14.9
915	..	..	..	..	583	4.3	..	..	53.0	11.7
916	..	..	..	..	606	4.65	..	..	50.6	12.0
917	4.26	..	10,525	..	927	7.12	..	..	29.4	33.3
918	4.86	..	12,944	..	821	6.45	..	..	21.5	19.3
919	3.26	2.63	9,541	32.5	615	9.40	..	..	28.3	77.4
920	3.13	..	6,928	..	622	4.82	..	..	33.6	35.7
921	2.15	..	4,699	..	611	3.86	..	..	29.3	24.1
922	3.37	..	5,227	..	459	5.37	159	2.01	27.7	8.6
923	3.26	..	4,656	..	491	6.48	102	2.28	19.8	18.8
924	3.57	2.00	4,096	26.0	636	5.81	307	2.47	27.7	10.3
925	2.82	2.08	3,238	26.9	652	4.50	351	2.34	28.6	21.8
926	3.50	2.12	3,585	29.3	583	4.83	335	2.00	31.5	23.1
927	3.43	2.05	3,183	28.7	759	5.12	559	1.83	30.7	22.9
928	2.78	2.02	2,189	28.6	752	4.96	883	1.90	32.9	19.3
929	2.36	2.03	1,362	30.0	814	3.75	1,666	1.87	33.2	11.4
930	3.64	2.03	2,370	30.1	599	3.58	4,069	1.32	23.4	14.8
931	2.21	1.72	1,646	25.7	947	2.02	4,725	.48	26.4	13.8
932	2.41	1.51	1,623	24.5	844	1.54	3,470	.56	24.1	17.5
933	2.19	1.18	1,288	20.8	712	2.84	3,054	.99	40.0	30.4
934	2.40	1.33	1,271	24.7	904	3.32	9,105	1.01	43.2	14.5
935	3.38	1.42	1,704	26.5	1,033	3.14	25,181	.79	42.3	9.8
936	2.40	1.44	985	26.7	1,142	3.74	20,618	1.28	25.2	27.6
937	2.51	1.60	1,047	29.0	1,112	3.31	30,310	.84	39.5	16.2
938	2.77	1.61	1,078	28.3	1,193	3.28	44,648	.68	29.6	19.7
939	2.52	1.71	760	29.3	1,076	3.39	57,072	.77	31.5	27.8

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(21) BROOMCORN		(22) HAY		(23) COTTON		(24) COTTONSEED		(25) TOBACCO	
	<i>Net Output Price</i>		<i>Sales off Farms</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>	
	Th. s.t.	\$ per s.t.	Mil. s.t.	Price \$ per s.t.	Mil. bales	\$ per bale	Mil. s.t.	\$ per s.t.	Mil. lb.	¢ per lb.
1897	..	..	11.4	7.21	10.99	33.40	2.10	9.5	703	7.
1898	..	..	12.4	6.52	11.53	28.65	2.35	9.7	909	6.
1899	..	..	11.1	8.20	9.35	34.90	2.48	13.3	870	7.
1900	..	..	10.6	9.78	10.12	45.75	2.42	13.6	852	6.
1901	..	..	10.5	9.88	9.51	35.15	3.15	16.6	886	7.
1902	..	..	11.4	9.05	10.63	38.00	3.27	16.2	960	6.
1903	..	..	12.2	9.18	9.85	52.45	3.24	14.0	976	6.
1904	..	..	12.6	8.82	13.44	44.90	3.34	10.8	857	7.
1905	..	..	12.8	8.49	10.58	53.90	3.13	13.1	939	8.
1906	..	..	11.7	10.40	13.27	47.90	3.84	18.5	973	9.
1907	..	..	12.6	11.60	11.11	51.80	2.56	18.0	886	10.
1908	..	..	13.4	9.47	13.24	45.05	3.67	16.2	836	10.
1909	..	..	13.0	10.58	10.00	67.60	3.27	24.15	1,054	10.
1910	..	..	12.0	11.54	11.61	69.80	4.11	25.99	1,142	9.
1911	..	..	9.8	14.32	15.70	48.25	4.92	17.15	941	9.
1912	..	..	12.3	11.17	13.70	57.50	4.58	18.33	1,117	10.
1913	..	..	10.6	11.49	14.15	62.35	4.85	21.90	992	12.
1914	..	..	10.7	10.92	16.11	36.75	5.77	15.46	1,037	9.
1915	..	..	10.8	10.34	11.17	56.10	4.19	30.13	1,157	9.
1916	..	..	11.0	11.21	11.45	86.80	4.50	45.70	1,207	14.
1917	..	..	9.1	16.60	11.28	135.45	4.26	64.30	1,326	24.
1918	..	..	8.4	19.88	12.02	144.40	4.46	65.16	1,445	27.
1919	54.6	155.0	8.7	21.00	11.41	176.70	3.99	65.59	1,444	31.
1920	37.8	127.5	8.0	16.46	13.43	79.45	4.10	25.65	1,509	17.
1921	39.2	71.6	6.8	11.63	7.94	85.00	2.90	29.07	1,005	19.
1922	38.2	219.3	7.0	11.64	9.76	114.40	3.22	30.33	1,254	22.
1923	81.4	160.2	6.7	13.08	10.14	143.45	3.28	41.20	1,518	19.
1924	77.0	96.1	6.1	12.66	13.63	114.55	4.59	33.25	1,245	19.
1925	31.0	142.9	5.2	12.77	16.10	98.05	5.52	31.69	1,376	16.
1926	54.2	79.2	4.4	13.24	17.98	62.35	6.36	22.08	1,289	17.
1927	40.1	103.0	4.4	10.29	12.96	100.95	4.59	34.86	1,211	20.
1928	52.6	97.4	3.5	11.22	14.48	89.95	5.08	34.15	1,373	20.
1929	47.3	114.5	3.0	10.90	14.82	83.95	5.02	30.94	1,533	18.
1930	51.1	66.3	2.2	11.06	13.93	47.30	4.69	22.09	1,648	12.
1931	49.3	44.8	2.3	8.69	17.10	28.30	5.62	8.97	1,564	8.
1932	40.9	37.0	2.4	6.22	13.00	32.60	4.54	10.30	1,017	10.
1933	30.0	102.0	2.3	8.12	13.05	50.85	4.16	12.88	1,371	13.
1934	28.7	164.4	1.9	13.28	9.64	61.80	3.42	33.10	1,082	21.
1935	61.3	73.9	2.3	7.51	10.64	55.45	3.75	30.51	1,297	18.
1936	38.0	117.0	1.9	11.04	12.40	61.65	4.52	33.27	1,155	23.
1937	45.5	70.3	2.2	8.69	18.95	42.05	6.62	19.51	1,563	20.
1938	37.0	62.9	2.4	6.82	11.94	43.00	4.26	21.79	1,376	19.
1939	30.3	107.1	2.3	7.08	11.82	45.45	4.16	21.15	1,849	15.

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(26)		(27)		(28)		(29)		(30)	
	APPLES		APRICOTS		FIGS, FRESH AND CANNED		FIGS, DRIED		GRAPES	
	<i>Net Output</i> Mil. bu.	<i>Price</i> \$ per bu.	<i>Net Output</i> Th. s.t.	<i>Price</i> \$ per s.t.	<i>Net Output</i> Th. s.t.	<i>Price</i> \$ per s.t.	<i>Net Output</i> Th. s.t.	<i>Price</i> \$ per s.t.	<i>Net Output</i> Th. s.t.	<i>Price</i> \$ per s.t.
897	163.7	.73	99	..	..	..	..	..	650	(22.0)
898	118.1	.98	36	..	..	..	..	..	660	(22.0)
899	175.4	.70	52	31	..	..	..	..	671	21.7
900	205.9	.68	97	..	..	..	..	..	737	22.8
901	135.5	.86	57	..	..	..	..	..	670	29.3
902	212.3	.50	121	..	..	..	..	..	908	30.1
903	195.7	.59	80	..	..	..	..	..	811	26.7
904	233.6	.56	67	27	..	..	..	..	775	22.7
905	136.2	.96	28	..	..	..	..	..	737	28.9
906	216.7	.76	27	..	..	..	..	..	872	31.2
907	119.6	.78	15	..	..	..	..	..	1,016	34.3
908	148.9	.88	141	..	..	..	..	..	976	23.9
909	145.4	.85	97	29.9	..	..	..	..	1,099	19.5
910	141.6	.87	109	29.6	..	..	..	..	967	22.3
911	214.0	.77	85	49.1	..	..	..	..	1,172	21.1
912	235.2	.66	137	29.3	..	..	..	..	1,198	20.7
913	145.4	.92	81	44.0	..	..	..	..	984	26.4
914	253.2	.62	148	36.3	..	..	..	..	1,255	21.5
915	230.0	.70	130	25.3	..	..	..	..	1,216	24.9
916	193.9	.89	88	46.8	..	..	..	..	1,274	28.6
917	166.7	1.15	133	56.6	..	..	..	..	1,441	33.3
918	169.6	1.38	128	55.1	..	..	..	..	1,325	46.9
919	140.6	1.75	172	87.1	.9	..	12.0	150	1,575	65.4
920	206.7	1.22	108	87.4	1.2	..	12.3	90	1,521	77.4
921	95.6	1.64	100	56.5	1.6	..	9.6	145	1,220	73.8
922	189.4	1.02	163	76.5	2.6	..	11.0	120	1,985	48.8
923	180.9	1.13	210	31.8	3.3	..	9.5	90	2,250	26.5
924	160.2	1.21	142	52.3	2.2	104	8.5	100	1,775	39.2
925	152.4	1.25	150	61.8	3.1	100	9.6	110	2,062	32.2
926	222.3	.89	176	68.0	5.1	112	11.4	95	2,429	27.0
927	115.7	1.40	210	57.3	5.4	100	12.0	45	2,450	26.9
928	177.8	1.08	179	51.4	6.1	87	11.5	45	2,501	20.1
929	135.1	1.39	221	64.4	7.3	100	17.0	90	2,085	27.3
930	156.6	1.02	195	40.3	7.7	90	21.0	48	2,339	19.5
931	203.3	.66	279	30.1	6.3	74	17.0	37	1,636	22.6
932	142.6	.60	262	18.9	6.5	36.5	19.0	25.5	2,077	13.4
933	144.1	.78	270	30.1	5.9	50.5	21.5	43.8	1,936	18.0
934	125.7	.89	149	55.0	9.0	51.8	22.9	59.3	1,958	19.7
935	173.9	.72	223	46.3	10.2	56.5	24.0	43.0	2,488	14.9
936	117.5	1.05	254	38.3	11.0	54.0	20.0	77.0	1,916	21.6
937	198.3	.67	321	37.6	12.0	70.3	28.7	68.0	2,767	20.7
938	127.4	.83	176	36.6	11.0	56.5	31.5	65.1	2,704	14.8
939	171.7	.64	315	33.7	12.0	50.4	25.0	77.8	2,471	16.4

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(31)		(32)		(33)		(34)		(35)	
	OLIVES		PEACHES		PEARS		PLUMS, FRESH AND FOR CANNING		PRUNES, CANNED	
	Net Output Th. s.t.	Price \$ per s.t.	Net Output Mil. bu.	Price \$ per bu.	Net Output Mil. bu.	Price \$ per bu.	Net Output Th. s.t.	Price \$ per s.t.	Net Output Th. s.t.	Price \$ per s.t.
1897	..	..	48.4	..	7.87	..	11.8	..	..	..
1898	..	..	50.9	..	7.80	..	8.6	..	..	..
1899	..	..	15.4	..	6.62	..	13.9	..	..	..
1900	..	..	49.4	..	9.32	..	18.2	..	..	..
1901	..	..	46.4	..	8.35	..	14.9	..	..	..
1902	..	..	37.8	..	9.87	..	23.3	..	..	..
1903	..	..	28.8	..	7.62	..	18.1	..	..	..
1904	..	..	41.1	..	10.02	..	16.7	..	..	..
1905	..	..	36.6	..	9.04	..	22.1	..	..	..
1906	..	..	44.1	..	11.18	..	20.5	..	..	..
1907	..	..	22.5	..	6.85	..	17.0	..	..	..
1908	..	..	48.1	..	11.64	..	28.7	..	..	..
1909	..	..	35.3	.83	9.12	.89	22.2	42.4	..	..
1910	..	..	43.7	1.00	10.75	1.01	22.4	42.3	..	..
1911	..	..	32.7	1.18	12.15	.85	23.4	58.2	..	..
1912	..	..	49.4	.94	12.77	.79	29.6	50.2	..	..
1913	..	..	41.7	1.04	10.91	.93	25.6	55.1	..	..
1914	..	..	52.3	1.02	13.24	.78	30.1	41.0	..	..
1915	..	..	60.4	.82	12.56	.90	34.0	30.3	..	..
1916	..	..	37.5	1.08	12.59	.93	30.5	52.8	..	..
1917	..	..	47.5	1.34	13.93	1.16	43.6	48.5	..	..
1918	..	..	37.9	1.67	13.59	1.38	38.8	65.4	..	..
1919	8.8	131.6	51.9	1.89	14.89	1.84	47.7	64.55	2.3	97.8
1920	8.0	78.5	44.7	2.21	17.43	1.68	42.3	82.74	1.7	41.8
1921	8.5	69.2	33.1	1.55	11.56	1.69	44.7	54.88	1.7	41.2
1922	9.7	88.7	57.7	1.41	20.49	1.09	56.1	47.40	4.2	35.5
1923	17.0	83.1	45.1	1.51	17.29	1.24	73.5	30.56	4.1	23.9
1924	6.5	72.1	52.0	1.32	18.72	1.43	44.8	43.06	2.1	22.4
1925	15.0	55.8	45.8	1.58	20.23	1.44	54.7	39.80	4.5	34.4
1926	12.2	92.2	65.3	1.07	24.84	.90	79.4	23.00	7.5	18.5
1927	20.8	85.3	40.8	1.26	18.25	1.34	60.9	44.75	6.9	19.7
1928	22.0	80.0	62.1	1.03	23.95	1.05	72.9	37.00	10.0	31.1
1929	21.0	66.9	44.7	1.51	21.60	1.45	44.4	85.95	16.1	25.8
1930	20.0	62.7	51.1	1.02	25.73	.76	89.4	35.08	13.3	18.3
1931	15.5	39.4	72.5	.60	24.42	.63	65.0	24.11	13.7	12.0
1932	16.8	32.0	35.6	.62	20.61	.42	64.2	17.52	10.2	9.4
1933	14.0	58.3	43.1	.82	21.08	.58	54.4	25.15	14.9	16.9
1934	17.7	85.3	45.3	.88	27.06	.70	67.5	32.79	18.8	17.1
1935	32.0	45.4	54.7	.90	25.30	.64	54.0	36.41	28.0	13.5
1936	27.0	62.5	47.5	1.01	27.16	.79	68.3	30.40	31.0	17.3
1937	28.0	67.6	59.7	1.02	28.58	.69	71.8	41.80	28.6	22.2
1938	41.0	46.9	50.8	.78	29.63	.52	65.9	29.03	15.3	9.8
1939	22.0	75.9	60.4	.80	29.85	.62	70.3	31.55	31.5	8.5

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(36) PRUNES, DRIED		(37) PRUNES, FRESH		(38) CRANBERRIES		(39) STRAWBERRIES	
	Net Output Price		Net Output Price		Net Output Price		Net Output Price	
	Th. s.t.	\$ per s.t.	Th. s.t.	\$ per s.t.	Th. bbl.	\$ per bbl.	Mil. crates	\$ per crate
1897	54.2	..	..	..	..	..	..	..
1898	53.7	..	..	..	..	..	..	..
1899	58.6	64.9	..	..	..	..	..	..
1900	92.0	..	..	..	318	6.61	..	..
1901	52.8	..	..	..	414	5.68	..	..
1902	105.0	..	..	..	317	6.33	..	..
1903	97.5	..	..	..	419	6.21	..	..
1904	71.5	47.6	..	..	385	5.18	..	..
1905	36.8	..	..	..	271	7.62	..	..
1906	100.0	..	..	..	412	6.50	..	..
1907	65.0	..	..	..	452	6.45	..	..
1908	36.5	..	..	..	344	7.62	..	..
1909	90.0	62.9	..	..	601	5.46	..	..
1910	50.0	..	..	..	569	5.85	..	..
1911	107.0	..	..	..	473	7.13	..	..
1912	106.5	..	..	..	512	6.64	..	..
1913	62.0	..	..	..	498	6.48	..	..
1914	61.2	110.0	..	..	664	4.02	..	..
1915	101.8	..	..	..	476	6.55	..	..
1916	99.8	..	..	..	571	6.59	..	..
1917	120.5	..	..	..	293	10.39	..	..
1918	75.5	..	..	..	375	8.72	6.25	4.45
1919	158.8	253.3	27.1	69.04	590	7.89	6.66	4.79
1920	116.9	146.3	25.5	51.92	472	10.42	6.46	4.87
1921	113.7	138.4	41.2	46.63	397	13.44	7.84	4.63
1922	147.0	144.1	27.6	42.50	597	10.49	10.72	3.39
1923	158.0	104.8	54.0	5.87	686	7.96	10.75	3.64
1924	164.0	116.5	25.9	57.72	610	9.97	12.24	3.37
1925	161.5	112.9	29.0	37.34	609	11.23	8.91	4.18
1926	192.5	104.8	44.4	18.58	762	7.14	10.20	4.16
1927	248.8	72.1	45.4	26.89	512	12.95	12.55	3.61
1928	228.9	101.8	56.2	14.11	559	14.35	12.86	3.34
1929	160.1	135.3	69.9	20.93	570	13.49	12.45	3.23
1930	285.2	57.1	57.4	17.26	584	10.83	9.08	4.00
1931	242.4	56.6	43.5	21.33	654	6.55	11.28	3.29
1932	194.5	55.5	47.5	12.59	580	7.79	12.66	1.94
1933	205.5	81.2	37.6	18.75	699	6.41	12.06	1.74
1934	201.1	65.9	49.1	15.42	445	11.58	10.00	2.02
1935	297.3	56.7	49.3	28.40	516	12.13	10.98	2.31
1936	184.3	78.0	46.2	24.72	504	13.58	9.45	2.81
1937	255.7	54.6	36.8	28.42	877	8.75	11.79	2.92
1938	238.3	42.2	48.5	15.01	476	10.98	11.26	2.68
1939	213.4	65.8	54.9	12.57	671	10.30	13.60	2.39

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(40) CITRUS FRUIT, CALIFORNIA							
	(A) and (B) ORANGES AND LEMONS		(A) ORANGES		(B) LEMONS		(C) GRAPEFRUIT	
	<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>	
	Mil. boxes	\$ per box	Mil. boxes	\$ per box	Mil. boxes	\$ per box	Th. boxes	\$ per box
1897	6.50	.64	..	..	..	..	0	..
1898	4.43	1.03	..	..	..	..	0	..
1899	7.63	1.11	..	..	..	..	0	..
1900	10.23	.66	..	..	..	..	0	..
1901	8.62	1.02	..	..	..	..	0	..
1902	9.89	.62	..	..	..	..	0	..
1903	12.33	.53	..	..	..	..	0	..
1904	11.81	.87	..	..	..	..	0	..
1905	9.97	1.51	1.28	2.11	0	..
1906	11.43	1.36	1.19	2.41	0	..
1907	11.94	1.27	1.72	1.22	0	..
1908	14.94	1.07	2.18	1.28	0	..
1909	12.24	1.33	1.75	2.57	19	(2.00)
1910	17.46	1.29	2.45	2.03	36	(2.00)
1911	15.31	1.10	2.28	2.03	64	2.13
1912	6.87	1.89	.97	4.39	85	2.05
1913	20.12	.94	1.30	2.58	107	1.44
1914	17.74	1.32	2.75	.66	139	1.16
1915	16.99	1.60	2.90	2.28	159	1.33
1916	21.53	1.34	3.21	2.32	188	1.41
1917	7.92	3.97	2.68	4.32	227	1.70
1918	17.93	2.88	4.45	2.59	380	2.24
1919	17.07	3.38	4.53	1.76	363	1.73
1920	22.55	2.20	5.64	3.18	395	1.87
1921	13.92	3.31	4.38	2.77	360	2.67
1922	21.29	1.87	3.78	3.51	394	1.79
1923	24.32	1.86	6.43	1.77	363	1.97
1924	18.54	3.36	5.30	3.65	387	3.55
1925	24.20	2.68	7.32	2.26	600	2.84
1926	28.17	3.05	7.45	2.75	672	2.35
1927	22.74	4.22	5.42	3.97	720	3.80
1928	38.99	2.09	7.62	3.28	972	2.50
1929	21.48	4.22	6.11	4.35	1,000	2.65
1930	35.47	1.72	7.95	2.83	1,290	1.25
1931	34.90	1.30	7.70	2.23	1,431	1.00
1932	34.26	1.09	6.70	2.66	1,350	.85
1933	27.46	1.73	7.30	2.85	1,713	1.10
1934	43.65	1.43	10.75	1.97	2,167	1.00
1935	32.20	1.80	7.79	3.29	2,267	.97
1936	28.80	2.22	7.58	3.43	1,310	1.14
1937	44.71	.91	9.36	2.60	1,943	.58
1938	38.47	.96	11.11	2.00	1,744	.48
1939	43.40	1.36	11.96	(2.00)	1,975	.50

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(41) CITRUS FRUIT, FLORIDA						(42) CITRUS FRUIT, OTHER					
	(A)		(B)		(A)		(B)		(C)			
	ORANGES		GRAPEFRUIT		ORANGES		GRAPEFRUIT, TEXAS		GRAPEFRUIT, ARIZONA			
	Net Output Price		Net Output Price		Net Output Price		Net Output Price		Net Output Price			
Mil.	\$ per	Mil.	\$ per	Th.	\$ per	Th.	\$ per	Th.	\$ per			
boxes	box	boxes	box	boxes	box	boxes	box	boxes	box			
1897	.395	(1.50)	0	..	..	..	..	..	..
1898	.277	(1.50)	0	..	..	..	..	..	..
1899	.301	(1.50)	0	..	..	..	..	..	..
1900	.310	(1.50)	.075	(2.00)	..	..	..	..	..
1901	.857	(1.50)	.205	(2.00)	..	..	..	..	..
1902	1.01	(1.50)	.240	(2.00)	..	..	..	..	..
1903	1.72	(1.50)	.411	(2.00)	..	..	..	..	..
1904	2.61	(1.50)	.622	(2.00)	..	..	..	..	..
1905	3.34	(1.50)	.797	(2.00)	..	..	..	..	..
1906	3.34	(1.50)	.798	(2.00)	..	..	..	..	..
1907	2.87	(1.50)	.677	(2.00)	..	..	..	..	..
1908	4.08	(1.50)	.973	(2.00)	..	..	..	..	..
1909	5.33	.89	1.41	1.82	..	..	..	..	..
1910	3.35	1.25	1.71	1.65	..	..	..	..	..
1911	4.13	1.60	1.12	2.94	..	..	..	..	..
1912	6.29	1.47	2.52	1.61	..	..	..	..	..
1913	6.28	1.38	2.35	2.01	..	..	..	..	..
1914	6.51	1.14	3.97	.92	..	..	..	..	..
1915	6.06	1.59	3.00	1.58	..	..	..	..	..
1916	5.24	1.62	3.03	1.81	..	..	..	..	..
1917	3.66	3.02	2.37	2.20	..	..	..	..	..
1918	6.18	2.75	3.31	2.43	..	..	..	..	..
1919	7.53	2.96	5.90	2.05	..	..	3	..	29	
1920	9.46	2.04	6.14	2.06	..	..	5	..	34	
1921	8.37	2.77	6.64	1.96	..	..	8	..	35	
1922	10.90	2.32	7.77	1.81	..	..	35	..	60	
1923	13.72	1.48	8.94	1.19	..	..	65	..	95	
1924	11.64	2.39	9.18	1.49	154	2.71	301	2.00	105	3.50		
1925	10.04	2.66	7.66	2.32	353	2.90	200	2.50	150	3.00		
1926	11.51	2.15	8.69	1.99	383	2.81	361	2.50	120	2.50		
1927	9.49	3.27	8.16	2.63	484	3.70	524	1.90	176	3.80		
1928	15.59	1.76	11.31	1.76	549	2.75	753	1.60	211	3.50		
1929	10.30	2.49	8.27	2.49	834	2.79	1,530	2.15	365	2.50		
1930	19.21	1.76	16.11	1.22	681	1.75	1,135	1.15	400	1.50		
1931	14.22	1.84	10.79	1.13	1,044	1.33	2,480	.55	450	.90		
1932	16.20	1.20	11.80	.88	950	1.31	1,385	1.10	614	.75		
1933	18.10	1.28	10.70	1.09	835	1.08	1,140	.90	800	.80		
1934	17.60	1.37	15.20	.91	1,341	1.27	2,760	1.00	1,240	.85		
1935	18.00	1.64	11.50	1.35	1,264	1.53	2,762	1.04	1,800	1.08		
1936	22.50	1.84	18.10	1.05	2,611	1.76	9,630	.68	1,400	1.12		
1937	26.70	1.32	14.60	1.04	2,171	1.13	11,800	.57	2,750	.62		
1938	33.90	.93	23.60	.54	3,811	.87	15,670	.31	2,700	.20		
1939	28.00	.97	15.90	1.01	3,242	1.20	13,900	.38	2,900	.42		

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(43) ALMONDS		(44) PECANS		(45) WALNUTS		(46) ARTICHOKES		(47) ASPARAGUS (A)	
	<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>For Market</i>		<i>For Market</i>	
	Th. s.t.	\$ per s.t.	Mil. lb.	¢ per lb.	Th. s.t.	\$ per s.t.	Th. boxes	\$ per box	Mil. crates	\$ per crate
1897	..	..	..	..	..	..	..	..	..	..
1898	..	..	..	..	..	..	..	..	..	..
1899	..	..	..	..	5.33	..	..	..	..	..
1900	2.9	..	..	..	5.86	..	..	..	..	..
1901	1.6	..	..	..	7.45	..	..	..	..	..
1902	3.4	..	..	..	9.26	..	..	..	..	..
1903	3.4	..	..	..	5.94	..	..	..	..	..
1904	.8	..	..	..	8.20	..	..	..	..	..
1905	2.2	..	..	..	6.91	..	..	..	..	..
1906	.8	..	..	..	7.56	..	..	..	..	..
1907	.8	..	..	..	7.99	..	..	..	..	..
1908	3.0	..	..	..	9.94	..	..	..	..	..
1909	1.6	..	..	..	10.10	..	..	..	..	..
1910	3.5	..	..	..	10.37	..	..	..	..	..
1911	1.5	..	..	..	13.50	..	..	..	..	..
1912	3.2	..	..	..	12.15	..	..	..	..	..
1913	1.2	..	..	..	12.26	..	..	..	..	..
1914	2.4	..	..	..	9.61	..	..	..	..	..
1915	3.7	..	..	..	16.0	..	..	..	..	..
1916	3.6	..	..	..	15.8	..	..	..	..	..
1917	4.2	..	..	..	17.8	..	..	..	..	..
1918	5.4	..	..	..	21.5	..	..	..	1.42	2.25
1919	7.9	440	69	19.5	30.2	550	..	..	1.13	2.47
1920	6.0	360	10	25.7	23.0	400	..	..	1.26	2.58
1921	6.2	320	48	17.6	23.3	400	..	..	1.16	2.60
1922	9.0	290	11	26.5	29.4	360	..	..	1.12	2.89
1923	11.0	260	58	19.3	27.0	400	..	..	1.45	2.84
1924	8.0	300	38	23.4	24.6	460	..	..	2.08	2.68
1925	7.5	400	52	22.1	36.6	441	1,266	1.01	2.74	2.42
1926	16.0	300	96	15.6	15.9	481	1,470	1.77	3.49	2.09
1927	12.0	320	37	20.6	52.1	331	1,272	2.02	3.59	2.01
1928	14.0	340	69	16.6	27.4	421	978	1.97	4.24	2.41
1929	4.7	480	51	15.0	43.2	321	988	2.36	3.70	2.34
1930	13.5	200	52	15.2	29.8	410	1,011	1.50	4.68	2.23
1931	14.8	176	84	7.8	34.0	236	818	1.70	5.12	1.96
1932	14.0	165	59	5.8	48.5	178	570	2.10	5.90	1.45
1933	12.9	186	69	7.8	33.0	224	743	1.24	5.22	1.27
1934	10.9	180	46	12.5	45.8	191	1,060	1.00	5.91	1.26
1935	9.3	280	106	6.3	55.2	204	1,017	1.70	5.00	1.41
1936	7.6	402	40	12.0	43.3	217	864	2.00	6.21	1.43
1937	20.0	275	77	7.3	60.1	181	808	2.35	5.98	1.59
1938	15.0	258	50	8.8	50.8	221	873	2.15	6.10	1.52
1939	19.2	209	62	9.4	57.3	173	1,122	1.80	6.89	1.41

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(47) ASPARAGUS		(48) SNAP BEANS				(49) BEETS			
	(B)		(A)		(B)		(A)		(B)	
	For Manufacture		For Market		For Manufacture		For Market		For Manufacture	
	Net Output Price		Net Output Price		Net Output Price		Net Output Price		Net Output Price	
Th.	\$ per	Mil.	\$ per	Mil.	\$ per	Th.	\$ per	Th.	\$ per	
s.t.	s.t.	bu.	bu.	s.t.	s.t.	bu.	bu.	s.t.	s.t.	
1897	..	..	..	..	..	..	..	..	..	..
1898	..	..	..	..	..	..	..	..	..	..
1899	..	..	..	..	..	..	..	..	..	..
1900	..	..	..	..	..	..	..	..	..	..
1901	..	..	..	..	..	..	..	..	..	..
1902	..	..	..	..	..	..	..	..	..	..
1903	..	..	..	..	..	..	..	..	..	..
1904	..	..	..	..	..	..	..	..	..	..
1905	..	..	..	..	..	..	..	..	..	..
1906	..	..	..	..	..	..	..	..	..	..
1907	..	..	..	..	..	..	..	..	..	..
1908	..	..	..	..	..	..	..	..	..	..
1909	..	..	..	..	..	..	..	..	..	..
1910	..	..	..	..	..	..	..	..	..	..
1911	..	..	..	..	..	..	..	..	..	..
1912	..	..	..	..	..	..	..	..	..	..
1913	..	..	..	..	..	..	..	..	..	..
1914	..	..	..	..	..	..	..	..	..	..
1915	..	..	..	..	..	..	..	..	..	..
1916	..	..	..	..	..	..	..	..	..	..
1917	..	..	..	..	..	..	..	..	..	..
1918	22.6	65	3.32	1.39	33.6	56.9	..	..	..	..
1919	25.7	85	3.42	1.76	39.5	55.3	..	..	..	..
1920	25.5	110	3.65	1.74	23.7	62.9	..	..	..	..
1921	22.2	70	4.05	1.79	20.3	60.8	..	..	..	..
1922	31.0	85	4.13	1.95	29.3	58.7	..	..	..	..
1923	38.0	100	4.90	2.19	34.3	64.3	165	.40	..	..
1924	44.8	100	6.05	1.94	44.3	66.0	597	.64	..	..
1925	43.4	78	6.27	1.88	73.8	63.5	586	.51	..	..
1926	55.8	66	6.15	1.80	48.1	60.3	530	.56	..	..
1927	52.6	70	6.54	1.77	54.1	62.5	1,194	.77	..	..
1928	58.6	79	7.42	1.72	70.2	61.5	1,560	.69	..	..
1929	66.8	82	8.96	1.63	92.3	62.7	1,819	.66	36.0	17.39
1930	66.8	81	9.95	1.40	90.4	62.1	1,994	.62	55.9	15.40
1931	43.8	75	9.83	1.29	68.7	53.0	1,826	.43	30.1	11.76
1932	35.3	51	11.28	.98	43.9	38.0	1,682	.42	21.6	8.56
1933	54.2	46	11.14	.92	60.2	38.6	1,781	.48	24.8	9.72
1934	50.0	67	14.32	.84	66.1	41.4	2,382	.44	40.1	10.47
1935	56.7	76	12.92	1.02	81.5	43.1	1,779	.54	47.6	10.21
1936	59.1	79	11.88	1.20	76.5	44.5	1,728	.47	47.1	12.42
1937	51.2	91	12.54	1.24	105.3	47.8	1,716	.53	62.6	11.80
1938	44.7	71	15.03	.92	128.4	44.8	1,966	.38	70.8	9.79
1939	47.6	73	16.15	.90	90.7	43.4	2,021	.41	38.7	10.87

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(50) CABBAGE				(51) CANTALOUPS AND OTHER MUSKMELONS		(52) CARROTS		(53) CAULIFLOWER	
	(A) For Market		(B) For Manufacture		Net Output Price		For Market		For Market	
	Net Output Price		Net Output Price		Mil.	\$ per	Mil.	\$ per	Mil.	\$ per
	Th.	\$ per	Th.	\$ per	crates	crate	bu.	bu.	crates	crate
1897	..	..	..	..	..	..	..	..	..	..
1898	..	..	..	..	..	..	..	..	..	..
1899	..	..	..	..	..	..	..	..	..	..
1900	..	..	..	..	..	..	..	..	..	..
1901	..	..	..	..	..	..	..	..	..	..
1902	..	..	..	..	..	..	..	..	..	..
1903	..	..	..	..	..	..	..	..	..	..
1904	..	..	..	..	..	..	..	..	..	..
1905	..	..	..	..	..	..	..	..	..	..
1906	..	..	..	..	..	..	..	..	..	..
1907	..	..	..	..	..	..	..	..	..	..
1908	..	..	..	..	..	..	..	..	..	..
1909	..	..	..	..	..	..	..	..	..	..
1910	..	..	..	..	..	..	..	..	..	..
1911	..	..	..	..	..	..	..	..	..	..
1912	..	..	..	..	..	..	..	..	..	..
1913	..	..	..	..	..	..	..	..	..	..
1914	..	..	..	..	..	..	..	..	..	..
1915	..	..	..	..	..	..	..	..	..	..
1916	..	..	..	..	..	..	..	..	..	..
1917	..	..	..	..	..	..	..	..	..	..
1918	752	24.30	116	10.79	7.85	1.92	..	..	1.95	1.09
1919	584	26.50	48	11.26	9.86	1.52	..	..	1.97	1.17
1920	1,014	17.99	67	9.46	10.48	1.59	..	..	2.46	1.28
1921	625	25.75	65	13.50	11.30	1.37	..	..	2.39	1.15
1922	918	13.23	161	6.60	12.73	1.82	..	..	2.75	1.55
1923	666	24.98	167	9.50	11.16	1.95	2.58	.90	3.23	1.47
1924	956	17.20	122	7.09	13.33	1.44	3.77	.83	2.94	1.25
1925	897	18.04	90	7.44	14.01	1.49	4.08	.63	3.48	1.25
1926	938	18.05	117	6.65	14.28	1.31	5.05	.60	5.90	.85
1927	1,008	15.82	157	6.68	14.93	1.48	6.24	.57	4.48	1.16
1928	819	23.59	153	9.54	15.69	1.32	6.34	.70	5.49	.99
1929	882	20.04	173	10.22	17.24	1.31	10.35	.58	6.85	.82
1930	801	22.57	214	7.74	15.76	1.21	10.76	.58	6.03	.85
1931	871	11.13	136	6.03	17.32	1.00	10.77	.48	7.19	.77
1932	847	13.40	152	4.11	13.83	.83	10.43	.61	7.55	.63
1933	748	18.53	95	11.21	12.05	.79	10.74	.47	6.84	.61
1934	1,131	9.19	216	6.35	12.20	1.09	12.99	.50	6.60	.59
1935	980	13.85	135	5.17	13.10	.91	13.27	.56	6.99	.72
1936	926	21.26	115	13.17	13.00	1.02	13.43	.57	7.60	.85
1937	997	14.31	149	9.68	14.27	1.12	14.18	.59	8.32	.86
1938	1,214	9.61	195	5.29	12.81	1.03	15.99	.52	8.40	.56
1939	940	16.26	147	7.62	14.40	.98	16.06	.59	8.42	.62

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(54) CELERY		(55) SWEET CORN				(56) CUCUMBERS			
	For Market		(A) For Market		(B) For Manufacture		(A) For Market		(B) For Pickles	
	<i>Net Output Price</i>		<i>Net Output, only Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>	
	Mil. crates	\$ per crate	Mil. ears	\$ per th. ears	Th. s.t.	\$ per s.t.	Mil. bu.	\$ per bu.	Mil. bu.	\$ per bu.
1897	..	..	..	..	..	..	..	..	..	..
1898	..	..	..	..	..	..	..	..	..	..
1899	..	..	..	..	..	..	..	..	..	..
1900	..	..	..	..	..	..	..	..	..	..
1901	..	..	..	..	..	..	..	..	..	..
1902	..	..	..	..	..	..	..	..	..	..
1903	..	..	..	..	..	..	..	..	..	..
1904	..	..	..	..	..	..	..	..	..	..
1905	..	..	..	..	..	..	..	..	..	..
1906	..	..	..	..	..	..	..	..	..	..
1907	..	..	..	..	..	..	..	..	..	..
1908	..	..	..	..	..	..	..	..	..	..
1909	..	..	..	..	..	..	..	..	..	..
1910	..	..	..	..	..	..	..	..	..	..
1911	..	..	..	..	..	..	..	..	..	..
1912	..	..	..	..	..	..	..	..	..	..
1913	..	..	..	..	..	..	..	..	..	..
1914	..	..	..	..	..	..	..	..	..	..
1915	..	..	..	..	..	..	..	..	..	..
1916	..	..	..	..	..	..	..	..	..	..
1917	..	..	..	..	..	..	..	..	..	..
1918	3.86	1.86	..	..	536	17.99	1.90	2.53	3.70	.86
1919	3.90	2.65	..	..	588	17.69	2.43	2.19	3.08	.89
1920	4.20	2.09	..	..	595	19.32	2.27	1.82	2.06	.99
1921	4.79	2.21	..	..	361	13.50	2.61	1.60	4.66	1.04
1922	4.71	2.05	..	..	475	10.99	3.65	1.34	2.81	.93
1923	5.60	1.92	..	..	603	12.54	3.40	2.12	3.52	1.15
1924	6.20	2.04	117	24.4	528	14.17	4.41	1.63	2.90	1.15
1925	6.67	1.88	128	12.0	1,014	15.04	4.87	1.33	7.22	1.02
1926	6.09	2.08	119	14.5	816	13.24	4.42	1.38	4.07	.95
1927	7.65	1.76	95	21.5	416	11.96	4.54	1.28	3.02	.95
1928	7.85	1.86	111	19.5	600	12.64	4.41	1.28	4.93	.84
1929	9.02	1.60	99	17.0	707	13.09	4.57	1.71	4.16	.82
1930	9.88	1.59	101	15.3	661	13.22	4.44	1.10	7.78	.79
1931	9.22	1.84	92	11.5	785	11.06	4.44	.77	6.11	.70
1932	9.64	1.17	110	10.2	387	7.50	3.12	.74	1.88	.51
1933	8.49	1.28	120	11.4	394	8.01	2.89	.79	3.74	.45
1934	8.70	1.22	151	9.7	498	8.46	3.65	.85	4.40	.47
1935	8.35	1.80	134	9.0	860	9.31	4.21	.77	5.04	.52
1936	9.38	1.78	122	10.5	608	10.21	3.76	1.00	6.33	.57
1937	10.27	1.73	120	12.0	978	11.56	3.75	1.10	8.05	.59
1938	11.61	1.34	110	12.5	883	9.98	4.59	.80	6.11	.59
1939	11.53	1.58	114	10.0	648	8.41	4.56	.96	3.86	.58

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(57) EGGPLANT		(58) LETTUCE		(59) ONIONS		(60) PEAS			
	For Market		For Market		For Market		(A) For Market		(B) For Manufacture	
	<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>	
	Th. bu.	\$ per bu.	Mil. crates	\$ per crate	Mil. sacks	\$ per sack	Th. bu.	\$ per bu.	Th. s.t.	\$ per s.t.
1897	..	..	..	..	..	..	..	..	..	..
1898	..	..	..	..	..	..	..	..	..	..
1899	..	..	..	..	..	..	..	..	..	..
1900	..	..	..	..	..	..	..	..	..	..
1901	..	..	..	..	..	..	..	..	..	..
1902	..	..	..	..	..	..	..	..	..	..
1903	..	..	..	..	..	..	..	..	..	..
1904	..	..	..	..	..	..	..	..	..	..
1905	..	..	..	..	..	..	..	..	..	..
1906	..	..	..	..	..	..	..	..	..	..
1907	..	..	..	..	..	..	..	..	..	..
1908	..	..	..	..	..	..	..	..	..	..
1909	..	..	..	..	..	..	..	..	..	..
1910	..	..	..	..	..	..	..	..	..	..
1911	..	..	..	..	..	..	..	..	..	..
1912	..	..	..	..	..	..	..	..	..	..
1913	..	..	..	..	..	..	..	..	..	..
1914	..	..	..	..	..	..	..	..	..	..
1915	..	..	..	..	..	..	..	..	..	..
1916	..	..	..	..	..	..	..	..	..	..
1917	..	..	..	..	..	..	..	..	..	..
1918	..	..	3.79	1.63	10.85	1.81	604	2.17	152	61.2
1919	..	..	4.33	1.91	8.17	3.04	650	2.33	112	62.0
1920	..	..	7.70	1.53	11.87	1.44	697	2.26	155	66.7
1921	882	1.45	7.21	1.89	7.91	2.80	933	2.17	115	58.2
1922	856	1.52	9.29	1.88	10.48	1.77	1,305	1.95	164	57.0
1923	850	2.12	10.37	1.60	9.79	2.26	1,685	1.93	161	59.6
1924	723	1.25	12.42	1.60	10.81	1.92	2,028	1.80	244	59.3
1925	738	1.07	13.70	1.45	11.00	2.20	2,724	1.97	207	59.0
1926	657	1.21	15.10	1.66	12.24	1.68	3,269	1.77	215	58.2
1927	655	.94	16.98	1.35	13.38	1.68	5,170	1.81	159	56.4
1928	754	.86	18.65	1.70	11.35	2.29	5,200	1.72	198	56.8
1929	688	1.57	19.97	1.81	13.96	1.47	5,520	1.67	204	57.8
1930	798	.89	19.77	1.71	14.67	.97	6,741	1.44	244	57.6
1931	811	.74	19.61	1.48	10.33	1.85	6,015	1.43	147	54.5
1932	809	.64	17.31	1.26	14.91	.81	7,023	1.27	117	43.9
1933	910	.54	17.28	1.27	12.18	1.27	8,395	.93	137	42.5
1934	791	.59	18.94	1.36	12.71	1.34	7,607	1.38	165	50.1
1935	707	.63	19.41	1.44	14.18	1.42	8,130	1.12	268	51.8
1936	820	.60	20.90	1.45	16.29	.85	9,449	1.17	188	51.6
1937	921	.69	20.92	1.57	14.65	1.31	9,081	1.12	268	52.7
1938	961	.62	19.40	1.50	14.40	1.12	8,505	1.21	303	52.8
1939	1,092	.65	22.95	1.40	17.16	.82	9,592	1.16	194	45.8

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(61) PEPPERS		(62) SPINACH				(63) TOMATOES			
	For Market		(A) For Market		(B) For Manufacture		(A) For Market		(B) For Manufacture	
	<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>	
	Mil. bu.	\$ per bu.	Mil. bu.	\$ per bu.	Th. s.t.	\$ per s.t.	Mil. bu.	\$ per bu.	Th. s.t.	\$ per s.t.
897	..	..	..	..	..	..	..	..	..	..
898	..	..	..	..	..	..	..	..	..	..
899	..	..	..	..	..	..	..	..	..	..
900	..	..	..	..	..	..	..	..	..	..
901	..	..	..	..	..	..	..	..	..	..
902	..	..	..	..	..	..	..	..	..	..
903	..	..	..	..	..	..	..	..	..	..
904	..	..	..	..	..	..	..	..	..	..
905	..	..	..	..	..	..	..	..	..	..
906	..	..	..	..	..	..	..	..	..	..
907	..	..	..	..	..	..	..	..	..	..
908	..	..	..	..	..	..	..	..	..	..
909	..	..	..	..	..	..	..	..	..	..
910	..	..	..	..	..	..	..	..	..	..
911	..	..	..	..	..	..	..	..	..	..
912	..	..	..	..	..	..	..	..	..	..
913	..	..	..	..	..	..	..	..	..	..
914	..	..	..	..	..	..	..	..	..	..
915	..	..	..	..	..	..	..	..	..	..
916	..	..	..	..	..	..	..	..	..	..
917	..	..	..	..	..	..	..	..	..	..
918	..	..	2.44	.65	..	..	10.5	1.48	1,566	21.7
919	..	..	3.42	.72	18.6	24.8	10.7	1.51	1,111	18.5
920	..	..	3.93	.68	22.2	31.8	11.6	1.63	1,100	19.8
921	2.69	1.59	5.17	.62	30.3	22.9	10.2	1.77	457	11.6
922	2.66	1.68	5.92	.68	39.1	24.0	14.2	1.96	1,199	12.6
923	2.84	1.63	7.39	.57	54.8	22.5	13.4	2.31	1,165	13.6
924	3.32	1.25	8.52	.62	48.8	22.2	15.4	2.19	1,190	15.7
925	3.05	1.40	10.06	.63	35.3	21.1	16.9	2.08	1,809	14.8
926	3.18	1.28	9.90	.53	52.9	18.0	13.6	2.06	999	14.7
927	3.19	1.19	10.31	.53	57.1	16.3	16.5	1.62	1,196	14.3
928	3.89	.98	11.25	.60	73.2	17.5	15.9	1.80	997	14.2
929	3.34	1.13	12.12	.47	96.9	16.8	18.2	1.77	1,535	15.2
930	3.65	1.07	11.34	.54	38.4	14.8	17.3	1.61	1,758	15.0
931	4.38	.77	13.51	.39	34.7	12.8	16.8	1.10	976	11.8
932	3.89	.71	11.79	.46	20.5	13.0	17.9	1.03	1,199	10.1
933	4.23	.48	11.55	.37	36.0	12.0	16.3	1.14	1,081	11.4
934	3.79	.75	11.52	.40	41.3	11.9	20.3	1.21	1,426	12.0
935	3.57	.67	10.19	.56	53.3	12.3	20.8	1.14	1,700	11.7
936	4.03	.67	13.13	.39	63.4	13.3	20.8	1.30	1,988	12.6
937	4.83	.72	15.08	.36	64.8	14.2	21.5	1.29	1,926	13.1
938	4.97	.66	12.56	.36	38.6	13.9	24.5	1.07	1,743	12.4
939	5.07	.85	13.33	.35	47.2	14.6	24.6	1.37	1,926	12.3

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(64) WATERMELONS		(65) PEPPERMINT OIL		(66) CATTLE		(67) CALVES		(68) HOGS	
	<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output, Live</i>		<i>Net Output, Live</i>		<i>Net Output, Live</i>	
	Mil.	\$ per th.	Th. lb.	\$ per lb.	Weight Bil. lb.	Price \$ per cwt.	Weight Mil. lb.	Price \$ per cwt.	Weight Bil. lb.	Price \$ per cwt.
1897	..	..	..	..	10.93	3.42	677	3.89	11.89	3.32
1898	..	..	..	..	11.36	3.52	699	4.39	11.77	3.50
1899	..	..	..	..	13.48	3.70	808	4.62	11.32	3.69
1900	..	..	..	..	12.98	3.85	790	4.49	11.39	4.60
1901	..	..	..	..	12.75	3.84	799	4.28	11.06	5.32
1902	..	..	..	..	12.21	3.94	885	4.44	10.64	6.23
1903	..	..	..	..	12.66	3.63	872	4.55	11.37	5.46
1904	..	..	..	..	12.13	3.39	844	4.17	11.70	4.69
1905	..	..	..	..	12.24	3.49	930	4.46	12.04	4.78
1906	..	..	..	..	12.20	3.52	999	4.72	12.58	5.69
1907	..	..	..	..	11.90	3.64	1,027	4.87	12.92	5.55
1908	..	..	..	..	12.15	3.73	1,067	4.90	12.61	5.19
1909	..	..	..	..	12.17	4.13	1,092	5.44	11.04	6.69
1910	..	..	..	..	11.74	4.78	1,104	6.42	12.04	8.11
1911	..	..	..	..	11.73	4.46	1,106	6.02	12.53	6.23
1912	..	..	..	..	12.64	5.12	1,189	6.44	11.95	6.62
1913	..	..	..	..	13.74	5.90	1,164	7.47	12.23	7.45
1914	..	..	..	..	14.40	6.23	1,150	7.81	12.60	7.48
1915	..	..	..	..	14.03	6.00	1,154	7.61	13.95	6.53
1916	..	..	..	..	14.74	6.47	1,271	8.35	13.59	8.09
1917	..	..	..	..	15.34	8.17	1,383	10.54	12.94	13.19
1918	29.5	154	..	..	14.43	9.44	1,300	11.93	14.80	15.82
1919	42.4	170	..	..	11.75	9.59	1,445	12.76	14.00	16.01
1920	58.9	185	..	..	11.26	8.42	1,383	11.86	13.54	12.88
1921	62.9	177	..	..	11.29	5.50	1,510	7.85	14.15	7.82
1922	72.5	155	..	..	12.41	5.43	1,335	7.69	16.53	8.34
1923	43.9	252	..	..	12.39	5.58	1,419	7.99	17.02	7.10
1924	58.3	162	..	..	11.52	5.84	1,597	7.83	15.35	7.34
1925	56.1	236	..	..	11.63	6.53	1,592	8.59	14.15	10.91
1926	71.3	146	..	..	11.85	6.75	1,567	9.34	15.04	11.79
1927	57.5	185	..	..	11.16	7.62	1,565	10.14	16.26	9.64
1928	63.4	170	..	..	11.71	9.52	1,473	11.75	16.07	8.54
1929	71.0	170	1,073	3.19	12.14	9.47	1,470	12.16	15.77	9.42
1930	77.8	116	1,103	1.93	12.71	7.71	1,382	9.68	15.23	8.84
1931	75.4	101	683	1.19	12.45	5.53	1,603	6.95	16.48	5.73
1932	55.2	80	421	1.41	12.96	4.25	1,696	4.95	16.57	3.34
1933	55.5	93	503	1.78	14.40	3.75	1,704	4.64	16.10	3.53
1934	60.2	105	873	2.39	9.91	4.13	1,548	4.92	11.89	4.14
1935	64.1	97	1,352	1.67	12.59	6.06	1,739	7.20	10.97	8.63
1936	63.4	129	957	1.93	13.42	5.82	1,886	7.22	13.10	9.30
1937	71.0	106	885	1.99	12.70	7.01	1,860	8.10	12.28	9.48
1938	68.2	108	890	1.99	12.92	6.56	1,853	7.86	14.29	7.74
1939	65.3	117	843	1.91	14.26	7.03	1,753	8.42	16.69	6.23

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(69) SHEEP AND LAMBS		(70) EGGS		(71) CHICKENS		(72) TURKEYS	
	<i>Net Output,</i>		<i>Net Output Price</i>		<i>Net Output Price</i>		<i>Net Output Price</i>	
	<i>Live</i> <i>Weight</i> Mil. lb.	<i>Price</i> \$ per cwt.	Bil. doz.	¢ per doz.	Mil. doz.	¢ per head	Mil. head	\$ per head
1897	1,164	3.71	1.42	11	332	29.6	..	..
1898	1,211	4.13	1.45	12	332	29.2	..	..
1899	1,231	4.27	1.45	13	363	31.6	..	..
1900	1,131	4.66	1.57	13	382	30.0	..	..
1901	1,160	3.95	1.66	14	353	31.0	..	..
1902	1,008	4.53	1.55	17	395	36.2	..	..
1903	966	4.54	1.71	16	400	38.7	..	..
1904	963	4.54	1.74	18	405	38.4	..	..
1905	1,274	5.81	1.76	18	454	37.7	..	..
1906	1,301	5.83	1.96	17	508	38.2	..	..
1907	1,245	5.88	2.19	18	459	40.6	..	..
1908	1,421	5.20	2.02	19	463	38.7	..	..
1909	1,206	5.90	2.02	20.0	498	41.4	..	..
1910	1,271	6.27	2.15	20.9	543	44.8	..	..
1911	1,167	5.19	2.35	17.5	517	41.4	..	..
1912	1,199	5.57	2.26	20.2	513	41.8	..	..
1913	1,307	5.91	2.25	19.4	514	46.7	..	..
1914	1,176	6.25	2.22	20.5	531	47.9	..	..
1915	1,204	6.81	2.39	19.4	514	44.8	..	..
1916	1,109	8.07	2.30	22.1	501	51.3	..	..
1917	1,059	12.45	2.21	31.8	509	64.2	..	..
1918	1,288	13.48	2.24	36.0	543	82.5	..	..
1919	1,131	12.26	2.45	41.3	527	93.5	..	..
1920	990	10.97	2.39	43.5	514	99.9	..	..
1921	1,090	6.56	2.48	28.3	556	79.4	..	..
1922	1,146	9.28	2.66	25.0	585	73.0	..	..
1923	1,261	9.60	2.82	26.5	610	72.6	..	..
1924	1,397	9.99	2.80	26.7	605	74.0	..	..
1925	1,448	11.52	2.83	30.4	626	78.0	..	..
1926	1,559	10.88	3.02	28.9	665	84.1	..	..
1927	1,587	10.72	3.13	25.1	694	76.3	..	..
1928	1,715	11.50	3.14	28.1	640	80.5	..	..
1929	1,755	11.13	3.08	29.8	692	85.6	16.5	3.25
1930	1,915	7.40	3.18	23.7	714	68.1	16.3	2.76
1931	1,938	5.39	3.14	17.6	647	60.1	17.5	2.61
1932	1,790	4.29	2.95	14.2	673	45.3	21.9	1.77
1933	1,872	4.83	2.89	13.8	685	36.4	22.8	1.63
1934	1,550	5.62	2.81	17.1	605	42.6	21.3	2.14
1935	1,843	6.76	2.72	23.4	632	56.6	20.3	2.91
1936	1,894	7.33	2.77	21.8	703	60.4	27.4	2.32
1937	1,858	8.19	3.09	21.3	578	63.5	25.3	2.70
1938	2,021	6.59	3.03	20.3	645	59.0	25.9	2.67
1939	1,934	7.28	3.14	17.4	694	52.2	32.4	2.41

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(73) MILK AND MILK PRODUCTS									
	(A) BUTTER									
	(A ₁) and (A ₂) TOTAL BUTTER		(A ₁) FARM BUTTER		(A ₂) FACTORY BUTTER		(A ₃) FARM BUTTER		(A ₄) BUTTERFAT	
	Net Output Price		Net Output Price		Net Output Price		Sales off Price		Sales off Price	
	Mil. lb.	¢ per lb.	Mil. lb.	¢ per lb.	Mil. lb.	¢ per lb.	Mil. lb. Farms	¢ per lb.	Mil. lb. Farms	¢ per lb.
1897	1,533	13.0	..	..	..	..	..	..	..	..
1898	1,473	13.0	..	..	..	..	..	..	..	..
1899	1,493	14.0	..	..	..	..	..	..	..	..
1900	1,540	15.8	..	..	..	..	..	..	..	..
1901	1,575	15.8	..	..	..	..	..	..	..	..
1902	1,401	17.7	..	..	..	..	..	..	..	..
1903	1,485	16.7	..	..	..	..	..	..	..	..
1904	1,540	15.8	..	..	..	..	..	..	..	..
1905	1,667	17.7	..	..	..	..	..	..	..	..
1906	1,545	17.7	..	..	..	..	..	..	..	..
1907	1,537	19.5	..	..	..	..	..	..	..	..
1908	1,763	20.5	..	..	..	..	..	..	..	..
1909	1,622	22.3	..	..	..	..	..	..	..	..
1910	1,706	24.2	1,073	25.5	633	20.8	..	..	..	..
1911	..	..	1,069	22.9	692	18.3	..	..	..	..
1912	..	..	870	25.7	722	21.1	..	..	..	..
1913	..	..	841	26.7	767	21.6	..	..	..	..
1914	..	..	899	25.1	786	20.1	..	..	..	..
1915	..	..	971	25.7	780	20.4	..	..	..	..
1916	..	..	968	28.0	825	23.2	..	..	..	..
1917	..	..	810	35.9	838	30.0	..	..	..	..
1918	..	..	632	42.7	832	35.8	..	..	..	..
1919	..	..	708	50.3	939	42.1	..	..	..	..
1920	..	..	637	54.3	929	43.8	..	..	..	..
1921	..	..	610	37.0	1,132	29.2	..	..	..	..
1922	..	..	644	35.3	1,227	28.3	..	..	..	..
1923	..	..	666	40.4	1,320	33.3	..	..	..	..
1924	..	..	645	39.4	1,425	30.4	..	..	..	..
1925	..	..	564	40.7	1,440	32.0	..	..	..	..
1926	..	..	493	41.1	1,522	31.5	..	..	..	..
1927	..	..	514	42.3	1,551	33.3	..	..	..	..
1928	..	..	529	43.3	1,522	34.8	..	..	..	..
1929	..	..	544	43.0	1,585	34.5	..	..	..	..
1930	..	..	524	36.3	1,584	26.3	..	..	..	..
1931	..	..	547	27.3	1,653	18.9	..	..	..	..
1932	..	..	589	20.8	1,677	13.7	..	..	..	..
1933	..	..	587	20.2	1,745	14.3	..	..	..	..
1934	..	..	559	22.7	1,676	17.3	109	22.7	1,272	22.7
1935	..	..	..	..	..	..	111	26.7	1,228	28.3
1936	..	..	..	..	..	..	103	28.9	1,212	32.1
1937	..	..	..	..	..	..	99	29.7	1,171	33.1
1938	..	..	..	..	..	..	95	26.7	1,262	26.7
1939	..	..	..	..	..	..	90	25.1	1,278	23.1

TABLE A-1—INDIVIDUAL PRODUCTS (continued)

Year	(73)									
	MILK AND MILK PRODUCTS (concluded)									
	(B) MILK, WHOLE									
	(B ₁)		(B ₂)		(B ₃)		(B ₄)		(B ₅)	
	TOTAL MILK		TOTAL MILK		MILK, WHOLE, SOLD		MILK, WHOLE, AND CREAM, SOLD RETAIL, MILK		CONSUMED ON FARMS IN ALL FORMS, MILK	
Output		Output		WHOLESALE		EQUIVALENTS		EQUIVALENTS		
Mainly for		Mainly for		Sales off		Sales off				
Fluid Con-		Fluid Con-		Farms		Farms		Bil.		
sumption		sumption		Price		Price		¢ per		
lb.		lb.		lb.		lb.		lb.		
Price		Price		¢ per		¢ per		¢ per		
¢ per		¢ per		quart		quart		lb.		
lb.		lb.		lb.		quart		lb.		
1987	21.2	1.21	..	..	..	..	..	..	..	..
1988	23.3	1.21	..	..	..	..	..	..	..	..
1989	23.4	1.24	..	..	..	..	..	..	..	..
1990	23.1	1.33	..	..	..	..	..	..	..	..
1991	23.4	1.36	..	..	..	..	..	..	..	..
1992	22.0	1.40	..	..	..	..	..	..	..	..
1993	26.6	1.51	..	..	..	..	..	..	..	..
1994	26.2	1.50	..	..	..	..	..	..	..	..
1995	24.0	1.49	..	..	..	..	..	..	..	..
1996	27.1	1.55	..	..	..	..	..	..	..	..
1997	27.8	1.70	..	..	..	..	..	..	..	..
1998	24.1	1.78	..	..	..	..	..	..	..	..
1999	28.3	1.75	..	..	..	..	..	..	..	..
2000	27.3	1.90	27.3	1.87	..	..	..	..	..	..
2001	..	..	26.9	1.83	..	..	..	..	..	..
2002	..	..	31.2	1.90	..	..	..	..	..	..
2003	..	..	31.9	1.93	..	..	..	..	..	..
2004	..	..	32.1	1.93	..	..	..	..	..	..
2005	..	..	32.1	1.90	..	..	..	..	..	..
2006	..	..	32.5	2.05	..	..	..	..	..	..
2007	..	..	36.6	2.71	..	..	..	..	..	..
2008	..	..	40.9	3.33	..	..	..	..	..	..
2009	..	..	37.0	3.71	..	..	..	..	..	..
2010	..	..	40.6	3.71	..	..	..	..	..	..
2011	..	..	39.1	2.82	..	..	..	..	..	..
2012	..	..	39.5	2.58	..	..	..	..	..	..
2013	..	..	39.6	2.94	..	..	..	..	..	..
2014	..	..	42.9	2.72	..	..	..	..	..	..
2015	..	..	45.4	2.87	..	..	..	..	..	..
2016	..	..	48.4	2.87	..	..	..	..	..	..
2017	..	..	49.6	2.96	..	..	..	..	..	..
2018	..	..	51.4	2.98	..	..	..	..	..	..
2019	..	..	52.7	3.00	..	..	..	..	..	..
2020	..	..	54.4	2.71	..	..	..	..	..	..
2021	..	..	55.4	2.19	..	..	..	..	..	..
2022	..	..	55.0	1.74	..	..	..	..	..	..
2023	..	..	54.5	1.75	..	..	..	..	..	..
2024	..	..	53.5	2.00	33.8	1.55	3,293	9.4	21.9	1.49
2025	..	..	..	..	35.1	1.71	3,294	9.8	21.6	1.68
2026	..	..	..	..	38.0	1.87	3,260	10.1	21.0	1.84
2027	..	..	..	..	39.2	1.97	3,270	10.5	20.9	1.93
2028	..	..	..	..	40.9	1.72	3,266	10.3	20.9	1.67
2029	..	..	..	..	42.0	1.68	3,156	10.2	20.9	1.60

TABLE A-1—INDIVIDUAL PRODUCTS (concluded)

Year	(74) WOOL		(75) MOHAIR	
	<i>Net Output Shorn Wool (grease basis) Mil. lb.</i>	<i>Price ¢ per lb.</i>	<i>Net Output Mil. lb.</i>	<i>Price ¢ per lb.</i>
1897	237	13.7	..	..
1898	248	14.9	..	..
1899	257	15.9	..	..
1900	281	16.8	..	..
1901	287	14.3	..	..
1902	296	15.2	..	..
1903	265	16.8	..	..
1904	270	17.7	..	..
1905	274	21.4	..	..
1906	277	21.4	..	..
1907	277	21.4	..	..
1908	292	18.6	..	..
1909	310	22.2	6	22.6
1910	306	21.7	6	26.5
1911	302	15.8	6	30.2
1912	278	17.3	6	29.5
1913	266	16.7	7	28.5
1914	251	16.6	7	26.7
1915	241	22.1	7	30.4
1916	244	26.1	7	44.9
1917	237	41.6	7	44.0
1918	254	57.7	8	58.4
1919	270	49.5	8	52.0
1920	251	45.5	9	24.1
1921	242	17.3	9	19.4
1922	228	27.1	9	43.1
1923	230	39.4	9	46.5
1924	238	36.6	10	65.4
1925	253	39.5	11	55.8
1926	269	34.0	13	60.7
1927	289	30.3	14	56.1
1928	315	36.2	16	70.1
1929	328	30.2	17	47.0
1930	352	19.5	18	33.5
1931	376	13.6	19	16.6
1932	351	8.6	17	9.0
1933	374	20.6	17	29.2
1934	370	21.9	16	18.8
1935	365	19.2	16	36.3
1936	360	26.9	16	54.1
1937	367	32.0	16	54.1
1938	372	19.1	17	34.8
1939	377	22.3	19	47.3

General Note to Table A-1

Net output of crops represents the harvested portion exclusive of the amount used for seed and the part that is fed to livestock on the farms where the crops are grown. Usually, additional amounts are used for seed or feed on farms other than the place of origin, but frequently those portions, becoming the subject of commercial transactions, cannot be separated from sales consummated for other purposes. Net output, therefore, sometimes includes portions of varying magnitude, which are consumed as seed or feed.

The sources of seed and feed allowances, as a rule, are United States Department of Agriculture data, recently made available, covering the years following 1909; for years prior to 1909 we have had to work out estimates of our own based on the records of succeeding years. In some cases our estimates have had to cover a longer span than the period prior to 1909. Neither seed nor feed deductions are shown in the table. However, the source or the factors used are supplied in footnotes, so that the figures may easily be reconstructed by the interested reader.

Ripened but unharvested portions, when known, are excluded (largely in fruit and vegetables), and a note is made of the deduction.

Except where otherwise indicated, prices are season average prices received by farmers. Very few price series are available on an annual basis throughout the entire period. Generally, prior to the second decade of the century, December 1 prices replace annual prices. To test the importance of this break in comparability, with a view to possible adjustment, we consulted the correlation coefficients between December and annual prices as worked out for a number of crops by Henry Schultz^a and also compared the absolute levels of the two prices in the years closest to the one in which the break occurs. On this basis it was found necessary only rarely to adjust the December or other monthly price to an annual basis. In such cases the method used is specified in a footnote. In all other cases only the year of the break is noted. In years in which output is available but no price is shown, data for the commodity in question were not used in the construction of the indexes. Where prices could be estimated only roughly, but such estimates were used in the computations, they are shown in parentheses.

The reference to *Agricultural Statistics* (abbreviated as *Agr. Stat.*) applies to the 1940 edition, except in special cases of which note is taken.

Data for 1938 and 1939, unless otherwise noted, are based on *Farm Production, Farm Disposition, and Value of Principal Crops, 1938-1940* (U. S. Agricultural Marketing Service, 1941) for output, and on *Crops and Markets*, December 1940, for prices.

The following abbreviations are used in the table.

Doz.	dozen
Th.	thousand
Mil.	million
Bil.	billion (thousand million)
Bu.	bushel
S.t.	short ton (2,000 lb.)
Gal.	gallon
Bbl.	barrel
Cwt.	hundredweight (100 lb.)

^a *Theory and Measurement of Demand* (University of Chicago Press, 1938).

Footnotes to Table A-1 continued on next page.

Footnotes to Table A-1, continued.

(1) Wheat (1 bu. = 60 lb.):

1897-1910: harvested production from "Wheat Acreage and Production in the United States Since 1866," *Wheat Studies*, Vol. II (Food Research Institute, Stanford University, June 1926), pp. 260-61; seed allowance based on 1.48 bu. per acre harvested from same source, and feed disappearance estimated at 4 percent of gross output, except for 1901, for which year 6 percent was deducted, in view of the high corn-wheat ratio of that year.

1911-37: net output based on *Agr. Stat.*, Table 9.

Prices from *Agr. Stat.*, Table 1.

1938-39: see *general note* above.

Prior to 1908 prices relate to December 1.

(2) Corn (1 bu. = 56 lb. shelled):

1897-1908: corn grown for all purposes, from *Agr. Stat.*, Table 45; seed and feed used on farms where grown were estimated to have absorbed 80 percent of the crop each year.

1909-37: net output based on *Agr. Stat.*, Table 49.

Prices from *Agr. Stat.*, Table 45.

1938-39: see *general note* above.

Prior to 1908 prices relate to December 1.

(3) Oats (1 bu. = 32 lb.):

1897-1908: harvested production from *Agr. Stat.*, Table 69; seed and feed used on farms where grown were estimated to have absorbed 70 percent of gross output each year.

1909-37: net output based on *Agr. Stat.*, Table 74.

Prices from *Agr. Stat.*, Table 69.

1938-39: see *general note* above.

Prior to 1908 prices relate to December 1.

(4) Barley (1 bu. = 48 lb.):

1897-1908: harvested production from *Agr. Stat.*, Table 86; seed and feed used on farms where grown were estimated to have absorbed 50 percent of gross output each year.

1909-37: net output based on *Agr. Stat.*, Table 90.

Prices from *Agr. Stat.*, Table 86.

1938-39: see *general note* above.

Prior to 1908 prices relate to December 1.

(5) Rice (1 bu. = 45 lb.):

1897-1908: harvested production from *Agr. Stat.*, Table 116; seed use of 2.1 bu. per acre based on individual state seed requirements data, given in *Disposition of Rice* (U. S. Bureau of Agricultural Economics, 1939), p. 1; feed use estimated at 1 bu. per acre. In this connection a suggestion by Mr. John S. Dennee, of the Bureau of Agricultural Economics, proved very helpful.

1909-37: net output based on *Agr. Stat.*, Table 116, and data on feed and seed in *Disposition of Rice*.

Prior to 1924 prices relate to December 1. For 1899 price is based on the 1900 Census of Agriculture. For 1897-98 and 1900-03 prices are those given in Frederick Strauss and L. H. Bean, *Gross Farm Income and Indices of Farm Production and Prices in the United States, 1869-1937*, Technical Bulletin

703 (U. S. Department of Agriculture, 1940), Table 28. For 1904-37 prices are from *Agr. Stat.*, Table 116.

1938-39: see *general note* above.

(6) Rye (1 bu. = 56 lb.):

1897-1908: harvested production from *Agr. Stat.*, Table 31. Seed use on all farms estimated at 2 bu. per acre; feed consumed on farms where grown assumed to have accounted for 15 percent of gross output.

1909-37: net output based on *Agr. Stat.*, Table 35.

Prices from *Agr. Stat.*, Table 31.

1938-39: see *general note* above.

Prior to 1908 prices relate to December 1.

(7) Flaxseed (1 bu. = 56 lb.):

1897-1908: harvested production from *Agr. Stat.*, Table 99. Flax used for seed on all farms estimated at .55 bu. per acre.

1909-37: net output from *Agr. Stat.*, Table 103.

1938-39: see *general note* above.

Prior to 1908 prices relate to December 1. For 1899 price was derived from 1900 Census of Agriculture material as published in the 1910 Census. Prices for 1897-98 and 1900-01 were obtained from Strauss and Bean, *op. cit.*, Table 23. Prices for 1902-37 from *Agr. Stat.*, Table 99.

(8) Buckwheat (1 bu. = 48 to 52 lb.):

1897-1908: harvested production from *Agr. Stat.*, Table 127. Seed use on all farms estimated at 1 bu. per acre; feed consumed on farms where grown assumed to have accounted for 30 percent of gross output.

1909-37: net output based on *Agr. Stat.*, Table 129.

Prices from *Agr. Stat.*, Table 127.

1938-39: see *general note* above.

Prior to 1908 prices relate to December 1.

(9) Potatoes (1 bu. = 60 lb.):

1897-1908: harvested production and prices from *Agr. Stat.*, Table 343; net output estimated at 84 percent of gross output.

1909-37: net output based on *Disposition of Potatoes, Crop Years, 1909-1937* (U. S. Agricultural Marketing Service, 1939), p. 7.

Prices from *Agr. Stat.*, Table 343.

1938-39: see *general note* above.

Prior to 1908 December 1 prices were adjusted downward 10 percent to represent season average.

(10) Sweetpotatoes (1 bu. = 55 lb.):

No disposition data on a crop-year basis have been made available up to this time. The disposition data published as part of the *Income Parity* series of the Department of Agriculture were therefore used as a guide for the entire period. Net output was thus estimated at roughly 82 percent of gross output, as given in *Agr. Stat.*, Table 358. Prices were taken from the same source.

Prior to 1910, December 1 prices were raised 10 percent to represent the season average. The price for 1898 was estimated from the prices for adjoining years.

Footnotes to Table A-1 continued on next page.

Footnotes to Table A-1, continued.

(11) Dry edible beans (1 bag = 100 lb.):

1909-37: prices and net output, the latter defined as output of cleaned beans excluding the amount of beans used for seed on all farms, are based on *Production, Farm Disposition, and Value of Beans, Crop Years, 1909-1937* (U. S. Agricultural Marketing Service, 1940), pp. 6-7.

Prior to 1909 the only available output data are those collected for Census years by the Bureau of the Census. From 1909 on, the relationship of these data to the estimated net output of the AMS disposition study was found to be sufficiently constant to permit us to adjust the Census figures for 1899 to the AMS level by the ratio of the two figures in 1909. The years 1900-08 were then estimated by straight-line interpolation; for 1897 and 1898 we used the figures estimated by Strauss, *op. cit.*, p. 73, after we had adjusted them to the level of our series by the same ratio by which we adjusted the 1899 Census figure. It will be noted that no deductions are made for feed, as it is assumed that only uncleaned beans are fed to livestock.

1938-39: see *general note* above.

No price data are available prior to 1909, but for 1909, 1919 and 1929 Census values per unit agree well enough with AMS prices to permit us to use the 1899 Census value per unit in our computations.

(12) Sugar beets:

The output series is made up of a number of segments. The longest extends from 1913 to 1938 and is based on *Agr. Stat.*, Table 182, which also contains prices for the same years. An apparently comparable figure for 1912 was found in the *Yearbook of Agriculture, 1933*, Table 127. The 1911 figure in the same table was, however, rejected as not comparable; instead, we estimated production for the period 1901-11 from data on beets sliced, as found in the *Yearbook of Agriculture, 1913*, Table 115, raising the figures found there by 5 percent to represent production. The same procedure was followed for the years 1897, 1899 and 1900, for which data on "beets used" were found in F. R. Rutter, *International Sugar Situation*, Bureau of Statistics, Bulletin 30 (U. S. Department of Agriculture, 1904), p. 94. Data for 1901-13 given in this source agree within 1 to 2 percent with data for "beets sliced" as given in the 1913 *Yearbook*. Finally, the 1898 figure was derived from the output of refined beet sugar (*Yearbook of Agriculture, 1923*, Table 359), on the assumption of a requirement ratio of 10 tons of beets per ton of sugar.

1939 data: see *general note* above.

Prices for the years 1901-08, 1911 and 1912 are from *Yearbook of Agriculture, 1913*, p. 447; for 1909 and 1910 from a release, "Midmonth Local Market Price Report" (U. S. Agricultural Marketing Service, Dec. 30, 1940), p. 30. Price for 1899 is taken from *Abstract of the Thirteenth Census, 1910*, p. 407, and this price is used also in 1897, 1898 and 1900.

(13) Sugarcane:

Consistent output and price series on sugarcane used for sugar are now available from 1909 to 1938 in *Agr. Stat.*, Table 195. The output series was extended back to 1902 on the basis of cane sugar production as given in the *Yearbook of Agriculture, 1923*, Table 359, by assuming a requirement ratio of 14 tons of cane to one ton of raw sugar. To complete the series, data for 1897 to 1901 were derived from sugarcane crushed as given by Rutter, *op. cit.*, p. 93.

The price series was extended back to 1897 on the basis of the price of raw sugar. The relationship of the two, except for abnormal years like 1917-20, is rather steady; it was therefore assumed that on a per ton basis the price of sugarcane amounts to 5 percent of the price of raw sugar. The latter is the price as determined by the U. S. Bureau of Labor Statistics.

1939: see *general note* above.

(14) Sugarcane sirup (1 gal. = 11.25 lb.):

Agr. Stat., Table 206. Prices relate to December 1 throughout the period.

(15) Sorgo sirup (1 gal. = 11.4 lb.):

Agr. Stat., Table 208. Prices relate to December 1 throughout the period.

(16) Maple sirup (1 gal. = 11 lb.):

Agr. Stat., Table 210. The 1919 price was derived from the *Fourteenth Census, 1920*, Vol. V, p. 847.

(17) Maple sugar:

Same as (16).

(18) Peanuts:

Net output represents that part of peanut production which results in the emergence of threshed nuts either sold or consumed in the farm household. This is a slightly wider concept than commercial production, defined in the AMS disposition study of May 1939 as "Farmers' stock peanuts consumed by mills in the production of cleaned and shelled peanuts and crude peanut oil."

Net output for 1919-37 is based on *Agr. Stat.*, Table 437; for 1916-18 the production figures as published in *ibid.*, Table 435, were first lowered 9 percent in order that they might be adjusted downward by the same amount by which output data from 1919 on were lowered between the 1939 and 1940 issues of *Agr. Stat.* A second adjustment—a decrease of 10 percent—was then made to exclude feed use.

For years prior to 1916 we accepted Strauss and Bean data (*op. cit.*), which are based on Census returns linked by straight-line interpolation, but adjusted them to our 1916 estimate and lowered them 10 percent to take account of feed use.

Season average prices are taken from *Agr. Stat.*, Table 435, for 1916-38, and from *Crops and Markets*, Dec. 1935, for 1909-1915. For the period 1897-1908 Strauss and Bean data (*op. cit.*) were used, and it was assumed that the crop-year price was equivalent to the calendar-year price corresponding to the second half of the crop year.

1938-39: See *general note* above.

In 1909 the price is based on data for 8 months only.

(19) Soybeans (1 bu. = 60 lb.):

Net output is here considered to comprise only the amounts processed for oil. No data are available prior to 1922, and it can safely be assumed that little crushing was performed before that date. The source for our output data for 1922 and 1923 is *Fats, Oils, and Oleaginous Raw Materials*, Statistical Bulletin 59 (U. S. Department of Agriculture, 1937), p. 55; for 1924-28 for both output and price the source is *Feed Grains, Fats and Oils, Agricul-*

Footnotes to Table A-1 continued on next page.

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tural Outlook Charts, 1941 (U. S. Department of Agriculture, 1940), p. 16; for 1929-38, *Agr. Stat.*, Tables 405 and 408.

For 1939, quarterly reports of the Bureau of the Census were consulted.

Prices for 1922 and 1923 taken from *Crops and Markets*, Dec. 1935; for 1939, *Crops and Markets*, Dec. 1940.

(20) Hops:

Data on hop production are rather scattered. Our sources were *Agr. Stat.*, Table 431, for 1915-38; a communication from Mr. R. E. Fore of Oregon State College, for 1911-14; the *Yearbook of Agriculture, 1910*, p. 597, for 1906-10; and E. Merritt, *Hops in Principal Countries*, Bureau of Statistics, Bulletin 50 (U. S. Department of Agriculture, 1907), p. 9, for the years 1897-1905. We have made every effort to ensure year-to-year comparability of these data, but some doubt remains as to the period 1911-14, for which the data may represent commercial shipments rather than production.

1939: See *general note* above.

The price as given in *Agr. Stat.*, Table 431, refers to December 1 from 1915 to 1931. For 1911-14 no United States price is available, so that we have substituted the Oregon farm price which usually bears a close resemblance to the United States price; data from George L. Sulerud, *An Economic Study of the Hop Industry in Oregon*, Station Bulletin 288 (Oregon Agricultural Experiment Station, 1931), p. 48. For the remaining years the price is taken from G. K. Holmes, *Hop Crop of the United States, 1790-1911*, Bureau of Statistics, Circular 35 (U. S. Department of Agriculture, 1912), pp. 6-7; whether the price for this early period also refers to December 1 or represents a season average is unknown.

(21) Broomcorn:

Agr. Stat., Table 418.

For 1919-24, prices relate to November 15; for 1925 and 1926 to December 1.

1939: See *general note*, above.

(22) Hay:

Net output data for 1897-1937 are those given in Strauss and Bean, *op. cit.*, p. 62. Data for 1938 and 1939 were derived as follows: their ratio for production entering into gross income for 1936-37 (3 percent) was applied to the production of tame hay as given in *Agr. Stat.*, Table 420. (It is assumed that wild hay is not sold off farms, and that its net output is zero.)

The price series for 1897-1907 is from *Agr. Stat.*, Table 420; for 1908-28 from *Crops and Markets*, Dec. 1935; and for the balance of the period from *Crops and Markets*, Dec. 1940.

(23) Cotton (1 bale = 478 lb.):

Output data for 1899 and subsequent years from *Agr. Stat.*, Table 141. Figures for 1897 and 1898 in terms of 500-pound gross-weight bales were found in G. K. Holmes, *Cotton Crop of the United States, 1790-1911*, Bureau of Statistics, Circular 32 (U. S. Department of Agriculture, 1912), p. 8. Price data from *Agr. Stat.*, Table 141, for the entire period.

Prior to 1908 prices relate to December 1.

(24) Cottonseed:

From 1909 on, the series entitled "Delivered to mills," *Agr. Stat.*, Table 173, furnished our net output and price data. There is ground for legitimate

doubt as to whether the amount exchanged for meal should not have been excluded, since it provides livestock feed. Nevertheless, we have made no attempt to exclude other types of commercial feed, and no adjustment has been made on this account.

For years prior to 1909 our source was a series on crushings from *Fats, Oils and Oleaginous Raw Materials*, Table 40. For overlapping years, this series is practically identical with that more recently published, and cited above.

Price and production for 1909-38 are not exactly comparable, as the former is a weighted price based on state production rather than state sales. Years for which both production-weighted and sales-weighted prices are available indicate that the discrepancy is relatively unimportant.

The price series was carried back to 1897 by use of the average spot price of prime summer yellow cottonseed oil at New York, given in *ibid.*, Table 115.

(25) Tobacco:

Agr. Stat., Table 213. Prior to 1919 prices relate to December 1.

(26) Apples (1 bu. = 48 lb.):

Output data for 1897-1909 from *Yearbook of Agriculture, 1928*, Table 128; for 1910-18 from *Fruits and Nuts, Agricultural Outlook Charts, 1940*, pp. 12, 18; and from 1919 on from *Agr. Stat.*, Table 224. All data are exclusive of fruit not harvested. Beginning in 1939 commercial production is reported in place of total production. To preserve comparability we have estimated total production in 1939 as 120 percent of commercial production; for source of the latter see *general note*, above.

The source for the price series from 1910-38 is the *Outlook Chart*, cited above. A comparable price for the period 1897-1909 has been derived from an average New York wholesale price of six varieties, to be found in a release by M. D. Woodin, entitled "Changes in Apple Prices," (N. Y. State College of Agriculture, February 1941).

(27) Apricots:

Our data are based on unpublished material, except for the period beginning in 1919 for which data are available in *Agr. Stat.*, Table 233, and for 1938-39 in the source indicated in the *general note*. However, for 1927 and later years we added the output of Washington to that of California, the only state represented up to 1927. The Washington data were supplied to us by Mr. Reginald Royston, of the Agricultural Marketing Service.

Estimates for the period 1909-18 were made available by Professor S. W. Shear, University of California, who also directed our attention to estimates for earlier years made by O. E. Baker, of the Bureau of Agricultural Economics. Both sets of estimates were made in the early 1930's and were of a tentative nature. Moreover, they were devised before the BAE had begun its revision of historical series. Dr. Baker permitted us to use his estimates which were largely based on the work of Professor Shear and his associates at the University of California. Shear's data for 1909-18 do not include consumption of fresh apricots within California; Baker's data for 1897-1908 presumably do. In view of the approximate character of the data prior to 1919 we made no attempt to adjust the different series for comparability in overlapping years.

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Prices for 1909-38 are taken from "Midmonth Local Market Price Report" (U. S. Agricultural Marketing Service, Aug. 29, 1940), p. 28. Prices for 1899 and 1904 are estimates based on unit values of dried apricots as collected by the Bureau of the Census and given in Solomon Fabricant, *The Output of Manufacturing Industries, 1899-1937* (National Bureau of Economic Research, 1940), p. 400.

(28) Figs, fresh and canned (fresh basis) and

(29) Figs, dried (dry basis):

Output and prices from *Agr. Stat.*, Table 296. California only: Texas production is omitted.

(30) Grapes:

Output data for the period 1899-1918 were supplied to us by Professor S. W. Shear, University of California; from 1919 on data were taken from *Agr. Stat.*, Table 300. The two sets appear to be directly comparable. The series was completed for 1897 and 1898 from the estimates made by Strauss and Bean, *op. cit.*, p. 87. After 1919 amounts neither sold nor harvested are excluded.

The construction of the price series for the years prior to 1924, when U. S. farm prices become available (*Agr. Stat.*, Table 300), involved a great many adjustments and assumptions which space limitations do not permit us to describe in detail. Suffice it to say that the basic data from 1899 to 1919 were annual prices of different varieties of California and New York grapes, again supplied by Professor Shear. These prices were combined into a weighted average and were adjusted to the level of Census of Agriculture unit values in 1899, 1909 and (after slight adjustment) 1919. Prices for 1920-23 are based on California prices as given in *Fruits and Nuts, Agricultural Outlook Charts, 1940*, adjusted to the corrected Census value per unit in 1919. In 1897 and 1898 prices are arbitrary estimates, based on the prices of 1899 and 1900.

(31) Olives:

All data based on *Agr. Stat.*, Table 310.

(32) Peaches (1 bu. = 48 lb.):

From 1909 on the output data are taken from *Peaches: Production, Disposition, and Value, 1909-1938* (U. S. Agricultural Marketing Service, 1940). Table 153 of the *Yearbook of Agriculture, 1927* contains estimates of production from 1899 on; although the figures for 1909 and later years as published in the above study differ by an average 5 percent in either direction from these earlier estimates, the latter were used without adjustment, since no rational basis for an adjustment could be found. To complete the series for 1897 and 1898 we accepted the estimates made by O. E. Baker; see footnote (27) on Apricots.

Prices are taken from *Agr. Stat.*, Table 316, beginning with 1919, and for 1909-18 are derived from value and size of total production as given in the AMS release mentioned above. Prices found in the release apply to sales only, and were therefore considered unacceptable. No prices are available for years prior to 1909.

(33) Pears (1 bu. = 50 lb.):

To complete the series for which *Agr. Stat.*, Table 321, supplies output and

price data from 1919 on, we turned again to estimates made by O. E. Baker for 1897-1908 and by S. W. Shear for 1909-18; see footnote (27) on Apricots. Shear's data were converted from pounds to bushels on the assumption of a constant ratio of 48 pounds per bushel.

Prices for 1918 are from *Yearbook of Agriculture, 1928*, Table 157, and for 1910-17 from *Yearbook of Agriculture, 1925*, Table 210. These are unrevised prices; no revisions could be located and comparisons between unrevised and revised prices for years for which both are available indicate close resemblance. The 1909 price is derived from the Census of Agriculture for that year. All prices for years prior to 1925, except that for 1909, refer to November 15.

(34) Plums (California and Michigan only):

To obtain production estimates of fresh and canned plums for the years preceding 1919, recourse was had to a number of assumptions and estimates whose exact nature it would occupy too much space to describe. The basic data used were California shipments of fresh plums back to 1897 and of canned plums back to 1906. Both are given in E. Rauchenstein, *Economic Aspects of the Fresh Plum Industry*, Bulletin 459 (University of California Agricultural Experiment Station, 1928), pp. 12 and 18 respectively. The assumptions basic to an estimate of total plum production from these data involved conversion factors from carlots and cases to tons, average relationship between California output and Michigan output (the only other state represented in plum statistics, beginning in 1919), and average relationship between fresh and canned plums. Production and price from 1919 on are based on *Agr. Stat.*, Table 338. The price series was extended back to 1909 on the basis of a California price series published in "Midmonth Local Market Price Report" (U. S. Agricultural Marketing Service, Sept. 30, 1940), p. 27.

(35) Prunes, canned (Oregon and Washington only):

Based on *Agr. Stat.*, Table 340. It proved impossible to extend the series backward or to exclude nonharvested portions.

(36) Prunes, dried (California, Oregon and Washington only):

The output series for 1919-38, based on *Agr. Stat.*, Table 340, was carried back to 1897 by the use of data given in S. W. Shear, *Prune Supply and Price Situation*, Bulletin 462 (University of California Agricultural Experiment Station, 1928), pp. 31, 50. Nonharvested portions could not be excluded. Prices for 1919-38 from the same source as output. Prices for 1899, 1904, 1909 and 1914 derived from the Census of Manufactures; see Fabricant, *op. cit.*, p. 400.

(37) Prunes, fresh (Idaho, Oregon and Washington only):

Same as (35).

(38) Cranberries (1 bbl. = 100 lb.):

Agr. Stat., Table 286.

(39) Strawberries (1 crate = 36 lb.):

Agr. Stat., Table 366.

(40)-(42) Citrus fruit:

Unfortunately, the official estimates of both output and price of citrus fruit, as published in *Production, Disposition, and Value of Citrus Fruits, Crop Sea-*

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sons 1909-10 to 1938-39 (U. S. Agricultural Marketing Service, 1941), reached us at a time when complete substitution of those data for our estimates, described below, would have involved an inordinate amount of recomputation, with the final results probably little changed. The reader is advised, however, to use these new official data rather than our estimates where citrus fruit are the subject of special study. In particular, our price estimates, due to the multitude of price series available—f.o.b., on tree, at packinghouse door, all methods of sale, etc.—are to be treated with caution. Comparison with the newly released series indicates that we overstated Florida prices for both oranges and grapefruit, that our lemon price estimates are fairly accurate, and that up to 1929 we more often exaggerated than underestimated California grapefruit prices. Our estimated California orange prices are surprisingly similar to the official series.

As to the prices of citrus fruit produced outside California and Florida, the figures listed by us are the most reliable available at the time of writing. The above-mentioned study, however, contains data which should be substituted for those given here.

(40) Citrus fruit, California:

Separate data for grapefruit, lemons, and oranges, prior to 1905, are available for output, but not for prices. From 1897 to 1904 we therefore present a combined series. The constituents of the output series have, however, been computed on the same principle as the data after 1905, and are dealt with in the section on lemons and oranges respectively. The derivation of the combined price is treated immediately after the description of the derivation of the price of oranges.

(A) Oranges (in California, 1 box = 70 lb.):

Output, excluding fruit lost on the tree or donated to charity, is based, for 1909-37, on a release, "California Citrus Crops Production and Utilization Estimates, 1909-10 to 1937-38" (California Cooperative Crop Reporting Service, Sacramento, 1939); for 1938-39 on *The Fruit Situation* (U. S. Bureau of Agricultural Economics, Dec. 1940), p. 25; and for 1897-1909 on interstate shipments. The latter were taken, for 1902-08, from H. R. Wellman and E. W. Braun, *Oranges*, Bulletin 457 (University of California Agricultural Experiment Station, 1928), p. 54, and assumed, on the basis of the relationship between shipments and production 1909-14, to be 90 percent of production. For 1897-1901 the source is *Annual Statistical Report, 1921* (California State Board of Agriculture), p. 237. These data as published exclude the northern California output and were accordingly marked up 5 percent to compensate for this deficiency. To convert carlots to boxes a factor of 374 boxes per car was assumed, in accordance with data given in the 1911 report, p. 139, of the above-mentioned agency. The estimated boxes were assumed to constitute 90 percent of output and were raised to represent 100 percent.

Prices for 1909-33 are our own estimates, derived in a way analogous to that described for (B) Lemons. The source for prices was a release, "Average Prices Received by Farmers for Farm Products: August 15, 1935, With Comparisons" (Crop Reporting Board, Aug. 29, 1935), pp. 12, 13. Prices for 1905-08 are f.o.b.; these were supplied by Professor H. R. Wellman of the University of California; they were reduced to a packinghouse-door basis (i.e., including cost of harvesting, but not of packing) by deduction of 45 cents a

case each year, an amount that seemed reasonable in view of later records as published in Bulletin 457. For 1934-39 prices as given in *Agr. Stat.*, Table 269, were raised 10 percent to render them comparable with our estimates from 1909 to 1933. It should be mentioned that these price estimates agree well with the latest official data (see general note on Citrus fruit above).

The only price available prior to 1905 is an f.o.b. price for all citrus fruit sold, which was derived from R. M. MacCurdy, *The History of the California Fruit Growers Exchange* (G. Rice and Sons, Los Angeles, 1925), p. 70. To obtain this price, Exchange returns were raised to returns for all citrus sales by using the published annual percentages of Exchange sales to total sales. Total returns were then divided by total boxes produced and the resulting price per box was assumed to be the f.o.b. price for the entire citrus industry. From 1904 on, an f.o.b. price for all citrus fruit—based on Fruit Growers Exchange returns—is available in *Fifty-ninth Annual Report, 1912* (California State Board of Agriculture), p. 130; this price was found to be directly comparable with our estimates prior to 1905. Consequently, we used the relationship of this f.o.b. price to the average packinghouse-door price from 1905 on to convert the f.o.b. price prior to 1905 to a packinghouse-door basis. It was found that a deduction of 50 cents a case would reduce the f.o.b. price to a packinghouse-door level.

(B) Lemons (1 box = 76 lb.):

Net output for 1909-37 from same source as grapefruit (see below). Prior to 1909 shipment data—as given in H. R. Wellman and E. W. Braun, *Lemons*, Bulletin 460 (University of California Agricultural Experiment Station, 1928), pp. 9, 10, 35, for 1907 and 1908; and from *Annual Statistical Report, 1921* (California State Board of Agriculture), p. 237 for preceding years—were marked up 8 percent to represent production. The percentage is based on the average relationship of shipments and output in 1909-15. Prior to 1907 shipments are given in carlots; these have been converted to boxes by a factor of 313 boxes per car up to 1904 and 336 boxes for 1905 and 1906 (1911 report, p. 139).

Prices from 1909-34 represent our own estimates, derived from records of monthly shipments and monthly packinghouse-door prices. The former, for the years 1917 to 1939, were kindly sent to us by Mr. A. R. Spiker of the Agricultural Marketing Service; monthly prices were taken from *Crops and Markets*, December 1935. The price series was completed up to 1938 from *Agr. Stat.*, Table 274, while for 1905 to 1908 f.o.b. prices supplied to us by Professor H. R. Wellman were reduced by 80 cents to convert them to a packinghouse-door basis.

(C) Grapefruit (in California, 1 box = 60 lb.):

The source for net output data, excluding fruit lost or donated to charity, is U. S. Agricultural Marketing Service, *Production, Disposition and Value of Citrus Fruits, Crop Seasons 1909-10 to 1938-39, by States* (Washington, 1941). It was assumed that production prior to 1909 was negligible. The source for 1938 and 1939 was *The Fruit Situation*, Dec. 1940, p. 25.

Prices for 1924-34 are taken from *Agr. Stat.*, 1937, p. 156, and thereafter from *Agr. Stat.*, Table 269. The two series do not quite agree in overlapping years. Prices from 1911 to 1923 are f.o.b. prices, reduced by 50 cents each year to account for packing and selling charges; the source of the price series is

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H. R. Wellman and E. W. Braun, *Grapefruit*, Bulletin 463 (University of California Agricultural Experiment Station, 1928), p. 33.

Prices in 1909 and 1910 are arbitrary estimates.

(41) Citrus fruit, Florida:

(A) Oranges, including Tangerines (in Florida, 1 box = 90 lb.):

Output for 1919-39: from *Statistical Bulletin, Season 1939-40* (Florida Citrus Exchange, 1940), p. 21; 1897-1918: shipments, *ibid.*, pp. 11, 16, raised 10 percent to represent output.

Prices refer to oranges only; we have estimated that the inclusion of tangerine prices would usually raise the price by only a few cents; the largest difference, appearing in 1920, amounted to not more than 18 cents.

Prices for 1909-34 estimated from monthly shipments and prices; see note on California orange prices. For 1935-39: *Agr. Stat.*, Table 269, raised 10 percent for the sake of comparability with our own estimates. No prices are available for years preceding 1909, but a price of \$1.50 a case was assumed.

(B) Grapefruit (in Florida, 1 box = 80 lb.):

Output in 1919-39 based on same source as oranges. For 1900-18 we marked up shipment data (*Statistical Bulletin*, p. 16) by not more than 5 percent to represent output, since in the earlier years most fruit seems to have been shipped out of the state.

Prices for 1909-34 were estimated from monthly prices and shipments; see note on California orange prices. From 1934 on we used the f.o.b. price (*ibid.*, p. 8), deducting 50 cents per case for packing and selling charges each year. No price could be estimated for years prior to 1909, but a price of \$2.00 a case was assumed.

(42) Citrus fruit, other states:

(A) Oranges (1 box = 70 to 90 lb.):

Data from *Agr. Stat.*, 1937, Table 198; 1938, Table 227; 1940, Table 269.

(B) Grapefruit, Texas (1 box = 80 lb.):

Data up to and including 1934 from *Agr. Stat.*, 1937, Table 198; thereafter from *Agr. Stat.*, Table 269.

(C) Grapefruit, Arizona (1 box = 60 lb.):

Same as (B).

(43) Almonds:

Output for the years 1900-18 based on tabulation in *Yearbook of Agriculture*, 1925, p. 285. These figures were raised 5 percent in order to ensure comparability with the revised data from 1919 and later years as shown in *Agr. Stat.*, Table 223. The percentage was derived from a comparison for 1919-22 of the latter with the unrevised data as published in *Yearbook of Agriculture*, 1928, Table 165. Price data are not available prior to 1919; from 1919 on they were taken from *Agr. Stat.*, Table 223.

(44) Pecans:

From *Agr. Stat.*, Table 331. The price refers to November 1 for 1922, and to December 1 for the years 1923 to 1936.

(45) Walnuts:

The output series which from 1919 on, together with the price series, was taken from *Agr. Stat.*, Table 376, was carried back to 1900 by the use of esti-

mates of California production as given in *Yearbook of Agriculture, 1925*, p. 285. To adjust the earlier segment to the level of the revised estimates from 1919 on, California production was marked up 8 percent each year. For 1899 we used the Census figure, since for 1919 the revised estimate is practically identical with the 1919 Census figure.

Prior to 1919, data relate to California only; Oregon production at that time was negligible.

(46)-(64) Truck crops:

artichokes (1 box = 40 lb.)	cucumbers (1 bu. = 48 lb.)
asparagus (1 crate = 24 lb.)	eggplant (1 bu. = 33 lb.)
snap beans (1 bu. = 30 lb.)	lettuce (1 crate = 70 lb.)
beets (1 bu. = 52 lb.)	onions (1 sack = 100 lb.)
cabbage	peas (1 bu. = 30 lb.)
cantaloups (1 crate = 60 lb.)	peppers (1 bu. = 25 lb.)
carrots (1 bu. = 50 lb.)	spinach (1 bu. = 18 lb.)
cauliflower (1 crate = 37 lb.)	tomatoes (1 bu. = 53 lb.)
celery (1 crate = 90 lb.)	watermelons
sweet corn	

Data from *Agr. Stat.*, Tables 234, 235, 241, 246, 250, 253, 256, 259, 262, 281, 289, 293, 307, 312, 326, 333, 363, 371, 377.

Quantities not marketed are excluded in all cases.

(65) Peppermint oil:

From *Agr. Stat.*, Table 461.

(66)-(69) Livestock:

Net output is defined as the combined liveweight poundage of animals slaughtered and of changes in number on hand. Two separate series, therefore, had to be constructed, but the same price was applied to both, since it is practically impossible to find any price that can be matched with changes in inventory (see pp. 95-96 above).

(66)-(67) Cattle and Calves:

Since neither of the two series can be discussed without reference to the other, the two are taken up jointly. The data shown for output are based on estimates of the composition of animals on farms January 1 for each year prior to 1920. It was found that between 1921 and 1934—a complete cattle cycle—the relationship between calves on hand and cattle on hand Jan. 1 (*U. S. Agricultural Marketing Service, Livestock, Meats, and Wool Market Statistics and Related Data, 1940*, Washington, 1941, p. 7) was extremely steady, deviating not more than 7 percent in either direction from the average for the period. We therefore used this average to estimate separately the number of calves and cattle on farms back to 1897. The proportions used were 22.6 percent for calves, and 77.4 percent for cattle. Although it is dangerous to project such a relationship back over a period of almost 25 years, it is unlikely that major changes in this relationship took place during the period, though no accuracy is claimed for the estimate in any given year.

Once this breakdown had been performed, number slaughtered—*Agr. Stat.*, Table 475—and change in inventory were summed for either category, and each sum was then multiplied by an estimated liveweight per head, derived

Footnotes to Table A-1 continued on next page.

Footnotes to Table A-1, continued.

from the total liveweight of all slaughter of cattle and calves respectively, as estimated by C. A. Burmeister of the Bureau of Agricultural Economics.

In order to eliminate the error introduced by applying the average live-weight of animals slaughtered to the change in inventory, we compared the inventory change for cattle and calves combined, each computed as described above, with the poundage derived from number on hand and average live-weight per head of animals on hand, the latter copied from the files of C. L. Harlan of the Agricultural Marketing Service. The comparison, made for a number of years between 1920 and 1930, revealed that by using slaughter weights we were overstating inventory weights some 7 percent. However, it was impossible to determine whether the overstatement occurred in the cattle or calves series. Consequently, for each year, we reduced or increased both the cattle and the calves series by 7 percent of the inventory changes. To the cattle series was further added the total liveweight of live cattle exported; the number exported was taken from Strauss and Bean, *op. cit.*, Table 49, for 1897-1913; from John Roberts, *Food Animals and Meat Consumption in the United States*, Department Circular 241 (U. S. Department of Agriculture, 1922; revised 1924), Table 10, for 1914-19, and from *Beef Cattle, Agricultural Outlook Charts, 1940* (U. S. Bureau of Agricultural Economics), p. 14, for 1920-38. Exports of calves were not included. Liveweight per head was assumed to be 1,250 lbs.; this high figure, used by Strauss and Bean, *op. cit.*, p. 107, is explained by the facts that the destination for most of the live steers exported has been England, which prefers heavy steers, and that transport charges are computed per animal rather than per pound. Imports do not have to be deducted, since they consist mostly of lean animals driven in from Mexico and Canada for feeding.

Prices are those given in *Livestock, Meats, and Wool Market Statistics*, p. 74, for 1910-39, supplemented for 1897-1909 by the series given by Strauss and Bean, *op. cit.*, Tables 48, 51.

For cattle in 1897 and 1898, total slaughter was estimated as 183 percent of federally inspected slaughter. This ratio was based on data for later years as given in *Livestock, Meats, and Wool Market Statistics*, p. 31. Together with the inventory change, it was then converted into pounds by multiplying by average liveweight (950 lbs.) as estimated by Strauss and Bean, *op. cit.*, p. 106.

For calves in 1897 and 1898, slaughter was estimated as .3757 of cattle slaughtered in same year, based on recorded experience of 1899 and 1900. This was combined with inventory change, and multiplied by average live-weight of 170 lbs. as derived from record of later years. For 1939 inventory changes were derived from *The Livestock Situation* (U. S. Bureau of Agricultural Economics, March 1941), p. 19.

(68) Hogs:

Slaughter figures, in terms of pounds, for 1899-1938, were made available to us by C. A. Burmeister; see note on (66)-(67).

Changes in inventory poundage for 1909-23 were provided by C. L. Harlan; see note on (66)-(67). These data were supplemented for the missing years by our own estimates based on essentially the same methods as those used by Mr. Harlan, who supplied us with estimates which he has made for the average weight per head for the period 1924-33, by states; these average weights we applied, state by state, to changes in number on hand between successive

January 1's as given on a state basis in *Livestock on Farms, January 1, 1867-1935* (U. S. Bureau of Agricultural Economics, 1938). The state figures were then aggregated into a United States total. This method allows for differences in weight between states and the changing importance of various states in total hog production. When compared to estimates based on change in the country as a whole it is found that our method yields larger results in both directions, since states having heavier hogs also predominate in magnitude of change.

The price series consists of two segments. Farm prices per cwt. liveweight are available back to 1910 in *Livestock, Meats, and Wool Market Statistics*, p. 75. Prior to 1910 we used the Chicago price (*ibid.*, p. 68), lowering it 9 percent to adjust it to the farm price. This adjustment was derived from the 1910-29 record.

For 1897 and 1898 estimates of output were based on number slaughtered, in turn derived as a percentage of number on hand January 1 (*Agr. Stat.*, Table 484) and average liveweight per animal slaughtered, derived as an average quotient over a number of years from our poundage figures and number killed (*Agr. Stat.*, Table 498). The ratio of slaughter to inventory was found to be quite constant, averaging 1.024 over the period 1899-1910, while average liveweight per animal slaughtered varied within even narrower limits.

For 1939 output was derived from number slaughtered—*Agr. Stat.*, Table 498—multiplied by liveweight per head of 230 pounds, plus change in inventory, based on *ibid.*, Table 484.

(69) Sheep and lambs:

For source of slaughter poundage, 1899-1938, see note on Hogs (68). Slaughter in 1897 and 1898 based on number slaughtered under federal inspection multiplied by 1.33, which is the average ratio of total to inspected slaughter for the years 1900-01 (*Livestock, Meats, and Wool Market Statistics*, p. 36). This estimate was then multiplied by the estimated average liveweight per animal slaughtered—85 pounds—as derived for 1899-1906 from Burmeister's poundage figures divided by number slaughtered, *Agr. Stat.*, Table 533.

Inventory changes were estimated by assuming a constant weight of 100 lb. per head for all years. Though the 1924-33 weight by states, as copied from Mr. Harlan's files—see note on Hogs (68)—ranges from 76 lb. (Alabama) to 119 lb. (New Jersey), the majority of the states show weights close to 100. Moreover, data for feeder sheep, which form part of our analysis, are not available on a state basis prior to 1925, whereas state weights include the weight of feeder sheep. It appeared, therefore, that little would be gained by computing inventory changes on a state basis, as was done in the case of hogs, and a test computation we made bore out this conjecture.

The only price for sheep and lambs combined is available in the Income Parity Study (U. S. Department of Agriculture, *Income Parity for Agriculture*, Washington, 1940, Pt. 1, Sec. 6) beginning in 1909. It includes, however, the interstate sales of sheep, for feeding and breeding, and was used only prior to 1923, since from 1923 on we were able to construct our own average price, based upon the relative number of sheep and lambs slaughtered (*Livestock, Meats, and Wool Market Statistics*, p. 50). In order to take into account the

Footnotes to Table A-1 continued on next page.

Footnotes to Table A-1, continued.

heavier weight of sheep, the percentage of sheep slaughtered was given a weight of 2 as against 1 for the lamb percentage. The average price thus estimated from the two separate prices (*ibid.*, pp. 74-75) closely resembles the *Income Parity* price.

The price series was completed to 1897 with the help of a series on cost to wholesale packers (*Agr. Stat.*, Table 557). This series exceeds the farm price but parallels its movements closely for years for which both series are available. Consequently we lowered it 5 percent to bring about a rough adjustment to the farm price level in 1909. For 1939 output was obtained from number slaughtered, *Agr. Stat.*, Table 533, multiplied by assumed weight of 86 lbs. per head.

(70) Eggs:

Net output, consisting of eggs produced adjusted to exclude eggs used for hatching, and price, 1909-39, from *Agr. Stat.*, Table 639.

The output series was completed with the help of a corrected 1899 Census figure (Strauss and Bean, *op. cit.*, Table 46) and a series on shipments to six cities which was made available to us by Mr. W. H. Shaw, formerly of the National Bureau of Economic Research and now at the Department of Commerce. The shipment series covering about 20 percent of total output was raised to the level shown by the 1899 and 1909 estimates by straight-line interpolations of ratios between the two years. Similarly, 1897 and 1898 were estimated from shipments by straight-line interpolated ratios between 1899 and a corrected Census figure for 1889 (Strauss and Bean, *loc. cit.*). Prices were also taken from *ibid.*

(71) Chickens:

From 1909-39, net output, consisting of chickens produced, and prices were taken from *Agr. Stat.*, Table 624. In making estimates for the preceding years we attempted to follow the procedure outlined in *Farm Production and Disposition, Chickens and Eggs, 1909-1924* (U. S. Bureau of Agricultural Economics, 1939), p. 1. We first estimated chickens on hand, January 1, on the basis of eggs produced (see series on eggs), using the 1910 BAE figure and a corrected 1900 Census figure as basic data between which we interpolated ratios of chickens on hand to eggs produced. These ratios multiplied by eggs produced yielded chickens on hand. The process was carried out for 1897 and 1898 by extrapolating the ratio for those two years. Next, chickens lost were estimated at 12 percent of chickens on hand; see S. A. Jones, "Poultry and Eggs," *Farm Value, Gross Income, and Cash Income from Farm Production*, Pt. II (U. S. Bureau of Agricultural Economics, 1930), p. 19.

Chickens raised were estimated as a constant ratio (.25) of eggs produced the following year. The ratio was computed for each year 1909-20, and turned out to be markedly constant.

Finally, chickens produced were computed as the difference between chickens raised and chickens lost.

The price series was completed with the help of Strauss and Bean, *op. cit.*, Table 45. The prices there published were converted to a per-head basis by estimated weight per head as supplied by Mr. Strauss.

(72) Turkeys:

From *Agr. Stat.*, Table 635.

(73) Milk and milk products (1 quart of milk = 2.15 lb.):

It is impossible to describe here in complete detail the complex procedure we found it necessary to use in estimating output and prices of milk and derived products. A great deal of widely scattered material was supplemented by returns to a special questionnaire sent out by us to all Agricultural Experiment Stations. Various assumptions and simplifications had to be introduced, so that the resulting series must be viewed as first approximations in a largely unexplored field.

Since we used data for recent years as our point of departure, we shall describe our methods in chronologically reverse order.

For the years 1934-39 data have recently become available which give output and prices in terms of disposition; this is the ideal form of presentation for our purposes. The source is *Farm Production and Income from Milk, by States, 1938-1939* (U. S. Agricultural Marketing Service, 1940). A continuation of these data back to 1924 has since appeared, unfortunately too late for inclusion in this study. However, our own estimates resemble these latest official data well enough to justify our results.

From 1910 to 1933 we relied on three series, viz. farm butter, creamery butter, and milk disposed of in fluid form. The choice of these three series was conditioned by the availability of separate price series matching, more or less, those categories. Prices are from releases by R. F. Hale and J. B. Shepard, "U. S. Average Farm Prices of Dairy Products, 1910-1934" (U. S. Department of Agriculture, 1934), and R. E. Johnson, "Wholesale Prices Received by Farmers for Whole Milk, 1909-1936" (U. S. Department of Agriculture, 1937).

Output data were derived from estimates of total milk produced. Such estimates are available from 1924 in *Agr. Stat.*, Table 572, and were extended back to 1909 with the help of data from R. G. Bressler, Jr., and J. A. Hopkins, *Trends in Size and Production of the Aggregate Farm Enterprise, 1909-36* (National Research Project, Philadelphia, 1938), p. 227. The latter series was raised to the level of the official data in 1924. From this series was excluded the amount fed to calves, from *Agr. Stat.*, Table 581, back to 1924, and estimated as 3 percent of the total prior to that date. This net output series was then split up in the following way: farm butter output for 1924 and later years, given in *Agr. Stat.*, Table 581, was converted to butter equivalents by a factor of 20.3 lbs. of milk per lb. of butter. Prior to 1924 data are derived from E. E. Vial, *Production and Consumption of Manufactured Dairy Products*, Technical Bulletin 722 (U. S. Department of Agriculture, 1940), Table 5. The two series are directly comparable.

Creamery butter is based on the same sources as farm butter, but from 1909-23 includes whey butter. This is an error of negligible proportions.

In order to apply to the creamery butter series the price of butterfat, we had to assume (1) that all creamery butter is made from milk sold as butterfat and (2) that no butterfat is sold for purposes other than the manufacture of creamery butter. Needless to say neither assumption is strictly justified. Nonetheless, we accumulated sufficient evidence, both statistical and general, to convince ourselves that the two assumptions yield a fair approximation.

In order to make the butterfat price technically applicable to the output of creamery butter—the finished product—two ratios must be assumed:

Footnotes to Table A-1 continued on next page.

Footnotes to Table A-1, continued.

- (1) For the period 1924-34, 20.3 lb. of milk = 1 lb. of butter; the ratio becomes 21 prior to 1924. The change in the conversion factor constitutes a break, though not a serious one, in continuity.
- (2) To sell 1 lb. of butterfat the farmer has to sell 26.6 lb. of milk.

These factors are based on data available from 1924 and 1934 respectively. The butterfat price multiplied by the ratio under (1) above, and divided by the ratio under (2), thus represents the price the farmer obtains for the amount of fluid milk he has to sell to result in the output of one pound of creamery butter, and is therefore directly comparable to the output of creamery butter.

Finally, the amount of fluid milk sold as such off farms or consumed in farm households was obtained as the difference between total milk output and the combined output, in terms of milk equivalents, of farm and creamery butter. The source of the latter two series has already been quoted; and it remains to be mentioned that prior to 1924 conversion from butter to milk was based on a factor of 21 lb. of milk per lb. of butter.

The price applied to fluid milk output was a weighted average of the wholesale price, and the price received for retail sales by farmers, of fluid milk. On the basis of statistical evidence obtained from the period 1929-39, and as a result of both general considerations and returns to the questionnaire mentioned above, the wholesale price was given a weight of 5 from 1928 to 1933 and of 4 in 1909. Between 1909 and 1928 the weight was increased by one tenth every other year, on the assumption that there has been a gradual decline in the relative importance of farmers' retail sales.

From 1897 to 1909 total production was obtained from Strauss and Bean, *op. cit.*, Table 43, by splicing the series to our 1909 estimate; 3 percent was again deducted for milk fed to calves, and the balance separated into butter and fluid milk by using total butter production as given in Vial, *op. cit.*, Table 5. The subdivision into factory and farm butter was used only to convert the farm butter price (Strauss and Bean, *op. cit.*, Table 40) into a price representing both farm and factory butter. This was achieved on the basis of the known relationship between farm butter and butterfat prices after 1910, when it was found that the price of milk sold as butterfat averaged 81 percent of the price of the identical unit of milk turned into farm butter. Farm butter was taken to have constituted 65 percent of all butter over the entire period, year-to-year fluctuations as shown in Vial, *op. cit.*, Table 5, not being considered sufficiently important and reliable to justify the use of changing ratios. Thus, the average price of all milk going into butter was obtained as the sum of the farm butter price weighted by 65, and 81 percent of the farm butter price weighted by 35; this sum equals 93 percent of the farm butter price. The resulting price was found to check closely with one derived from a Wisconsin butterfat price series given by W. P. Mortenson, H. H. Erdman and J. H. Draxler, *Wisconsin Farm Prices, 1841 to 1933*, Research Bulletin 119 (Wisconsin Agricultural Experiment Station, 1933), p. 42.

Milk disposed of in fluid form was obtained as the difference between total milk, exclusive of amount fed to calves, and the milk equivalent—based on a factor of 21—of all butter. To the resulting output series was applied a price

based mainly on estimates made for New York by S. E. Ronk, *Prices of Farm Products in N. Y. State, 1841 to 1935*, Bulletin 643 (Cornell University Agricultural Experiment Station, 1936); by Leland Spencer, "A Revised Series of Milk Prices for New York," *Farm Economics*, No. 111 (Cornell University, Feb. 1939), pp. 2707-10; and by Johnson, *op. cit.* A continuous New York state price series obtained from the above three sources was adjusted somewhat to conform to the level of the United States price for fluid milk already obtained for the period after 1909. Finally, in order to take into account farmers' retail sales, the series was raised 20 percent, this being the average 1910-15 excess of our estimated wholesale-retail price over the wholesale price.

(74) Wool:

Output refers to wool shorn only, and excludes wool pulled. The series, for which output data from 1909 on were obtained from *Agr. Stat.*, Table 539, was completed with the help of estimates made by P. T. Cherington, "Wool Growing in the United States," *Bulletin* of the National Association of Wool Manufacturers, Vol. LII (July 1922), pp. 327-44; this series runs consistently below the *Agr. Stat.* data which were revised to their present level between the publication of the 1938 and 1939 issues of *Agr. Stat.* Consequently we raised the pre-1909 segment to the level of the revised series by a uniform ratio of 1.08.

The price series consists of two segments: the basic one, from 1909 to 1938, was taken from the *Income Parity* report on wool—see note on (69)—whereas prices for the earlier period are based on a series of the average wholesale price of four grades, given in the *Bulletin* of the National Association of Wool Manufacturers, Vol. LXVI (1936), p. 163; this series was adjusted to the level of the former by a uniform ratio of .305, based on the relationship of the two series for 1909-29. The 1939 price is taken from *Crops and Markets*, February 1940.

(75) Mohair:

Up to 1937 both production and price are taken from an *Income Parity* report—see note on (69)—and completed for 1938-39 from *Agr. Stat.*, Table 549, for production, and from *Crops and Markets*, March 1940 and 1941 for price.

No earlier data are available, but there is evidence that by 1899 production cannot have exceeded 1 million pounds; see G. F. Thompson, *The Angora Goat*, Bulletin 27 (U. S. Bureau of Animal Industry, 1901), p. 82.

TABLE A-2
VALUE OF AGRICULTURAL PRODUCTS

Million dollars

This table, based on Table A-1, shows the value in farm prices of the net output of all products included in our index of agricultural output. Where no data are shown, they could not be computed, or are not available in comparable form. Data relate to crop years in the case of crops, calendar years in the case of livestock and livestock products.

Product	1899	1909	1919	1929	1937
Wheat	337.6	608.8	1,785.2	705.6	643.6
Corn	157.7	354.0	771.8	391.6	308.2
Oats	68.9	141.8	224.6	95.4	67.6
Barley	22.9	50.3	61.8	41.4	47.3
Rice	6.4	17.1	104.1	36.6	33.0
Rye	8.8	14.5	85.5	17.7	16.6
Flaxseed	18.1	25.8	25.9	38.2	12.1
Buckwheat	4.0	6.6	9.7	4.0	1.8
Potatoes	82.7	185.5	487.5	374.3	176.3
Sweetpotatoes	20.1	36.9	108.5	62.4	50.8
Dry edible beans	6.8	19.9	53.0	72.6	43.0
Sugar beets	3.5	21.7	75.4	51.8	46.3
Sugarcane	9.4	16.8	26.6	11.6	17.1
Sugarcane sirup	..	10.0	25.1	14.1	11.2
Sorgo sirup	..	..	33.6	8.4	6.7
Maple sirup	..	..	8.6	4.8	4.0
Maple sugar	..	..	3.1	4.1	3.0
Peanuts	8.8	22.0	57.8	30.5	36.8
Soybeans	..	..	..	3.1	25.5
Hops	4.0	8.9	21.9	3.8	6.4
Broomcorn	..	..	8.5	5.4	3.2
Hay	91.0	137.5	182.7	32.7	19.1
Cotton	326.2	676.3	2,016.3	1,244.6	796.7
Cottonseed	33.0	70.6	268.4	152.8	129.2
Tobacco	61.8	106.4	450.6	280.5	318.8
Apples	122.8	123.6	246.1	187.8	132.8
Apricots	1.6	2.9	15.0	14.2	12.1
Figs, fresh and for canning	..	..	..	.7	.8
Figs, dried	..	..	1.8	1.5	2.0
Grapes	14.6	21.4	103.0	56.9	57.2
Olives	..	..	1.2	1.4	1.9
Peaches	..	29.3	98.0	67.6	60.9
Pears	..	8.1	27.4	31.3	19.7
Plums, fresh and for canning	..	.9	3.1	3.8	3.0
Prunes, canned	..	..	.2	.4	.6
Prunes, dried	3.8	5.7	40.2	21.7	14.0
Prunes, fresh	..	..	1.9	1.5	1.0
Cranberries	..	3.3	4.7	7.7	7.7
Strawberries	..	..	31.9	40.2	34.4

TABLE A-2—VALUE OF PRODUCTS (concluded)

<i>Product</i>	1899	1909	1919	1929	1937
Citrus fruit, California					
Oranges	8.5	16.3	57.7	90.7	40.7
Lemons	..	4.5	8.0	26.6	24.3
Grapefruit	0	^a	.6	2.6	1.1
Citrus fruit, Florida					
Oranges	.5	4.7	22.3	25.7	35.2
Grapefruit	0	2.6	12.1	20.6	15.2
Citrus fruit, other states					
Oranges	..	..	..	2.3	2.5
Grapefruit	..	..	.1 ^b	4.2	8.4
Almonds	..	..	3.5	2.3	5.5
Pecans	..	..	13.5	7.6	5.6
Walnuts	..	..	16.6	13.9	10.9
Artichokes	..	..	..	2.3	1.9
Asparagus	..	..	5.0	14.1	14.2
Snap beans	..	..	8.2	20.4	20.6
Beets	..	..	..	1.8	1.6
Cabbage	..	..	16.0	19.4	15.7
Cantaloups and other muskmelons	..	..	15.0	22.6	16.0
Carrots	..	..	..	6.0	8.4
Cauliflower	..	..	2.3	5.6	7.2
Celery	..	..	10.3	14.4	17.8
Sweet corn	..	..	10.4 ^c	10.9	12.7
Cucumbers	..	..	8.1	11.2	8.9
Eggplant	..	..	..	1.1	.6
Lettuce	..	..	8.3	36.1	32.8
Onions	..	..	24.8	20.5	19.2
Peas	..	..	8.5	21.0	24.3
Peppers	..	..	..	3.8	3.5
Spinach	..	..	2.9	7.3	6.4
Tomatoes	..	..	36.7	55.7	52.9
Watermelons	..	..	7.2	12.1	7.5
Peppermint oil	..	..	..	3.4	1.8
Cattle	498.8	502.5	1,126.9	1,149.7	890.0
Calves	37.3	59.4	184.4	178.8	150.7
Hogs	417.9	738.4	2,240.8	1,485.2	1,164.3
Sheep and lambs	52.6	71.2	138.7	195.3	152.2
Eggs	188.6	403.0	1,011.0	916.9	658.2
Chickens	114.7	206.2	492.7	592.4	367.0
Turkeys	..	..	..	53.7	68.3
Milk and milk products	486.9	841.3	2,126.1	2,360.7	1,937.1
Wool	40.9	68.8	133.6	99.1	117.4
Mohair	..	1.4	4.2	8.0	8.7
TOTAL	..	..	..	11,650.8	9,109.7

^a Less than \$50,000.^b At \$3.00 per box.^c For manufacture only.

TABLE A-3

NET OUTPUT OF CROPS AND LIVESTOCK
PRODUCTS, 1897-1939^a

1929 : 100

<i>Year</i>	<i>Crops</i>	<i>Livestock Products</i>	<i>Year</i>	<i>Crops</i>	<i>Livestock Products</i>
1897	71.8	61.5	1919	93.2	82.1
1898	78.1	62.9	1920	101.6	81.0
1899	73.7	65.8	1921	79.5	83.1
1900	74.9	66.1	1922	91.1	89.3
1901	72.3	65.8	1923	91.7	91.9
1902	83.9	62.9	1924	99.0	91.2
1903	78.5	67.6	1925	102.1	90.7
1904	85.7	67.8	1926	109.5	95.0
1905	82.9	69.4	1927	98.4	97.8
1906	93.3	72.7	1928	108.0	98.4
1907	79.2	73.7	1929	100.0	100.0
1908	84.8	72.6	1930	99.3	101.2
1909	84.7	71.5	1931	106.9	102.8
1910	86.2	73.9	1932	94.5	103.2
1911	89.2	75.3	1933	87.0	104.4
1912	97.9	75.9	1934	72.8	91.2
1913	88.4	78.0	1935	90.6	93.3
1914	102.8	79.7	1936	83.0	100.1
1915	100.0	82.1	1937	121.3	97.4
1916	83.0	82.4	1938	108.4	102.8
1917	90.2	82.5	1939	111.1	109.4
1918	95.1	86.4			

^a The two series in this table afford a breakdown of the combined index shown in Tables 1 and 5. Unlike the partial indexes in Table 5, the series printed here furnish a breakdown which is both exhaustive and free from duplication: "crops" include items (1) to (65), "livestock products" items (66) to (75) in Table A-1. The former relates to crop years, the latter to calendar years. This table is reproduced in five-year average form in Table 3, p. 31 above.

TABLE A-4

NET OUTPUT OF MILK, AND OF MILK PRODUCTS
IN TERMS OF MILK, 1897-1939^a*Million pounds*

<i>Year</i>	<i>Fluid Milk</i>	<i>Farm and Creamery Butter (milk equivalent)</i>	<i>Total</i>	<i>Year</i>	<i>Fluid Milk</i>	<i>Farm and Creamery Butter (milk equivalent)</i>	<i>Total</i>
1897	21.2	32.2	53.4	1919	37.0	34.6	71.6
1898	23.3	30.9	54.2	1920	40.6	32.9	73.5
1899	23.4	31.3	54.7	1921	39.1	36.6	75.7
1900	23.1	32.3	55.5	1922	39.5	39.3	78.8
1901	23.4	33.1	56.5	1923	39.6	41.7	81.3
1902	22.0	29.4	51.4	1924	42.9	42.0	84.9
1903	26.6	31.2	57.8	1925	45.4	40.7	86.1
1904	26.2	32.3	58.5	1926	48.4	40.9	89.3
1905	24.0	35.0	59.0	1927	49.6	41.9	91.6
1906	27.1	32.4	59.6	1928	51.4	41.6	93.0
1907	27.8	32.3	60.0	1929	52.7	43.2	96.0
1908	24.1	37.0	61.2	1930	54.4	42.8	97.2
1909	28.3	34.1	62.3	1931	55.4	44.7	100.1
1910	27.3	35.8	63.1	1932	55.0	46.0	101.0
1911	26.9	37.0	63.9	1933	54.5	47.4	101.9
1912	31.2	33.4	64.6	1934	53.6	45.2	98.8
1913	31.9	33.8	65.7	1935	54.9	43.9	98.7
1914	32.1	35.4	67.5	1936	57.5	42.9	100.4
1915	32.1	36.8	68.9	1937	58.9	41.5	100.4
1916	32.5	37.7	70.1	1938	60.7	43.7	104.4
1917	36.6	34.6	71.2	1939	61.7	43.9	105.5
1918	40.9	30.7	71.7				

^a Net output excludes milk fed to calves. This table is based on data in Table A-1, and constitutes the material from which Chart 30 is drawn. Data are for calendar years.

