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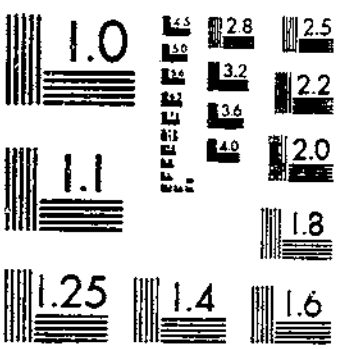

MICROCOPY RESOLUTION TEST CHART
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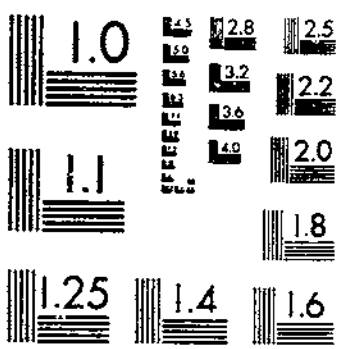

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MARKETING COMMERCIAL CABBAGE

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CONTENTS

COMMERCIAL PRODUCING AREAS

Cabbage is one of the important vegetable crops of this country. A gradual expansion in acreage and production has been taking place for a number of years. An average of 173,706 acres was devoted annually to the production of this crop in the 5-year period 1932–36. Commercial production on this acreage for the same period averaged 1,109,500 tons, or more than 17 pounds per capita. Acreage and production for this period compared with the 5-year period increased a little more than a fourth. The farm value of the cabbage crop was estimated to be $21,105,000 in 1936 and has averaged nearly $15,000,000 for the last 5 years. About one-eighth of the commercial cabbage crop is utilized for the manufacture of sauerkraut.

Cabbage is produced commercially in 30 States, New York ranking far ahead of all of the others in production. Cabbage production in New York during 1932–36 averaged more than 280,000 tons annually which is slightly more than a fourth of the total average production in the country as a whole. Texas is the second largest producing State

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with an average of 129,380 tons and Wisconsin ranks third with an average of 104,800 tons, for the same period. Thus, during the 5 years these three States produced nearly half of the total cabbage crop of the United States. Other important States in order of average production during the 5 years are Pennsylvania, Colorado, California, Michigan, Florida, New Jersey, Ohio, Virginia, North Carolina, and Mississippi. These 10 States produced an average of 384,780 tons which is approximately 35 percent of the average total production. A number of other States have important commercial producing sections.

Most of the commercial cabbage is produced in a limited number of producing districts in the various States (fig. 1).

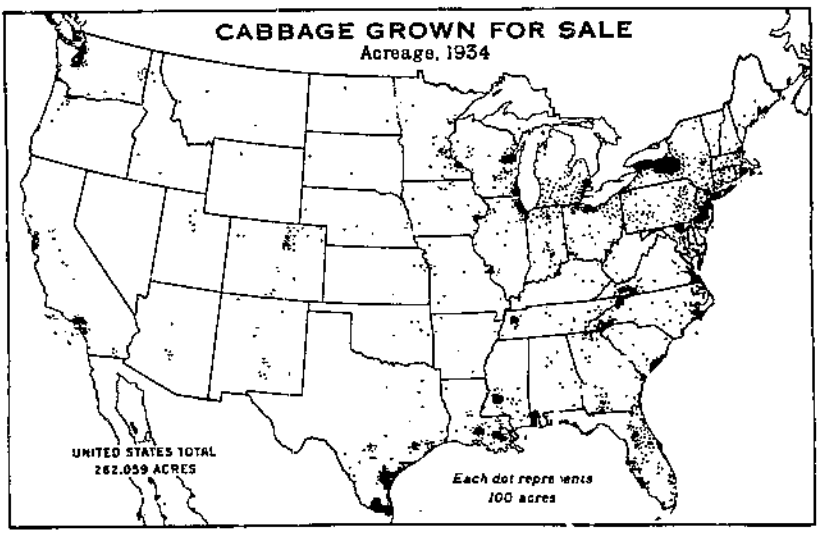

FIGURE 1.—Cabbage is produced commercially in about 30 States, but the principal producing States are New York, Texas, Wisconsin, Pennsylvania, Colorado, California, Michigan, Florida, New Jersey, Ohio, Virginia, North Carolina, and Mississippi. (The United States total of 262,059 acres includes acreage in States not considered commercial-producing States.)

From the commercial standpoint the cabbage crop is classed as "fall," "early," "second early," "intermediate," and "late," according to the period in which it moves to market.

The fall crop of cabbage is mostly produced near Charleston, S. C., and Norfolk, Va., and is marketed from late October or early November to February.

Early cabbage is grown principally in California, Florida, Louisiana, and Texas and is mostly marketed from December to May.

The second-early crop marketed from April to June is produced chiefly in Mississippi, South Carolina, Virginia, and Alabama.

The intermediate crop is largely marketed in June and July, and the important producing States are North Carolina, New Jersey, Maryland, Illinois, New York, Ohio, Tennessee, and Virginia.

Late-crop cabbage is mostly harvested in September and October, but a large part of the crop is stored for the demand during the fall and winter months. Practically all of the late cabbage moves to market by March. New York, Wisconsin, Pennsylvania, and

Colorado are the leading late-cabbage-producing States, and Michigan, Ohio, Indiana, Minnesota, Oregon, and Utah produce considerable quantities.

TYPES AND VARIETIES [1]

Cabbage is classified commercially according to type—Danish, domestic, pointed, savoy, and red. These are trade terms and have no connection with horticultural varieties or producing regions. The first three types are the most important commercially.

The term Danish type is applied to late-maturing cabbage used for storage and marketing during the fall and winter months (fig. 2). Heads of this type are normally smooth and round, and are sometimes slightly flattened in shape; they are very hard and compact. Danish Ballhead and Wisconsin Hollander are the two leading varieties of

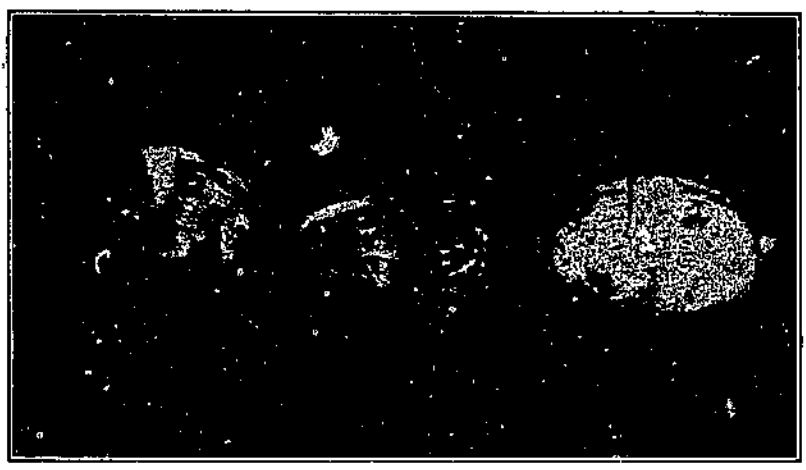

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FIGURE 2.—Cross sections of Danish- (*A*, *C*) and domestic-type (*B*) heads of cabbage.

Danish type. There is little difference in these two varieties except that the latter is resistant to cabbage yellows. For this reason it is grown principally in the Middle Western and North Central States on soils that may be infested with cabbage yellows.[2]

Domestic-type cabbage is largely produced as early or midseason cabbage. Heads of this type are less compact and leaf tissues are more tender and brittle than heads of Danish type (fig. 2). Typical heads are usually somewhat soft at the base. Domestic-type cabbage does not keep well and is seldom stored except for short periods in the early fall months. There are both round- and flat-headed varieties of domestic-type cabbage. Copenhagen Market and Glory of Enkhuizen are the two leading round-headed varieties and Flat Dutch, Succession, and All Seasons are the principal flat-headed varieties. Flat-headed varieties are preferred for sauerkraut manufacture, but a large percentage of the production of both flat-headed and round-headed, domestic-type cabbage is used for this purpose. Some Danish-type

[1] For a detailed description of principal varieties of cabbage refer to U. S. Department of Agriculture Miscellaneous Publication 160, Description of Types of Principal American Varieties of Cabbage.

[2] Diseases of cabbage are discussed in detail in U. S. Department of Agriculture Farmers' Bulletin 1439, Diseases of Cabbage and Related Plants.

cabbage is used for sauerkraut manufacture especially when supplies of domestic-type cabbage are inadequate.

Cabbage produced in the South Central States is mostly of the domestic type. Production in the late-crop States is normally about half domestic for midseason market and sauerkraut manufacture and half Danish for late market and storage purposes.

Pointed-type cabbage is popular during the early spring months when it is marketed as green cabbage. This is the leading type produced in the Southeastern States and is grown to some extent in western areas. This type is easily distinguished from Danish and domestic types by the conical or pointed shape of the heads (fig. 3). Heads of this type as a rule are not so large as heads of Danish or domestic type. The leading varieties of pointed-type cabbage are

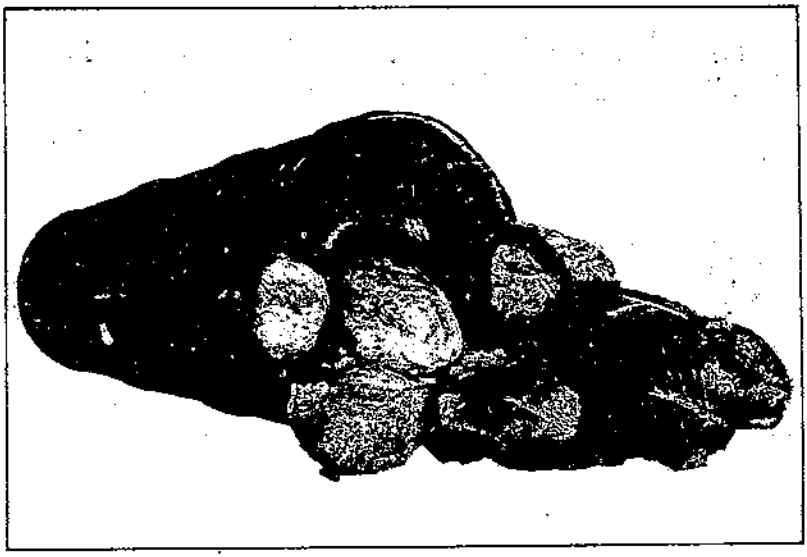

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FIGURE 3.—Hamper of Florida pointed-type cabbage.

Early Jersey Wakefield, Charleston Wakefield, and Winningstadt. The interior structure of heads of the Wakefield varieties appear loose and open whereas the structure of heads of Winningstadt is hard and compact.

Savoy-type cabbage can be readily identified by the unusual crinkling of the leaf tissues throughout leaves and head. The heads are ordinarily loosely formed, usually flattened, but are sometimes round or pointed and of yellowish-green color. Savoy-type cabbage is popular with peoples of Latin descent and for this reason is an important crop near New York City and on Long Island. It is grown, too, as a market-garden crop in many other sections. The principal varieties of this type are Drumhead and American.

Red-type cabbage is easily distinguished from all other types by its red or purple color. Heads show varying degrees of purple or red color, depending upon variety, and are hard to fairly hard. The red

type is grown as a field crop to a limited extent in New York and Wisconsin and as a market-garden crop near many large cities. Red cabbage is a favorite with people of German descent and is used largely for pickling and salad purposes. Mammoth Red Rock and Danish Stonehead are two popular varieties of red-type cabbage.

ACREAGE, YIELD, AND PRODUCTION

The commercial cabbage acreage in the United States according to estimates of the Bureau of Agricultural Economics has increased from an annual average of about 113,000 acres in the period, 1918–22, to nearly 174,000 acres in the period, 1932–36. During the recent period slightly less than 1 percent of the acreage has been devoted to the fall crop, about 25 to the early, 10 to the second-early, 19 to the intermediate, and 45 percent to the late crop.

Among the early crop States, Texas had an annual average of nearly 60 percent of the total acreage for the period 1932–36, and the remainder was divided between Florida with about 17, California with 14, and Louisiana with 9 percent. All of the second-early acreage is located in the East South Central and South Atlantic States, with Mississippi and Virginia having about 55 percent of the total acreage and the remainder being divided between South Carolina, Georgia, Alabama, and parts of North Carolina (table 1).

Intermediate or midseason cabbage acreage is widely scattered, the South Atlantic States (Maryland, parts of North Carolina, and southwest Virginia) having about 36 percent of the acreage, the central group (Illinois, Tennessee, Missouri, Iowa, southeast Ohio, Kentucky, and Arkansas), having about 30 percent, the Middle Atlantic group (New Jersey and Long Island), having a little over a fourth of the acreage, and Washington and New Mexico in the West having about 8 percent.

Of the late-crop acreage, approximately 52 percent was used for domestic-type and 48 percent for Danish-type cabbage. Of the total, about 21 percent, mostly domestic type, was devoted to the production of cabbage for sauerkraut manufacture. About 41 percent of the late-crop acreage was in New York and 20 percent in Wisconsin, the remainder being divided as follows, in percentage: Pennsylvania 9, Michigan 7, Ohio 6, Colorado 5, Minnesota 5, Indiana 4, Oregon 2, and Utah less than 1.

Average yields per acre have fluctuated considerably from year to year in the different producing sections, principally because of growing conditions. The average yield for the country as a whole during the 5-year period 1932–36 was estimated by the Bureau to be 6.4 tons per acre. The average yields for fall, early, and intermediate cabbage were considerably less than for late cabbage. The average for the period has been estimated to be 5.7 tons per acre for fall, 5.2 for early, 4.8 for second early, and 5.4 for intermediate. The average yield for late, domestic-type cabbage was 7.8 tons per acre and for late Danish-type 8, or an average of 7.9 for all late cabbage. The average yield of cabbage produced for the manufacture of sauerkraut was estimated to be 7.6 tons per acre as contrasted to 6.2 for cabbage produced for market (tables 1 and 2).

TABLE 1.—*Acreage in commercial cabbage for market and for sauerkraut by crops and States, 1927–36*

Crop and State	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936 [1]	Average, 1932–36
Fall: [2]	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*
South Carolina	300	600	350	750	900	600	1,100	900	1,300	1,800	1,140
Virginia, Norfolk	100	180	180	300	100	100	200	100	100	120	124
Total	400	780	530	1,050	1,000	700	1,300	1,000	1,400	1,920	1,264
Early:											
California	6,350	4,850	4,600	4,050	4,400	5,500	5,600	6,800	6,900	7,100	6,380
Florida	3,010	2,900	6,500	3,700	6,500	5,500	6,200	10,700	5,600	9,000	7,400
Louisiana	3,200	3,500	3,100	2,100	5,400	3,200	2,200	9,300	1,800	3,000	3,900
Texas [3]	18,530	22,000	25,000	21,200	30,900	22,900	18,100	38,600	12,600	38,000	26,040
Total	31,090	33,250	39,200	31,050	47,200	37,100	32,100	65,400	26,900	57,100	43,720
Second early:											
Alabama	4,200	2,200	2,050	1,550	1,950	1,280	1,800	3,000	1,600	1,000	1,736
Georgia	300	200	1,450	900	800	700	1,800	3,800	1,600	2,800	2,140
Mississippi	2,110	2,700	3,800	2,850	3,100	2,900	4,000	7,800	5,800	6,000	5,420
North Carolina	780	680	650	720	700	900	1,200	1,950	1,400	1,600	1,410
South Carolina	2,300	2,900	3,100	3,100	3,000	2,000	1,800	2,800	3,000	3,000	2,520
Virginia	4,700	4,900	4,800	4,750	4,150	4,300	4,850	3,900	3,700	3,300	4,010
Eastern Shore	2,100	1,500	1,900	1,250	1,000	1,700	2,000	2,200	1,900	1,600	1,880
Norfolk	2,600	3,400	2,900	3,500	3,150	2,600	2,850	1,700	1,800	1,700	2,130
Total	14,390	13,580	15,850	13,870	13,700	12,080	15,450	23,250	17,100	18,300	17,236
Intermediate:											
Arkansas	200	260	240	270	300	280	260	240	200	180	232
Illinois [4]	1,260	1,700	1,900	2,700	2,600	2,900	3,100	3,600	3,800	3,000	3,280
Iowa [4]	1,080	1,480	1,590	2,000	1,320	1,480	1,600	1,670	1,640	1,240	1,526
Kentucky	240	260	200	190	270	270	300	300	320	250	288
Maryland [4]	1,800	2,000	2,420	2,900	2,300	3,300	3,500	3,200	3,300	2,500	3,160
Missouri	860	950	910	1,080	1,200	1,360	1,360	1,290	1,280	1,200	1,298
New Jersey [4]	4,000	4,000	4,300	4,200	4,000	5,800	7,000	7,900	7,500	6,000	6,840
New Mexico	600	500	600	450	400	600	500	980	900	700	736
New York, Long Island	1,500	1,500	1,450	1,500	1,600	1,800	1,700	1,900	1,950	2,300	1,930
North Carolina [3]		900	1,500	1,850	2,100	3,000	3,500	5,200	5,600	6,000	4,660
Ohio, southeast	850	850	720	350	1,050	900	600	750	630	560	688
Tennessee [4]	1,750	2,120	2,900	3,200	3,150	2,050	2,060	2,700	2,730	3,080	2,524
Virginia, southwest [4]	2,450	2,700	3,200	3,500	3,000	4,000	3,800	4,800	4,500	4,100	4,240
Washington [4]	1,740	1,950	1,810	1,900	2,050	2,000	1,800	2,130	2,000	1,400	1,866
Total	18,330	21,170	23,740	26,090	25,340	29,740	31,080	36,660	36,350	32,510	33,268

Late domestic: [1]											
Colorado	1,100	1,300	1,400	1,700	1,600	1,760	1,400	1,420	1,970	1,930	1,696
Indiana	1,190	1,500	1,900	3,100	3,200	2,940	2,820	3,400	2,900	1,900	2,792
Michigan	2,770	2,800	3,830	4,480	4,080	4,050	3,600	5,110	4,960	4,800	4,504
Minnesota	1,080	910	1,050	1,300	1,210	1,440	1,330	1,360	1,600	1,460	1,438
New York	9,950	8,960	9,400	11,750	10,000	10,000	9,000	14,500	11,600	8,900	10,800
Ohio	3,000	2,610	3,310	4,010	3,100	2,980	3,000	5,750	3,550	3,220	3,700
Oregon	850	1,580	1,400	1,440	1,610	1,400	2,000	1,480	1,200	1,360	1,488
Pennsylvania	2,900	3,150	3,650	3,100	2,700	2,600	4,080	4,800	5,800	6,600	4,776
Utah	300	500	700	630	450	550	400	470	420	420	452
Wisconsin	4,760	7,630	8,200	11,600	9,120	9,100	6,370	10,100	10,970	8,100	8,928
Total	27,900	30,940	34,840	43,110	37,070	36,820	34,000	48,390	44,970	38,690	40,574
Late Danish:											
Colorado	1,500	1,600	1,900	2,200	2,200	2,390	2,300	2,630	2,830	2,770	2,584
Indiana	.....	100	200	350	350	350	380	400	460	550	428
Michigan	350	350	470	720	720	950	900	1,280	1,240	1,200	1,114
Minnesota	1,990	1,590	2,450	2,100	1,990	2,560	2,370	2,040	2,200	1,640	2,162
New York [4]	23,960	19,170	18,900	20,920	21,550	21,000	19,000	26,900	22,400	18,100	21,480
Ohio	510	430	490	490	500	520	600	850	750	780	709
Pennsylvania	1,200	1,550	1,850	1,900	1,800	1,400	1,920	2,700	3,000	3,400	2,484
Wisconsin [4]	8,840	6,770	7,000	10,400	6,880	6,900	4,430	7,600	7,630	6,990	6,692
Total	38,350	31,560	33,260	39,080	35,990	36,070	31,900	44,400	40,510	35,340	37,644
Total late: [4]											
Colorado	2,600	2,900	3,300	3,900	3,800	4,150	3,700	4,050	4,800	4,700	4,280
Indiana	1,190	1,600	2,100	3,450	3,550	3,290	3,200	3,800	3,360	2,450	3,220
Michigan	3,120	3,150	4,300	5,200	4,800	5,000	4,500	6,390	6,200	6,000	5,618
Minnesota	3,070	2,500	3,500	3,400	3,200	4,000	3,700	3,400	3,800	3,100	3,600
New York	33,910	28,130	28,300	32,670	31,550	31,000	28,000	41,400	34,000	27,000	32,280
Ohio	3,510	3,040	3,800	4,500	3,600	3,500	3,600	6,600	4,300	4,000	4,400
Oregon	850	1,580	1,400	1,440	1,610	1,400	2,000	1,480	1,200	1,360	1,488
Pennsylvania	4,100	4,700	5,500	5,000	4,500	4,000	6,000	7,500	8,800	10,000	7,260
Utah	300	500	700	630	450	550	400	470	420	420	452
Wisconsin	13,600	14,400	15,200	22,000	16,000	16,000	10,800	17,700	18,600	15,000	15,620
Total	66,250	62,500	68,100	82,190	73,060	72,890	65,900	92,790	85,480	74,030	78,218
Total United States	130,460	131,280	147,420	154,250	160,300	152,510	145,830	219,100	167,230	183,860	173,706

[1] Preliminary.
[2] Fall-crop States supply earliest new-crop movement, starting in fall preceding year shown.
[3] Some of the 1934 and 1936 production in Texas and 1934, 1935, and 1936 production in North Carolina used for sauerkraut.
[4] States usually supplying cabbage for the manufacture of sauerkraut.

TABLE 1.—*Acreage in commercial cabbage for market and for sauerkraut by crops and States, 1927–36*—Continued

Crop and State	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936 [1]	Average, 1932–36
Acreage included in United States total:											
Cabbage for sauerkraut:	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*
Fall to second early								600	100	1,700	480
Intermediate	960	1,890	2,140	3,070	1,800	1,700	1,780	2,220	2,310	1,880	1,978
Late	11,760	15,320	18,390	25,030	17,410	14,460	14,660	22,890	14,090	14,560	16,132
Total	12,720	17,210	20,530	28,100	19,210	16,160	16,440	25,710	16,500	18,140	18,590
Cabbage for market:											
Fall to second early	45,880	47,610	55,580	45,970	61,900	49,880	48,850	89,050	45,300	75,620	61,740
Intermediate	17,370	19,280	21,600	23,020	23,540	28,040	29,300	34,440	34,040	30,630	31,290
Late	54,490	47,180	49,710	57,160	55,650	58,430	51,240	69,900	71,390	59,470	62,086
Domestic	16,140	15,620	16,450	18,080	19,660	22,360	19,340	25,500	30,880	24,130	24,442
Danish	38,350	31,560	33,260	39,080	35,990	36,070	31,900	44,400	40,510	35,340	37,644
Total	117,740	114,070	126,890	126,150	141,090	136,350	129,390	193,390	150,730	165,720	155,116

[1] Preliminary.

TABLE 2.— *Production of commercial cabbage for market and for sauerkraut by crops and States, 1927–36*

Crop and State	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936 [1]	Average, 1932–36
	100 short tons	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*
Fall: [2]											
South Carolina	17	24	29	94	90	24	44	72	104	99	66.8
Virginia, Norfolk	5	9	11	13	1	2	10	4	4	5	5.0
Total	22	33	40	107	91	26	54	76	108	95	71.8
Early:											
California	400	296	248	207	[3] 260	346	364	[3] 435	497	518	432.0
Florida	147	160	390	255	[3] 481	220	[3] 434	[3] 642	291	360	389.4
Louisiana	154	158	146	69	178	128	106	260	83	105	136.4
Texas [4]	1,223	1,386	1,550	1,039	[3] 1,885	1,145	670	[3] 2,123	441	[3] 2,090	1,293.8
Total	1,924	2,000	2,334	1,570	[3] 2,804	1,839	[3] 1,574	[3] 3,460	1,312	[3] 3,073	2,251.6
Second early:											
Alabama	227	108	102	78	133	96	72	[3] 204	[3] 83	[3] 60	103.0
Georgia	19	6	72	65	56	35	72	114	80	112	82.6
Mississippi	106	148	217	128	155	113	152	[3] 406	278	363	262.4
North Carolina	33	34	46	43	35	22	48	58	63	64	51.0
South Carolina	216	232	273	310	[3] 318	148	189	84	210	[3] 240	174.2
Virginia	240	172	378	202	184	126	178	186	213	82	157.0
Eastern Shore	97	70	175	62	52	53	90	110	114	40	81.4
Norfolk	143	102	203	140	132	73	88	76	99	42	75.6
Total	841	700	1,088	826	[3] 881	540	711	[3] 1,052	[3] 927	[3] 921	830.2
Intermediate:											
Arkansas	16	12	6	7	15	11	9	5	9	4	7.6
Illinois [5]	100	155	162	232	156	261	152	148	209	90	172.0
Iowa [5]	69	133	102	124	67	112	75	50	98	22	71.4
Kentucky	16	16	20	9	19	14	15	16	20	7	14.4
Maryland [5]	112	128	172	119	124	99	161	160	198	100	143.6
Missouri	73	52	64	69	62	82	61	39	81	28	58.2
New Jersey [5]	280	232	215	235	216	290	392	419	510	324	387.0
New Mexico	42	35	54	34	25	33	26	49	40	39	37.8
New York, Long Island	210	132	148	135	160	171	163	190	166	202	178.4
North Carolina [4]		54	75	56	126	90	140	260	403	420	262.6
Ohio, southeast	76	85	63	7	116	27	27	38	43	15	30.0

See footnotes at end of table.

TABLE 2.—*Production of commercial cabbage for market and for sauerkraut by crops and States, 1927–36*—Continued

Crop and State	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	Average, 1932–36
	100 short tons	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*	*100 short tons*
Intermediate—Continued.											
Tennessee [3]	105	129	171	221	151	113	103	181	164	117	135.6
Virginia, southwest [5]	172	270	211	88	195	100	152	192	[3] 202	123	153.8
Washington [5]	174	140	156	179	184	160	126	170	80	113	129.8
Total	1,445	1,573	1,619	1,515	1,616	1,563	1,604	1,917	[3] 2,223	1,604	1,782.2
Late domestic: [5]											
Colorado	155	182	122	190	118	[3] 176	154	115	207	183	167.0
Indiana	119	156	124	195	195	256	130	204	203	104	179.4
Michigan	249	241	241	251	241	389	212	404	372	288	333.0
Minnesota	130	98	82	96	56	108	82	84	88	58	84.0
New York	1,572	645	790	870	820	[3] 930	648	1,421	1,276	676	990.2
Ohio	390	227	285	233	276	274	111	506	284	242	283.4
Oregon	86	134	70	115	145	105	140	126	90	82	108.6
Pennsylvania	368	255	365	248	208	234	282	384	464	396	352.0
Utah	34	50	94	98	46	82	40	57	42	63	56.8
Wisconsin	452	786	656	870	492	728	389	788	713	437	611.0
Total	3,555	2,774	2,829	3,166	2,597	[3] 3,282	2,188	4,089	3,739	2,529	3,165.4
Late Danish:											
Colorado	222	234	228	297	198	[3] 263	267	224	325	249	265.6
Indiana	30	10	18	18	26	18	19	28	34	28	25.4
Michigan	173	30	33	47	47	86	50	109	87	54	77.2
Minnesota	2,588	161	135	101	80	166	118	143	143	66	127.2
New York [5]	54	1,342	1,512	1,548	1,832	1,890	1,387	2,636	1,568	1,629	1,822.0
Ohio	91	30	34	32	38	31	35	64	52	43	45.0
Pennsylvania	707	108	130	124	144	126	150	216	225	255	194.4
Wisconsin [5]		724	546	780	337	448	288	646	458	345	437.0
Total	3,865	2,639	2,636	2,947	2,702	[3] 3,028	2,314	4,066	2,892	2,669	2,993.8
Total late: [5]											
Colorado	377	416	350	487	316	[3] 439	421	339	532	432	432.6
Indiana	119	166	142	213	221	274	149	232	237	132	204.8
Michigan	279	271	274	298	288	475	262	513	459	342	410.2
Minnesota	303	259	217	197	136	274	200	227	231	124	211.2
New York	4,160	1,987	2,302	2,418	2,652	[3] 2,820	2,035	4,057	2,844	2,305	2,812.2
Ohio	444	257	319	265	314	305	146	570	336	285	328.4
Oregon	86	134	70	115	145	105	140	126	90	82	108.6
Pennsylvania	459	363	495	372	352	360	432	600	689	651	546.4

Utah	34	50	94	98	46	82	40	57	42	63	56.8
Wisconsin	1,159	1,510	1,202	1,650	829	1,176	677	1,434	1,171	782	1,048.0
Total	7,420	5,413	5,465	6,113	5,299	[3] 6,310	4,502	8,155	6,631	5,198	6,159.2
Total United States	11,652	9,719	10,546	10,131	[3] 10,691	[3] 10,278	[3] 8,445	[3] 14,660	[3] 11,201	[3] 10,891	11,095.0
Included in production for the United States:											
Cabbage for sauerkraut:											
Fall to second early								28		52	16.0
Intermediate	87	108	159	189	98	130	100	151	176	98	131.0
Late	1,486	1,365	1,571	1,949	1,268	1,390	854	1,979	1,173	900	1,259.2
Total	1,573	1,533	1,730	2,138	1,366	1,520	954	2,158	1,349	1,050	1,406.2
Cabbage for market:											
Fall to second early	2,787	2,733	3,462	2,503	[3] 3,776	2,405	[3] 2,339	[3] 4,560	[3] 2,347	[3] 4,037	3,137.6
Intermediate	1,358	1,405	1,460	1,326	1,518	1,433	1,504	1,766	[3] 2,047	1,506	1,651.2
Late	5,934	4,048	3,894	4,164	4,031	[3] 4,920	3,648	6,176	5,458	4,298	4,900.0
Domestic	2,069	1,409	1,258	1,217	1,329	1,892	1,334	2,110	2,566	1,629	1,906.2
Danish	3,865	2,639	2,636	2,947	2,702	[3] 3,028	2,314	4,066	2,892	2,669	2,993.8
Total	10,079	8,186	8,816	7,993	[3] 9,325	[3] 8,758	[3] 7,491	[3] 12,502	[3] 9,852	[3] 9,841	9,688.8

[1] Preliminary.
[2] Fall-crop States supply earliest new-crop movement, starting in fall preceding year shown.
[3] Includes some quantities not harvested on account of market conditions: California—7,500 tons in 1931, 6,500 in 1934; Florida—7,100 in 1931, 6,500 in 1933, 21,400 in 1934; Texas—37,500 in 1931, 70,500 in 1934, 45,800 in 1936; Alabama—3,900 in 1934, 3,300 in 1935, 2,000 in 1936; Mississippi—8,600 in 1934; South Carolina (second early)—10,200 in 1931, 6,000 in 1936; Virginia, southwest—2,000 in 1935; Colorado—4,000 of domestic and 8,300 of Danish in 1932; New York—12,000 of domestic in 1932.
[4] Some of the 1934 and 1936 production in Texas and 1934, 1935, and 1936 production in North Carolina used for sauerkraut.
[5] States usually supplying cabbage for the manufacture of sauerkraut.

Total production of commercial cabbage for the 10-year period 1927–36 has ranged from 844,500 tons in 1933 to 1,466,000 in 1934 (table 2). The average production of cabbage used for sauerkraut during this period was 140,620 tons or approximately one-eighth of the total. Total production of cabbage in 1932–36 was about 5 percent greater than for the previous 5 years (table 2) and 27 percent greater than for 1918–22, thus indicating a gradual increase in production in the last 15 years. Fall-crop production increased about 23 percent from 1927–31 to 1932–36, while production in the early-crop States showed nearly 11 percent gain. Decrease in production occurred only in the second-early crop States where it was 4 percent less than in 1927–31. The intermediate-crop States increased production nearly 15 percent and the late-crop States nearly 4 percent. Production of Danish-type cabbage in the late-crop States increased only about 1 percent, while that of domestic type increased more than 6 percent.

Considering individual States or producing districts separately, marked upward trends in production during the 5-year period 1932–36 over the previous 5 years are noted in California, Florida, Mississippi, New Jersey, western North Carolina, Colorado, Michigan, and Pennsylvania. Substantial decreases in production occurred in South Carolina, southeastern Virginia, southeastern Ohio, and Wisconsin.

DESCRIPTION OF IMPORTANT CABBAGE-PRODUCING AREAS AND DISTRICTS

FALL, EARLY, AND INTERMEDIATE CROPS

SOUTH CAROLINA

South Carolina produces both a fall and a spring crop of cabbage. The fall crop is mostly marketed in November and December and the spring or second-early crop moves to market from March to May. Fall-crop production averaged about 6,600 tons during 1932–36 and the second-early crop averaged nearly 17,500 tons. During this same period fall-crop yields averaged from 4 to 8 and spring crop yields from 3 to 10.5 tons per acre. Most of the production in South Carolina is confined to Charleston County and Meggetts, Charleston, and Yonges Island are the most important shipping points. Some cabbage is produced in Beaufort County where Burton is the principal loading point.

Cabbage grown in South Carolina is mostly of the pointed type, Charleston Wakefield variety (table 3). Normally about two-thirds of the crop is packed in the field, while the remaining third is cut and hauled to packing sheds for grading and packing. Most of the cabbage is packed in 1½-bushel hampers although a few growers still use the half-barrel crate. The principal markets for South Carolina cabbage are New York, Philadelphia, Boston, and Washington and other cities along the Atlantic seaboard. It is estimated that from one-fourth to one-third of the crop moves to market by motortruck.

TABLE 3.—*Important phases of marketing cabbage in specified producing States*

FALL, EARLY, AND SECOND-EARLY CABBAGE

State	Leading producing counties or parishes and shipping points	Leading types and varieties produced	Principal shipping season	Principal markets	Approximate proportion of State shipments moved to consuming markets by truck in 1935	Usual methods of sale by growers	Approximate percentage of crop used for sauerkraut, 1932–36
					Percent		*Percent*
South Carolina	Charleston County—Charleston, Meggetts, Yonges Island, Johns Island; Beaufort County—Burton.	Mostly pointed-type Charleston Wakefield; small quantity of Early Jersey Wakefield and flat-headed All Head Early.	Fall crop—November–December; second-early crop—March–May.	New York, Philadelphia, Baltimore, Boston, Washington, and other large cities in East North Central, Middle Atlantic, and North Atlantic States.	25–35	Mostly f. o. b. basis to shippers and truckers for cash; some joint-account and consignment sales.	0
Virginia	Northampton County—Cape Charles, Eastville, Cobbs, Bay View; Norfolk County—Norfolk; Smyth County—Groseclose, Atkins, Marion; Wythe County—Rural Retreat, Crockett; Washington County—Abingdon, Emory, Glade Springs; Princess Anne County—Greenwich, Lake Smith; Nansemond County—Suffolk; Accomac County.	Mostly pointed-type Jersey Wakefield, some Charleston Wakefield and Copenhagen Market in eastern areas; All Seasons, All Head Early, Copenhagen Market, Wisconsin No. 8, and Danish Ballhead in southwest.	Fall crop—November–December; second-early crop—May–June; intermediate crop—June–October.	New York, Boston, Philadelphia, Pittsburgh, and other large cities east of Mississippi River; considerable quantities go to the larger middle western and southern cities.	50–60	Mostly to dealers and truckers for cash; some consignment and cooperative selling.	0.5
Florida	Palm Beach County—Belleglade-Chosen, Lake Harbor, South Bay; Sumter County—Center Hill, Coleman; Alachua County—Hawthorne, Island Grove, Evinston; Manatee County—Palmetto, Parrish; Lake County—Leesburg; Seminole County—Sanford; Polk County—Bartow, Winter Haven; Flagler County—Bunnell; Orange County—Winter Garden; Okeechobee County—Okeechobee; Marion County—Weirsdale, McIntosh; Hillsborough County—Plant City.	Pointed-type Early Jersey and Charleston Wakefield and domestic round-type Copenhagen Market; small quantity of Flat Dutch.	December–May.	New York and Philadelphia and larger cities east of the Mississippi River and also the West North Central States.	10–15	To shippers for cash, f. o. b. shipping-point basis and for cash to truckers at farmers' markets distributed over various parts of State.	0

TABLE 3.—*Important phases of marketing cabbage in specified producing States*—Continued

FALL, EARLY, AND SECOND-EARLY CABBAGE

State	Leading producing counties or parishes and shipping points	Leading types and varieties produced	Principal shipping season	Principal markets	Approximate proportion of State shipments moved to consuming markets by truck in 1935	Usual methods of sale by growers	Approximate percentage of crop used for sauerkraut, 1932-36
					Percent		*Percent*
Texas	Hidalgo County—McAllen, Mission, Alamo, Edinburg, Pharr; Cameron County—San Benito, Santa Rosa, Harlingen, La Feria, Rio Hondo; Nueces County—Corpus Christi, Robstown; Fort Bend County—Sugar Land.	Mostly domestic round and flat-headed types; Glory of Enkhuizen and Flat Dutch most important.	November–May.	St. Louis, Chicago, Detroit, Cleveland, Pittsburgh, Philadelphia, Baltimore, Boston, and New York are principal receiving markets, but shipments may go to every State except California and Florida.	20–30	To local buyers by the ton in the field or delivered to packing shed for cash; some joint-account and consignment sales.	[1] 0
California	Los Angeles County—Los Angeles; Imperial County—El Centro, Holtville; Orange County—Santa Ana; Sacramento County—Sacramento; San Mateo County—Colma.	Domestic-type—Copenhagen Market, Golden Acre, Flat Dutch; Danish type—Danish Ballhead, Cannonball; pointed type—Winningstadt.	December–May, but some cabbage usually available in all months of year.	Seattle, Portland, and other larger cities in intermountain area; some shipments to larger cities in Midwest and East.	60–70	Some sales for cash f. o. b. and delivered but greater portion of crop handled by merchant truckers on consignment basis or sold direct by growers through farmers' and truckers' markets.	0
Louisiana	St. Martin Parish—Breaux Bridge; St. James Parish—Lutcher, Convent; St. John the Baptist Parish—La Place; St. Charles Parish—Hahnville, St. Rose; Tangipahoa Parish—Amite, Fluker; St. Landry Parish—Roseland, Arnaudville; St. Bernard Parish—Violet.	Mostly domestic type—Copenhagen Market; some pointed-type Wakefield.	January–June.	New Orleans, St. Louis, Chicago; Cincinnati, Pittsburgh, but other large cities in North Central, Middle Atlantic, and East South Central States take considerable quantities.	50–60	Cash basis to buyers and truckers.	0

Mississippi	Copiah County—Crystal Springs, Hazelhurst, Georgetown, Hopewell; Hinds County—Utica, Terry; Walthall County—Tylertown.	Generally domestic-type; small amount of pointed type; varieties mostly Copenhagen Market; some Golden Acre and Succession.	April-June	Chicago, Detroit, St. Louis, and Pittsburgh are principal markets; larger cities in North Central, Middle Atlantic, and North Atlantic States.	3–5	Mostly to local buyers for cash f. o. b. shipping point; few consignment and joint-account sales.	0
INTERMEDIATE AND LATE CABBAGE							
					Percent		*Percent*
North Carolina [1]	Carteret County—Beaufort, Moorhead City; Pamlico County—Bayboro; New Hanover County—Wilmington; Craven, Pasquotank, Henderson, Wautauga, Macon, Ashe, Avery, and Jackson Counties.	Mostly pointed-type Jersey Wakefield and Charleston Wakefield; some All Head Early and Copenhagen Market for early crop; mostly Danish Ballhead for late market.	Second-early crop, April-June; intermediate crop, August–October.	New York, Philadelphia, and other cities in Middle Atlantic and South Atlantic States.	85–95	Mostly cash sales to truckers; some carlot sales to shippers for cash.	2
Tennessee	Gibson County—Gibson, Humboldt, Medina, Milan.	Principally domestic-type Copenhagen Market variety; some pointed-type Jersey Wakefield.	May-June	Chicago, Detroit, Pittsburgh, Cincinnati, Cleveland, and other cities in the North Central States.	5–10	Mostly f. o. b. basis at shipping point for cash.	14
New Jersey	Middlesex, Burlington, Gloucester, Monmouth, Camden, Cumberland, and Mercer Counties.	Mostly pointed-type Jersey Wakefield and domestic-type Copenhagen Market.	June–October	Philadelphia, New York, Boston, Baltimore, and other cities in Middle and North Atlantic States.	95–98	Cash sales to truckers, sales at farmers' auctions, and directly to wholesalers at receiving markets.	1
Illinois	Cook County—Bernice, South Holland; Whiteside County—Fenton, Union Grove, Garden Plain, Morrison; Du Page, Kankakee, Lake, Will, and St. Clair Counties.	Mostly domestic-type varieties—Copenhagen Market, Golden Acre, Succession, All Seasons.	June–November.	Chicago and other large cities in Central West.	80–85	Cooperative sales, f. o. b. sales to local dealers and truckers, and consignment sales.	22
Ohio	Sandusky, Erie, Lucas, Henry, and Huron Counties; Washington County—Marietta.	Domestic type for early market and sauerkraut manufacture—Copenhagan Market, Flat Dutch; some pointed-type Charleston Wakefield; Danish type for late market—Danish Ballhead variety.	do	Pittsburgh, Detroit, and larger cities in Ohio and adjoining States.	80–90	Most of crop in southeastern Ohio consigned; cash sales to truckers and sauerkraut manufacturers predominate in central and northern Ohio.	42

[1] But some production is shipped to northern factories when crop there is short.
[2] The production in the eastern part of the State is considered as early-crop cabbage.

TABLE 3.—*Important phases of marketing cabbage in specified producing States*—Continued

INTERMEDIATE AND LATE CABBAGE

State	Leading producing counties or parishes and shipping points	Leading types and varieties produced	Principal shipping season	Principal markets	Approximate proportion of State shipments moved to consuming markets by truck in 1935	Usual methods of sale by growers	Approximate percentage of crop used for sauerkraut, 1932–36
					Percent		*Percent*
Washington	Spokane County—Spokane; Walla Walla County—Walla Walla; King County—Seattle, Kent, Auburn.	Pointed-type—Early Jersey Wakefield, Charleston Wakefield; domestic type—Golden Acre, Copenhagen Market; Danish type—Danish Ballhead.	April–March	Seattle, Spokane, and other cities and towns in the Northwest and Middle West.	70–80	Mostly f. o. b. shipping point.	23
Colorado	Weld County—Greeley, Eaton, Fort Lupton, Ault; Adams County—Brighton; Denver County—Denver; Costilla County—Blanca, Fort Garland, San Acacio; Fremont County—Canon City, Florence.	Domestic type—Copenhagen Market, Glory of Enkhuizen, Flat Dutch; Danish type—Danish Ballhead, Cannonball.	July–February	Kansas City, Dallas, Houston, and other cities in the Central States.	50–60	Mostly f. o. b. to shippers or truckers for cash.	5
New York	Ontario County—Hall, Ionia, Seneca Castle; Onondago County—Skaneatales, Marcellus, Tully, Baldwinsville; Niagara County—Barker, Wilson; Orleans County—Albion, Carlton, Kendall; Wayne County—Newark, Ontario; Cayuga County—Moravia, Cato, Locke; Genesee County—Batavia, Byron, Le Roy, Oakfield; Cortland County—Cortland, Preble; Suffolk County.	Danish type—Danish Ballhead, Danish Roundhead, and Hollander; domestic type—Copenhagen Market, Glory of Enkhuizen, All Seasons, and Flat Dutch.	August–March.	New York, Philadelphia, Baltimore, Cincinnati, Boston, Pittsburgh, but crop widely distributed to larger cities in States east of the Mississippi River and to some extent the West North Central States.	50–55	Mostly for cash to shippers, truckers, or sauerkraut manufacturers; many growers deliver cabbage to shippers' warehouse or loading station.	21

Wisconsin	Outagamie County—Shiocton, Appleton, Bear Creek, Greenville, Hortonville; Racine County—Caledonia, Racine, Sturtevant; Kenosha County—Kenosha, Somers; Milwaukee County—Oakwood, Granville; Brown County—Anston, Green Bay; Columbia County—Cambria, Arlington.	Danish type of which various strains of Hollander predominate; domestic type grown for early market and sauerkraut manufacture—Globe, Marion Market, Glory of Enkhuizen, and All Seasons.	...do	St. Louis, Chicago, Kansas City, and other large cities in North Central and South Central States.	30–40	Mostly for cash to shippers or sauerkraut manufacturers; some sales on track for cash; few consignment sales.	28
Pennsylvania	Erie County—Waterford, Wattsburg, Union City; Crawford, Allegheny, Luzerne, Schuylkill, Bucks, Lackawanna, and Lancaster Counties.	Domestic type—Golden Acre, Copenhagen Market, Glory of Enkhuizen; Danish type—Short stem Danish Ballhead.	July–March	Pittsburgh and Philadelphia and other cities in the State and nearby States.	90–95	Mostly consignment sales in larger markets; some sales for cash to truckers, wholesalers, and retailers.	3
Michigan	Saginaw County Saginaw; Huron County Pigeon; Macomb, Monroe, Ingham, St. Clair, Wayne, Kent, and Branch Counties.	Mostly domestic type—various varieties, both round and flat headed; Danish Ballhead for storage.	September–March.	Detroit, Flint, Grand Rapids, Battle Creek, Kalamazoo, and other cities in Michigan. A small quantity is shipped to cities in nearby States.	80–90	Mostly for cash to truckers, carlot buyers, and sauerkraut manufacturers.	19
Minnesota	Freeborn County—Hollandale, Myrtle; Hennepin County—Minneapolis, Camden Place; Wabasha County—Wabasha, Kellogg, Plainview; Winona County Bethany, Lewiston, St Charles, Utica, Altura; Carlton County—Wrenshall, Carlton.	Danish type—Danish Ballhead and Short Stem Holland varieties; domestic type—Flat Dutch.	August–March.	Kansas City, St. Louis, Omaha, and other larger cities throughout the West North Central States.	50–60	Mostly f. o. b. shipping point; some delivered, joint-account, and consignment sales.	8

VIRGINIA

Virginia produces a fall, second-early, and intermediate crop of cabbage. The fall crop which normally amounts to only a few hundred tons is grown near Norfolk. The second-early crop, which averaged nearly 16,000 tons in the last 5 years, is mainly produced to the south of Norfolk in Nansemond, Norfolk, and Princess Anne Counties and on the Eastern Shore in Northampton and Accomac Counties. Cape Charles, Eastville, and Norfolk are important loading points in the Norfolk and Eastern Shore sections. Early Jersey Wakefield is the principal variety grown in these sections although some Charleston Wakefield and Copenhagen Market are being produced. When prices are good most of the crop is sold f. o. b. shipping point to dealers and probably 65 to 70 percent is transported by rail. In seasons of low prices a large percentage moves by motortruck and much of it is consigned.

The intermediate crop, which averaged about 15,000 tons during 1932–36, is produced in southwest Virginia mainly in Smyth, Wythe, Carroll, Washington, Pulaski, and Patrick Counties. The marketing season usually starts the latter part of June and lasts until October with the bulk of the crop moving in July, August, and September. The principal varieties grown are Copenhagen Market for early shipments, Wisconsin All Seasons and All Head Early for midseason shipments, and Wisconsin No. 8 and Penn State Ballhead for the late shipments. A considerable quantity of the crop is sold cooperatively, although much of it is handled by local dealers and truckers.

Virginia cabbage from all sections is widely distributed to the larger cities east of the Mississippi River with New York, Philadelphia, Boston, and Pittsburgh usually taking considerable quantities. Some is shipped to the larger middle western cities.

FLORIDA [3]

Following the fall crop in South Carolina and Virginia, Florida starts to ship early cabbage in December, and the marketing season usually extends into May. Producing areas are widely scattered throughout the State and may be divided into five main districts.

In the northern section of the State, Alachua, Marion, and Flagler Counties produce considerable quantities and Evinston, McIntosh, Bunnell, and Weirsdale are the leading shipping points. Sumter County, with Center Hill and Coleman as important loading points, is the leading producing county in the north-central part of the State, but considerable quantities are also shipped from Seminole, Lake, Orange, and Volusia Counties where Sanford, Winter Garden, and Leesburg are important shipping centers. In the central section of the State shipments are made from Bartow and Fort Meade in Polk County. Palmetto, Parish, and Plant City are the principal loading stations for the western district of production in Manatee and Hillsboro Counties. Palm Beach County is the center of the southeastern producing area which also comprises Okeechobee, Broward, and Dade Counties. Important shipping centers in this area are Belleglade-Chosen, Okeechobee, and Lake Harbor.

[3] Pertinent facts relative to the cabbage industry in Florida are given in a booklet published in 1931 by the Florida State Marketing Bureau entitled "From Field to Market."

Acreage and production have fluctuated considerably in different years, the growers being influenced in their plantings by the success or failure of the crop during the previous year. The general trend has been to increase acreage during the last few years. An average of 7,400 acres was grown during the period 1932–36 and production during the same period averaged 38,940 tons. As contrasted to these figures, the acreage averaged 4,522 and production averaged 28,660 tons during the 5-year period 1927–31.

An interesting development in the marketing of cabbage in Florida is the shift from much consignment selling to f. o. b. sales at shipping point. Much cabbage is now sold for cash to truckers and other buyers at farmers' markets which are now located at convenient loading points in various parts of the State. The principal markets for rail shipments of Florida cabbage are New York, Boston, Philadelphia, Pittsburgh, and other large cities east of the Mississippi River. Considerable quantities go to southern and middle western cities. Carlot shipments during the last 5 years have ranged between 1,431 cars in 1932 and 3,190 in 1934. Probably 10 to 15 percent of the crop is now transported to market by motortruck.

CALIFORNIA

California is classed as an early crop cabbage-producing State, but supplies are available in some sections the year around. The heaviest shipping season occurs during the first half of the year. Carlot shipments of cabbage from California during the period 1931–35 averaged 630 cars annually.

The acreage during 1932–36 averaged 6,380 and production during the same period averaged 43,200 tons. Los Angeles and Orange Counties are the principal producing counties, but considerable acreage is devoted to the cultivation of cabbage in Imperial, San Diego, San Mateo, Alameda, and Sacramento Counties. The principal loading centers for cabbage in southern California are Los Angeles, El Centro, Holtville, and Santa Ana, while Colma and Sacramento are the principal shipping points in the San Francisco and Sacramento producing districts.

Owing to the year-round growing season in California, producers grow a number of different varieties, as shown in table 3. Winningstadt, which was formerly a leading variety, has lost its popularity, and now only a small quantity is grown. Some red and savoy-type cabbage are grown.

Cabbage is generally packed in the field. The heads are cut and placed in small wagons by the cutter and finally dumped at a convenient point in the field for packing into crates. The cutters leave defective heads in the field as far as possible and the final inspection of the heads is given by the packers. Standard western crates, also used for lettuce and some other products, are used generally for containers. Cabbage intended for local consumption is often put in second-hand crates and left unlidded.

California markets are supplied with local-grown cabbage throughout most of the year. Most of it is hauled by motortruck. Surplus production is widely distributed to other larger markets in the United States. Since the area is so far from most of the larger markets, the shippers try to place cabbage in those markets between shipping

seasons for other areas or where there is a temporary shortage of supplies. Most of the carlot shipments go to markets west of the Mississippi River, but some years California cabbage is distributed to eastern markets including cities in New England.

TEXAS

Texas now surpasses all of the States in volume of early cabbage produced and ranks next to New York in volume of total production of commercial cabbage. Total production during 1932–36 averaged approximately 129,000 tons which is nearly 12 percent of the total average production for the country as a whole. Although acreage has fluctuated widely in different years there has been a gradual increase over a period of years and for the 1932–36 period averaged about 26,000 acres as contrasted to an average of about 10,700 for the period 1918–22.

Formerly the producing area was confined chiefly to the lower Rio Grande Valley in Hidalgo and Cameron Counties where the towns of McAllen, Mission, Alamo, Edinburg, San Benito, Santa Rosa, Harlingen, La Feria, and Rio Hondo are important shipping centers. But, in addition to this section, cabbage growing has become an important industry in Nueces County, where the 1935 census shows over 11,000 acres were produced. Corpus Christi and Robstown are the principal loading points in this section. Another smaller producing section has developed near Sugar Land in Fort Bend County to the southwest of Houston.

Growers confine their production largely to domestic-type cabbage. Mostly round-type Glory of Enkhuizen and All Seasons are produced in the lower Rio Grande Valley whereas both these varieties and Flat Dutch are grown in the Corpus Christi section.

In former years it was general practice for growers to harvest their own cabbage and haul it to the packing sheds where it was sold at a delivered price. In recent years there has been a tendency for many shippers to do the harvesting, the cabbage being bought at a certain price per ton in the field and paid for on a packed-out basis. In years when prices are reasonably high shippers usually sell a large percentage of the crop on an f. o. b. shipping-point basis. In seasons of surplus supplies and low prices a large part of the crop is sold on a delivered basis or shipped on consignment or joint account.

As Texas cabbage is shipped largely during the cold months, it is considered as "new cabbage" and is used to satisfy the demand for green vegetables in the northern markets.

Probably about three-fourths of the Texas crop is shipped by rail, the remaining one-fourth going to cities in Texas and nearby States by motortruck. During the calendar year 1936, 7,016 cars were shipped. The principal markets are shown in table 3.

LOUISIANA

Shipments of early green cabbage from Louisiana usually start in January and continue to June, although the greater part of the crop is marketed during April and May. According to official estimates production has fluctuated from 8,300 to 26,000 tons with an average of 13,640 for the period 1932–36. There are several relatively im-

portant producing sections scattered throughout the southern part of the State. St. Martin's Parish had the largest acreage in 1935; Breaux Bridge is the principal distributing point. Arnaudville is the shipping center for a producing area in St. Landry Parish directly north of St. Martin's Parish. Another important area centers in the three adjoining parishes of St. James, St. John the Baptist, and St. Charles where Lutcher, Convent, La Place, Hahnville, and St. Rose are the most important loading points. Tangipahoa Parish in the northeastern part of the State usually has considerable production of cabbage most of which is loaded at Roseland, Amite, and Fluker.

Mostly round-type domestic cabbage is produced in Louisiana, and Copenhagen Market is the principal variety of this type grown. In Tangipahoa Parish, however, growers confine their production largely to pointed-type cabbage of the Wakefield variety.

Louisiana cabbage is widely distributed in the larger cities of the North Central, Middle Atlantic, and East South Central States, as shown in table 3. Probably 50 to 60 percent of the crop is trucked into New Orleans and other nearby markets in Louisiana and adjacent States.

MISSISSIPPI

Copiah County in the southwest part of the State is the center of the cabbage industry in Mississippi. Normally shipments start the latter part of April and most of the crop is marketed by June 1.

There has been a tendency for growers to increase acreage during the last few years, the average for the 5-year period 1932–36 being about 5,400 acres with an average production of about 26,000 tons. Pointed type, formerly the principal type produced, has largely been displaced by the domestic type Copenhagen Market. About three-fourths of the crop is cut and hauled to sheds for packing by experienced packers, the remainder being packed in the field.

Practically all of the cabbage grown in Mississippi is shipped by rail. Crystal Springs and Hazlehurst are the important loading centers. Chicago, Detroit, St. Louis, and Pittsburgh are the principal large markets for cabbage from this State, but distribution is rather extensive to other large cities in the North Central, Middle Atlantic, and North Atlantic States. Canada takes considerable quantities during some years.

NORTH CAROLINA

North Carolina is classed as both a second-early and an intermediate-crop-producing State. The early crop section, located in the eastern part of the State and comprising principally the counties of New Hanover, Carteret, Craven, Pamlico, and Pasquotank, produced an average of 5,100 tons during the period 1932–36. The varieties chiefly grown are pointed type Early Jersey Wakefield and Charleston Wakefield. Normally the early crop is shipped during April and May. Most of the crop in recent years has been loaded in bulk and hauled by motortruck. In the last 5 years between 100 and 150 cars of cabbage have been shipped annually by rail mostly from Beaufort, Moorehead City, Bayboro, and Wilmington. The principal markets for the early crop are New York and Philadelphia and other large cities in the Middle Atlantic and South Atlantic States.

The intermediate crop is produced in the mountainous western section, principally in the counties of Henderson, Wautauga, Ashe, Avery, Macon, and Haywood. Danish Ballhead is the principal variety. Production in this section has shown a rapid expansion in the last 5 years. According to official figures production for the 1932–36 period averaged about 26,000 tons as contrasted to an average of about 7,700 tons for the previous 4-year period. The crop is harvested from August to October, is bulk-loaded in the field, and hauled directly to market by motortruck. The piedmont cities take considerable quantities of the crop, most of the remainder going to other cities in the South Atlantic States.

TENNESSEE

Tennessee is an important source of intermediate crop cabbage during a shipping season that normally starts the latter part of May and lasts about a month. Practically all Tennessee cabbage is produced in Gibson County where production averaged approximately 13,500 tons during the 5-year period 1932–36.

About three-fourths of the crop is packed in the field by the growers, the remainder being hauled to shippers' platforms where it is packed and loaded for shipment. Cash prices to the growers are established every day by the local packers and shippers and the bulk of the crop is shipped by rail. The chief loading points are Gibson, Humboldt, and Medina.

Rail shipments go mostly to the large cities in the North Central States of which Chicago, Detroit, Cincinnati, Pittsburgh, and Cleveland are the most important. During the last 5 years official estimates show that an average of about 14 percent of the Tennessee crop was used for sauerkraut manufacture.

ILLINOIS

Cabbage production in Illinois averaged about 17,000 tons during the period 1932–36. The largest producing district is located in the northeastern part of the State near Chicago and includes Cook, Du Page, Kankakee, Lake, and Will Counties. Cabbage is also produced in the southern part of the State, St. Clair County being the most important. In the western part of the State comparatively important producing areas are located in Whiteside, Rock Island, and Adams Counties.

The cabbage produced in Illinois is mostly domestic type, varieties being shown in table 3. The shipping season usually starts around the first part of June and extends into the fall and early winter months.

A considerable portion of the production in the western part of the State is marketed cooperatively by the growers, who consign to Chicago commission firms. Other independent growers sell to local dealers and truckers for cash and some sell on a consignment basis.

The principal loading points for rail shipments are Bernice and South Holland in Cook County, and Fenton, Garden Plain, Morrison, and Union Grove in Whiteside County. Chicago is the principal market for Illinois cabbage, although some shipments go to other large cities in the middle western area. During 1932–36 about a fifth of the production in Illinois was utilized for the manufacture of sauerkraut.

NEW JERSEY

New Jersey is an important source for cabbage supplies during the summer and early fall months. First shipments generally arrive in the markets about June 10. The bulk of the crop is marketed during the remainder of June and the month of July, but some supplies are available until the first heavy freeze in the fall.

Although cabbage is produced commercially in most counties the bulk of the production is concentrated in two sections. The southwest section comprising Mercer, Burlington, Camden, Gloucester, and Cumberland Counties is largely the source of supply for the Philadelphia market and other cities located to the westward. Cedarville, Hightstown, and Glassboro are important concentration points for cabbage in this section. Monmouth and Middlesex Counties in the eastern section are important sources for cabbage for the New York market and cities in southern New England.

Practically all commercial varieties are grown in the State, but pointed-type Jersey Wakefield and domestic round-type Copenhagen Market varieties predominate. Growers have expanded their acreage in recent years. The average production for the 1932–36 period was about 38,700 tons as compared with an average production of 23,560 tons for the 5 years 1927–31.

Most of the growers pack the crop in the field in miscellaneous types of containers, such as half-barrel hampers, barrels, and western crates, and truck directly to market. Some sell at farmers' auction markets particularly the Paterson and Newark farmers' markets, others truck the crop directly to wholesale houses in the larger nearby cities, and still others sell directly to truckers on the farm. Rail shipments do not usually amount to more than 50 cars during any crop season.

LATE CROP

NEW YORK

New York ranks first among the States in the production of cabbage and furnishes about one-fourth of the Nation's supply. Official figures credit the State with an average production of about 281,000 tons for the period 1932-36, a little over a third of which was domestic-type and the remainder Danish-type cabbage. The farm value of the crop for this period averaged more than $4,000,000 per year.

Most of the counties in the western and central parts devote considerable acreage to cabbage. The most concentrated producing area is located between Syracuse and Buffalo in the counties of Onondaga, Cayuga, Wayne, Ontario, Monroe, Livingston, Genesee, Niagara, and Orleans. The principal shipping points are shown in table 3.

The most important varieties of Danish type grown are Danish Ballhead, Danish Roundhead, and Hollander, and the principal varieties of domestic-type cabbage are Copenhagen Market, Succession, Glory of Enkhuizen, All Seasons, and Flat Dutch. Some red-type Danish Red Ballhead is also produced. Domestic-type cabbage is usually ready for market from Wayne and Ontario Counties early in August, and movement from other sections starts in late August or early September. Shipments become heavy the latter part of September and continue so until about January. Most of the crop is disposed of by March. Much of the crop is stored in large cabbage

storage houses many of which are owned by shippers. Some growers store a part of their crop in cabbage storage houses, cellars, and barns, and sometimes in pits when production is heavy.

Philadelphia, New York, Baltimore, Cincinnati, Boston, and Pittsburgh are the most important markets for New York cabbage. Rail shipments, which have averaged about 7,700 cars in the last 5 years, are widely distributed to the larger cities east of the Mississippi River and considerable quantities are billed to points in the Middle West in average seasons. Probably about half of the crop is transported to market by motor truck. Truck shipments are greatest to the larger cities within the State, but there is also considerable truck movement to points in nearby surrounding States.

About a fifth of the New York cabbage crop is used for the manufacture of sauerkraut. Domestic type is preferred for this use, but if the domestic crop is short, Danish type is used. Several large sauerkraut manufacturing plants are located in the vicinity of Phelps, Newark, and Hall.

In addition to the late crop produced in western and central New York an intermediate crop, which has averaged nearly 18,000 tons during the last 5 years, is grown on Long Island. Various varieties of domestic-type cabbage are grown along with considerable quantities of savoy and red types. The Long Island crop is mostly marketed in the late summer months and is practically all hauled by motor-truck to New York City.

WISCONSIN

Wisconsin ranks as the third largest producing State in volume of production, being exceeded only by New York and Texas. An average of about 15,500 acres was devoted to cabbage production during the period 1932–36. Production on this acreage averaged nearly 105,000 tons per year which was nearly one-tenth of the Nation's supply of cabbage. It had an average farm value of about $1,500,000.

There are two principal cabbage-shipping districts in the State. The oldest district, the Racine-Kenosha, extends over Racine County and the northern part of Kenosha County into the southern portion of Milwaukee County. The other important producing section, known as the Appleton district, is located almost entirely in Outagamie County. The chief loading centers are shown in table 3.

Both Danish- and domestic-type cabbage are produced in Wisconsin. Official figures show that an average of approximately 61,000 tons of domestic type and 44,000 tons of Danish type were produced yearly in 1932 36. During this period an average of about 29,000 tons mostly of domestic type was used for the manufacture of sauerkraut. Marion Market and Globe, the principal varieties of domestic type grown, have largely replaced the Copenhagen Market variety formerly grown, because of their disease-resistant qualities. Glory of Enkhuizen is also produced in the Appleton district and All Seasons is used extensively in the Racine-Kenosha district. Wisconsin Hollander No. 8 has supplanted other varieties of Danish-type cabbage to a large extent because of its disease-resistant qualities.

The shipping season in Wisconsin ordinarily starts the last of August and shipments are greatest between September 15 and October 20. A limited quantity is stored for shipment after the harvesting season. Because of the competition with Texas new green cabbage

the demand in the markets for Wisconsin cabbage after January 1 in recent years has been seriously curtailed. Growers usually sell for cash to shippers or sauerkraut manufacturers. Part of the crop is distributed by local shippers, but a considerable part is handled by carlot dealers in Chicago.

The principal markets for Wisconsin cabbage are shown in table 3. Probably 60 to 70 percent of the crop is shipped by rail. The remainder goes out by motortruck, such shipments being greatest during the harvesting season when most of the supplies moving to Milwaukee and Chicago go by truck. Carlot shipments during the last 5 years have ranged from 2,453 in 1933 to 6,921 in 1934 with an average of 3,835. Nearly all commercial shipments are loaded in bulk, although there are a limited number of shipments in 100-pound sacks to fill special orders.

COLORADO

There are three cabbage-producing sections in Colorado. The Platte Valley section, the most important from the standpoint of production, extends from Denver north along the Platte River to Ault in Denver, Adams, and Weld Counties. The principal loading centers are shown in table 3. Shipments usually start about July 1, and continue into October. The Canon City district in Fremont County is located between and surrounding Canon City and Florence, and the cabbage is usually ready for market a few days before that from Platte Valley. Cabbage growing is a comparatively new industry in the third district, the San Luis Valley. Most of the production is confined to Costilla County, and cabbage is loaded for shipment at Blanco, Fort Garland, and San Acacio.

Practically all cabbage in Colorado is grown under irrigation and yields are usually from 10 to 15 tons per acre. Production during the period 1932–36 averaged about 43,000 tons a year, a little over a third of which was domestic type and the remainder Danish type. Copenhagen Market and Glory of Enkhuizen are the principal varieties of domestic type grown while Danish Ballhead is the leading Danish-type variety. Some domestic-type Flat Dutch is grown for sauerkraut manufacture at a few factories located in Brighton and Denver. Cabbage from Colorado is distributed to cities chiefly in the Middle West and West South Central States, probably about 40 to 50 percent moving by rail and the remainder by motortruck.

PENNSYLVANIA

In volume of production Pennsylvania ranks as an important cabbage-producing State, but as distinguished from other principal producing States most of the cabbage is consumed within its boundaries. Production during the last 5 years averaged about 55,000 tons a year, about one-third of which was Danish type and the remainder domestic type. A short-stem Danish Ballhead variety is grown extensively for late market, while Golden Acre, Copenhagen Market, and Glory of Enkhuizen are produced for late summer and early fall supplies. The marketing season usually begins in July and some Danish cabbage is available until February or March.[4]

There are three important producing areas in the State. In the eastern section the 1935 census report shows that Luzerne, Schuylkill,

[4] For further information relative to the cabbage industry in Pennsylvania refer to Pennsylvania Agricultural Experiment Station Bulletin 221, Early Cabbage.

Lancaster, Bucks, and Lackawanna Counties had the largest acreages. In the southwest part considerable cabbage is grown in Allegheny and Westmoreland Counties. Erie County in the extreme northwest part of the State had more cabbage acreage than any other county in 1935.

Most of the cabbage produced in Pennsylvania is consumed within the State and with the exception of Erie County practically all of it goes to market in motortrucks. A considerable portion of the Danish crop in Erie County is shipped by rail from Waterford, the principal loading center in the county. Some carload shipments are distributed to the larger cities in Ohio and New York. Many growers sell cabbage direct to truckers at the farm. Others truck their stocks to the larger markets and sell to jobbers and wholesalers. Growers located near cities and towns often are able to dispose of their cabbage directly to retailers.

MINNESOTA

There are several relatively important cabbage-producing districts in Minnesota where production for all districts during the last 5 years averaged about 21,000 tons. The largest is located in Wabasha and Winona Counties. Several other counties in the eastern part of the State, of which Hennepin and Carlton are the most important, grow considerable cabbage for market. The earliest cabbage is produced in Freeborn County on the extreme southern border. The important shipping centers in these districts are shown in table 3.

The leading variety is Danish type, Short Stem Holland, although considerable Danish Ballhead and various varieties of domestic type are also grown. The shipping season usually begins with the early crop in Freeborn County about the first of August and lasts until March, although the bulk of the crop is moved during the fall and early winter months. About half of the crop is stored immediately after being harvested.

The principal markets for rail shipments of Minnesota cabbage are Kansas City, St. Louis, Omaha, and other cities in the West North Central States. During the last 5 years an average of 8 percent of the crop has been used for sauerkraut manufacture, the factories being located at Minneapolis, Chaska, and Henderson. Some Minnesota cabbage is sold for sauerkraut purposes to factories near the State line in River Falls, Wis., and Marshalltown, Iowa.

OHIO

Ohio produces both an intermediate and a late crop of cabbage. The intermediate crop, which is mainly produced in Washington County where Marietta is the principal loading point, is usually marketed between May 25 and July 15. This crop has averaged about 3,000 tons during the last 5 years. The late crop, which has averaged nearly 33,000 tons during the same period, is largely produced in the northern part of the State. The leading producing counties are shown in table 3. Cabbage from this section is ready for market about August 15. Scattered production in the vicinity of Columbus and Springfield is the source of supply for local market from about June 15 to August 1.

The principal varieties grown are Copenhagen Market, Flat Dutch, and Danish Ballhead. Some Glory of Enkhuizen and Charleston Wakefield are also grown.

An average of about 42 percent of the total crop in Ohio was used for the manufacture of sauerkraut during 1932–36. The factories are located principally in the northern part of the State.

There is very little rail movement except from Washington County, practically all cabbage going to market or sauerkraut factories by motortruck. Most of the fresh market cabbage goes to the larger cities in Ohio, although some carlot shipments are sent to Pittsburgh, Detroit, and other cities in adjoining States.

WASHINGTON

Commercial cabbage production in Washington is chiefly confined to three sections located near the cities of Spokane, Walla Walla, and Seattle in Spokane, Walla Walla, and King Counties, respectively. Production averaged nearly 13,000 tons a year during 1932–36. For official records Washington is classed as an intermediate crop-producing State, but the marketing season usually starts in April when shipments from King County become available and lasts until the following spring when the last of the Spokane County storage crop is marketed.

The principal varieties grown are pointed-type Early Jersey Wakefield and Charleston Wakefield for early shipment, Golden Acre and Copenhagen Market for midseason use, and Danish Ballhead for fall and winter shipment.

The leading shipping points are shown in table 3. Most of the cabbage from Washington is distributed to the cities and towns of the Northwest, although some shipments reach the larger middle western cities during some years. Some cabbage is exported from Seattle to Manila, Honolulu, and Alaskan cities.

HARVESTING [5]

Harvesting practices differ in various cabbage-producing sections. Condition of the markets, the purposes for which the cabbage is grown, stage of maturity of the cabbage, and customs throughout the various producing sections are factors that have a bearing on harvesting practices.

In some sections, particularly the southern early-producing areas, growers frequently harvest as soon as the heads have attained a marketable size but are still soft, in order to obtain higher prices at the beginning of the shipping season. In cutting the heads in such an immature stage there is considerable loss of tonnage. Then such stock has a tendency to wilt badly when it is on display so it presents an unattractive appearance in the markets. It does not generally meet with the approval of dealers or consumers and the effect is to weaken the market by curtailed purchases. Growers who later ship cabbage of good quality and reasonable solidity may find difficulty in disposing of their shipments at favorable prices.

In northern producing sections the solidity of the head is the usual guide for determining the proper time to harvest cabbage. Color of the head is also a factor for some varieties, as the top of the head turns to a lighter shade of green about the time it reaches full development. A further indication that cabbage is ready to cut is given

[5] A more complete discussion of harvesting practices is given in U. S. Department of Agriculture Farmer's Bulletin 1423, Preparation of Cabbage for Market.

when the green cover leaves start to curl back, thus exposing some of the whiter leaves. At this stage the head has usually attained its maximum weight and solidity without bursting or becoming too crisp and brittle for handling.

It is usual practice in the northern late-producing States to cut the whole crop at one time, but in those sections that furnish early and midseason supplies the fields are often gone over several times and only those heads that have reached the desirable stage of development and solidity are cut at any one time.

Probably the most satisfactory and most used tool for cutting cabbage is a large butcher knife. The use of the knife by an experienced operator usually insures a well-trimmed head with a short

BAE 30712

FIGURE 4.—In some southern producing areas marketable heads of cabbage are cut and placed in field crates on sleds and hauled to the edge of the field or to a packing shed for final grading and packing.

stem and the desired number of wrapper leaves. Hatchets, tobacco shears, long-handled spades, hoes with straightened blades, long-handled spadelike knives sometimes known locally as "spuds," and various other types of knives are used sometimes as cutting implements. Cutting tools with long handles permit rapid harvesting with the minimum of effort. They are generally satisfactory for harvesting cabbage that is to be stored and later trimmed for market, or for cutting early green cabbage where it has recently become popular in some southern sections to leave several green wrapper leaves attached to the head. Such tools are not generally considered suitable for cutting cabbage that is to be trimmed with two to four closely fitting wrapper leaves in the field for immediate shipment. A large percentage of cabbage is now cut, trimmed, and loaded directly on trucks in the field or at the field's edge and is either hauled directly to market or to railroad sidings where it is loaded onto cars.

In harvesting late-crop cabbage it is common practice to cut and trim the heads in one operation, placing the heads from several rows into one windrow. Two men generally follow with a truck or wagon, one man on the ground tossing the heads to the other on the wagon or truck. Good growers see to it that the cabbage is handled carefully to prevent unnecessary bruising of the heads.

If the cabbage is to be loaded on cars in bulk for immediate shipment, it is hauled directly to the cars. If it is to be placed in containers, it may be hauled to the edge of the field or growers' packing sheds or to shippers' platforms or packing sheds usually on railroad sidings for placing in containers and loading. In the late-crop States of New York, Wisconsin, and Minnesota much of the crop is hauled either to growers' or dealers' storage houses. Cabbage contracted by sauerkraut manufacturers is hauled directly to sauerkraut factories.

In southern producing sections where most of the cabbage is shipped in hampers, crates, or other containers, it is customary for many growers to pack the containers in the field as the heads are cut. Many growers in the Carolinas and Virginia place the cabbage in two-wheel carts after it is cut and take it to the edge of the field or a shed for final grading and packing. Some growers in the Southern States collect the heads in field crates placed on sleds that are drawn between the rows (fig. 4). Formerly in Texas it was the general practice for growers to harvest their cabbage and sell it for a price delivered at the shippers' packing sheds. During recent years there has been a tendency for shippers to buy the crop in the field at a certain price per ton. It is then cut by the shipper's own crew of men and transported to his loading platform or shed for packing and loading.

GRADING AND PACKING

United States standards have been issued both for cabbage for market and for sauerkraut manufacture. Copies of these standards may be obtained from the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C. The standards are subject to revision from time to time to keep them in line with new developments and latest practices within the industry.

A large percentage of the cabbage prepared for shipment by rail and in some sections by motortruck, is graded in accordance with the requirements of United States standards. Cabbage is rather generally sold and quoted on the basis of these standards.

The standards in effect in 1937 provided requirements for U. S. No. 1 and U. S. No. 1 Green Cabbage. The grade factors that are taken into consideration in U. S. No. 1 grade include type, trimming, solidity, freedom from withering, puffiness, bursting, soft rot, and seed stems, and from damage caused by discoloration, freezing, disease, and insects. The grade also provides that the minimum, or minimum and maximum, size of a lot may be specified in connection with the grade, or the lot may be classified as small, medium, or large, or combinations of these descriptions, if the heads meet certain weight requirements. Pointed-type cabbage is considered small if the heads weigh less than 1½ pounds; medium if they weigh from 1½ to 3 pounds; and large if over 3 pounds. Domestic type is classed as small when the heads weigh less than 2 pounds; medium when they weigh from 2 to 5 pounds; and large when over 5 pounds. Danish

type is considered small when the heads weigh less than 3 pounds; medium when they are from 3 to 6 pounds; and large if they weigh more than 6 pounds.

Provision for designating cabbage as "U. S. No. 1 Green" was added to the standards in 1934 when green cabbage became so popular with consumers as a result of the publicized health properties and vitamin content. The requirements for U. S. No. 1 Green cabbage are the same as U. S. No. 1 except that it must have fairly good green color and it need not be well trimmed. As many as seven wrapper leaves that do not enfold the head fairly tightly are permitted on each head. A large percentage of the crop from the southern early producing States is now packed and sold as U. S. No. 1 Green cabbage.

Tolerances are provided in the grades to allow for variations incident to proper grading and handling. Only a relatively small percentage of any lot may fail to meet the requirements specified. The standards include the designation "Unclassified" for cabbage not graded in conformity with the grades.

United States standards for cabbage for kraut manufacture were first issued in 1932 for the purpose of providing a basis for sampling cabbage as it is delivered by the grower to the sauerkraut factory. Previous to this time practically all cabbage was contracted at a flat price per ton, growers of good-quality cabbage being paid no more for a given quantity than growers of poor quality. The United States standards for sauerkraut cabbage provide requirements for U. S. No. 1 and U. S. No. 2 cabbage.

At factories where official inspection is requested on the basis of the standards representative samples are drawn from growers' loads by the inspector, who separates the individual heads and determines the percentage of U. S. No. 1, U. S. No. 2, and cull heads. The value of the load is determined by applying these percentages to the prices established in the contract for each grade. The price for U. S. No. 1 cabbage is more than the flat rate contract price and the U. S. No. 2 price is lower. It is intended that cull heads shall not be delivered to the factory and therefore nothing is paid for the percentage of cabbage falling within this classification. The following example illustrates the method of determining the value of a 2,000-pound load which grades 80 percent U. S. No. 1, 15 percent U. S. No. 2, and 5 percent culls, at the contract prices of $8 per ton for U. S. No. 1 cabbage and $4 per ton for U. S. No. 2: 80 percent of 2,000 pounds equals 1,600 pounds at $0.004 equals $6.40 for the U. S. No. 1 cabbage in the load; 15 percent of 2,000 pounds equals 300 pounds at $0.002 equals $0.60 for the U. S. No. 2 cabbage in the load. Since nothing is paid for the culls, the grower would receive $6.40 plus $0.60 or $7 for his ton load of cabbage.

Grade factors included in the standards for cabbage for sauerkraut manufacture include firmness and trimming, freedom from seed stems, and damage by bursting, decay, discoloration, freezing, disease, and insects. Heads must weigh at least 3 pounds to grade U. S. No. 1 and 2 pounds to be classed as U. S. No. 2. Heads which do not meet requirements of either of the two grades are classed as culls.

The grading of cabbage for the fresh market really starts with the cutters in the field, as they are generally instructed not to cut soft, burst, worm-eaten, undersized, or otherwise defective heads. Those

collecting the cabbage after it is cut are given further opportunity to discard undesirable heads. Elimination of defective stock in the field is general practice throughout all cabbage-producing sections. Additional grading practices vary with customs established in producing districts and the methods of packing for shipment.

In late-crop sections, particularly in New York, Wisconsin, Minnesota, and Utah, a large percentage of the cabbage is harvested and loaded in bulk on motortrucks for immediate transportation to market or to cars on railroad sidings. Thus whatever grading is done is completed by the cutters and loaders. Cabbage that is placed in storage generally has to be reconditioned just before it is loaded for shipment.

BAE 30711

FIGURE 5.—A large percentage of the early and midseason crop is graded and packed at shippers' packing sheds or loading platforms usually situated on railroad sidings.

Often further trimming is necessary to remove discolored or decayed outer leaves.

In the southern-early States and those supplying midseason cabbage, much of the crop is packed in containers for shipment. Therefore, in addition to eliminating defective stock in the field, the final inspection of the heads is given when they are packed in containers. A considerable part of the crop in some States is packed in containers at shippers' packing sheds or loading platforms on railroad sidings. Most of the cabbage produced in Texas, Florida, Louisiana, and Mississippi is graded and packed at shippers' packing sheds or loading platforms (fig. 5). It is estimated that about one-fourth of the Tennessee crop and one-third of the South Carolina crop is hauled to shippers' loading platforms and sheds for final grading and packing. The remainder in these States is generally graded and packed by the grower in the field or at the field's edge and hauled directly to market

or to railroad sidings for loading into cars (fig. 6). Most of the California, North Carolina, and Virginia crops are prepared for shipment in the field by the growers.

The practice of grading cabbage to meet the requirements of United States standards varies considerably in the different producing States. The extent of their use is also largely dependent upon the general quality of the crop in any one producing section. If growing conditions have been unfavorable and the crop is of generally poor quality, growers and shippers usually will not try to sort the cabbage and sell it on the basis of U. S. No. 1 grade. Under such conditions it may be quoted and sold as Unclassified or shipped on consignment and sold on its merits. Cabbage growers in Mississippi, Tennessee, Louisiana, Colorado, Utah, and Ohio generally have

BAE 30710

FIGURE 6.—A large part of the cabbage crop is graded and packed in containers at the farm after which it is hauled by motor truck either direct to market or to railroad sidings for loading into cars.

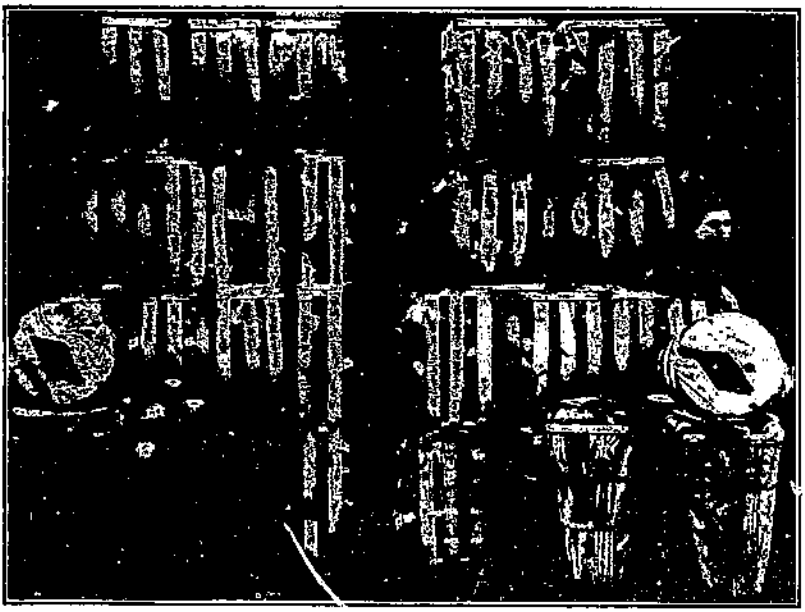
adopted the practice of packing their cabbage to meet the requirements of U. S. No. 1 or U. S. No. 1 Green. A considerable part of the crops in California, Florida, Texas, Virginia, New York, Minnesota, and Wisconsin is also graded in accordance with the requirements of United States standards. Even though many shipments fail to meet grade requirements, quotations are often based on U. S. No. 1 grade by giving the percentage of the lot that will meet U. S. No. 1 requirements.

PACKAGES

Containers for cabbage have not been standardized, and as a result many different types are used. But in recent years there has been a marked tendency to discontinue the use of large and unwieldy crates of various sizes which were popular in some States a few years ago.

The western crate, and the half crate which are also used for lettuce and some other vegetables, have displaced these larger crates in a number of important producing States (fig. 7). Typical specifications for the western crate are 13 by 18 by 21⅝ inches inside which holds from 85 to 100 pounds of cabbage, depending upon type, solidity, and the method of packing. The half crate is usually 9 by 13 by 21⅝ inches inside and holds about 45 pounds of domestic-type cabbage. These crates have become the most popular shipping containers in Texas, Mississippi, Louisiana, California, Colorado, and parts of Florida and are used to some extent in other producing sections.

Other containers that are still important in certain territories are the 1½-bushel hamper, the half-barrel crate, the pony crate, the 50-



BAE 3316

FIGURE 7.—New cabbage received at a terminal market, illustrating the three most popular containers used for packing cabbage in southern-producing areas, the western crate (right background), the half crate (left background), and the 1½-bushel hamper (foreground).

pound wire-bound crate, and sacks that hold from 50 to 100 pounds of cabbage.

The 1½-bushel hamper is the most widely used container for the small pointed-type cabbage grown in Florida, South Carolina, New Jersey, and southeast Virginia (fig. 7). The hamper holds from 45 to 50 pounds of cabbage, and its shape is adapted to close packing of the pointed type.

The half-barrel crate holding from 55 to 60 pounds of cabbage, is used to some extent for the round domestic type in South Carolina and in the Norfolk section of Virginia. A larger type of crate holding about 100 pounds is sometimes used. According to railway tariffs dimensions of these crates are respectively 12 by 18 by 16 inches and

12 by 18 by 33 inches inside. Another crate reported in use in southwest Virginia has inside dimensions 12 by 24 by 24 inches.

The bulk of the Tennessee crop is shipped in crates holding about 60 pounds of cabbage known locally as "pony" crates. This same type of crate is used to some extent in Illinois and Mississippi. Commonly reported inside dimensions of this crate are 12 by 16 by 22 inches. Railroad tariffs list another cabbage crate from this territory as having inside dimensions 12 by 16 by 16⅜ inches.

Most of the cabbage produced in southeastern Ohio is shipped in a wire-bound crate designed to hold approximately 50 pounds.

Various other types of crates, baskets, and boxes are used for transporting cabbage to market in local producing sections. Cabbage from the New England States is largely marketed in unlidded New England boxes each holding slightly less than a bushel. In New Jersey and Pennsylvania, where most of the crop is transported to market by motortruck, containers that have previously been used for other products are often collected by growers and used.

Sacks are used more or less as containers in most of the producing sections. Those designed to hold 50 or 100 pounds are the most common sizes used although occasional shipments of sacks containing any multiple of 10 between these weights are made. Most of the cabbage produced for market in western and central New York is shipped in sacks, and the 50-pound size is the most popular with receivers (fig. 8). That produced in Minnesota, Wisconsin, and Utah is mostly loaded in bulk but 50- and 100-pound burlap or jute sacks are often used to fill special orders. Open-mesh sacks of 50- or 100-pound capacity are used for a considerable number of shipments in many producing States, particularly Texas, Mississippi, Louisiana, and Tennessee.

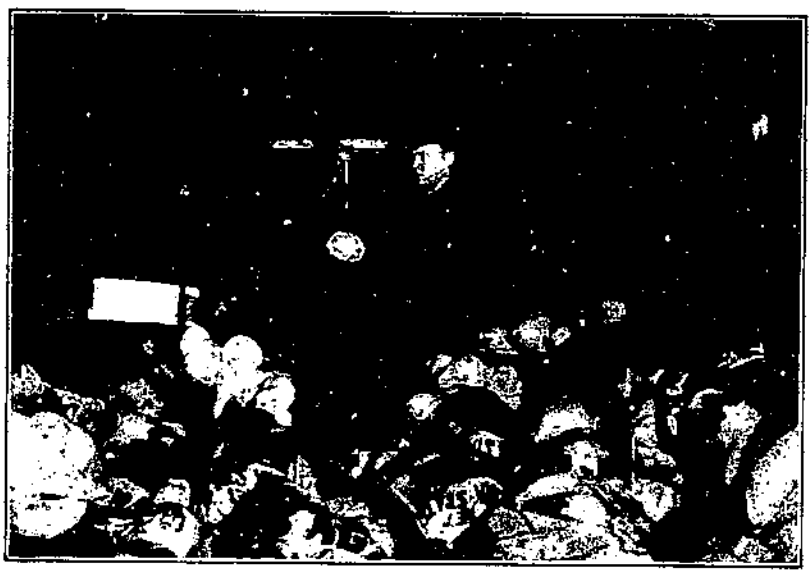
FEDERAL-STATE INSPECTION

Federal-State inspection of shipments of cabbage is available for a small fee to financially interested parties in most of the commercial cabbage-producing areas (fig. 9). Certificates are furnished to these interested parties showing the grade and description of the shipment (fig. 10).

During the 5-year period 1931–32 to 1935–36 the number of carloads of cabbage inspected at shipping points ranged from 2,836 in 1932–33, or 10 percent of the total carlot shipments, to 5,345 in 1933–34, or about 23 percent of the total carlot shipments. The number of cars inspected at shipping points is shown by States and seasons in table 4.

BAE 30649

FIGURE 8.--The burlap or jute sack holding 50 pounds of cabbage, which is shown being loaded into a car in a northern producing State, is the most popular shipping container in western and central New York, and is used in many other producing States.



BAE 30648

FIGURE 9.--Federal-State inspector examining sacked cabbage for size and grade in a car at a shipping point in New York.

F.P.I.—

ORIGINAL

UNITED STATES DEPARTMENT OF AGRICULTURE

MISSISSIPPI DEPARTMENT OF AGRICULTURE AND COMMERCE

INSPECTION CERTIFICATE

No 14999

This certificate is issued in compliance with the regulations of the Secretary of Agriculture governing the inspection of various products pursuant to the act making appropriations for the United States Department of Agriculture and the statutes of the State of Mississippi and is admissible as prima facie evidence in all courts of the United States and of Mississippi. The certificate does not relieve failure to comply with any of the regulatory laws enforced by the United States Department of Agriculture.

Inspection point Hopewell, Miss. *Billing point* Same *Date* May 20, 1938

Applicant John Doe *Address* Hopewell, Miss.

Shipper Same *Address* Same

I, the undersigned, on the date above specified made personal inspection of samples believed by me to be representative of the lot of products herein described, and do hereby certify that the quality and/or condition of the said lots and on said date, pertaining to such products, as shown by said samples, were as stated below:

Car initial and number M P T 1 4 6 8 0 0 *Kind of car* Refrigerator

Car equipment and condition at completion of inspection 2:00 P. M. (time) Hatch covers closed, plugs in, bunkers empty

Products: CABBAGE: Domestic round-type in lettuce crates labeled SPRING BLOOM BRAND. Loaders count 288 crates.

Loading: Through load, 6 rows wide, 3 layers high. Each layer stripped, except 2 stacks between doors not stripped. Crushed ice over top of load.

Pack: Generally tight, few fairly tight, 1 to 3 inch bulge.

Size: Range 1 to 4-1/2, mostly 1-1/2 to 3 pounds.

Quality and condition: Stock fresh, crisp, fairly firm to hard, mostly firm. Mostly closely trimmed, many trimmed with 1 to 4 wrapper leaves. Mostly pale green, many green color. Grade defects within tolerance. No decay.

Grade: U. S. No. 1

Fee $4.00

Expenses

Total $4.00

Gordon Simmons *Inspector.*

PLEASE REFER TO THIS CERTIFICATE BY NUMBER

BAE 33171

FIGURE 10.—A Federal-State inspection certificate is an official record of the grade, condition, and description of the shipment.

TABLE 4.—*Number of carlots of cabbage inspected under Federal-State service at shipping points by States and Federal service at city markets, years beginning July 1, 1931–32 to 1935–36* [1]

Inspection service and State	1931–32	1932–33	1933–34	1934–35	1935–36 [2]
Federal-State at shipping point:	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*
Alabama			572	156	11
Arizona		5		8	18
Arkansas	9	5	2		
California	59	14	111	109	162
Colorado	546	451	453	150	527
Florida		2	46	79	9
Georgia				7	
Idaho			4	13	
Illinois	37	188		18	17
Indiana	1	4			
Iowa		18	3	2	1
Kansas					40
Louisiana	310	204	475	103	225
Minnesota	6	3	17	2	4
Mississippi	612	764	1,531	1,561	1,918
Missouri		9			
New Jersey					1
New York	522	30	41	95	27
North Carolina				6	
North Dakota				1	
Ohio			84	181	105
Oklahoma	3	11	3	7	
Oregon	14		295	3	
Tennessee	274	421	456	831	393
Texas	2,058	479	946	291	1,507
Utah	68	3	96	60	79
Virginia	136	217	69	72	22
Washington	3	2	71	2	2
Wisconsin	247	6	70	109	42
Total	4,905	2,836	5,345	3,863	5,110
Relation to carlot and boat shipments	*Percent* 13	*Percent* 10	*Percent* 23	*Percent* 10	*Percent* 22
Federal service at city markets	*Cars* [3] 811	*Cars* [3] 509	*Cars* [4] 958	*Cars* [4] 947	*Cars* [4] 535

[1] Inspection of less than carlots of cabbage are not included in this table.
[2] Preliminary.
[3] Does not include condition inspections under agreement with the Northern Ohio Food Terminal of Cleveland, Ohio.
[4] Does not include condition inspections under agreement with the Western Perishable Carload Receivers Association at New York, N. Y.

In 1935–36 approximately two-thirds of the total shipping-point inspections were made in two States—Mississippi and Texas. Other States in which a large percentage of carlot shipments are inspected at shipping point are Louisiana, Ohio, Tennessee, and Utah. Sample tabulations of data from inspection certificates on the 1936 crop show that more than 95 percent of the cabbage inspected in Texas, Mississippi, Tennessee, Louisiana, Ohio, and Utah graded U. S. No.1 or U. S. No. 1 Green. In Colorado, where inspection is compulsory, the data show that only about 55 percent of the shipments met U. S. No. 1 grade requirements. The majority of the remaining inspected shipments were certified on the basis of the percentage of U. S. No. 1 quality, the most of which were between 80 and 90 percent. This method of certifying cabbage that fails to meet the requirements of U. S. No. 1 grade is common in many other States where cabbage is inspected at shipping point. Inspection of cabbage loaded on motor-trucks for market is common in some districts.

The Federal inspection service is also available at receiving markets, although the total number of inspections there is much smaller than at shipping points. During the five seasons 1931–32 to 1935–36 the number of cars inspected at receiving markets ranged from 509 in

1932–33 to 958 cars in 1933–34, or from less than 2 percent to slightly more than 4 percent of the total carlot shipments.

The use of the Federal-State inspection service and official United States grading standards facilitates trading between shippers and buyers. The standards furnish a basis for contracts between shippers and buyers, and the Federal-State inspection certificate indicates compliance or noncompliance with quality provisions of contracts. The certificate discourages receivers from making unwarranted rejections of shipments in the markets. It also aids in the settlement of disputes between shippers and buyers and the detailed description of the shipment facilitates the settlement of any damage claims against transportation agencies. Federal-State inspection certificates are prima facie evidence in all United States courts and in most State courts. The use of official United States standards and inspection encourages cabbage growers to adopt the latest and best practices in growing, harvesting, grading, and packing the crop.

BAE 30647

FIGURE 11.—Loading bulk and sacked Danish-type storage cabbage in western New York.

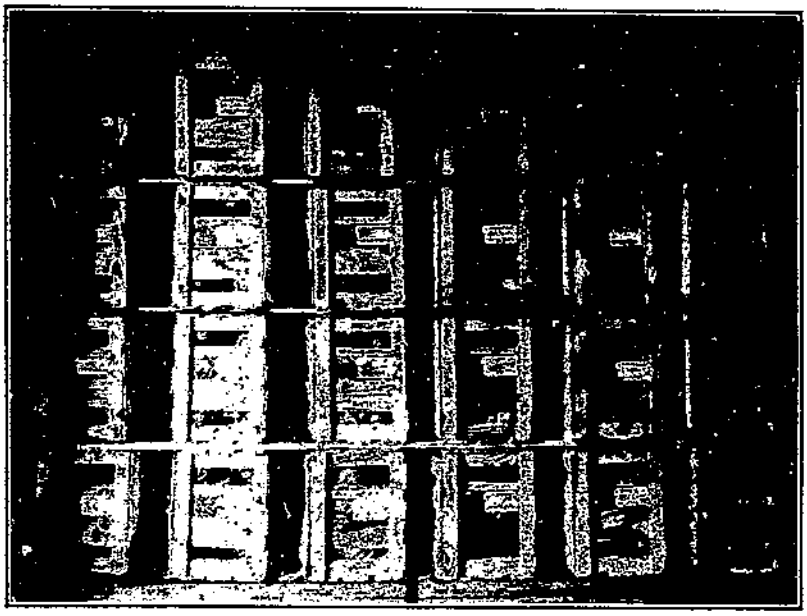
LOADING AND TRANSPORTATION

Practically all rail shipments of cabbage are made in refrigerator cars, although a few shipments for short distances may be made in ventilated box or stock cars (fig. 11). Then it is general practice to ship early and midseason cabbage under refrigeration. Early southern stock wilts and deteriorates rapidly in market quality unless kept cold and moist. The same is true of the more solid heads of domestic-type cabbage marketed during the warm summer months. Most of the late-crop cabbage marketed in the early fall months is generally shipped under refrigeration, but as colder weather develops, refrigeration is not necessary. During the winter months when there is danger of freezing, carriers' protective service is available with some railroads and is used to some extent by shippers where the destination of shipments is within heater territory.

In addition to providing proper temperatures for cabbage shipments during different seasons of the year it is also necessary to provide adequate ventilation to prevent the development of disease organisms which may cause abnormal deterioration or decay in transit.

The methods of loading cars and providing proper ventilation and refrigeration vary in different producing sections according to the types of containers used, the season in which shipments are made, and customs adopted in a particular locality.

In Mississippi, Louisiana, California, Colorado, and Tennessee cabbage in western crates is commonly loaded in refrigerator cars on edge six rows wide and three layers high with about 16 stacks, making a total of 288 packages per car. Sometimes cars are loaded with four layers, in which case the cars will have 384 packages (fig. 12). Some



BAE 30715

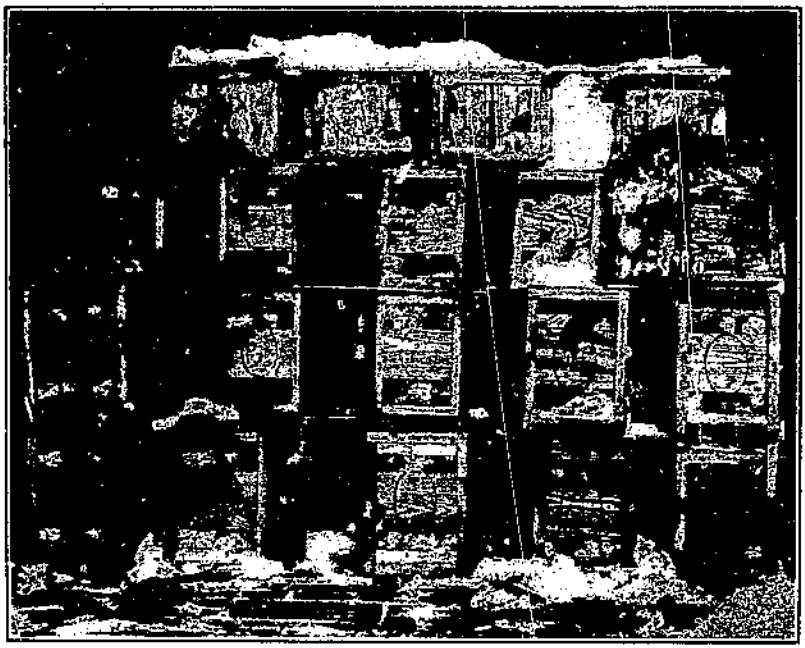
FIGURE 12.—Cabbage packed in western crates is commonly loaded in refrigerator cars six rows wide on edge and three or four layers high, and each layer is stripped.

Texas cars may be loaded in the same way, but the usual method of loading is to space equally 5 rows across the width of the car and place them four layers high, making a total of 320 packages per car (fig. 13). The three lower layers are loaded on the sides and the top layer is placed with bulge up. Some shippers in California and other States also have adopted this method of loading cabbage in western crates. Half crates are ordinarily loaded seven or eight rows wide and four to six layers high, and the count per car may vary from 512 to 600 crates. Each layer of western crates and half crates is generally stripped and nailed in order to make a tight load and prevent damage to the packages in transit.

After the crates are in place in the cars the load is ready for icing. In most shipping areas from 4 to 8 tons of snow or crushed ice is placed over the top of the load although chunk ice is used in some areas.

Practices vary with respect to the use of ice in the bunkers. Some shippers, especially during extremely warm weather, also require the bunkers to be filled with ice before the car is rolled. Others rely on the top ice to maintain the proper temperatures during the transit period.

One and one-half-bushel hampers, the most widely used package for rail shipments of pointed-type cabbage in Florida, South Carolina, New Jersey, and southeast Virginia are usually loaded in the ends of the car on sides, lengthwise, alternate hampers reversed, seven rows wide and four or five layers high. Between doorways it is common practice to place three rows of hampers crosswise of the car three or



BAE 33169

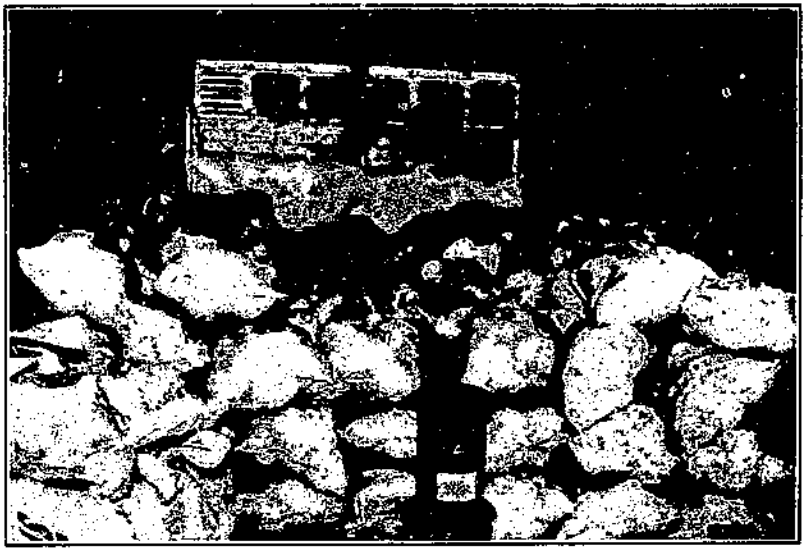
FIGURE 13.—Texas cabbage in western crates is commonly loaded five rows wide on edge in the three lower layers and four rows wide, upright, in the top layer, and each layer is stripped. (Note remnants of snow ice in this partially unloaded car.)

four layers high. In Virginia some shippers stow the bottom layer upright and the three remaining layers flat lengthwise of the car. Depending upon the method of loading, the number of 1½-bushel hampers to the car varies from 350 to 500, the usual loadings being 450 or 480 packages. As is the practice with shipments loaded in crates, crushed or chunk ice is placed over the top of the load before the cars are rolled and bunkers may or may not be filled with ice.

Half-barrel crates used for some shipments of round domestic-type cabbage, particularly in South Carolina and the Norfolk section of Virginia, are usually loaded with 370 to 450 per car. Full barrel crates used for a small number of shipments in Florida are ordinarily loaded lengthwise of the car seven rows wide and three to four layers high with an average of 250 packages per car.

Pony crates in which most of the cabbage crop of Tennessee is shipped and which are used to some extent in Mississippi and Illinois are usually loaded the full length of the car seven rows wide and three or four layers high. The number of packages ranges from 400 to 460 per car and the usual loading is either 400 or 420 packages per car. In recent years practically all loads in Tennessee are heavily top iced and in many instances bunkers are iced to full capacity.

In southeastern Ohio the wire-bound 50-pound crates are usually loaded the full length of the car, five layers high with the lower four layers six rows wide, lengthwise on sides, and the top layer seven rows wide with bulge up. Slight variations in loading account for a range of from 444 to 552 packages per car.



BAE 33168

FIGURE 14.—Northern cabbage in 50-pound sacks is commonly loaded lengthwise in the cars seven rows wide and four or five layers high. During the cold winter months cars are often lined with heavy building paper and heaters (as shown in the foreground) are sometimes used to raise the temperature of the air in the car before it is rolled.

Sacks are used more or less for shipments of cabbage from practically all producing sections, and the methods of loading depend largely upon customs in the various sections. As a general rule most cars are loaded with 24,000 pounds of cabbage which is the carlot minimum applying in most States. The usual loading is 240 100-pound sacks and 480 50-pound sacks. In western and central New York, where probably three-fourths of the crop is shipped in sacks, cars are loaded full length with 50-pound sacks seven rows wide lengthwise and four or five layers high in ends, and irregular between doorways (fig. 14).

Review of shipping-point certificates shows loadings of 50-pound sacks as follows in some other States: Wisconsin—loaded full length, four layers, lower layer eight rows wide, sacks on end with remaining three layers crosswise; Tennessee—loaded full length, six rows wide, five and seven layers high, irregular loading between doorways.

Usually 100-pound sacks are loaded full length of the car with sacks lying flat crosswise three rows wide and four or five layers high. The loading is often irregular between doorways of the car.

In early and midseason producing sections bunkers are usually iced to full capacity. Some shippers in early and midseason shipping areas are now using crushed ice over the tops of loads of cabbage in sacks. Ice is usually carried in bunkers of cars loaded with late-crop cabbage in northern producing areas during the early fall months. As cooler weather comes in the late fall months ice is not generally used. During the winter cars loaded with storage cabbage are often lined with heavy building paper. Heater service is often employed to protect the shipment against freeezing.

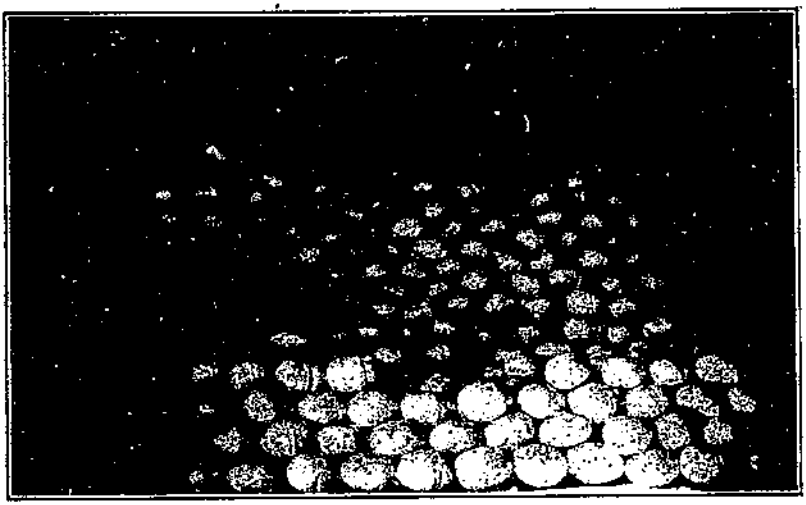
Considerable discussion has been devoted to the loading of cabbage packed in containers but a large part of the carlot shipments, as well as truck shipments, are loaded in bulk. Bulk shipments predominate in the important late-crop States with the exception of New York. Some is also loaded in bulk in practically all of the early- and intermediate-producing States, although it is generally conceded that cabbage carries better when packed in containers. For bulk shipments during warm weather, shippers generally use the A-type ventilating rack extending lengthwise through the full length of the car (fig. 15). Occasionally some shippers in southern producing districts place chunk ice under this ventilator rack during warm weather. Shippers of late-crop cabbage in the northern States generally use ventilator racks for shipments during the fall but as cold weather comes on they are not considered necessary. When ventilating racks are not used it is considered good loading practice to place the heads in the car by hand, building the load up regularly rather than dumping the heads in loosely (fig. 16).

During periods of low temperatures, floors and sides of the car at least to the height of the load are often lined with building paper. Heater service is often employed as well. Bulk cabbage is usually loaded in the car to a depth of from 3 to 5 feet, depths of 3½ to 4½ feet being the most common. Doorways of the cars are slatted to the height of the load. Bunkers are usually iced to full capacity for bulk shipments in early and midseason producing sections and for shipments during the early fall.

There is wide variation in freight rates on cabbage from different shipping points to the principal markets. For example, the rate from El Centro, Calif., in December 1936 to Chicago was $1.10 per hundred pounds while the rate from Saginaw, Mich., was only $0.29. Other freight rates and minimum weights of carloads to New York and Chicago from representative shipping points in leading States are shown in table 5. These rates are presented merely to show the approximate transportation charges on rail shipments of cabbage and have no standing whatever in the adjustment of claims with carriers.

BAE 30707

FIGURE 15.—An A-type ventilating rack extending through the full length of the car is generally used for bulk shipments of cabbage during warm weather.



BAE 30645

FIGURE 16.—Closely trimmed heads of cabbage are placed by hand with stems down to build the load up regularly. During the winter, A-type ventilator racks are not generally used but floors and sides of the car are lined with building paper.

TABLE 5.—*Transportation charges on cabbage from representative shipping points to New York and Chicago* [1]

[Minimum weight of carload, 24,000 pounds]

Shipping point	Freight rate per 100 pounds to—		Shipping point	Freight rate per 100 pounds to—	
	New York	Chicago		New York	Chicago
	Cents	*Cents*		*Cents*	*Cents*
El Centro, Calif.	151	110	Meggetts, S. C.	62	75
	[2] 175		Humboldt, Tenn.	60	43
Greeley, Colo.	123	68	San Benito, Tex.	122	95
Belle Glade-Chosen, Fla.	103	99	Corpus Christi, Tex.	108	86
Arnaudville, La.	92	74	Cape Charles, Va.	31	55
Saginaw, Mich.	46	20	Green Bay, Wis.	55	[3] 19
Wabasha, Minn.	73	[3] 28			[4] 23
		[4] 30			[4] 25
Crystal Springs, Miss.	86	62		60	[3] 19
Tully, N. Y.	20	44	Shiocton, Wis.		[3] 23
Marietta, Ohio	41	35			[4] 25

[1] These freight rates as of December 1936 are presented merely to show approximate transportation costs and can have no standing in adjusting claims with carriers.
[2] Minimum weight of carload 20,000 pounds.
[3] Not applicable during June, July, and August.
[4] Applicable only during June, July, and August.
[4] Rate expired Dec. 31, 1936.

STORAGE

A considerable portion of the late Danish crop of cabbage is placed in storage after being harvested for supplying the markets during the late fall and winter. In New York nearly all of the Danish-type crop is placed in storage. Wisconsin is next in importance as a source of storage cabbage, but in recent years the quantity placed in storage has declined materially. Shippers now aim to move the bulk of the Wisconsin crop into consumption before the early crop of new cabbage from Texas arrives in the markets. About half of the Minnesota crop is stored in the fall, but most of it is marketed before January 1. In the remaining late-producing States there is some storage mostly on the farms but usually for only a short time. Most of these supplies are shipped before extreme cold weather sets in.

The Bureau of Agricultural Economics estimates annually the stocks of Danish cabbage remaining in the hands of growers and dealers on January 1. New York and Wisconsin are the only States that normally have any substantial quantity to market after January 1. During 1933–36 stocks in the hands of growers and dealers on January 1 following the year in which the crop was produced ranged from about 15.5 percent of the total late Danish-crop production for 1933 to about 27 percent for 1935 (table 6). Expressed in terms of total production for the United States storage stocks on January 1 have ranged from a little over 4 to about 7 percent. The proportion held by growers on January 1 has ranged from 48 percent in 1936 to 78 in 1934 (table 7). Practically all of the storage cabbage is disposed of by March of the year following that when the crop was grown, although occasionally a few shipments may be made in April.

TABLE 6.—*Production of late Danish-type cabbage, stocks in hands of growers and dealers Jan. 1, and percentage stocks are of production, by States, 1933–36*

State	1933 crop			1934 crop			1935 crop			1936 crop		
	Production	Stocks in hands of growers and dealers Jan. 1		Production	Stocks in hands of growers and dealers Jan. 1		Production	Stocks in hands of growers and dealers Jan. 1		Production	Stocks in hands of growers and dealers Jan. 1	
		Total	Percentage of production		Total	Percentage of production		Total	Percentage of production		Total	Percentage of production
	Short tons	*Short tons*	*Percent*	*Short tons*	*Short tons*	*Percent*	*Short tons*	*Short tons*	*Percent*	*Short tons*	*Short tons*	*Percent*
Colorado	26,700	270	1.0	22,400	450	2.0	32,500	320	1.0	24,000	------	------
Indiana	1,900	100	5.3	2,800	60	2.1	3,400	340	10.0	2,800	60	2.1
Michigan	5,000	450	9.0	10,900	1,090	10.0	8,700	2,180	25.1	5,400	270	5.0
Minnesota	11,800	940	8.0	14,300	1,860	13.0	14,300	860	6.0	6,600	330	5.0
New York	138,700	27,740	20.0	263,000	68,540	26.0	156,800	59,580	38.0	162,000	40,720	25.0
Ohio	3,500	140	4.0	6,400	380	5.9	5,200	260	5.0	4,300	300	7.0
Pennsylvania	15,900	1,050	7.0	21,000	1,300	6.0	22,500	900	4.0	25,500	1,280	5.0
Wisconsin	28,800	5,180	18.0	64,600	14,210	22.0	45,800	13,740	30.0	34,500	6,560	19.0
Total	231,400	35,870	15.5	406,600	87,910	21.6	289,200	78,180	27.0	286,000	49,520	18.0

TABLE 7. *Utilization of the late Danish-type cabbage up to Jan. 1, crops of 1933–36*

Crop	Production, late crop			Loss from shrinkage and fed to livestock to Jan. 1 [3]	Stocks in hands of growers and dealers, Jan. 1	
	Total	Shipped to Jan. 1			Percentage of production	Held by growers
		Carlot [1]	Truck [2]			
	Short tons	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
1933	231,400	29.3	48.0	7.2	15.5	58
1934	406,600	22.8	43.8	11.8	21.6	78
1935	289,200	28.1	35.5	9.4	27.0	63
1936	286,900	28.0	46.2	7.2	18.6	48

[1] Includes less than carload shipments converted to carlots.
[2] Local sales also included in motortruck movement.
[3] Includes some cabbage for home consumption.

Cabbage is stored by both growers on the farm and by dealers in commercial storage houses. New York is the only State where any considerable volume is now stored in dealers' warehouses. Formerly many cabbage storage houses were built in Wisconsin, especially in the Racine-Kenosha district, but many of these have been abandoned or are being used for other purposes. A few commercial storage houses are scattered throughout producing districts in other late-producing States, but the volume of cabbage stored in such houses is insignificant as compared with that stored by the growers on farms.

Commercial cabbage storage houses are generally frostproof in construction and are provided with ventilators in the roof and along the side walls (fig. 17). Usually a driveway runs through the center of the house and rows of bins are arranged along each side. Bins are commonly 3 to 4 feet wide and are generally separated by double-slatted partitions to provide ventilating space between the bins from

top to bottom (fig. 18). Some houses are equipped with wider bins and the cabbage is stored on slatted racks which fit into them (fig. 19).

BAE 1759-B

FIGURE 17.—Commercial storage house for cabbage in western New York.

From one to four layers of heads are placed on each rack, leaving an air space of a few inches below the next rack above. Storing cabbage in

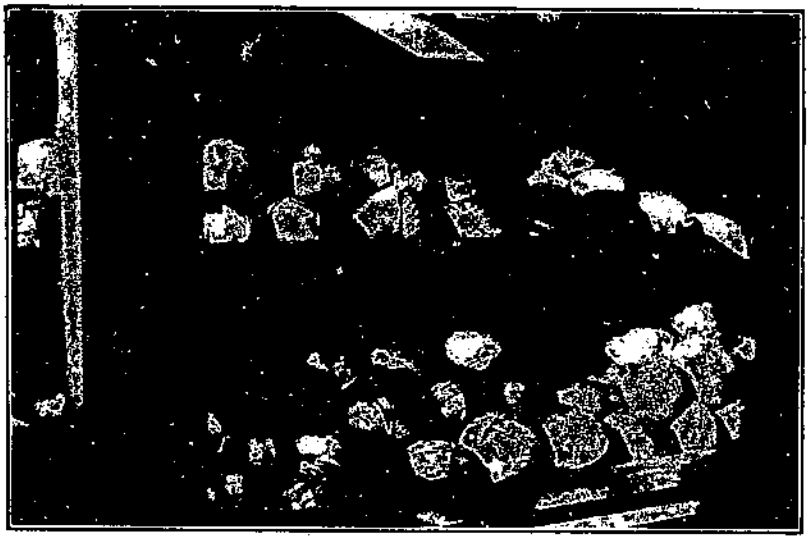
BAE 1765-B

FIGURE 18.—Interior of a cabbage storage house in New York showing bins separated by double-slatted partitions to provide ventilating space.

racks is a material aid to proper ventilation but it is more expensive than storing in bins, and reduces the storage capacity of a house.

Growers usually store their cabbage on the farms in various convenient places where protection from freezing is afforded, cellars, sheds,

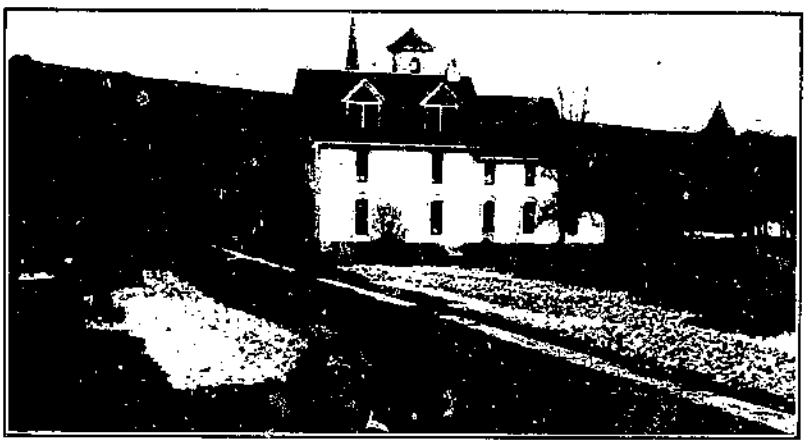
and barns being used. Often growers do not have enough sheltered space for storage of the crop so they resort to shallow field pits for temporary storage (fig. 20). For outside storage, heads are normally



BAE 1756-A

FIGURE 19.—Storage house interior showing cabbage piled on racks with spaces for air circulation.

cut with several wrapper leaves attached, the final trimming being given at the time the cabbage is shipped. They are placed in the pits in conical or long narrow piles and covered with a layer of straw and



BAE 1790

FIGURE 20.—Cabbage may be stored for short periods, during mild weather, in shallow pits covered with straw.

finally a layer of soil. Sometimes a ventilating rack is placed in the center of the pile to afford circulation of air.[6]

[6] A more complete discussion of the methods of storing cabbage is given in U. S. Department of Agriculture Circular No. 252, Commercial Cabbage Culture.

Naturally there is some loss in storage cabbage in the final preparation for market, the losses coming from shrinkage, decay, and waste. The loss in commercial storage houses is generally less than in farm storage houses as temperature and ventilation are more easily controlled. There may be considerable loss on farms from freezing where adequate protection is not provided for extremely low temperatures. On the other hand cabbage stored in pits sometimes heats, causing the outer leaves of the heads to decay. This necessitates heavy trimming before the cabbage is shipped and some heads may be completely destroyed. The Bureau has estimated the total loss of storage cabbage to January 1 of the 1933–36 crops to range from 7.2 to 11.8 percent of the late Danish crop (table 7). These percentages include shrinkage, the quantity used for home consumption and fed to livestock, and waste in final preparation for shipping.

CABBAGE FOR SAUERKRAUT MANUFACTURE

Production of cabbage for sauerkraut manufacture varies considerably from year to year, but during the 1932–36 seasons an average of nearly 141,000 tons, or about one-eighth of the total crop, have been used annually for this purpose. There has been a gradual increase in the production of cabbage for sauerkraut manufacture. During 1918–22 production averaged only about 91,000 tons, or a little over 10 percent of total production, at that time.

About three-fifths of the cabbage used for sauerkraut manufacture is produced in New York and Wisconsin and another fifth in Ohio, Indiana, and Michigan (table 8). The remaining one-fifth of the production is divided among a number of other States. Many sauerkraut factories are located throughout western and central New York. Several large plants are located near Phelps and Hall in Ontario County, and Newark in Wayne County. In case of a crop shortage in other northern sections New York producers often ship domestic-type cabbage to factories in Indiana, Michigan, Pennsylvania, and Long Island. In Wisconsin sauerkraut factories are located throughout the cabbage-growing sections, the greatest concentration being in Outagamie and Racine Counties. Many sauerkraut factories are also located throughout the cabbage-growing districts in Indiana, southern Michigan, northern Ohio, and near Chicago, Ill. Sauerkraut is also manufactured in some of the Western States. In northern Colorado, factories are located principally at Brighton, Fort Lupton, and Denver. A few factories are located in Ogden, Salt Lake City, and other points in Utah. Sauerkraut is manufactured in several Washington cities including Kent, Everett, Spokane, and Seattle.

TABLE 8.—*Production of commercial cabbage for sauerkraut manufacture, specified States, 1932–36*

State	1932	1933	1934	1935	1936 [1]	Average 1932–36	
						Total	Percentage of total
	Short tons	*Short tons*	*Short tons*	*Short tons*	*Short tons*	*Short tons*	*Percent*
New York	56,400	45,500	88,600	57,600	44,300	58,480	41.59
Ohio	19,100	6,100	23,500	12,600	10,800	14,420	10.25
Indiana	14,900	6,400	14,800	5,000	5,500	9,320	6.63
Illinois	4,000	2,700	4,000	3,400	2,600	3,740	2.66
Michigan	9,400	3,900	11,000	8,600	7,100	7,600	5.40
Wisconsin	32,700	18,900	50,800	27,300	16,000	29,140	20.72
Minnesota	2,200	800	2,500	1,100	500	1,420	1.01
Colorado	2,000	2,200	2,700	2,800	1,600	2,260	1.61
Washington	1,800	1,800	5,200	3,000	3,000	2,960	2.11
Other States [2]	9,500	7,100	12,700	13,500	13,600	11,280	8.02
Total	152,000	95,400	215,800	134,900	105,000	140,620	100.00

[1] Preliminary.
[2] Includes Iowa, Maryland, New Jersey, North Carolina, Oregon, Pennsylvania, Tennessee, Texas, Utah, and Virginia.

A great deal of the cabbage for sauerkraut manufacture is contracted in advance for a stated price per ton but some is bought at market price during the harvest period. Prices paid for such cabbage are considerably below those paid for market cabbage. There is considerable variation in prices paid in different States during the same year and during different years (table 9). The average price to the growers for sauerkraut cabbage in the United States in 1932–36 ranged from an average of $4.11 per ton in 1932 to $13.06 in 1936. During 1936 the price ranged from an average of $6.80 per ton in Ohio to $30 in Colorado.

TABLE 9.—*Average seasonal farm price per ton of cabbage for sauerkraut manufacture, specified States, 1932–36*

State	1932	1933	1934	1935	1936	State	1932	1933	1934	1935	1936
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*		*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
New York	3.70	13.40	5.90	4.10	13.10	Minnesota	5.40	6.20	6.40	5.30	9.20
Ohio	4.10	7.10	5.60	5.30	6.80	Colorado	3.70	12.00	15.80	5.40	30.00
Indiana	4.10	7.90	6.60	5.60	14.10	Washington	7.10	11.00	8.50	8.60	11.60
Illinois	4.10	16.10	10.00	6.70	16.10	Other States [1]	5.74	9.01	7.12	7.78	13.90
Michigan	4.00	6.80	5.70	5.60	11.30						
Wisconsin	4.20	9.50	6.30	5.20	16.20	Average	4.11	11.21	6.35	5.17	13.06

[1] Includes Iowa, Maryland, New Jersey, North Carolina, Oregon, Pennsylvania, Tennessee, Texas, Utah, and Virginia.

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When cabbage is received at the factory it is allowed to wilt slightly, after which the green outer leaves are trimmed from the heads. It is then shredded by machinery, mixed with salt, and dumped into fermentation tanks (fig. 21). The salt serves to extract the juice from the shredded cabbage and makes a thin brine. Later fermentation sets in producing lactic acid that gives the sauerkraut a sour taste. It takes from 1 to 8 weeks to complete the process. The sauerkraut can then be removed at any time and packed for shipment.

A large percentage of the sauerkraut is now packed and sealed in tin cans for distribution to retailers and finally to consumers. Some is packed in casks or barrels of from 5 to 45 gallons and sold to consumers in bulk. If properly packed, sauerkraut can be kept for an indefinite period in practically the same condition as when it comes from the brining tanks.

SAE 7099

FIGURE 21.—Cabbage for sauerkraut manufacture is cut into shreds, mixed with salt, and dumped in large tanks for curing.

FINANCING THE CROP

There is wide variation in the costs per acre of growing, harvesting, and packing cabbage on individual farms, as well as in different producing districts. Factors that influence costs include efficiency of individual producers, wage rates and prices of equipment, and variations in cultural practices and in growing conditions. Some of the more important items involved in the cost of production, harvesting, and preparing for market are cost of fertilizer, plants, planting, cultivating, cutting, containers, and water in irrigated districts. Additional cost for machinery, interest, and taxes must be added. From the data available on cost of production in various sections during the last

25 years the cash outlay and other costs have ranged from around $45 to about $160 per acre.[7]

A large part of the southern cabbage crop is grown on credit obtained from various sources. Local dealers or local representatives of dealers in the larger markets often advance loans to growers for such items as plants, fertilizer, containers, and packing costs. The money for such loans is obtained through local banks or from principals in some market center. After receiving such advances growers are usually obliged to let the dealer market the crop for them for a fixed charge or on a commission basis. Many dealers advance loans primarily for the purpose of obtaining control of the crop. Fertilizer companies also extend credit to producers and accept endorsed notes that come due soon after the harvesting season. Responsible growers are often able to obtain credit directly from local banks. Merchants in producing districts help many customer-producers through the production period by furnishing supplies to be paid for after the crop is marketed. In some instances merchants make cash advances.

In northern and western producing areas financing the crop is simply a phase of financing the season's farm operations, as cabbage is usually one of several farm crops. Many growers are farm owners with farms free of mortgage and others are renters who produce the crop on a share or cash-rental basis. Many such growers are able to finance the season's operations themselves. Those needing credit for operating expenses usually borrow from banks and private individuals or they establish accounts with local merchants who furnish such supplies as feed, fertilizers, spray materials, and machinery. Many such merchants also act as shippers and handle the growers' crops.

During recent years many cabbage growers in all sections of the country as well as growers of other farm crops have been financed through Federal loaning agencies such as production credit associations.

The effect of financing on marketing is largely dependent upon whether the grower or the financing agency controls the marketing of the crop. In the case of credit advanced by merchants, fertilizer companies, local banks, or Federal agencies, growers generally control the marketing of their crops. If shippers have advanced credit to growers, however, they usually handle the marketing of the crop for a specified charge or commission. No figures are available, considering the country as a whole, but marketing control of the cabbage crop is probably chiefly in the hands of the growers.

METHODS OF SALE IN PRODUCING DISTRICTS

With the exception of the storage crop in the late-crop States most of the cabbage is sold to local buyers of one class or another at the time of harvest. The perishable nature of early and midseason cabbage and the system of crop loans employed, particularly in the southern producing areas, virtually force growers to sell the crop as soon as it is ready for market. Different methods of sale are employed in various producing sections depending upon local practices, prevailing market prices, condition of the crop, etc. Growers who have financed themselves or arranged for financing through agencies other

[7] Cost data from nine States is given in a mimeographed report issued in July 1935 by the Bureau of Agricultural Economics, entitled "Cost of Production of Cabbage."

than dealers or shippers are free to sell to anyone and they usually try to sell for cash at the shipping point or at the farm.

Dealers and shippers who have advanced funds to growers, market the crop and charge a commission or specified amount per package for the service. They deduct the amount of the advance when settlement is made with the growers. If city dealers have made loans to local shipping-point dealers or large growers the cabbage is often marketed on a joint-account basis.

Many growers who are under no obligations to shippers have sufficient volume to load their own cars. They may grade, pack, and load the cars and sell to local buyers at shipping point for cash. A large percentage of growers in various producing sections haul the cabbage to shippers' loading sheds or platforms and sell for cash on a graded or ungraded basis.

The use of the motortruck as a means of transporting cabbage to market has brought about a noteworthy change in marketing methods in most producing districts. It is estimated that slightly more than half of the cabbage crop in 1935 was transported to market by motortruck. Many growers who formerly sold their cabbage to dealers for carlot shipment now sell all or part of their crop directly to truckers at the farm. Some of these truckers are merchant truckmen who buy cabbage from the growers and haul it to the city markets hoping to resell it at a profit. Many city dealers and chain stores, particularly those in northern and eastern cabbage-producing sections, send their trucks directly to the nearby farms for their supplies during the harvest season. Other growers haul their cabbage by motortruck to the large markets and dispose of it for cash to dealers, retailers, and consumers. Some cabbage trucked to markets is handled on a consignment basis by city dealers.

Shippers in the commercial cabbage-producing districts may be classed as local dealers, representatives of city dealers, or traveling cash buyers. Sometimes large growers handle the marketing of cabbage produced by other growers.

In seasons when demand is good a large percentage of the carlot sales by shippers to receivers in the city markets are on an f. o. b. shipping-point basis. There are also many sales on a delivered basis. Most of the sales in western and central New York are on a delivered basis. During periods when there is a surplus of supplies and prices are low much cabbage is consigned by shippers to city dealers for handling on a commission basis. Commission charges in most of the larger markets usually range from 5 to 10 percent of the sales price for handling carlot sales. The charges for selling less-than-carload lots and motortruck receipts are usually more, being as high as 15 percent in some markets.

It is not feasible to discuss in detail the various methods employed in selling cabbage in all commercial producing districts but a brief statement of the methods used in some of the most important areas of production follows.

In western and central New York growers sell most of their cabbage either to truckers or to local carlot shippers at the farm. That sold to carlot shippers is usually delivered to the shipper's warehouse or loading station, or sometimes the growers load the cars for the shippers. As about half the crop is transported to market by motortruck, much is bought by the trucker direct from the farmer for cash. Shippers

sell most of the carlot shipments on a delivered basis although there are many sales on an f. o. b. shipping-point basis and occasional joint-account or consignment sales.

Wisconsin growers almost invariably sell for cash to shippers. The cabbage is delivered by the growers to the shipper's warehouse or directly to the cars in case the shipment is to be transported by rail. The most common method of sale by the shippers is f. o. b. shipping point. Part of the crop is distributed by local dealers but a considerable portion of it is handled by Chicago carlot dealers. In addition to sales f. o. b. some cars are sold on track for cash. In seasons of overproduction, some cabbage is shipped on consignment but this method is not common. During the harvesting season supplies for Milwaukee and Chicago are mostly transported by motortruck.

Growers in Colorado, Minnesota, and Utah usually deliver their cabbage to shippers' packing sheds or loading platforms and sell for cash. There are also some sales direct to truckers at the farm in all of these States. Most sales by shippers are on an f. o. b. shipping-point basis although there are some delivered, joint-account, and consignment sales. These latter types of sales generally increase during seasons of overproduction and low prices.

In Pennsylvania, New Jersey, Ohio, Michigan, Indiana, and Illinois where the greater part of the crop is transported to market by motortruck various methods of sale are in use. Part of the crop is sold directly to itinerant truckers at the farm for cash. A great many growers in these States haul their cabbage directly to the market centers and dispose of it wherever they can get the best prices. Most of the larger cities have farmers' markets where the grower may retail his cabbage and other products direct to consumers. Small independent retailers may also find these farmers' markets a convenient source for their supplies. A considerable number of Pennsylvania growers sell direct to retailers. In New Jersey a considerable part of the crop is sold through farmers' cooperative auctions located throughout producing districts. These auctions are under the supervision of the State Department of Agriculture. Some growers in all of these States haul their cabbage to commission firms to be sold on commission. There are also some sales direct to wholesale commercial houses for cash. Some city dealers as well as chain stores send their trucks to producing areas to procure supplies.

In former years it was general practice for growers in Texas to harvest their cabbage and haul it to shippers' packing sheds where it was sold at a delivered price. In recent years there has been a tendency for local dealers to buy from the growers in the field at a certain price per ton. They then harvest the crop and haul it to their packing sheds or loading platforms where it is graded and packed for shipment. Final settlement is made with the grower on a packed-out basis. In years of average production most sales by shippers are for cash on an f. o. b. shipping-point basis. During years of surplus production, however, when prices are low a large part of the Texas crop is sold on a delivered basis or shipped on a consignment or joint-account basis. Normally from 20 to 30 percent of the crop is hauled by truck to cities within the State and in nearby States. This cabbage is usually sold to truckers for cash at the farm.

Various methods of selling are in use in the many Florida producing areas. In certain sections, as for example in the Sanford and Hastings-

Elkton districts, local carlot dealers buy for cash from growers. A considerable quantity of cabbage now moves out of Florida by motor-truck, which for the most part is bought from growers for cash. In seasons of low prices that part of the crop moving by truck increases. Many growers now sell their cabbage at farmers' markets to truckers and other buyers. Such markets include the Sanford State Farmers' Wholesale Market, the Duval Farmers' Market in Jacksonville, and the farmers' and city markets in Miami and Tampa. Similar markets are being established in a number of other cities, and undoubtedly a considerable quantity of cabbage will be sold through these markets, which formerly moved through other channels. Formerly shippers consigned a large quantity of the crop to city markets. Considerable quantities during recent years were sold f. o. b. shipping point, or on a delivered basis. There are also some consignments to commission houses in the markets.

Most of the cabbage crop of Mississippi is handled through local dealers and transported to market by rail. The bulk of the crop is harvested by the growers and hauled to the dealers' packing sheds and loading platforms in field crates where it is graded and loaded in the cars for shipment. Shippers sell to retailers in the markets mostly on an f. o. b. shipping-point basis, although there are some delivered sales and a few consignment and joint-account sales. A small percentage of the crop is bought for cash from the growers and trucked to nearby markets.

Growers in South Carolina sell the bulk of their crop through local dealers of one type or another. Normally from 25 to 35 percent of the crop is handled by truckers some of which is bought outright for cash and some is consigned. About two-thirds of the crop is packed for shipment by the growers in the field after which that portion intended for carlot shipment is hauled directly to the cars. Probably a third of the crop is hauled by the growers to dealers' packing sheds where it is graded, packed, and loaded on the cars. During seasons when prices are good, dealers sell considerable cabbage f. o. b. shipping point. If demand is poor and prices are low, there is a predominance of consignment and delivered sales, and some joint-account sales.

Growers in the Norfolk and Eastern Shore sections of Virginia sell most of their cabbage through local buyers and truckers. Most of the cabbage is graded and packed in the field after which it is either handled by truckers or hauled to the cars for loading. Much of the trucked cabbage is consigned to dealers in eastern metropolitan markets. In years of good demand carlot dealers sell considerable cabbage on an f. o. b. shipping-point basis. When unfavorable marketing conditions prevail, there are more delivered, consignment, and joint-account sales. A considerable part of the southwest Virginia crop is handled through the Southwest Virginia Cooperative Exchange at Rural Retreat. The remainder of the crop in this section is sold through a few local dealers and truckers.

Cash buyers handle the bulk of the Tennessee crop. Probably about three-fourths of the crop is graded and packed in the field by the growers and hauled directly to the cars for loading. The remainder is hauled to shippers' loading platforms for final grading, packing, and loading. The local buyers and shippers establish cash prices every day to the growers. Shippers strive to make sales f. o. b. to city receivers, but if market demand is not good they may

consign or sell delivered. Only a small percentage of the Tennessee crop is sold to truckers for cash.

The bulk of the North Carolina crop is sold to truckers for cash. A small quantity is shipped by rail through local dealers who sell on an f. o. b. shipping-point basis if possible.

MARKET INFORMATION

Cabbage growers, shippers, and dealers have access to official information on crop conditions, movement to market, and prices from a number of sources as an aid to intelligent marketing of their crops. Federal-State market-news reports are issued daily in a few of the leading producing areas during the principal shipping season. Federal market-news reports are also published daily in most of the leading markets. In addition to prices received for cabbage these market-news reports include records of carlot shipments by States of origin and carlot arrivals and unloads in the leading markets. Motortruck receipts are reported in a few markets. Market-news reports are mailed free of charge to anyone requesting the service. Many newspapers carry reprints of market-news reports and some of them are given out over the radio.

The information relative to rail and boat shipments, arrivals, and unloads available in market-news reports is obtained through the cooperation of the railroads and boat lines. Motortruck receipts are reported to market-news representatives by the trade. State and local agencies cooperate in supplying information on motortruck receipts in certain markets. Price information is obtained by Federal or Federal-State employees through interviews with shippers and dealers.

Other reports of interest to cabbage growers and dealers are issued periodically by Federal and State agencies, giving information on acreage, estimated production, and crop prospects. The Bureau publishes weekly summaries of carlot shipments that show the number of shipments by States, with comparisons with the previous week and corresponding weeks of the previous season. These reports serve to keep dealers and growers informed of the progress of marketing of the cabbage crop.

Federal and State agencies have published bulletins and special reports dealing with various aspects of the cabbage industry which should be helpful in marketing operations. Information from the trade and private sources on supplies, prices and various other phases of marketing is made available through press releases to trade and other papers. In general, persons connected with the cabbage industry are adequately supplied with information on which to base intelligent marketing policies and operations.

CARLOT AND BOAT SHIPMENTS

During the last few years only a little more than one-third of the total volume of cabbage produced for the fresh market has moved by rail and boat. Those States that are the greatest distances from their markets ship the greater part of their crop by rail or boat.

For the United States as a whole during the calendar years 1927–36 the number of carload and boat shipments has ranged from 24,650 cars in 1935 to 44,240 cars in 1929 (table 10). The average number

of carload and boat shipments was considerably less for 1932–36 than for 1927–31, being 28,000 cars and 40,170 cars, respectively. Most of this decrease in tonnage hauled by rail and boat can be attributed to the increase in tonnage transported to market by motor-truck. Only about 38 percent of the commercial production of cabbage harvested for market was shipped by rail and boat during 1932–36 while over 58 percent was so transported during the previous 5 years.

TABLE 10.—*Carlot and boat shipments of commercial cabbage by States and calendar years, 1927–36*

State	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936 [1]
	Cars	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*
Alabama	1,803	861	857	676	1,167	834	585	1,265	225	158
Arizona	33	17	1	44	1	42	75	41	73	147
Arkansas	41	62	33	34	59	23	7	3	5	3
California	348	811	520	845	214	853	642	271	1,170	865
Colorado	692	1,165	808	1,153	610	448	513	190	617	615
Florida	1,042	1,155	3,176	2,397	3,308	1,431	2,899	3,190	2,193	2,029
Georgia	58	14	119	5	6	69	200	211	92	82
Idaho	2		3	1		1	4	5	11	1
Illinois	193	327	295	357	189	390	71	55	80	26
Indiana	15	103	116	272	205	83	7			
Iowa	435	564	443	505	182	427	163	91	186	52
Kansas	71	20	40	83	40	27	37	8	30	16
Kentucky	24	33	75	25	30	3	10	12		1
Louisiana	596	589	544	206	615	489	300	1,094	118	257
Maine	25	30	21	14	14	2	25	7	1	1
Maryland	293	206	428	67	75	70	163	28	25	3
Massachusetts	2	2		5		5		1		
Michigan	351	436	272	191	154	308	114	271	79	143
Minnesota	1,001	1,484	1,171	737	474	775	215	638	562	120
Mississippi	710	1,249	1,689	931	1,148	718	796	1,992	1,673	2,159
Missouri	74	97	43	156	107	98	85	27	52	65
Montana	17	36	11	31	7	4	8	4	1	
Nebraska		2	8	4			7		1	
Nevada		3								
New Hampshire	3	2	4	1						
New Jersey	55	42	66	81	41	14	64	119	16	13
New Mexico	130	164	112	77	28	8	5	6	2	3
New York	13,239	10,755	10,430	11,478	12,280	9,424	7,674	7,183	7,183	7,096
North Carolina	291	255	261	214	189	58	127	114	122	16
Ohio	761	586	554	67	484	126	105	104	112	40
Oklahoma	11	16	18	8	5	9	9		12	
Oregon	53	65	44	8	92	6	255	54	2	8
Pennsylvania	426	300	306	262	200	103	171	101	131	141
South Carolina	2,008	2,147	2,787	2,654	1,665	1,098	1,781	918	1,703	1,886
South Dakota	2	5	4	1						
Tennessee	667	823	1,250	952	330	316	506	848	1,050	483
Texas	5,558	7,168	7,979	5,443	9,258	5,931	2,782	8,348	2,052	7,016
Utah	77	123	222	137	118	3	95	27	63	189
Vermont	2	2	1	4						
Virginia	2,725	2,439	3,998	1,740	1,819	1,059	1,527	529	903	398
Washington	106	127	164	64	125	58	131	82	14	64
West Virginia	39	40	26		15	5		4		
Wisconsin	4,477	6,731	5,320	6,204	3,540	3,028	2,453	6,921	4,090	2,682
Wyoming	14	21	6	6	6		2		1	
Total	38,470	41,137	44,240	38,205	38,798	28,346	25,093	[2] 35,132	24,050	26,778

[1] Preliminary.
[2] Includes 1,207 cars for emergency relief.

Although the number of carlot shipments has been generally decreasing in New York, that State still ranks first in the number of carlot shipments of cabbage. In 1936, 7,096 cars were shipped as compared with 7,016 carlot and boat shipments from Texas, the second ranking State. The total shipments by rail and boat from these two States were more than all of the other States combined. Wisconsin, Mississippi, Florida, and South Carolina rank next in the number of carlot and boat shipments in the order named. These States combined

shipped the equivalent of 8,756 cars in 1936, or nearly 33 percent of the total for the country as a whole. The remaining carlot and boat shipments were divided among 27 other States in 1936.

Changes in production and the increase in the volume of cabbage transported to market by motortruck account for distinct trends in carlot shipments in a number of States in the last 10 years (table 10). Of the important producing States, New York, Wisconsin, Pennsylvania, Virginia, Ohio, Minnesota, Michigan, and North Carolina show a pronounced downward trend in the number of carlot and boat shipments. The trend in production has been upward in New York, Pennsylvania, Michigan, and North Carolina, so the decrease in number of carlot shipments can probably be attributed mostly to the increase in the volume shipped by motortruck. Production has decreased in Wisconsin and Virginia, so part of the decrease in carlot shipments may be attributed to this fact. Carlot shipments have increased in Mississippi, chiefly because of a material increase in production.

The number of carlot and boat shipments by States and crop years are shown for 1927–28 to 1935–36 in table 11. The crop year usually starts in October or November with the fall shipments from South Carolina and Virginia and extends to March or April of the second following year, when the last of the storage crop from the northern late States is marketed.

TABLE 11.- *Carlot and boat shipments of commercial cabbage by States and crop years, 1927–28 to 1935–36*[1]

State	1927–28	1928–29	1929–30	1930–31	1931–32	1932–33	1933–34	1934–35	1935–36
	Cars	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*
Alabama	1,803	861	857	676	1,166	817	583	1,283	227
Arizona	34	16	1	44	1	38	41	68	81
Arkansas	41	62	33	34	59	23	7	3	5
California	360	798	512	837	243	836	599	321	1,160
Colorado	683	1,162	810	1,164	602	464	497	197	610
Florida	1,651	1,166	3,136	2,271	3,261	1,521	2,873	3,347	2,196
Georgia	58	14	119	5	6	68	201	241	92
Idaho	2	1	3			1	6	14	
Illinois	193	329	296	355	188	390	71	55	80
Indiana	16	102	116	272	205	83	7		
Iowa	435	586	442	504	184	425	169	87	184
Kansas	71	20	40	83	40	27	37	8	30
Kentucky	24	33	75	25	30	3	10	12	
Louisiana	592	502	549	265	616	485	286	1,112	118
Maine	27	24	22	13	9	3	20	3	1
Maryland	293	266	428	67	75	70	163	28	25
Massachusetts	3			5		5		1	
Michigan	375	428	256	153	137	320	85	298	52
Minnesota	1,009	1,493	1,200	683	493	778	692	731	470
Mississippi	710	1,240	1,689	931	1,148	718	709	1,991	1,674
Missouri	74	97	43	156	107	98	85	27	52
Montana	18	35	12	30	7	4	10	2	1
Nebraska		2	8	4			7		1
Nevada		3							
New Hampshire	3	2	4	1					
New Jersey	60	37	66	82	40	14	64	119	16
New Mexico	130	104	113	76	38	8	5	6	2
New York	14,080	8,636	10,089	11,917	12,014	9,778	5,614	9,384	6,648
North Carolina	292	254	261	214	189	58	127	114	122
Ohio	765	581	555	66	484	126	105	104	112
Oklahoma	11	16	18	8	5	9	9		12
Oregon	47	85	43	27	78		300	10	1
Pennsylvania	420	252	302	216	194	88	173	112	121
South Carolina	1,909	2,209	2,549	2,731	1,864	934	1,701	787	1,932
South Dakota	2	5	4	1					
Tennessee	667	823	1,256	952	330	319	506	848	1,050
Texas	5,540	7,242	7,965	5,347	5,916	6,225	2,997	8,240	1,943

[1] The crop year for cabbage extends from October or November of one year to March or April of the second following year.

TABLE 11.—*Carlot and boat shipments of commercial cabbage by States and crop years, 1927–28 to 1935–36*—Continued

State	1927–28	1928–29	1929–30	1930–31	1931–32	1932–33	1933–34	1934–35	1935–36
	Cars	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*
Utah	75	120	233	102	80	4	96	51	34
Vermont	2	2	1	4					
Virginia	2,720	2,441	3,969	1,772	1,821	1,050	1,535	898	897
Washington	139	82	168	85	108	40	191	45	7
West Virginia	39	40	26		15	5		4	
Wisconsin	4,547	6,412	5,395	5,959	3,156	3,202	2,272	7,572	3,657
Wyoming	14	20	7	7	1		2		1
Total	39,331	38,727	44,131	38,204	37,900	29,142	22,921	[1] 38,076	23,614

[1] Includes 1,207 cars for emergency relief.

Only a very small part of the crop is shipped by boat. During 1932–36 the number of boat shipments ranged from the equivalent of 43 cars in 1935 to 193 cars in 1932. Florida ships more cabbage by boat than any other State, where shipments in the last 5 years have ranged from 20 cars in 1935 to 116 cars in 1934. Other occasional boat shipments originate in Virginia, Texas, South Carolina, California, Washington, Oregon, and Texas. Most of the boat movement is destined to New York City where 112 cars were unloaded there in 1934 and 42 in 1935.

When considering carlot shipments it is well to remember that most cars are shipped with about the minimum loading weight of 24,000 pounds in practically all shipping areas and that the figures given in the foregoing discussion and those in tables 10 and 11 do not include shipments of cabbage in mixed cars. Considerable cabbage from Texas, Louisiana, and some other States is shipped in cars containing packages of other vegetables. Some railroads grant cheaper freight rates in the case of cars loaded with mixed vegetables than for straight carloads.

SHIPMENTS BY MOTORTRUCK

The hauling of cabbage to market by motortruck has increased substantially during recent years. This method of transportation for fresh fruits and vegetables became general following the World War and developed rapidly during the 1920's. During the recent business depression further impetus was given to the movement by motortruck and by 1935 it was estimated that somewhat more than half of the cabbage for market was shipped in this way. Records of motortruck shipments are not available by States so only rough estimates can be given.

The proportion of the market cabbage hauled by motortruck is of course much higher from the producing areas that are located comparatively near the markets. Therefore, in many States, particularly in the Middle Atlantic and East North Central States, the bulk of the crop is transported to market by motortruck. Practically all of the crop produced on Long Island and in New Jersey is so shipped. Other comparatively important producing States in which it is estimated that more than 80 percent of the cabbage is transported to market by motortruck are Pennsylvania, Maryland, Michigan, Ohio, Indiana, Oregon, and North Carolina. Estimates of the truck movement for 1935 in some of the other States are, in percentage: Cali-

fornia 60 to 70; New York, 50 to 55; Colorado, Louisiana, Minnesota, and Virginia 50 to 60; Wisconsin 30 to 40; Texas, 20 to 30; South Carolina, 25 to 35; Florida, 10 to 15; Tennessee, 5 to 10 and Mississippi, 3 to 5 (table 3).

Most of the cabbage produced for sauerkraut manufacture is transported to the factories by motortruck. During years of crop shortages, however, cabbage is often shipped by rail from one State to another for sauerkraut purposes. Even Texas cabbage is sometimes shipped by rail to northern sauerkraut factories.

CROP MOVEMENT BY MONTHS

The volume of shipments by months from each State and group indicates the market competition among cabbage-producing States and among shipments of the fall, early, second-early, intermediate, and late crops. The average carlot and boat shipments of commercial cabbage by months for different States and groups for the years 1931–35 are shown in table 12. The largest monthly movement is in October when the bulk of the Danish-type cabbage is harvested in the important late-producing States, and the smallest movement is in July. Shipments during the remaining months are between these extremes but, with the exception of August, ranges between 8 percent in September and 10.9 in January, thus indicating a fairly constant distribution to the markets throughout the fall, winter, and spring months.

Fall crop shipments reach the peak in December. Movement from the early States is greatest during March and from the second-early group in May. June is the peak month for movement of the intermediate crop, while most late-crop shipments are made in October. There is very little late-crop movement after March; less than 0.5 percent of the total late-crop shipments were made in April during 1931–35.

Carlot and boat shipments for the different crops were proportioned as follows during 1931–35 in percentage: Fall 1.11; early 31.17; second early, 13.78; intermediate, 6.48; late, 47.46. Of the late crop movement for the same period about 62 percent originated in the Eastern States, 34 percent in the Central States and 4 percent in the Western States (table 12).

The rail and boat movement and the estimated truck movement of cabbage by months for the years 1933 and 1934 are shown in table 13. The greatest volume of truck movement is from July to October, whereas the least volume is shipped from February to May. As shown by this table, the greatest movement by both rail and motortruck during 1933 and 1934 was during October and the smallest was in April.

TABLE 12. *Carlot and boat shipments of commercial cabbage by States and months, average 1931-35*

Crop and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
	Cars	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*
Fall:													
South Carolina [1]	87.8	6.8								0.6	58.6	168.6	322.4
Virginia, Norfolk [2]	7.0	.4									1.4	5.6	14.4
Total	94.8	7.2								.6	60.0	174.2	336.8
Early:													
Arizona	15.2	7.2	9.4	2.0	1.4							11.2	46.4
California, Imperial Valley	10.4	31.4	51.8	1.8									95.4
California, Southern District	15.6	39.0	97.6	117.2	101.6	26.4	8.2	0.4			.4	5.6	412.0
California, Central District	13.4	15.4	18.8	10.0	4.6	5.2	7.2	2.8	3.6	1.6	5.2	12.4	100.2
California, Northern District		.2		1.0	13.0	7.4					.4	.4	22.4
Florida	471.4	595.0	906.6	434.0	65.2	3.8					7.4	120.8	2,604.2
Louisiana	11.2	12.2	47.6	204.4	225.6	16.2	1.6				.2	4.2	523.2
Texas	1,180.8	1,455.8	1,464.2	985.4	235.8	12.4					14.4	325.4	5,674.2
Total	1,718.0	2,156.2	2,596.0	1,755.8	647.2	71.4	17.0	3.2	3.6	1.6	28.0	480.0	9,478.0
Second early:													
Alabama	4.2	3.4	59.0	342.0	391.8	6.6						4.2	811.2
Georgia	3.4	1.0	7.6	38.6	56.4	1.0	7.2	.2				.2	115.6
Mississippi			.4	80.0	1,118.4	66.4					.2		1,265.4
North Carolina [3]				13.2	97.2	8.2	3.2	.2					122.0
South Carolina			102.8	674.6	330.0	3.2							1,110.6
Virginia, Eastern Shore					134.6	140.4							275.0
Virginia, Norfolk				6.4	280.0	194.6							490.0
Total	7.6	4.4	169.8	1,154.8	2,417.4	420.4	10.4	.4			.2	4.4	4,189.8
Intermediate:													
Arkansas					3.6	15.8							19.4
Illinois	.2					26.4	36.2	61.6	18.8	12.2	1.4	.2	157.0
Iowa	1.8	.2				5.2	116.6	60.8	13.6	7.8	3.4	.4	209.8
Kansas						27.6	.8						28.4
Kentucky						10.8						.2	11.0
Maryland					.2	70.0	1.2		.4	.4			72.2
Missouri						61.0	12.8						73.8
New Jersey	.2					36.4	14.2						50.8
New Mexico					.2	3.6	.4		.8	4.6	.2		9.8
Ohio [4]						114.6	58.0						172.6
Oklahoma						5.2	1.8						7.0
Tennessee					172.6	425.2	3.8		3.2	4.8	.4		610.0
Virginia, other						3.2	100.4	220.6	112.4	25.4			462.0

Washington	12.8	8.2	4.6		4.8	12.4	2.4	6.6	3.2	5.6	5.8	15.6	82.0
West Virginia						2.6	2.2						4.8
Total	15.0	8.4	4.6		181.4	820.0	350.8	349.6	152.4	60.8	11.2	16.4	1,970.6
Late:													
Eastern,													
Maine	2.0	.4					.8		.2	.4	3.4	3.4	9.8
Massachusetts							.2			.2			1.2
New York	1,175.2	779.4	438.0	49.6	.6		15.4	400.0	949.8	1,751.8	1,571.4	1,617.6	8,748.8
Pennsylvania	6.8	5.4					4.6	1.4	16.8	55.2	41.6	9.4	141.2
Total	1,184.0	785.2	438.0	49.6	.6		20.8	401.6	966.8	1,807.4	1,616.6	1,630.4	8,901.0
Central:													
Indiana							9.2	16.8	15.4	17.0	6		59.0
Michigan	8.0	8.2	4.0	.6			.8	8.2	56.6	77.4	16.4	5.0	185.2
Minnesota	10.6	14.8	2.0				.8	6.8	125.8	367.4	91.8	12.8	632.8
Nebraska										1.6			1.6
Ohio								4.2	4.0	4.6	.8		13.6
Wisconsin	254.6	70.4	38.6	2.4			7.0	185.8	976.6	1,539.2	571.0	360.8	4,006.4
Total	273.2	93.4	44.6	3.0			17.8	221.8	1,178.4	2,007.2	680.6	378.6	4,898.6
Western:													
Colorado	4.2	2.0				2.8	22.2	86.2	132.0	198.2	20.6	7.4	475.6
Idaho	1.6	1.0					.2				.2	1.2	4.2
Montana	.4									2.2	1.0	1.2	4.8
Oregon	12.4	.4	1.0	.6				1.6	1.4	3.2	20.6	40.6	81.8
Utah	12.2	2.4					.2	.6	6.8	13.6	19.6	5.4	60.8
Wyoming	.4	.6									.4	.4	1.8
Total	31.2	6.4	1.0	.6		2.8	22.6	88.4	140.2	217.2	62.4	56.2	629.0
Total late	1,488.4	885.0	483.6	53.2	.6	2.8	61.2	711.8	2,285.4	4,031.8	2,359.6	2,065.2	14,428.6
Total, United States	3,323.8	3,001.2	3,254.0	2,963.8	3,246.6	1,314.6	439.4	1,065.0	2,441.4	4,094.8	2,459.0	2,746.2	30,403.8
Relation to total for period	*Percent* 10.9	*Percent* 10.1	*Percent* 10.7	*Percent* 9.8	*Percent* 10.7	*Percent* 4.3	*Percent* 1.4	*Percent* 3.5	*Percent* 8.0	*Percent* 13.5	*Percent* 8.1	*Percent* 9.0	*Percent* 100

[1] In compiling this table shipments from South Carolina counties producing more than 1 crop (fall and second early) have arbitrarily been considered as fall for October to February inclusive and second early for March to June, inclusive.

[2] Shipments from the Norfolk section of Virginia producing more than 1 crop (fall and second early) have arbitrarily been considered as fall for November to February, inclusive, and second early for April, May, and June. The Eastern Shore shipments are considered as part of the second-early crop whereas shipments from other parts of Virginia are classed as part of the intermediate crop.

[3] For the purpose of this table North Carolina is considered as a second-early State. The western part of the State produces an intermediate crop but so far practically all shipments have been by motortruck.

[4] Shipments from Ohio where part of the crop is intermediate and part late are arbitrarily considered as part of the intermediate crop for June and July and late for August to November, inclusive.

TABLE 13.—*Carlot shipments of commercial cabbage, by method of transportation and by months, 1933 and 1934*

Year and method of transportation	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1933													
Rail and boat	*Cars* 2,725	*Cars* 2,848	*Cars* 2,863	*Cars* 2,532	*Cars* 2,700	*Cars* 982	*Cars* 342	*Cars* 787	*Cars* 1,823	*Cars* 2,924	*Cars* 2,079	*Cars* 2,419	*Cars* 25,093
Estimated truck [1]	1,382	1,075	1,152	1,050	1,203	2,810	3,431	3,251	2,330	3,123	2,790	1,997	25,800
Total	4,107	3,923	4,015	3,582	3,972	3,798	3,773	4,038	4,153	6,047	4,869	4,416	50,893
Relation to year's total	*Per-cent* 8.1	*Per-cent* 7.7	*Per-cent* 7.9	*Per-cent* 7.1	*Per-cent* 7.8	*Per-cent* 7.5	*Per-cent* 7.5	*Per-cent* 8.0	*Per-cent* 8.2	*Per-cent* 11.9	*Per-cent* 9.6	*Per-cent* 8.7	*Percent* 100
1934													
Rail and boat	*Cars* 3,140	*Cars* 3,510	*Cars* 4,147	*Cars* 3,228	*Cars* 3,801	*Cars* 1,418	*Cars* 469	*Cars* 1,071	*Cars* 3,538	*Cars* 4,578	*Cars* 3,023	*Cars* 3,202	*Cars* [2] 35,132
Estimated truck [1]	1,695	1,319	1,413	1,287	1,476	3,454	4,208	3,988	2,857	3,851	3,423	2,449	31,400
Total	4,844	4,829	5,560	4,515	5,277	4,872	4,677	5,059	6,393	8,429	6,446	5,651	66,532
Relation to year's total	*Per-cent* 7.3	*Per-cent* 7.3	*Per-cent* 8.4	*Per-cent* 6.8	*Per-cent* 7.9	*Per-cent* 7.3	*Per-cent* 7.0	*Per-cent* 7.6	*Per-cent* 9.6	*Per-cent* 12.6	*Per-cent* 9.7	*Per-cent* 8.5	*Percent* 100

See mimeographed report, U. S. Bureau of Agricultural Economics, October 1935, Shipments of Fruits and Vegetables from Producing Regions to Consuming Markets by Motor Truck, 1933 and 1934. Total estimated truck movement is prorated by months on the basis of monthly receipts in 7 markets.

[1] Includes 1,207 cars for emergency relief.

The average monthly movement of cabbage by carlot and boat and the quantity probably marketed by motortruck and in less-than-carload lots for 1931–35 is shown graphically in figure 22. This represents the average carlot and boat shipments for 1931–35 as shown in table 12. The quantity probably marketed monthly by motortruck and in less-than-carload lots represents the difference between the average total production harvested for market reduced to carload lots and the average number of carloads of each crop (fall, early, second early, intermediate, and late) shipped assuming that the same percentage of this difference moved monthly by motortruck and in less-than-carload lots as moved by rail and boat. In calculating the probable monthly late-crop movement by motortruck and in less-than-carload lots the total average harvested production was reduced 5 percent to allow for shrinkage and other loss.

During 1931–35 an average of about 41 percent of the total cabbage crop harvested for market was shipped by rail or boat. If it is assumed that during this period there was a loss of 5 percent of the late Danish crop from shrinkage, deterioration, and home consumption, then the percentage of the total movement to market which was shipped by rail and boat would be about 43 percent. The remaining 57 percent, therefore, was transported by motortruck and in carload lots mixed with other vegetables. No definite records of the tonnage shipped in mixed cars are available. However, the quantity probably did not exceed 10 percent, thus making the motortruck movement of the crop for the period in the neighborhood of 50 percent.

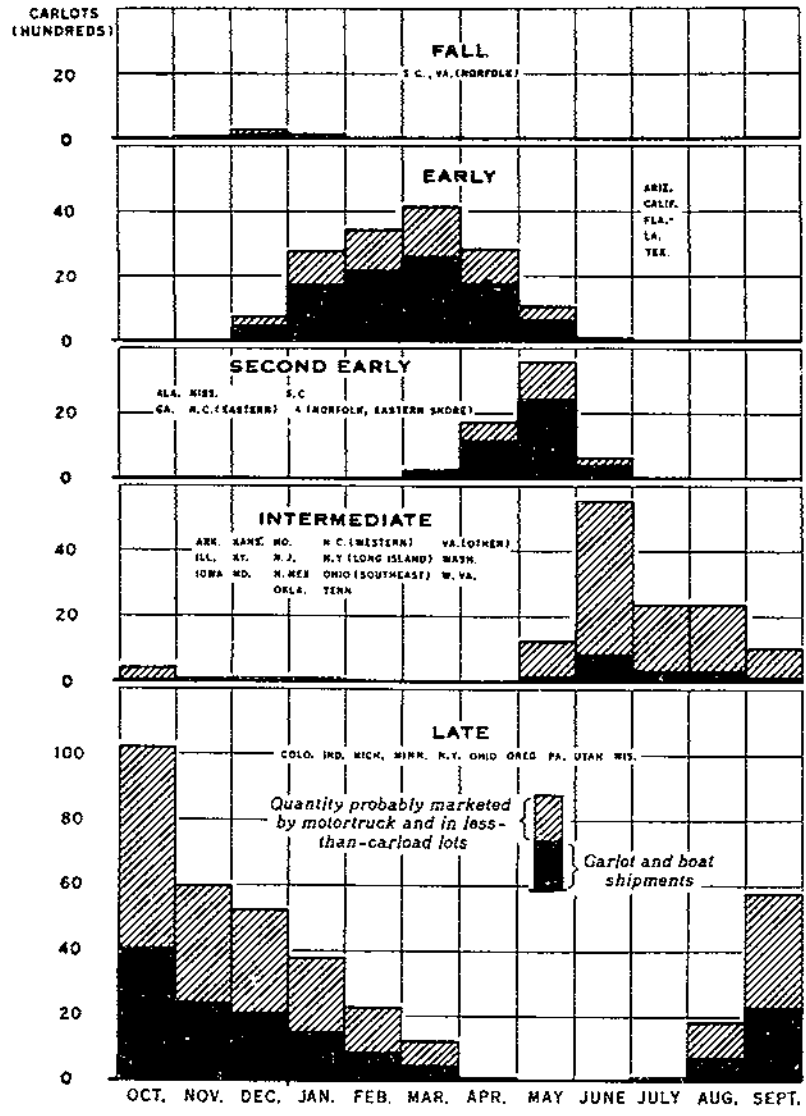

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FIGURE 22.—MONTHLY CARLOT AND BOAT SHIPMENTS OF CABBAGE AND QUANTITY PROBABLY MARKETED BY MOTORTRUCK AND IN LESS-THAN-CARLOAD LOTS, AVERAGE 1931–35.

Carlot shipments of cabbage are greatest during October and smallest in July. The truck movement is heaviest from June to November and lightest during the winter and spring months. During the months of December, January, and February shipments of early cabbage from the Southern States compete with shipments of storage cabbage from the Northern States.

The greatest competition between crops as shown by figure 22 is between the early crop and the late storage crop during December, January, and February. During this period the new crop principally from Texas and Florida must compete with storage cabbage from the previous year's crop mainly from New York and Wisconsin. Less serious competition is between the last of the early crop and the peak of the second-early crop from a number of the Southern States and the last of the intermediate crop with the first shipments of late cabbage.

DISTRIBUTION OF SHIPMENTS AND SOURCE OF MARKET SUPPLIES

Since the cabbage-harvesting season for the various producing areas in the country varies so greatly there is much interchange of shipments between areas in order to keep markets supplied throughout the year. Southern early cabbage is shipped to northern markets during the late winter and spring months. During the fall and early winter southern markets are supplied with cabbage from northern producing areas.

The destination of carlot and boat shipments is shown in table 14 for the 1935 Texas crop, the 1936 Mississippi crop, and the 1934 crop in western and central New York. This information is shown graphically in figures 23, 24, and 25, which show the wide distribution of one late and two early crops. But the picture is not complete as more than half of the total crop is carried to market by motortruck.

TABLE 14. *Approximate carlot and boat shipments of cabbage from designated producing States to destination, selected periods*

Destination	Shipments from			Destination	Shipments from		
	Texas, November 1935 to May 1936	Mississippi,[1] April 1936 to June 1936	New York, Sept. 1, 1934, to Apr. 8, 1935		Texas, November 1935 to May 1936	Mississippi,[1] April 1936 to June 1936	New York, Sept. 1, 1934, to Apr. 8, 1935
	Cars	*Cars*	*Cars*		*Cars*	*Cars*	*Cars*
Alabama	30		74	New Hampshire			7
Arizona				New Jersey	210	3	545
Arkansas	184	2		New Mexico			
California				New York	920	211	1,829
Colorado	41	2		North Carolina	42	1	110
Connecticut	122	29	146	North Dakota	11		
Delaware				Ohio	505	220	883
District of Columbia	71	1	151	Oklahoma	48	8	4
Florida			85	Oregon			
Georgia	16		82	Pennsylvania	700	180	1,809
Idaho				Rhode Island	55	17	93
Illinois	993	304	81	South Carolina	3		43
Indiana	162	74	320	South Dakota	11	3	2
Iowa	116	31	10	Tennessee	129	17	131
Kansas	98	10		Texas	185		
Kentucky	147	28	337	Utah	4		
Louisiana	33	1	10	Vermont	2		1
Maine	12	3		Virginia	20		291
Maryland	50		616	Washington	1		
Massachusetts	445	82	577	West Virginia	32	20	505
Michigan	486	118	113	Wisconsin	113	26	5
Minnesota	44	33	2	Wyoming	8		
Mississippi	30			Canada	154	170	
Missouri	518	68	61				
Montana	2			Total	6,920	1,650	5,999
Nebraska	66	9	6				

[1] Crystal Springs, Hazelhurst, and Utica district.

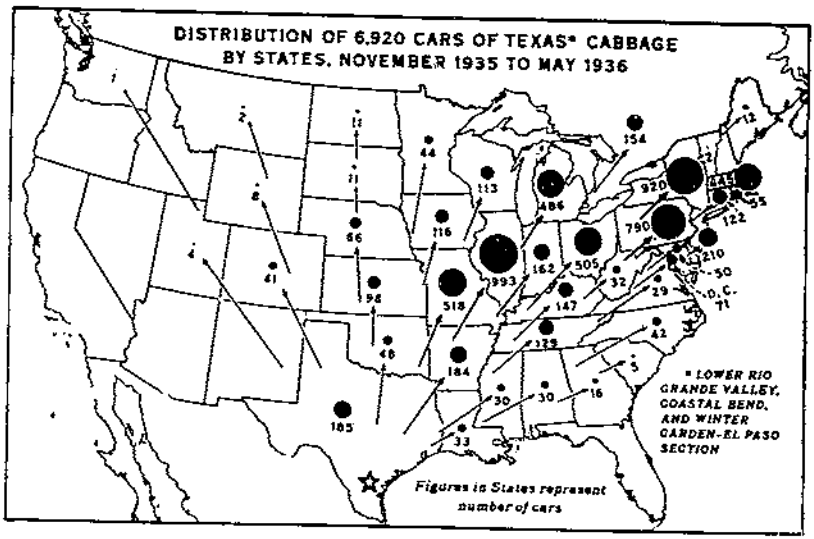

FIGURE 23.—Texas cabbage is widely distributed. Carlot and boat shipments went to 40 States in 1936. Markets in New York, Illinois, and Pennsylvania took nearly 40 percent of the shipments.

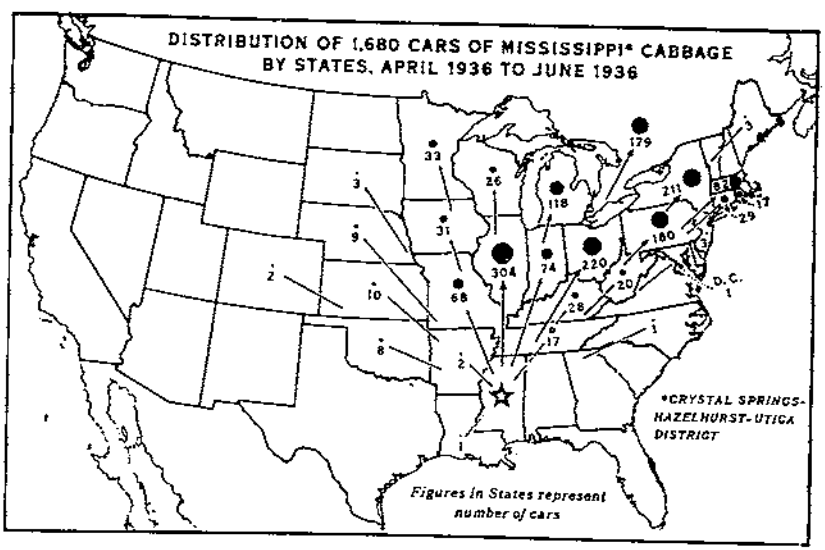

FIGURE 24.—The principal markets for Mississippi cabbage are in the East North Central and North Atlantic States, mainly Illinois, Ohio, and New York.

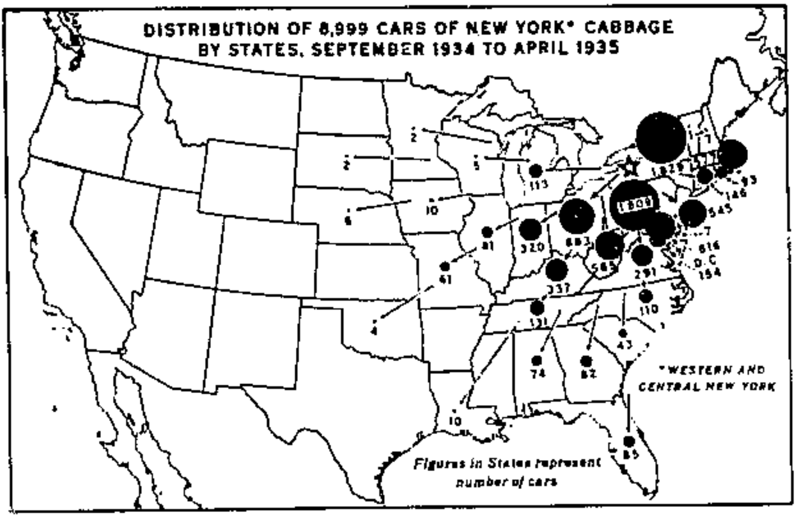

FIGURE 25.—Markets in the North Atlantic States use most of the cabbage shipments from western and central New York although considerable quantities go to consumers in the East Central and South Atlantic States.

The carlot and boat shipments of cabbage unloaded in 65 markets grouped by regional location are shown for 1935 by regions originating the shipments in table 15.

TABLE 15.—*Carlot and boat unloads of cabbage at 65 markets, by divisions originating shipments, calendar year, 1935*

Market and division	Unloads shipped from						Total unloads
	North Atlantic States	North Central States	South Atlantic States	South Central States	Western States	Foreign and unknown	
	Cars	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*
Albany, N. Y.	8	2	14	38			62
Boston, Mass	303	1	514	225	4		1,047
Bridgeport, Conn.	22		19	15			56
Buffalo, N. Y	1	3	97	119	2		222
Hartford, Conn	31		45	30	1		107
Newark, N. J	127		138	78			343
New Haven, Conn	41		30	21	1		93
New York, N. Y	890		1,437	496	25	28	2,876
Philadelphia, Pa	1,107		582	248	10	5	1,952
Pittsburgh, Pa	148	53	190	263	5		659
Portland, Maine	1		13	4	3		21
Providence, R. I	53		77	36	2		168
Rochester, N. Y		4	46	43	1		94
Springfield, Mass	31		33	29	3		96
Syracuse, N. Y		1	23	40	1		65
Worcester, Mass	1		4	2			7
North Atlantic	2,824	64	3,202	1,707	58	33	7,978
Akron, Ohio	23		1	14			38
Chicago, Ill	68	320	303	726	267		1,683
Cincinnati, Ohio	315	31	175	130	3		654
Cleveland, Ohio	70	11	116	210	12		419
Columbus, Ohio	114	6	38	56			214
Dayton, Ohio	36	4	1	10			51
Des Moines, Iowa	3	83		16	16		118
Detroit, Mich	67	17	137	360	7		588
Duluth, Minn			1	18			19
Evansville, Ind	49	58		3	2		112

TABLE 15. *Carlot and boat unloads of cabbage at 65 markets, by divisions originating shipments, calendar year, 1935*—Continued

Market and division	Unloads shipped from—						Total unloads
	North Atlantic States	North Central States	South Atlantic States	South Central States	Western States	Foreign and unknown	
	Cars	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*
Grand Rapids, Mich.			8	46	8		62
Indianapolis, Ind.	153	14	33	56	3		259
Kansas City, Mo.	11	452	20	81	69		633
Milwaukee, Wis.	11	21	24	107	31		194
Minneapolis, Minn.	4	18	7	81	77		187
Omaha, Nebr.	4	130	1	29	39		203
Peoria, Ill.	6	58	2	13	1		80
St. Louis, Mo.	88	905	108	230	34		1,365
St. Paul, Minn.		1	7	27	25		60
Sioux City, Iowa	9	55	1	17	16		98
Terre Haute, Ind.	12	7		3			22
Toledo, Ohio	32	1	5	56	1		95
Youngstown, Ohio	8		6	25	7		44
North Central	1,081	2,201	994	2,314	618		7,208
Atlanta, Ga.	92	2					94
Baltimore, Md.	412		130	49	5	1	597
Jacksonville, Fla.	27	1	15	1			44
Norfolk, Va.	32		4	3	1		40
Richmond, Va.	71		12	12	2		97
Tampa, Fla.	15		5				20
Washington, D. C.	141		73	32	1		247
South Atlantic	790	3	239	97	9	1	1,139
Birmingham, Ala.	41	27	1	73			142
Dallas, Tex.		22	3	18	41		84
El Paso, Tex.				2	21		23
Fort Worth, Tex.	1	9	2	3	14		29
Houston, Tex.		4	3	4	57		68
Lexington, Ky.	61	1	3	4	2		71
Memphis, Tenn.	30	246	22	51	22		371
Nashville, Tenn.	96	54	3	23			176
New Orleans, La.	8	112	48	9	7		184
Oklahoma City, Okla.	7	31		4	100		142
San Antonio, Tex.		9			4		13
Shreveport, La.	1	4		1	15		21
South Central	245	519	85	192	283		1,324
Denver, Colo.		3		12	83		98
Los Angeles, Calif.					40		40
Portland, Oreg.					63		63
Salt Lake City, Utah				1	5		6
San Francisco, Calif.					1		1
Seattle, Wash.					95		95
Spokane, Wash.					1		1
Western		3		13	288		304
United States	4,940	2,790	4,610	4,323	1,256	34	17,953

The principal sources of supply for the markets in the North Atlantic States are the South Central and the South Atlantic States for early and midseason cabbage and the North Atlantic States, mainly New York, for late cabbage. Little cabbage is supplied to these markets by the North Central and Western States.

Early cabbage for 23 markets in the North Central States is supplied in carlots from the South Central States principally, and to some extent from the South Atlantic States. Texas and Mississippi are the leading shipping States to the markets in this area. Supplies of midseason and some late cabbage is produced in the North Central States. This area secures a considerable quantity of late cabbage

from the North Atlantic States, chiefly New York. Some cabbage from the Western States is shipped to markets in this region.

Markets in the South Atlantic States are supplied with early and midseason cabbage from producing sections largely within the same area. But, they draw on the North Atlantic States, chiefly New York for several hundred carloads of late cabbage during the fall and early winter.

The markets in the South Central States are generally well supplied with early and midseason cabbage from producing sections within the same area. Late cabbage in carload lots moves into these markets from the North Central, North Atlantic, and Western States.

The Western States markets alone do not draw to any extent on other groups of States for cabbage supplies. California is able to supply these markets with early cabbage and Colorado, Utah, Washington, and Oregon produce enough late cabbage to take care of demands in the western area.

In 1935, 17,953 carloads of cabbage were unloaded in the 65 cities, which was nearly 73 percent of the total carlot and boat movement for that year. New York City is the leading cabbage market with unloads totaling 2,876 cars. Philadelphia and Chicago are next in importance with 1,942 and 1,693 carloads, respectively. Other important markets include St. Louis, Boston, Pittsburgh, Cincinnati, Kansas City, and Detroit. The 39 markets for which reports are available in the North Atlantic and North Central States took nearly four-fifths of the carlot and boat receipts during 1935 (table 15).

Information on truck receipts of cabbage in the markets is not complete but some information is available for a few cities. A comparison of the source and volume of motortruck receipts as compared with rail and boat receipts in 1935 is shown in table 16 for six cities—Boston, New York, Chicago, Atlanta, San Francisco, and Los Angeles. Of the truck receipts reported, the proportion received by truck in these cities ranged from 31 percent in Chicago to 99.75 in San Francisco. It is estimated that the figures given in table 16 include from 85 to 95 percent of the total truck receipts in all the cities except Chicago, where perhaps only about half of the receipts were recorded.

Most of the cabbage received by truck in Boston is produced in nearby districts. The bulk of the motortruck receipts in New York originate on Long Island, New Jersey, and western and central New York. Chicago truck receipts largely originate in the suburban market gardening area and nearby counties in Illinois and in Wisconsin although some cabbage is trucked from southern Illinois, Missouri, and Tennessee producing districts. Reports from Atlanta indicate that considerable quantities of cabbage are hauled by truck from North Carolina, Georgia, Florida, and South Carolina. California producing areas supply the bulk of the truck receipts to Los Angeles and San Francisco although some receipts originate in Utah.

TABLE 16.—*Carlot and boat, and reported truck receipts of cabbage at six markets, by method of transportation and by States of origin, 1935* [1]

State of origin	Boston		New York [2]		Chicago		Atlanta		San Francisco		Los Angeles	
	Carlot and boat	Truck	Carlot and boat	Truck	Carlot and boat	Truck	Carlot and boat	Truck	Carlot and boat	Truck	Carlot and boat	Truck
	Cars	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*	*Cars*
Alabama			6		24							
Arizona			2		17							
California	4		23		250				1	403	16	1,638
Colorado												
Connecticut		4		1								
Florida	145		693	3	225			106				
Georgia	1		32		9			244				
Idaho												
Illinois					6	382						
Indiana								3				
Kansas					16							
Kentucky								4				
Louisiana			22		39							
Maine		10										
Maryland	5			21								
Massachusetts		650										
Michigan					8	21		12				
Minnesota					4							
Mississippi	56		95		204							
Missouri					23	44						
New Jersey	4	3		819								
New York	339	6	890	2,653	62		92	4				
North Carolina	11		27	18				366				
Ohio	1				1		1	1				
Oklahoma					2							
Pennsylvania				8	6							
South Carolina	172		418	7	65			84				
Tennessee	3		10		263	21		7				
Texas	166		363		264							
Utah											24	11
Virginia	180	1	237	223	1			22				
Wisconsin					271	283	1	8				
Unknown		2										
Total	1,107	682	2,878	3,753	1,693	751	94	861	1	403	40	1,649
Proportion by carlot and boat, and by truck	*Per cent* 62.00	*Per cent* 38.00	*Per cent* 43.00	*Per cent* 57.00	*Per cent* 69.00	*Per cent* 31.00	*Per cent* 10.00	*Per cent* 90.00	*Per cent* 0.25	*Per cent* 99.75	*Per cent* 2.00	*Per cent* 98.00

[1] Truck receipts for Chicago and Pittsburgh are only about 58-percent complete; for other markets shown in this table they are probably 85-95-percent complete.
[2] Receipts do not include 28 carlots received from Holland

In nine markets where information for carlot, boat, and truck receipts is available, receipts averaged about 25 pounds per capita in 1935 for the metropolitan population of the cities. The cities included with the number of pounds per capita for each are: Atlanta 71; Kansas City 32; St. Louis 28; Boston and Los Angeles 20; Chicago 17; New York 16; Pittsburgh 11; and San Francisco 9.

These figures indicate a wide variation in the per-capita unloads in the markets. In Atlanta, however, it is estimated that at least 65 percent of the truck receipts are trucked to other markets which would make the per capita consumption about 29 pounds. The low figure for San Francisco is probably due to the fact that the metropolitan area includes the population of other nearby bay cities such as Oakland and Berkeley, and truck receipts are recorded only for San Francisco proper. If only the population of San Francisco is considered, the per-capita unloads would probably be about 18 pounds per capita. The Pittsburgh and Chicago figures are probably low because of lack

of more complete information on truck receipts. The New York figure may be slightly low because Newark is included in the metropolitan population although the Newark receipts of cabbage are not included in the New York receipts.

FOREIGN TRADE

Considering the volume of cabbage produced, foreign trade in the United States in cabbage is of minor importance. Imports during 1932–36 averaged 418,741 pounds, or only about 0.02 percent of the average production for market during the same period (table 17). Figures showing the total quantity of cabbage exports from the United States are not available but data on carlot movements indicate that only a very small proportion of the cabbage produced is sent to markets outside of the United States.

Import duty on cabbage has been comparatively high for a number of years. Cabbage was not specially mentioned in the Tariff Act of 1922 but was dutiable at 25 percent ad valorem under paragraph 772 as "vegetables in their natural state, not specially provided for." Under the Tariff Act of 1930 cabbage was specially mentioned and was made dutiable at 2 cents per pound. This rate was lowered to 1½ cents per pound, effective February 1, 1936, by the terms of the trade agreement with the Netherlands. This reduced rate applies to all foreign countries except those which discriminate against the United States. Germany and Australia are the only countries so designated at present. Imports of cabbage from Cuba receive a reduction of 20 percent from the above rates.

There is little doubt that the high duty has tended to restrict cabbage importations. Imports during the period 1932–36 ranged from 27,700 pounds in 1933 to 1,114,584 in 1932.

Most of the cabbage imports come from the Netherlands during the 4-month period from January to April, although in 1933 and in 1936 no cabbage arrived from that country. Small shipments were imported from Cuba, the second ranking country in volume of imports. Most of the Cuban imports arrive between December and May. Canada exports a small quantity to the United States usually between June and December some years (table 17).

Judging by Canadian import statistics the cabbage exported from the United States is much in excess of the imports, as Canadian consumers depend to a large extent on the United States for supplies during the late winter and spring months. The quantity imported into Canada is shown by months for the calendar years 1934, 1935, and 1936 in table 18. Records of the source of all shipments are not available, but carlot shipment records show that Texas shipped 154 cars and Mississippi 179 cars of cabbage to Canada in 1936.

TABLE 17.—*Imports of cabbage into the United States by countries of origin and by months, 1932–36* [1]

Country of origin and year	January	February	March	April	May	June	July	August	September	October	November	December	Total
Belgium:	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
1932	27,778												27,778
Canada:													
1932				200									200
1933							440				600		1,040
1934						2,100	1,408	584	1,300	350	100		5,842
1936							160	18,012	230		242	436	19,080
Cuba:													
1932	5,355											4,851	10,206
1933	5,000	14,155	5,757	1,430	318								26,660
1934	3,860	9,665	6,670	6,054	1,819		850					2,103	31,021
1935	8,497	5,888	1,420	720	800							2,392	19,717
1936	8,587	8,249		24,915							1,220	6,631	49,602
Netherlands:													
1932	372,845		174,320	529,235									1,076,400
1934	41,500	205,037	135,971										382,508
1935			23,500	420,000									443,500
British West Indies:													
1936										150			150
Totals above countries:													
1932	405,978		174,320	529,435								4,851	1,114,584
1933	5,000	14,155	5,757	1,430	318		440				600		27,700
1934	45,360	214,702	142,641	6,054	1,819	2,100	2,258	584	1,300	350	100	2,103	419,371
1935	8,497	5,888	24,920	420,720	800							2,392	463,217
1936	8,587	8,249		24,915			160	18,012	230	150	1,462	7,067	68,832

[1] Compiled from official records of the Bureau of Foreign and Domestic Commerce.

TABLE 18.—*Imports of cabbage into Canada from the United States by months, 1934–36*

Month	1934	1935	1936	Month	1934	1935	1936
	Pounds	*Pounds*	*Pounds*		*Pounds*	*Pounds*	*Pounds*
January	83, 108	293, 390	202, 372	November	96	137	2, 810
February	1, 211, 342	580, 810	1, 701, 142	December	67	1, 753	61, 615
March	4, 391, 999	632, 469	4, 653, 713				
April	3, 801, 727	1, 390, 944	3, 639, 916	Total	18, 811, 884	11, 973, 044	19, 022, 214
May	5, 349, 392	5, 143, 240	5, 568, 499		*Short tons*	*Short tons*	*Short tons*
June	3, 912, 108	3, 981, 813	3, 070, 493	Total [1]	9, 405. 9	5, 986. 5	9, 511. 1
July	1, 775	38, 352	3, 304				
August	220		5, 725		*Cars*	*Cars*	*Cars*
September	50	107	22, 535	Total [2]	752	479	761
October							

[1] Converted to short tons.
[2] Converted to carlots

Compiled from Quarterly Reports of the Trade of Canada.

Before January 1, 1936, a basic ad valorem duty of 30 percent to be applied during the Canadian marketing season by an arbitrary advanced value of 2½ cents per pound was levied by Canada on imports of cabbage from the United States, with the proviso that when imported from June 15 to January 31, inclusive, the duty should not be less than 1 cent per pound. As a result of the trade agreement with Canada, which became effective on January 1, 1936, the ad valorem rate was reduced to 15 percent and the minimum specific duty was cancelled. In addition, the advance in value, which is added to the invoice value during the period of the year when imported cabbage competes with the domestic product, was reduced by 20 percent, or from 2½ cents to 2 c per pound. On May 28, 1936, the advance in value was further r ed to 1 cent per pound. This advance in value is used as "dump duty" and is effective during the season in which Canadian cab e is being marketed. The effective period varies but is usually from June 10 to February 15. On the basis of an invoice value of 1.2 cents per pound, the estimated total charge varied as follows:

	Cents per pound
Before January 1, 1936:	
(1) When advance in value was 2½ cents per pound [1]	3. 61
(2) When there was no advance in value (30 percent of 1.2 cents)	. 36
After January 1, 1936:	
(1) When advance in value was 2 cents per pound	2. 50
(2) When advance in value was 1 cent per pound	1. 33
(3) When there was no advance in value (15 percent of 1.2 cents)	. 18

[1] The minimum specific duty of 1 cent per pound during the period June 15 to January 31 is not effective, since the high advanced valuation applied during the same period.

METHODS AND CHANNELS OF CITY MARKET DISTRIBUTION

A large part of the cabbage supplies for the various markets is purchased by city dealers on an f. o. b. shipping-point basis through local country dealers or dealer-growers. Certain large receivers in some markets send their representatives direct to producing districts to purchase supplies from local dealers and growers. In some cities, dealers buy most of their supplies on a delivered-price basis. In many instances transactions are arranged through city brokers. Chain stores, which play a large part in the distribution of cabbage to consumers, buy large quantities on a shipping-point basis. The proportion of cabbage supplies bought on an f. o. b. shipping-point basis varies

largely with supply conditions. During seasons when supplies are abnormally large, and prices are low, there is likely to be fewer f. o. b. sales at shipping point and more consignment, joint-account, and delivered sales.

In most markets some cabbage is received by city dealers on consignment for sale on a commission basis. In years of large crops the bulk of the receipts in some markets may be handled in this way. Commission charges vary in the different markets but in most markets range from 7 to 10 percent of gross sales for handling rail receipts, and from 8 to 15 per cent for handling truck receipts. Rates for handling receipts in containers are generally less than for handling cabbage in bulk, which usually has to be packed in containers before distributing

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FIGURE 26.—Cabbage stacked on the floor of a produce terminal in a large market ready to be offered for sale to tradesmen.

to tradesmen. In addition to regular commission rates dealers in some markets assess drayage charges to the consignor. Brokerage charges vary in different markets from $10 to $25 per car, the most common charges being $10, $12, or $15. Brokerage charges for handling late-crop northern-grown cabbage are generally less than for handling new-crop southern stock on most markets.

Receipts on a joint-account basis are not important in most markets, but there are usually some sales on this basis in most markets, especially when supplies are large and prices are low. In joint-account sales the country shipper and the city receiver ordinarily divide expenses in connection with purchase and marketing of the shipments and share equally in any profit or loss on the transaction.

Carlot arrivals of cabbage in the markets are usually broken by the receivers and resold in various-sized lots to jobbers, retailers, chain

stores, or other buyers. In some of the larger markets where cars are received on sidings at produce terminals, the cabbage is unloaded to the floor of the terminal and offered for sale to the trade in any desired quantity (fig. 26). During warm weather sales from terminal floors are made on a sample basis, and the cabbage is left in the cars under refrigeration. In many markets no such terminal market facilities are available, and it is necessary to either sell the cabbage from the car door or unload and truck it to the dealer's store for resale.

Deliveries of cabbage from railroad sidings to the jobbing districts are sometimes made by receivers but more often the deliveries are made in jobbers' trucks or in hired trucks. Delivery practice from jobbing markets to retailers' establishments varies in different cities. In some instances the buyer's truck picks up the purchases; in others delivery is made in trucks belonging to the seller, or in hired trucks.

In the larger cities chain stores usually have warehouses located on railroad sidings and carlot receipts of cabbage are unloaded directly into these warehouses where they are broken up for distribution to the company's retail stores. Chain stores usually buy their carlot supplies directly from shippers at shipping point, but on occasions they often supplement such supplies with purchases in less-than-carload lots from local carlot receivers, jobbers, or growers' or truckers' markets.

Many changes in the channels of distribution of cabbage and other vegetables have been brought about by the extensive use of the motor-truck as a means of transportation. Truck receipts are handled by many different methods in the various markets. Some deliveries are made direct to wholesale dealers' stores where sales are either made outright for cash or the shipment is left with the dealer to be sold on consignment. Chain stores' supplies are usually trucked direct from shipping point to the chain stores' warehouses where the grower or trucker is paid cash for the stock.

In many cities farmers' and truckers' markets have been provided. In such markets the grower or trucker may rent space for his truck by the month from which he sells direct to consumers, retailers, or anyone in the market for cabbage. In some of these markets, out-of-town truckers purchase supplies for resale in surrounding towns and cities. During certain seasons when local-grown stock is not available near the markets, carlot dealers distribute cabbage by motortruck to the surrounding towns and cities. Often these small town and city dealers send their trucks regularly to the large market centers to obtain supplies of cabbage and other vegetables.

DESCRIPTION OF CITY CABBAGE MARKETS

A description of each of a number of large cabbage markets follows dealing with such factors as source of supply, principal varieties and types handled, methods of obtaining supplies and methods of sale, physical marketing facilities, and channels of distribution, delivery, and chain-store marketing.

BOSTON

The greatest single source of cabbage supplies on the Boston market is the nearby district in eastern Massachusetts from which practically all the receipts are by motortruck. Receipts from this district are available during most of the year except the spring months. Other

States from which some cabbage is trucked into this market are Maine, Connecticut, New York, New Jersey, and Virginia. Rail receipts include shipments from about 20 States of which Florida, Texas, Virginia, and South Carolina are the most important for early cabbage and New York for late cabbage. During 1936, 1,064 cars received by rail and the equivalent of 750 cars delivered by motortruck were unloaded.

Cabbage produced nearby is usually packed in the unlidded New England box holding slightly less than a bushel. Occasionally cabbage from other late sections is received in 100-pound bags but the 50-pound bags are now in common use and are much preferred by the tradesmen. Cabbage from Florida, South Carolina, and Virginia is mostly packed in 1½-bushel hampers. This package meets with trade approval. Texas stock is received in western crates and half crates and both packages are well received by the trade.

Most of the receipts of late cabbage are of Danish type. Both round-domestic and pointed-type cabbage arrive from southeastern producing areas and there seems to be little preference between types. Prices largely depend on the available supply of each but, other conditions being equal, the Charleston Wakefield and Early Jersey Wakefield may sell for slightly higher prices than round-domestic varieties. Most of the Texas receipts are of the round-domestic type. There is little demand for red-type cabbage. There is a demand for a certain quantity of Savoy type and if the market is not oversupplied it will sell at a considerable premium over other types.

The principal local market for rail receipts of cabbage as well as other fresh vegetables and fruits is the Boston Market Terminal in the South Boston district. Practically all of the receipts from the Southern States and most of those from New York pass through this market. The cars are unloaded into long sheds where the stock is displayed, sold, and finally delivered to the local buyers. Some carlot receipts arrive at the Boston & Maine Produce Market located in the Charlestown district. This market is also used to some extent as a jobbing market for stock bought from receivers at the Boston Market Terminal. Practically all motortruck receipts of cabbage are sold originally through the Faneuil Hall Market which from a volume standpoint is second in importance in the Boston area. This market is the principal jobbing center for cabbage from all sections. A small part of nearby cabbage is sold at the Boston Regional Produce Market in West Cambridge.

The greater part of the rail receipts is purchased usually on wire orders, f. o. b. shipping-point basis. Most of these sales are through local brokers although some sales are made direct from shippers to local receivers. Some stock is consigned to commission merchants and a small quantity is also handled on a joint-account basis. Such sales usually increase with declining prices and a weak market. Cabbage produced nearby is either sold from the truck on the street or left with a receiver to be sold on consignment. Commission charges are 8 or 10 percent. Brokerage charges vary from $10 to $15 per car, usually $12.

Most of the cabbage sales are on a less-than-carload basis and the cabbage passes from the local receiver to the jobber or large retailer, then from the jobber to the small retailer, and finally from retailer to consumer. The large chain-store companies purchase most of their

supplies from shippers on an f. o. b. basis. The smaller companies procure most of their supplies from local receivers, although producers nearby often make deliveries direct to the chain-store warehouses. Some cabbage produced nearby is also trucked by the producer directly to retailers' stores.

Practically all deliveries are made by the buyers at their expense. Some cabbage is redistributed by motortruck to towns and cities in central and western Massachusetts, northern New England, eastern Connecticut, and Rhode Island. Redistribution is limited because of the supplies available nearby during most of the year and the competition from New York State, which can easily supply shipments by motortruck to almost any part of New England.

NEW YORK

New York, N. Y., consumes between 6,000 and 7,000 carloads of cabbage annually. In 1936, 6,831 carloads were unloaded. The supply, including receipts on the farmers' markets from nearby points, together with the rail, boat, and truck receipts on the wholesale markets, shows little variation from year to year, although the monthly totals from a particular shipping section may show considerable variation because of crop conditions in different years.

Supplies arrive on this market from about 20 different States during the year, with Florida, South Carolina, Virginia, Texas, and Mississippi furnishing the bulk of the early crop, New York State most of the late crop, and New Jersey and Long Island most of the supply during the summer and early fall. It is significant that receipts of fall-crop cabbage from South Carolina and early cabbage from Texas have increased materially during the last few years. A small quantity of cabbage is imported from the Netherlands during some years.

Rail shipments from practically all sections are received on the railroad piers along the Hudson River and sold either on the piers or through the primary market located on Washington Street, as well as the various railroad team tracks located in Brooklyn, Manhattan, and the Bronx. Truck receipts are becoming more important each year. Practically all of the cabbage from New Jersey and almost half from New York and Virginia producing sections arrives by truck. Receipts by truck on both the wholesale and farmers' markets exceeded the rail and boat receipts during the last 2 years.

Receipts of early cabbage from the Southern States are largely domestic and pointed type with Copenhagen Market and the Wakefield varieties predominating. Some savoy- and red-type cabbage is received. Midseason and early fall arrivals are mostly various varieties of domestic type; Danish type comprises the bulk of the late fall and winter supply.

Round domestic-type cabbage is preferred over the pointed type and generally sells for a premium of 10 to 25 cents a package. When the Danish type comes on this market in the fall it outsells the domestic type which practically disappears when the former becomes plentiful.

Early-crop cabbage arrives in various types of packages with the smaller sized crates increasing in popularity. Most of the receipts from the Western and Southwestern States are packed in western crates and half crates. The bulk of the receipts from Florida and South Carolina are packed in 1½-bushel hampers, and many receipts from Virginia and Maryland are in half-barrel crates. Some late-crop

cabbage from western and central New York arrives in bulk, but most of the receipts are packed in sacks, many of which are stamped with the trade-mark of the shipper. During 1936 the 50-pound sack was used almost exclusively for late-crop cabbage and no doubt it will continue to remain the leading package for late stock.

Most of the early new-crop cabbage is distributed by receivers by sales to jobbers and large retail buyers, including chain stores. Sales of the old crop are made in the same way except that some stock is sold in large lots direct to sauerkraut manufacturers. The increase in truck shipments direct from shipping points to the smaller markets has restricted the movement of cabbage from this city to nearby markets.

PHILADELPHIA

Unload reports show that Philadelphia used more than 3,500 cars of cabbage in 1936; about 2,000 cars arrived by rail and the remainder by motortruck. Stocks of early cabbage are principally supplied by Florida, South Carolina, and Texas. During the summer the market is supplied with trucked-in stock mainly from New Jersey, Pennsylvania, and Virginia. New York furnishes most of the late supply from October to March but considerable is trucked in during the fall and early winter months by producers and truckers from Pennsylvania and New Jersey.

Practically all of the rail receipts of packaged cabbage and a small part of the bulk shipments are handled at the produce terminal of the Pennsylvania Railroad with the exception of supplies for chain stores which usually are unloaded from sidings adjacent to their warehouses. Most of the bulk shipments are unloaded at a small carlot yard at Second and Master Streets and are sold principally to sauerkraut manufacturers. Truck receipts including both packaged and bulk stock are chiefly handled by dealers on the Dock and Callowhill Street markets.

New pointed and domestic-type cabbage from Florida and South Carolina arrive mostly in 1½-bushel hampers while the bulk of the Texas domestic-type stock arrives in western crates and half crates. Late Danish-type cabbage from New York is either shipped in bulk or in 50-pound sacks. There seems to be no marked preference as to type of cabbage or as to containers used.

Methods of obtaining supplies vary according to the volume of supplies and condition of the market. Most dealers prefer to handle cabbage on a consignment or joint-account basis. They may buy f. o. b. shipping point if the demand seems favorable and supplies are scarce.

Because of its perishability most of the southern cabbage received at the produce terminal is sold on sample, dealers preferring to leave it in iced cars until delivery is made. Late cabbage is unloaded and offered for sale on the terminal platform. Sales are mostly in less-than-carload lots although there is some carlot trading among local dealers. There is practically no redistribution except in the normal Philadelphia trade territory.

The principal recent change in local cabbage marketing is the marked increase in motortruck receipts from New York State. In 1932, only 13 carloads arrived from New York by truck; records for the three following years are not available but in 1936 the number of truck

receipts from New York had increased to the equivalent of 419 carloads. The volume of truck receipts from producing areas in Pennsylvania, Florida, South Carolina, and Virginia has also increased materially the last few years.

PITTSBURGH

The principal sources of supply for early cabbage in the Pittsburgh market are Texas, South Carolina, and Florida. Midseason and late cabbage is largely furnished by Pennsylvania, New York, and Ohio. Most of the receipts arrive by rail except those from Pennsylvania and Ohio—the bulk of these arrive by motortruck. Rail receipts totaled 804 cars during 1936. The equivalent of 74 cars was reported as received by motortruck but all truck receipts are not recorded.

As distinguished from many other large cities, both the wholesale and retail cabbage market here is concentrated in one district along the Allegheny River between Sixteenth and Twenty-first Streets. The unloading and sales platform is located between these streets and all cabbage in packages arriving by rail is unloaded on the sales platform. Bulk stock is unloaded from the cars and delivered directly to the purchasers.

Most of the early and midseason receipts are of the round domestic type although there are occasional receipts of pointed type from the Southeastern States. During the fall and winter months the Danish type predominates and usually sells for a premium over the domestic type.

Rail receipts of packaged cabbage are almost exclusively in 50-pound sacks. Cabbage received in bulk is sold by the hundred pounds or is packed in bushel baskets or 50-pound sacks and sold by the package.

Most of the receivers buy on a delivered basis, only a small quantity being received on consignment. The usual commission charged for selling consigned stock is 7 percent, with an occasional shipment being handled on a 5-percent basis. About half of the supplies are bought through local brokers and the remaining directly from the shippers.

Cabbage is sold on the local market in lots ranging from one package to any number, there being no jobbing market, strictly speaking. Chain stores do not depend on the local market for their supplies; most of their purchases are made directly from shippers in producing districts. Carlot sales to adjacent markets are rare. Most outside dealers either receive carlots direct from the shipper or buy their supplies in small lots at the local market and truck them to their place of business.

Truck receipts play an important part in the marketing of midseason and late-crop cabbage. Supplies arriving from New York, Pennsylvania, and Ohio are usually packed in 50-pound sacks and are handled almost entirely on a commission basis. The usual rate is 10 percent. Truck receipts are handled exclusively through the produce stores in the market district and are never sold over the sales platform.

CINCINNATI

New York State is the principal source for late supplies on the Cincinnati market from October to March. Texas, Florida, and Mississippi supply most of the shipments of early cabbage from January to May. Tennessee furnishes some of the early midseason sup-

plies but enough local-grown cabbage is available to supply most of the demand from July to September. Records of receipts by motor-truck are not available but rail unloads totaled 711 cars in 1936, not counting those which arrived in mixed cars from some of the Southern States.

The bulk of the early and midseason supplies received on this market is of round domestic type supplemented by some pointed type from southern producing areas. When the Danish type becomes available in the fall it is preferred to the domestic-type varieties. Local sauerkraut manufacturers often obtain domestic-type stocks at this time at a discount over the Danish type.

A noteworthy change in marketing methods has taken place during the last few years in regard to containers. Formerly most of the late cabbage arrived in bulk loads and was unloaded on trucks and sold on a bulk-per-ton basis. This type of marketing has now practically disappeared and almost all of the late stock arrives in 50-pound bags and is sold by the package. Smaller type packages from all sections have met with trade approval here. Much of the southern stock now arrives in western crates and half crates and the larger crates formerly used have practically disappeared.

The main distributing center for cabbage and other vegetables is at the railroad yards adjacent to Second and Plum Streets. Receivers purchase an estimated one-half of their cabbage supplies direct from shippers. Of the remainder about half is handled on a joint-account basis and half on a consignment basis. Sales are generally made from the car door or from dealers' stores. Most of the larger cabbage dealers also handle a full line of fruits and vegetables.

Truck receipts are important during the summer months when practically all supplies are trucked in from nearby producing areas.

CLEVELAND

Normally about 18 States furnish cabbage to the Cleveland market during a year. Texas is the largest single source of supply, 251 cars of the 508 received in 1936, originating in this State. Other important States supplying this market with early cabbage during the spring months are Mississippi, Florida, Louisiana, and Tennessee. Midseason and late cabbage is supplied from July through December principally from Ohio, Pennsylvania, and New York. Ohio- and Pennsylvania-grown stock is practically all trucked in as is a considerable part of the New York receipts. Rail unloads for the last 6 months of 1936 totaled only 50 cars.

The Northern Ohio Food Terminal area, including East Fortieth Street south of Woodland Avenue, is the principal wholesale and jobbing market for cabbage.

Cleveland consumers show partiality for round- and flat-headed varieties. Pointed type, some of which is shipped in from southern producing areas is heavily discounted as a rule. Therefore, the bulk of the early receipts is of the round- and flat-domestic type. Midseason supplies grown locally are largely domestic, round and flat types. The late supplies for late fall and winter are practically all Danish type. Most of the stock received from southern producing areas is packed in western crates or half crates although some cabbage from Florida, Georgia, and South Carolina comes in 1½-bushel hampers. New York- and Pennsylvania-grown stock usually arrives

in 50-pound sacks while local-grown stock is handled both in 24-quart baskets and 50-pound sacks.

There is very little price differential between receipts of cabbage of comparable quality and size in different producing areas.

Many dealers buy their supplies f. o. b. shipping point directly from shippers or through local brokers. When supplies are plentiful considerable quantities of cabbage are sent here for handling on consignment. The usual commission charge is 10 percent. Three chain stores probably handle around 40 percent of the city's supplies. They usually buy direct from shippers and growers.

Carlot receipts are broken down into small lots for distribution to jobbers and retailers. There is practically no redistribution of cabbage in carlots. During the first 6 months of the year, however, considerable quantities are sold for distribution to the smaller cities within a radius of 75 miles. During the last 6 months of the year there is practically no redistribution as these smaller cities are furnished with home-grown cabbage by growers and truckers.

DETROIT

Cabbage marketing in Detroit can be divided into two distinct seasons—the local, or late-crop season, extending from late June through December, and the early- and intermediate-crop season covering the first 6 months of the year when practically all cabbage supplies are brought in by rail.

During the local season the market is supplied almost entirely from stock grown within a radius of 50 to 75 miles. It is trucked in by the growers and sold directly to jobbers, chain stores, or independent retailers, or sold through the Municipal Farmers' Market. Domestic-type cabbage of the Copenhagen Market variety is preferred during the summer and early fall after which the Danish type, either Danish Ballhead or Hollander, is preferred. During some seasons the Michigan supply of the Danish type is supplemented with receipts from New York.

Texas is the main source of supply for early cabbage from December to May but several other Southern States including Florida and Mississippi send some shipments to Detroit. Tennessee is the principal source of supply during June. Carlot unload reports show that 676 cars of cabbage were unloaded here in 1936.

The principal carlot receivers are located at the Detroit Union Produce Terminal at Fort and Green Streets. The Central Terminal, a much smaller wholesale market is located at the foot of Twelfth Street. Most of the jobbers and the municipal farmers' markets are located in the Eastern Market at Vernor Highway and Market Street, and the Western Market at Eighteenth and Michigan Avenue. A third minor municipal farmers' market is situated at Ferry and Chene Streets.

A large part of the receipts from southern producing areas is packed in western crates and half crates as these containers are preferred by the dealers. Florida and South Carolina receipts mostly arrive in 1½-bushel hampers. Domestic round-type cabbage comprises most of the receipts from the Southern States. The pointed type is usually discounted 10 to 25 cents a package over other types on this market. Texas cabbage usually commands a little premium over stock from other sections. If quality and pack are comparable there is little price differential between stock from different producing sections.

Probably more than half the cabbage shipped here is bought on an f. o. b. shipping-point basis, either through local brokers or buyers' representatives at shipping points. During most seasons considerable stock is handled on a commission basis at the usual rate of 7 percent.

Carlot receivers usually sell by sample on the terminal floor, to jobbers or large retail buyers in lots from 5 to 50 or more packages. The tendency toward smaller units of sale has gained during the past few years. Buyers take delivery at the car doors. Jobbers sales to retailers may consist of any quantity from a portion of a package to several packages. Chain stores procure most of their stocks in carlots either through their own shipping affiliates or on track in Detroit from dealers and brokers. There is practically no carlot redistribution of cabbage. Redistribution by motortruck consists of purchases by wholesalers and jobbers from towns within a radius of 100 or 150 miles who come to buy mixed loads of fruits and vegetables.

CHICAGO

Consumers in Chicago use nearly 2,500 carloads of cabbage annually, which is supplied from producing areas in about 24 States. Texas sends most of the early supplies from January through March which in 1936 amounted to more than a fourth of the total carlot unloads. Florida ships some cabbage to Chicago during this time. From April through June most of the supplies are furnished by Mississippi, California, Tennessee, and Louisiana. Midseason and early fall stocks come largely from Illinois, Wisconsin, and Michigan. Late fall and early winter shipments largely originate in New York and Wisconsin.

Most of the carlot receivers and jobbers are located on the South Water Market, although some dealers who handle cabbage operate from the Randolph Street and South State Street Markets.

Truck receipts from Illinois, Wisconsin, and Michigan are important from July to November when practically all of the supplies sold on this market from these States arrive by motortruck. After November 1 truck receipts decline rapidly as the Illinois crop is practically all harvested by this time and the Wisconsin movement is generally concentrated in the northern section of the State, which makes too long a haul for the profitable trucking of cabbage to market. After November 15, truck receipts are practically negligible until June when the truck movement begins again from Tennessee, Missouri, and southern Illinois.

Most of the receipts from Texas, California, and Tennessee are of the domestic round type as is the early crop from Illinois, Wisconsin, and Michigan. Late cabbage from these three States and New York is practically all Danish type. Receipts from Florida, South Carolina, and other southeastern points are mostly pointed type. Limited quantities of red and savoy types are received throughout the year from various sections. Domestic round-type and Danish-type cabbage are generally preferred on this market. There is a fair demand for a certain quantity of pointed-type cabbage which will sell on practically the same basis as round type if offerings are not too liberal. If supplies are too heavy it may be discounted 25 to 40 cents per hundredweight. The demand for red and savoy types is limited and the price at which they will sell depends upon the available supplies, the demand,

and movement. There is practically no price differential made for cabbage of comparable quality and type from different States.

A large part of the cabbage received from Texas and California is packed in western crates or half crates. Use of the half crate predominates when prices are high while the larger package is used more extensively when prices are low. Most of the shipments from Louisiana, Mississippi, and Alabama now arrive in western crates and the use of the barrel crate has been discontinued. Most of the receipts from Tennessee arrive in pony crates weighing 60 to 65 pounds and most of those from Illinois and Wisconsin in unlidded crates similar to the western crate holding about 75 pounds. New York cabbage is received in 50- and 100-pound sacks. During the latter part of the Wisconsin movement, some stock received in bulk is sacked locally in 100-pound bags.

Under normal conditions local dealers generally buy their cabbage requirements on an f. o. b. shipping-point basis. If supplies are scarce, the market active, and prices high many purchases are made on a cash-track basis. During some seasons when supplies are liberal and the movement is slow, probably most of the receipts are handled on a consignment basis. The usual commission rate is 7 to 10 percent where the receiver breaks the car to sell in wholesale lots through his store. The usual brokerage charge for handling carload lots is $1 per ton.

Several carlot operators on this market are active in Wisconsin during the shipping season. During seasons when supplies are light these dealers become active operators in cabbage from New York for carlot distribution throughout the central western markets. This cabbage may be sold for direct delivery from shipping point or Chicago diversion. Local brokers sell practically all of their offerings on an f. o. b. shipping-point basis, with the buyer paying all freight and transportation costs. Even cars of cabbage sold on track, to local dealers are sold on an f. o. b. shipping-point basis instead of a delivered basis. Most other commodities sold in carload quantities on this market are sold on a delivered track basis, and there is apparently no reason for the different method of handling cabbage except custom.

The chain stores buy their supplies direct from shipping points through their field representatives or in carload quantities on track, Chicago, depending upon market conditions and other factors. Occasionally if their supplies run short chain stores may make limited purchases on the jobbing market.

A number of receivers and jobbers on this market handle cabbage along with other commodities. Many of the receivers obtain their supplies direct from producing districts and will break cars upon arrival for wholesale distribution through their stores.

Chicago has become an important distributing point for cabbage from Wisconsin. Many local operators station their representatives at shipping points in Wisconsin during the season to buy cabbage for cash direct from the farmers in wagon or truck lots for immediate loading into cars or storage into warehouses for later marketing. Some Texas cabbage is sold in carload lots for shipment to other markets in the Central West and occasionally to eastern points.

KANSAS CITY

Normally about 15 States supply cabbage to the Kansas City markets but most of the supplies of new stock during the late winter and spring months originate in Texas and Louisiana, while Wisconsin and Minnesota furnish the bulk of the supplies during the fall and early winter months. Colorado and Iowa ship some supplies to this market during the late summer and early fall months. Most of the midseason supplies are grown nearby in Kansas and Missouri. Consumers in Kansas City normally use about 700 cars of cabbage annually.

The greater part of the winter cabbage is Danish type, but nearly all of the spring, summer, and fall receipts are domestic round type. An occasional shipment of pointed-type cabbage arrives from Louisiana but this variety is not popular here. A limited trade uses small quantities of red and savoy cabbage. Most of the stock from the southern producing areas is packed in western crates; the bulk of the northern-grown late stock arrives in bulk.

Practically all of the home-grown cabbage arriving during June and July is brought in by motortruck. Some quantities are trucked in from Colorado, Iowa, and Minnesota during August and September. Little early southern or northern late cabbage is transported by motortruck. About 70 cars or about 10 percent of the total receipts arrived on this market by truck in 1936.

Under normal conditions most of the cabbage in carlots is bought outright by the dealers either directly from shippers or through local brokers, for resale in jobbing or wholesale lots. The usual brokerage fee is $15 per car. In seasons when supplies are liberal and prices are low many cars are consigned by shippers to local dealers who charge 10-percent commission for handling in less than carlots. Many cars are billed to brokers who divert them to other points in the surrounding territory. Considerable tonnage is distributed by motortruck to other points in Kansas City trade territory which includes western Missouri, eastern Kansas, northeastern Oklahoma, and northwestern Arkansas.

ST. LOUIS

Cabbage is supplied to the St. Louis market from about 20 States. Texas is the principal State supplying early cabbage to this market from December to May. Louisiana and Mississippi supplement the supplies from April to June. The Tennessee crop dominates the market in May and June. From late June through August the market is supplied with home-grown cabbage and with that grown in southern Illinois, Missouri, and Iowa. The late supply is furnished principally by Wisconsin and New York. Shipments from Wisconsin begin to arrive in late August and from New York in October. Carlot unloads totaled 1,334 in 1936. In addition, it was estimated that 39 carload equivalents were received by motortruck.

The wholesale cabbage dealers are located in the so-called commission row which extends a distance of about seven blocks along Third and Fourth Streets. This district is adjacent or near most of the important railroad freight yards and team tracks.

Early cabbage received from Texas and other southern producing areas is mostly domestic type, although there are some receipts of pointed type. Local-grown stock and that arriving from nearby States is practically all domestic round-type. The early shipments

from Wisconsin are of this type, with Copenhagen Market and Glory of Enkhuizen varieties predominating. Later shipments from Wisconsin and New York are nearly all Danish type of Wisconsin Hollander and Danish Ballhead varieties. In the fall, when Danish and domestic types are offered for sale at the same time, the Danish type sells for considerably higher prices than the domestic type. When the new cabbage arrives on the market from Texas, it usually outsells the storage cabbage, sometimes as much as $10 per ton.

A large part of the supply from northern producing areas arrives in bulk. It is then sacked locally before being distributed to the trade. The number of receipts from the Northern States packed in 50-pound sacks is increasing for this is proving to be a popular container with the trade. Most of the receipts from the Southern States arrive in western crates and half crates but there are some arrivals in bulk. Tennessee cabbage is mainly packed in the pony crate.

Most of the cabbage is bought on an f. o. b. shipping-point basis. When bought through local brokers it is usually purchased on a delivered basis. Consignment sales are relatively unimportant. Commission rates vary from 7 to 10 percent plus drayage charges. Regular brokerage fees are $15 per car for northern cabbage and $20 to $25 for southern and western crated stock.

All the regular channels of distribution are utilized by the local dealers. Most of the lots jobbed out consist of from 20 to 50 packages. Some l. c. l. sales are made to chain stores. There is little redistribution of cabbage in carload lots from St. Louis.

Truck receipts are becoming more important each year. All of the home-grown cabbage and most of the receipts from southern Illinois arrive by motortruck. Truck receipts also include stock from Tennessee, Iowa, Michigan, and Wisconsin. A number of the larger dealers send out considerable cabbage to nearby towns and cities by motortruck.

NEW ORLEANS

During the spring and early summer months New Orleans obtains the bulk of its cabbage supplies from nearby producing districts in Louisiana, although in some years these local supplies are supplemented by shipments from Texas. Most of the late-summer supplies are obtained from Virginia and during the fall and early winter receipts are principally from Wisconsin, New York, and Michigan.

Most of the out-of-State receipts arrive by rail, but practically all of the cabbage produced in Louisiana arrives by motortruck. Records of truck receipts are not available; carlot receipts totaled 130 cars in 1936.

Rail receipts are handled through the wholesale market located on Poydras Street and sales are made from the tracks of the Southern Pacific, the Louisville & Nashville, and the Illinois Central Railroads. Most of the local-grown stock is sold from trucks stationed in the French market.

Receipts of northern cabbage are principally Danish type while most of the southern-grown stock is domestic type. Northern stock arrives in bulk and in 50- and 100-pound sacks. Local-grown truck receipts are usually in bulk.

Carlot purchases by local dealers are mostly made on a delivered basis and considerable quantities are handled on consignment. The

usual brokerage charge is $15 per car and commission rates on consignments range from 8 to 15 percent, 10 percent being most common. Sales are practically all in less-than-carlots to jobbers and retailers. Sales from carlot receipts are usually made on a hundredweight basis while Louisiana-grown stock is generally sold by the dozen or hundred heads, rather than on a weight basis.

ATLANTA

Unlike most cities, a record of the unloads of cabbage by rail and the receipts by motortruck in Atlanta, does not present a correct picture of cabbage consumption in the city. In 1936 more than 90 percent of the 1,200 cars received were brought in by motortruck and it is estimated that from 60 to 70 percent of the truck receipts are retrucked to other towns and cities in Georgia and nearby States. More cabbage is probably redistributed by motortruck from Atlanta than from any other city in the United States.

New York is the only State from which rail receipts are important. Supplies of Danish-type cabbage from this source are brought in during the winter months. At this time early cabbage from Florida is trucked in and receipts from this State continue into May. Truck receipts from Georgia start in April and are heaviest in May and June, but considerable volume from this source is brought in until December. North Carolina is the principal source of trucked-in supplies during the fall months and South Carolina usually furnishes a considerable volume in November and December.

Rail receipts are handled through the carlot jobbing market known as Produce Row, located between the Hunter Street and the Atlanta Joint Terminal team tracks. Supplies for two chain stores are received by rail and by truck at the companies' warehouses. Most of the remaining truck receipts arrive at two truck markets, the Washington Street or Jones Market, and the Farmers' State Market.

Receipts from New York State are practically all Danish type. Supplies from the Southern States consist of domestic type of both round- and flat-headed varieties and pointed type, either Charleston or Early Jersey Wakefield. If quality is comparable, there is practically no price discrimination as between types or sources of shipments, although Danish type often sells at a higher price than stock grown nearby owing to the greater freight and handling charges.

New York cabbage usually arrives in bulk or in 50- or 100-pound sacks. The dealers prefer the sacked stock as the dealer must pay for sacking bulk loads before the cabbage is delivered to the stores. Florida and Texas cabbage arrives in bulk, in sacks, and in western crates. Practically all trucked-in cabbage is brought in in bulk. When truckers sell to chain stores, they usually pack the product in 50-pound sacks before delivering it to the company's warehouse. A small quantity of cabbage from Florida and South Carolina is packed in 1½-bushel hampers but this package is not popular with dealers.

Practically all rail shipments are purchased f. o. b. shipping point through a local broker. An occasional car is bought delivered but few are handled on commission. When so handled the commission charge is usually 15 percent of gross sales if the cabbage has to be retrimmed, sacked, and delivered to outlying stores in small lots as is

often the case. Brokerage charges for New York cabbage are $10 a car, and the usual brokerage for cars from Florida, Texas, and other States is $15 per car. Trucked-in cabbage is sold by the load or on a hundredweight basis. Most of the cabbage is bought by merchant truckmen who haul to Atlanta and there resell to retailers, jobbers, and truckers. Probably not more than 15 to 25 percent of the trucked-in cabbage is hauled by the growers. Often truckers haul in cabbage for local jobbers, the charge from western North Carolina being 25 to 40 cents per hundredweight. When a trucker sells his entire load to one purchaser he usually makes an allowance of from 10 to 40 cents per hundredweight less than his asking price for small lots.

Cabbage is distributed by several methods. Cabbage from New York is sold by the shipper through an Atlanta broker, to a local jobber, who in turn sells most of the stock in small lots to retailers. Little cabbage is jobbed to out-of-town truckers. The local chain stores buy a small percentage of their carlot requirements direct and, at times, buy some supplies from local jobbers. The chain stores probably handle from 25 to 35 percent of all cabbage arriving here, but most of their purchases consist of truckloads bought directly from local jobbers or merchant truckmen, who regularly supply them. Truck receipts are heaviest from March to November and probably 60 to 70 percent is trucked out to cities and towns in Georgia or nearby States. Purchases are sometimes made by out-of-town retail store owners, but the bulk of the stock hauled out is bought by truckers for cash, who haul it to nearby points where they hope to sell for a small profit.

LOS ANGELES

The Los Angeles market normally uses around 1,500 to 1,600 cars of cabbage a year, of which about 3 percent is received by rail and the remainder by motortruck. About 90 percent of the total supply is produced within a radius of 35 miles in Los Angeles and Orange Counties. In occasional periods of temporary shortages in local supplies a few shipments may arrive from Utah in the fall and Imperial Valley during the winter. Arrivals come from other coast districts of California irregularly at various times during the year.

Most of the cabbage produced nearby is of the Cannonball variety; perhaps 10 percent is of the Winningstadt variety. Any shipments from the San Francisco area are nearly all Flat Dutch while those from Utah are usually Danish Ballhead. About 2 percent of the total receipts are red type and less than 1 percent is savoy type.

All cabbage is offered for sale on this market in western crates. That produced in Los Angeles and Orange Counties is packed in second-hand crates without lids, and that from other sections of the State is usually packed in new lidded containers. Cabbage from Utah usually arrives in bulk but is packed in unlidded crates before it is offered for sale.

Utah cabbage is generally bought f. o. b. shipping point; that from the San Francisco producing area is partly purchased f. o. b. and partly consigned. A certain quantity is handled on consignment by produce houses, but the great bulk of receipts is handled by trucker-commission men who furnish crates to the growers, pick up their shipments at the farm, and haul them to a stall, which they rent by the month in one of the two principal wholesale markets. Commission charges are 10

or 12 percent, depending upon the size and desirability of the account. In addition, a charge of 10 cents per crate is assessed for hauling from points in Los Angeles and Orange Counties. Prices are frequently so low that commission houses refuse to handle cabbage, and trucker-commission men derive their chief income from the hauling charge. It is customary for buyers of local-grown cabbage to return the crates to the seller.

The great majority of local cabbage growers and trucker-commission men are Japanese.

Sales are made in a majority of cases direct to retail stores and retail markets, but a considerable proportion are made to jobbers. Chain stores buy most of their supplies direct from growers, paying at the current market price. They also purchase supplies on the wholesale markets. Purchases by jobbers or chain stores are delivered by the seller, while other retailers generally pick up their purchases.

Distribution is chiefly limited to the metropolitan area, although truckers who make regular trips to southern-California towns frequently include cabbage in their loads. A large number of cars of mixed vegetables are loaded in Los Angeles for eastern and southern markets and at certain times of the year these contain cabbage. Shippers of mixed cars of produce buy some of their requirements in the local market, but purchase most of their supplies direct from growers.

SAN FRANCISCO

Practically the entire supply of cabbage for the San Francisco market is grown on nearby farms, chiefly in the vicinity of Colma and southward along the peninsula upon which the city is located.

Receipts are almost entirely by motortruck in second-hand western crates, the customary unit of sale.

The two most popular varieties handled are Flat Dutch and Cannonball. There is very little demand for pointed-type cabbage except in early spring when moderate supplies of Early Jersey Wakefield appear on the market. Somewhat higher prices are realized for the pointed type during this period. There is little demand on this market for savoy and red-type cabbage.

Most of the local sales of cabbage are made by an association of producers in the Colombo Market, a farmers' market located at Davis Street and Pacific Avenue. Other wholesale facilities are available in the Washington Street Market nearby. Relatively light supplies are consigned to dealers on the Washington Street Market. Commission charges are usually about 15 percent. Chain stores buy the bulk of their supplies direct from the growers, delivered to their warehouses. Jobbing sales and carlot redistribution are practically nonexistent. Relatively light shipments are made by motortruck to nearby consuming centers which draw on San Francisco for supplies, usually in mixed loads with other kinds of produce. San Francisco is an important distributing center for Navy and ships' stores and to State and Federal institutions in and near the city.

SEATTLE

Seattle's supply of cabbage comes mostly from local growing sections. The Spokane, Wash., district furnishes some late cabbage during the winter and occasional shipments originate in Idaho and

Oregon. California is the principal source of supply during the late winter and spring. Rail receipts amounted to 160 cars in 1936, of which 139 originated in California.

Cabbage produced locally is all brought in by truck as is most of that raised in eastern Washington and Oregon. California receipts come by rail. It is estimated that about 60 percent of the total receipts arrive by motortruck.

Wholesale and jobbing markets are centrally located near the waterfront on Western Avenue and at King Street.

Consumers have a decided preference for round-headed varieties. Danish Ballhead is the principal late variety offered for sale. Other important varieties include Cannonball, Golden Acre, and Copenhagen Market.

Cabbage is marketed almost exclusively in western crates. It is sold by the crate or by the pound or hundredweight. That from the Spokane district usually brings a premium over that from other districts because of its excellent storage qualities.

Cabbage produced locally is generally trucked directly to wholesalers' establishments and either sold for cash or left to be sold on consignment. The usual commission on such consignments is 15 percent. Carlots are usually received by three or four brokers or distributors who break up the cars to the wholesaler. These purchases are generally f. o. b. shipping point or are handled by the broker for the shippers. A few cars are handled on a brokerage basis for $25 per car but the usual practice is to charge a commission of 5 to 7 percent.

Wholesalers sell to retailers in small lots. A delivery charge is sometimes made but usually delivery is included in the selling price. The chain stores are important retail distributors. The large Pike Street retail market centrally located in downtown Seattle disposes of a large quantity of cabbage direct to consumers.

Redistribution from Seattle is limited to towns mostly within a radius of 100 miles and to l. c. l. shipments by boat to Alaska and islands of the Pacific.

PRICES IN PRODUCING DISTRICTS

Consumers have a tendency to use about the same quantity of cabbage each year. The demand is relatively inelastic and in years of short crops there is likely to be more than a proportionate increase in price. The converse is also true; in years of surplus production there is usually more than a proportionate drop in price. During the period 1927-36, total production of cabbage for market in the United States increased from the previous year 8 percent in 1929, 17 in 1931, and 67 in 1934, and the average farm price for all cabbage for market decreased from the previous year 15 percent in 1929, 51 in 1931, and 51 in 1934 (tables 2 and 19). In the remaining years of the period total production of cabbage for market decreased from the previous year and a 19-percent decrease in 1928 resulted in an average farm price 49 percent greater than the previous year; a 9-percent decrease in 1930 in a 13-percent increase in average price; a 6-percent decrease in 1932 in a 20-percent increase in average price; a 14-percent decrease in 1933 in a 39-percent increase in average price; and a 21-percent decrease in 1935 in a 51-percent increase in

average price. Although production was practically the same in 1936 as in 1935 there was a 53-percent increase in average price. In all of the years during the period, except 1934, the percentage change in price was greater than the percentage change of production from the preceding year.

TABLE 19.—*Average seasonal farm price per ton of cabbage for market by crops and States, 1927–36* [1]

Crop and State	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936 [2]	10-year average
Fall	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*
South Carolina	22.70	46.50	68.50	30.00	41.50	18.00	10.00	30.00	20.00	28.00	. .
Virginia, Norfolk	15.00	71.10	50.00	35.00	43.50	20.00	10.00	33.50	25.00	30.00	. . .
Weighted average	21.36	53.33	63.50	31.89	41.76	16.64	11.11	30.13	20.19	28.11	32.19
Early:											
California	18.00	31.00	21.00	28.00	15.30	21.00	10.10	13.00	16.00	14.40	. .
Florida	31.20	36.00	33.00	63.20	22.40	32.00	16.00	16.00	50.00	17.00	. . . .
Louisiana	21.80	23.10	22.10	35.80	16.60	20.50	21.80	10.00	23.00	18.50	. . . .
Texas	9.80	19.20	13.00	16.40	6.00	25.80	8.30	7.00	10.40	10.50	. . . .
Weighted average	14.11	22.07	18.20	46.24	10.20	25.80	13.72	9.80	26.81	12.51	20.03
Second early:											
Alabama	19.60	62.80	20.00	45.00	14.00	48.50	25.00	5.00	15.00	10.00	. . . . .
Georgia	20.00	30.60	20.00	35.00	15.00	52.00	21.00	10.00	38.00	12.00	. . . . .
Mississippi	44.80	45.50	21.00	37.00	13.50	50.00	32.50	6.10	22.50	10.20	. . . . .
North Carolina	50.80	51.00	20.00	44.00	14.00	30.00	26.00	10.00	26.00	16.00	. . . . .
South Carolina	46.30	48.00	31.60	42.50	15.40	34.00	24.00	16.00	50.00	15.00	. . . . .
Virginia	60.00	33.80	25.10	28.50	19.00	40.00	24.80	11.50	16.40	15.00	. . . . .
Eastern Shore	55.80	27.80	20.00	25.00	18.80	40.00	26.00	12.50	17.00	15.00	. . . .
Norfolk	63.00	38.00	30.00	30.00	19.00	40.00	23.50	10.00	15.00	15.00	. . . .
Weighted average	46.88	46.70	25.01	37.95	15.53	42.33	26.29	8.60	30.13	12.33	28.57
Fall to second early: Weighted average	22.24	29.20	30.00	43.08	12.47	29.41	17.58	9.00	27.78	12.89	22.55
Intermediate											
Arkansas	42.00	14.00	12.50	29.50	13.00	36.00	35.00	20.00	30.00	40.00	. .
Illinois	14.30	13.50	21.00	18.70	16.00	5.20	28.00	16.20	6.50	54.10	. .
Iowa	26.40	17.20	28.80	17.40	12.20	4.00	25.30	20.80	6.20	44.10	. .
Kentucky	43.10	15.00	30.00	31.00	20.00	35.00	30.00	22.00	13.00	46.00	
Maryland	52.50	22.40	20.00	36.40	14.70	35.20	24.80	12.60	12.70	42.30	
Missouri	44.20	11.20	16.80	20.80	17.50	28.00	30.00	26.00	18.00	50.00	
New Jersey	29.20	30.00	28.00	22.00	20.40	24.80	20.00	13.30	12.00	35.30	
New Mexico	46.20	20.00	22.00	20.00	15.00	17.00	25.00	18.00	10.40	45.00	
New York, Long Island	18.40	23.00	26.20	18.50	18.00	16.00	22.00	20.00	20.00	33.80	
North Carolina		18.00	28.00	16.50	10.00	12.50	22.00	13.50	13.70	25.30	
Ohio, southeast	38.20	16.40	25.30	27.40	19.00	16.70	40.00	24.00	18.00	62.00	. .
Tennessee	30.00	14.80	21.00	31.80	18.30	40.10	33.80	14.40	19.00	33.60	. .
Virginia, southwest	17.30	17.50	36.80	18.00	10.10	12.70	21.80	13.40	12.80	28.00	. .
Washington	60.20	19.00	11.00	15.00	13.00	12.00	12.00	12.10	26.80	26.00	. . .
Weighted average	34.04	19.70	24.55	22.28	15.04	16.82	23.55	15.14	13.61	33.24	21.84
Late domestic:											
Colorado	13.40	11.10	20.90	10.50	21.00	8.20	20.10	22.30	7.30	43.20	. . . . .
Indiana	16.80	13.00	16.00	12.40	15.90	6.00	20.80	10.20	8.00	66.30	. . . . .
Michigan	11.60	11.50	11.30	9.00	6.50	4.00	21.00	6.80	8.30	34.30	. . . . .
Minnesota	8.60	10.00	10.50	11.10	15.20	5.00	16.60	13.70	7.80	24.20	. . . . .
New York	5.20	28.20	22.10	22.00	8.30	4.70	14.70	5.10	6.70	30.20	. . . .
Ohio	7.40	22.60	10.00	10.50	6.90	4.05	13.60	6.00	7.10	38.50	. . .
Oregon	18.40	30.80	18.10	15.00	12.50	8.00	13.50	12.60	10.50	25.50	. . . .
Pennsylvania	21.10	22.00	17.30	22.70	10.40	6.00	13.80	12.50	8.40	20.00	. . . .
Utah	12.00	15.40	16.80	4.90	10.40	2.10	13.10	10.40	8.90	19.40	. . . .
Wisconsin	9.00	11.30	14.60	8.20	8.10	3.50	17.80	10.20	4.90	22.60	. . . .
Weighted average	10.32	18.32	17.00	13.67	10.58	4.80	17.77	9.24	7.10	31.48	14.04

[1] Average price received by growers for crop-marketing season, except for late Danish type on which average is computed only to Dec. 1.

[2] Preliminary.

TABLE 19.—*Average seasonal farm price per ton of cabbage for market by crops and States, 1927–36*—Continued

Crop and State	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	10-year average
Late Danish:	*Dols.*	*Dols.*	*Dols.*	*Dols*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*
Colorado	14.30	14.40	19.50	8.10	13.00	4.00	15.00	17.50	7.50	30.00	
Indiana		18.50	19.00	18.00	12.90	4.50	21.00	9.00	0.00	25.00	
Michigan	12.60	19.20	21.70	14.20	8.90	3.50	23.00	7.00	9.00	22.50	
Minnesota	9.80	17.00	22.60	11.60	11.50	4.00	17.50	9.00	9.00	23.00	
New York	6.50	25.80	16.90	10.00	5.80	3.50	16.90	4.00	9.30	17.30	
Ohio	8.90	26.60	14.80	11.90	11.00	5.00	18.00	8.50	9.50	20.00	
Pennsylvania	10.00	20.10	20.00	10.80	8.00	6.00	16.00	9.00	9.30	18.50	
Wisconsin	9.00	19.70	17.30	6.40	9.80	3.00	17.00	7.00	8.00	18.00	
Weighted average	7.72	22.02	17.82	9.08	7.31	3.01	16.85	5.84	8.87	19.06	11.88
Late, total:											
Colorado	14.00	13.30	21.30	8.80	15.50	5.60	16.70	18.80	7.40	35.30	
Indiana	16.80	13.70	16.60	13.50	15.30	5.80	20.80	9.80	8.20	44.00	
Michigan	11.80	13.20	13.40	10.50	7.10	3.90	21.40	6.80	8.40	32.40	
Minnesota	9.40	15.30	19.70	12.50	12.60	4.60	17.10	10.40	8.60	23.50	
New York	6.10	26.20	17.60	10.90	6.20	3.60	16.60	4.20	8.50	18.00	
Ohio	8.13	24.60	11.80	11.10	8.20	4.60	15.40	7.20	7.70	34.20	
Oregon	18.40	30.80	18.10	15.00	12.50	8.90	13.50	12.00	10.50	25.50	
Pennsylvania	18.80	24.80	18.00	18.50	9.40	6.00	18.40	11.40	7.50	24.70	
Utah	12.90	15.40	16.80	4.90	16.40	2.10	13.10	10.40	8.90	19.40	
Wisconsin	9.00	16.80	17.10	6.80	9.10	3.20	17.40	8.00	6.50	20.50	
Weighted average	8.62	21.12	17.58	10.42	8.30	4.09	17.18	7.00	8.01	23.77	12.62
Weighted average United States	15.82	23.39	20.04	22.01	11.12	13.35	18.59	9.16	13.85	21.21	16.94

As the cabbage crop year extends from about November, when shipments of the fall crop begin, to April of the second following year, when the last of the storage crop is marketed, prices often fluctuate widely during this period and are largely dependent upon the visible supply at any one time. For example, if production of early cabbage in the Southern States is low and the supply of northern storage cabbage is not excessive, prices are likely to go to a high level during the spring. But, if there is a large surplus production of midseason and late cabbage, prices are likely to return to a low level during the remainder of the crop year. Therefore, to obtain a true picture of the reaction of prices to supply, the various seasonal crops must be considered more or less separately.

Prices for late-crop cabbage during the fall are largely influenced by the visible supply at that time (fig. 27). Prices are relatively high for small crops and low for large crops.

As is shown in table 20, an increase or decrease in production from the previous year usually results in a more than proportionate change in the farm price in the opposite direction. Considering the total of all the yearly seasonal crops this relationship was true in seven of the nine years. In 1934 the percent change in price was slightly less than the percent change in production. Such a relationship might be expected at this particular time, however, as there was a sharp upward trend in the general price level of commodities after the low level reached in 1932. In 1936 when total production was the same as the previous year the price increased 53 percent over the 1935 price which was probably due largely to the high prices received for the much reduced intermediate and late domestic crops.

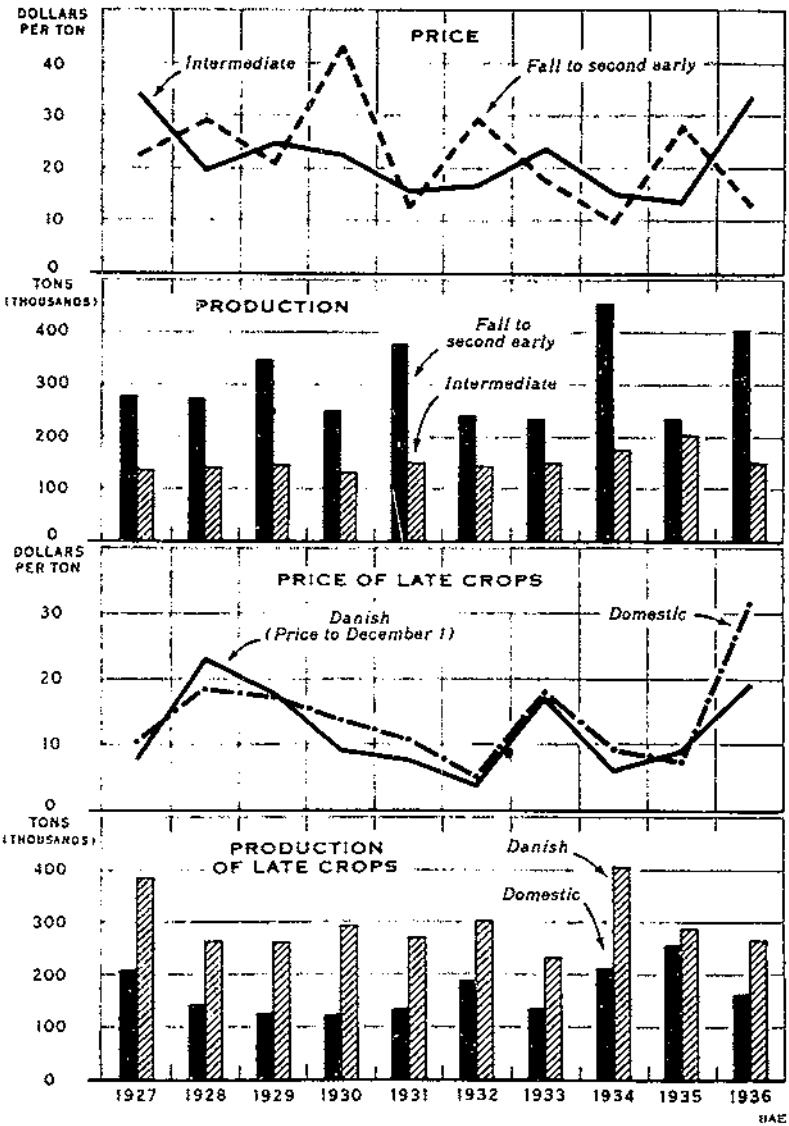

FIGURE 27.—PRODUCTION AND AVERAGE FARM PRICE OF FALL TO SECOND-EARLY, INTERMEDIATE, AND LATE (DANISH AND DOMESTIC) CABBAGE CROPS FOR MARKET, 1927-36

The price of cabbage is largely influenced by the supply of the various seasonal crops. Variations from the production of the previous year usually result in greater variations from the price received the previous year

During the 10-year period 1927–36 the production of late-crop cabbage for market, both Danish and domestic, averaged 465,710 tons and the average late-crop farm price for the season to December 1 was $12.62 per ton (tables 2 and 19). Even though production was not excessive during the years 1930, 1931, and 1932, prices for late-crop cabbage were extremely low. In fact the price level for late-crop cabbage started to decline in 1929 and the downward trend continued until the very short crop of 1933, when an average of $17.18 per ton was obtained. In 1934 the price dropped to an average of $7 per ton when the record crop of 617,600 tons was produced.

TABLE 20.—*Percentage increase or decrease in production and farm price from previous year of commercial cabbage for market in the United States by crops, 1928–36* [1]

Year	Fall to second-early		Intermediate		Late domestic		Late Danish		Total late		Total all crops	
	Production	Price	Production	Price	Production	Price	Production	Price	Production	Price	Production	Price
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*
1928	−2	+31	+3	−42	−32	+78	−32	+193	−32	+145	−19	+49
1929	+27	−26	+4	+24	−11	−7	(2)	−21	−4	−17	+8	−15
1930	−26	+106	−9	−9	−3	−20	+12	−40	+7	−41	−9	+13
1931	+61	−71	+14	−30	+9	−23	−8	−20	−3	−19	+17	−51
1932	−36	+136	−6	+6	+42	−54	+12	−51	+22	−51	−6	+20
1933	−3	−40	+5	+42	−30	+262	−24	+367	−26	+320	−14	+39
1934	+95	−43	+17	−36	+58	−48	+76	−65	+69	−59	+67	−51
1935	−49	+178	+16	−10	+22	−23	−29	−52	−12	+15	−21	+51
1936	+72	−54	−26	+141	−37	+343	−8	+115	−21	+196	(2)	+53

[1] Minus (−) signs before the figures denote the percentage decrease from the previous year; plus (+) signs denote the percentage increase from the previous year.
[2] No change

Farm prices for domestic-type cabbage averaged slightly higher than for Danish-type during 1927–36. The 10-year average farm price for domestic-type cabbage was $14.04 as compared with an average of $11.88 per ton for Danish type.

The supply is probably the most important factor influencing prices of cabbage; other factors include general quality of the crop, grade of individual packs, variety, condition, size of the heads, and the general price level. Methods of sale and proximity to market may also influence prices in producing areas.

Farm prices of fall, early, and second-early crops taken together averaged higher than those for the intermediate and late crops during the 10-year period 1927–36. The average farm price for the period was $22.55 as compared with $11.88 per ton for late Danish type with which it competes during the winter and early spring months (tables 2 and 19). In addition, the fluctuation in average prices from season to season was greater than for any other seasonal crop during this period (table 19 and fig. 27). Although the prices for fall to second-early crops are largely dependent upon the visible supply, the quantity of northern storage cabbage to be marketed after January 1, which, during 1933–36 amounted to from 4 to 7 percent of the total cabbage crop of the previous year (table 6), probably affects the opening prices for early southern cabbage to some extent.

As a general rule the percentage change in production of fall to second-early-crop cabbage from the previous year is accompanied by greater changes in price, as with the other seasonal crops. In 1934 and 1936, however, when excessively large crops were produced, the percentage change in price from the previous year was less than the percentage change in production.

Often the price fluctuations are very great between States in the early- and second-early-crop groups during a particular crop-marketing season. For example, in 1935 the average farm price for South Carolina cabbage, the bulk of which was shipped in April, was $56 per ton. During the same year the average farm price for Mississippi cabbage, most of which was shipped in May, was only $22.50 per ton. In both States average production was above the 1932–36 average. Probably the most important reason for the higher price in South Carolina was the fact that the South Carolina crop was ready for harvesting when Florida was the only State shipping any considerable volume at the time, whereas a month later several States, including Louisiana, North Carolina, Tennessee, and Virginia started shipping substantial quantities in competition with Mississippi.

The price of intermediate-crop cabbage, most of which is marketed in June and July averaged $21.84 per ton during 1927–36, or just slightly less than the average for fall to second-early. In general, prices show a fairly close relationship to production in the intermediate-crop States and the general price trend followed closely the trend in prices for Danish and domestic cabbage (tables 2 and 19, and fig. 27).

The farm value of commercial cabbage for market during 1927–36 ranged from $9,687,000 in 1931 to $19,732,000 in 1936 (table 21). Value from year to year fluctuated more than the supply since changes in supply are accompanied by relatively greater changes in price. Production for market in the United States for the 10-year period 1927–36 averaged 928,430 tons and the farm value averaged $14,959,700. The average annual variation in production in this period was slightly more than 11 percent while the average variation in farm value was over 21 percent.

TABLE 21.—*Farm value of commercial cabbage for market by crops and States, 1927–36*

Crop and State	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936[1]
	1,000 dollars	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*
Fall:										
South Carolina	39	112	199	338	376	38	44	216	208	252
Virginia, Norfolk	8	64	55	46	4	5	16	13	10	15
Total	47	176	254	384	380	43	60	229	218	267
Early:										
California	720	916	521	580	283	747	695	481	840	746
Florida	459	590	1,310	1,612	918	704	590	685	1,030	612
Louisiana	336	365	323	247	295	339	229	276	191	194
Texas	1,199	2,661	2,108	4,821	846	2,954	556	979	850	1,654
Total	2,714	4,534	4,262	7,260	2,342	4,744	2,070	2,421	3,517	3,206

[1] Preliminary.

TABLE 21.—*Farm value of commercial cabbage for market by crops and States, 1927–36*—Continued

Crop and State	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
	1,000 dollars	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*
Second early:										
Alabama	445	676	204	351	186	466	180	82	75	40
Georgia	40	18	144	228	84	182	173	114	304	134
Mississippi	475	673	462	474	209	505	494	195	620	374
North Carolina	108	184	92	189	49	66	125	56	164	90
South Carolina	870	1,137	860	1,318	333	653	454	134	1,176	270
Virginia	1,440	581	959	575	340	504	441	214	349	123
Eastern Shore	539	193	350	156	96	212	234	138	201	80
Norfolk	901	388	609	420	251	292	207	76	148	43
Total	3,438	3,269	2,721	3,135	1,210	2,280	1,867	797	2,604	1,057
Fall to second early:										
Total	6,109	7,979	7,237	10,779	3,932	7,073	3,907	3,447	6,420	4,510
Intermediate:										
Arkansas	67	17	8	21	20	40	32	10	27	16
Illinois	86	126	245	318	236	114	361	175	100	327
Iowa	174	200	210	167	71	33	109	83	47	97
Kentucky	56	21	60	31	38	49	45	35	26	32
Maryland	588	287	310	415	171	345	362	198	215	355
Missouri	323	58	108	144	108	230	220	101	146	140
New Jersey	818	696	602	517	441	421	775	550	812	1,120
New Mexico	278	70	110	68	38	66	70	38	42	170
New York, Long Island	386	304	388	250	288	274	359	380	332	683
North Carolina		80	210	92	126	112	308	341	520	1,020
Ohio, southeast	200	139	159	19	220	45	108	91	77	93
Tennessee	368	169	329	540	221	350	311	223	255	383
Virginia, southwest	208	381	590	133	179	124	322	250	226	330
Washington	891	224	140	239	217	179	130	143	134	216
Total	4,623	2,781	3,584	2,954	2,374	2,381	3,542	2,668	2,769	5,006
Late domestic:										
Colorado	151	124	194	138	197	95	265	196	130	721
Indiana	146	108	104	83	143	64	137	57	122	276
Michigan	120	126	151	105	86	118	363	200	253	755
Minnesota	67	52	44	76	50	51	123	81	60	128
New York	486	677	486	201	257	115	284	273	466	704
Ohio	39	70	53	44	60	37	68	187	112	520
Oregon	150	388	123	166	177	82	185	151	142	181
Pennsylvania	704	547	596	512	197	131	542	471	200	1,087
Utah	40	63	128	38	72	16	46	47	24	103
Wisconsin	225	424	247	211	167	140	357	287	214	653
Total	2,136	2,581	2,146	1,664	1,406	849	2,370	1,950	1,822	5,128
Late Danish:										
Colorado	317	337	445	241	257	72	400	392	244	747
Indiana		19	34	32	34	8	46	25	31	70
Michigan	38	58	72	67	42	30	115	76	78	122
Minnesota	170	274	305	117	92	66	200	120	120	152
New York	1,092	3,402	2,555	1,548	1,053	662	2,344	1,054	1,458	2,818
Ohio	48	80	50	38	42	16	63	54	49	86
Pennsylvania	91	314	260	134	115	76	240	194	209	472
Wisconsin	646	1,426	977	409	330	134	490	452	366	621
Total	2,082	5,970	4,698	2,670	1,975	1,064	3,898	2,376	2,504	5,088
Late, total:										
Colorado	468	461	639	379	454	167	665	588	374	1,468
Indiana	146	127	138	115	177	72	177	82	153	346
Michigan	167	180	223	172	128	148	478	276	331	877
Minnesota	237	326	349	193	142	117	323	210	180	280
New York	2,167	4,139	3,041	1,839	1,320	777	2,628	1,327	1,924	3,522
Ohio	87	150	103	82	102	53	131	241	161	606
Oregon	150	388	123	166	177	82	185	151	142	181
Pennsylvania	795	861	856	646	312	207	782	665	508	1,559
Utah	40	63	128	38	72	16	46	47	24	103
Wisconsin	801	1,850	1,244	710	497	274	847	739	580	1,274
Total	5,118	8,551	6,844	4,340	3,361	1,913	6,208	4,326	4,388	10,216
Total, United States	15,940	19,311	17,665	18,073	9,687	11,367	13,807	10,441	13,574	19,732

The farm value of the various seasonal crops has fluctuated widely during the last 10 years. The range was approximately as follows: Fall crop, $43,000 to $384,000; early crop, $2,070,000 to $7,260,000; second-early crop $797,000 to $3,438,000; intermediate crop, $2,374,000 to $5,006,000; late domestic crop $849,000 to $5,128,000; late Danish crop $1,064,000 to $5,970,000; total late crop $1,913,000 to $10,216,000.

Although the farm price is indicative of the average price received by growers for all cabbage, it does not show actual prices received for the various types at shipping points. Actual prices of cabbage of average quality packed in a certain way or on a bulk-per-ton, cash-to-grower basis have been reported by the market-news service at a few shipping points. The prices for cabbage packed in containers are on carlot f. o. b. shipping-point basis and are actual prices of the type specified and not average prices of all cabbage sold. It is customary in market-news reports to give the daily range of prices for cabbage of a certain type packed in a certain way and occasionally the price is shown at which most of the sales were made. In computing average prices for any period, such as a week or a month, it is the usual practice to use the midpoint of the daily range of prices because the daily average is not available. Period averages are then weighted by the carlot shipments during the period.

The monthly average carlot f. o. b. price per ton of sacked Danish-type cabbage and the bulk-per-ton cash price in truckloads to growers are shown by seasons from 1932–33 to 1936–37 for western and central New York shipping points in table 22. These prices naturally are higher than the average farm prices since costs of grading, packing, and loading have been added and only stock of good merchantable quality is considered in the f. o. b. quotation. The price level at which late cabbage starts to move is largely influenced by the size of the total late crop, including both domestic and Danish type. In years of large crops opening prices are usually low and the trend may be downward until about December after which the general trend of prices for the remainder of the stored Danish crop is influenced by the size of the next season's early crop which starts to arrive on the markets about this time (fig. 28).

If the early crop is small the price of Danish cabbage is likely to show an upward trend, sometimes sharply, as was the case in 1934–35 when the average price of Danish cabbage at western and central New York shipping points was $9.34 per ton in December but rose to an average of $47.76 per ton in March (table 22 and fig. 28). This sharp rise was no doubt due mostly to the very short early crop which was marketed at the same time. Relatively large early crops of cabbage usually cause a downward trend in the price of the previous year's storage crop of Danish cabbage during the winter and spring months as was the case in 1934, 1936, and 1937 (fig. 28).

TABLE 22.—*Prices of Danish-type cabbage at western and central New York shipping points, by months and seasons, 1932–33 to 1936–37* [1]

Season and month	Price per ton (carlots)	Price per ton, bulk (truckloads) [1]
	Dollars	*Dollars*
1932–33:		
September	10.39	5.12
October	8.02	3.56
November	6.78	2.94
December	6.07	4.08
January	7.25	3.42
February	8.86	4.78
March	11.63	[3] 5.71
April	[2] 10.50	.....
Weighted average	8.57	4.06
1933–34:		
September	24.29	[3] 15.50
October	24.27	17.06
November	32.48	24.45
December	44.22	36.71
January	43.93	[3] 40.71
February	39.19	.....
Weighted average	33.53	26.11
1934–35:		
September	13.84	6.65
October	9.07	3.83
November	7.83	3.62
December	9.34	4.70
January	10.70	5.55
1934–35—Continued:		
February	26.93	20.76
March	47.76	[3] 24.21
April	[3] 80.00	.....
Weighted average	14.76	8.06
1935–36:		
September	[3] 10.80	[3] 6.00
October	12.35	7.98
November	14.35	9.36
December	16.69	11.43
January	17.32	11.50
February	18.98	12.71
March	[3] 14.44	[3] 9.00
Weighted average	15.54	10.25
1936–37:		
September	[3] 27.14	[3] 17.50
October	19.40	13.44
November	19.52	13.79
December	20.64	15.25
January	16.66	11.82
February	16.88	11.02
March	[3] 17.10	.....
Weighted average	19.17	13.58

[1] Monthly averages are unweighted averages of daily market news prices. The seasonal weighted average is weighted by monthly carlot shipments.
[2] Cash to growers.
[3] Less than 10 quotations.

In western and central New York shipping points the weighted-average shipping-point prices of sacked cabbage obtained by weighting the average monthly prices by the monthly carlot shipments ranged in the 5-year period from $8.57 per ton in 1932–33 to $33.53 in 1933–34 (table 22). The cash bulk-per-ton price to growers in truckloads during the same period ranged from a low of $4.06 in 1932–33 to a high of $26.11 in 1933–34. The cash prices to New York growers for cabbage in bulk were approximately from about a fourth to a half lower than the carlot shipping-point price for sacked cabbage from 1932–33 to 1936–37.

Growers and shippers should consider several factors in determining the best time to ship stored cabbage. Shrinkage, deterioration, cost of storage, cost of reconditioning, market risks, and the size of the next season's fall and early crops are factors that may guide growers and shippers in selecting shipping dates. The January 1 storage stocks as reported by the Bureau may also aid the shipper in determining whether he should dispose of his stocks as soon as possible or hold for the spring market (table 7).

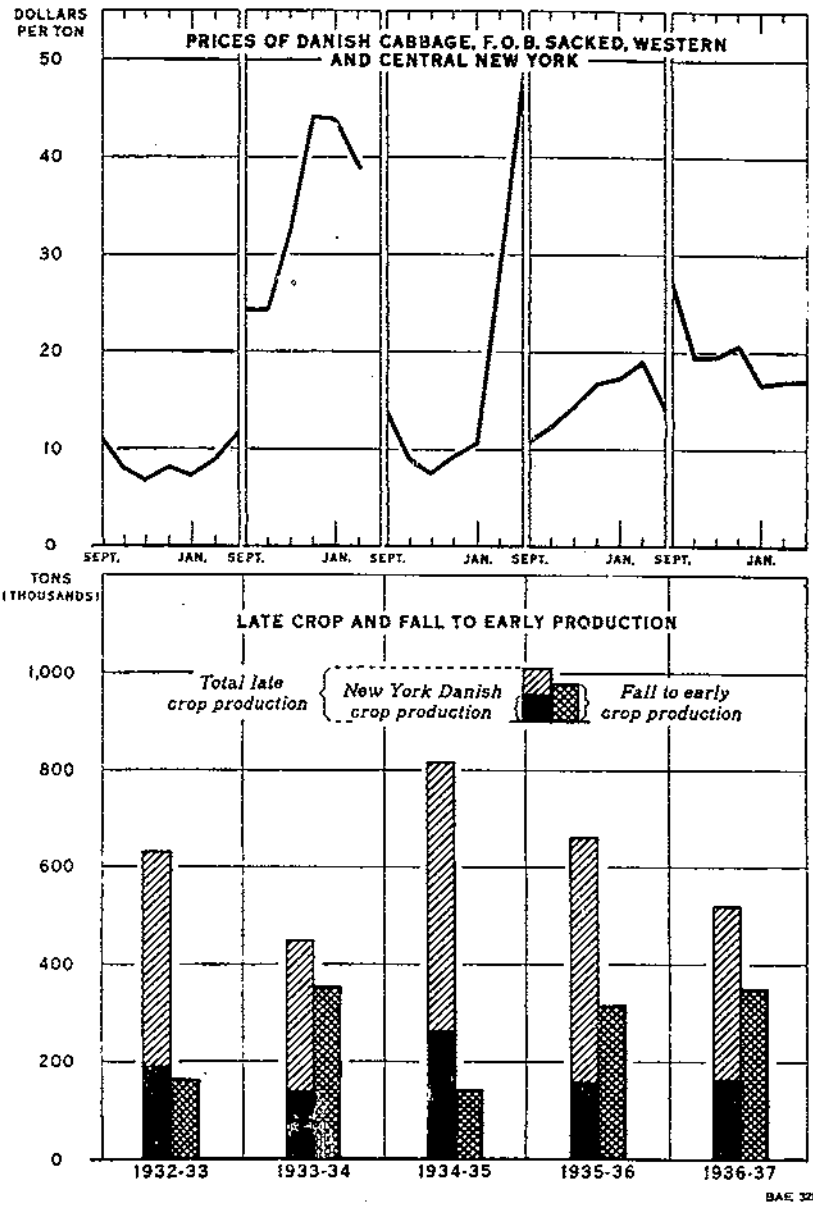

FIGURE 28.—LATE CROP PRODUCTION AND SEASONAL PRICE TRENDS OF CABBAGE, 1932–33 TO 1936–37.

Opening prices and the general trend of prices for late Danish cabbage as indicated by quotations at western and central New York shipping points from 1932-33 to 1936-37 are largely dependent upon the size of the late crop until about December when the size of the fall and early crops of the following year influence materially the trend of prices during the remainder of the shipping season.

Prices of cabbage at lower Rio Grande Valley, Tex., shipping points by months and seasons are shown in table 23 for the 5-year period 1932–33 to 1936–37. The monthly range and average of carlot prices for cabbage packed in western crates and the monthly range and average price for bulk cabbage in ton lots as well as the season weighted averages are shown. The opening prices for early cabbage as evidenced by the prices of Texas cabbage are largely dependent upon the size of the early crop although the quantity of the northern storage cabbage from the previous season's crop left to be marketed probably exerts a slight influence. Cabbage from the early crop States must be marketed when it is ready for harvesting. Consequently the price during any shipping season may fluctuate considerably, depending upon the available supply and quality of the crop from the various shipping States at any one time. In general, prices are relatively high for short crops and relatively low for large crops.

TABLE 23.—*Prices of cabbage at lower Rio Grande Valley, Tex., shipping points by months and season, 1932–33 to 1936–37* [1]

Season and month	Price per western crate (carlots)		Price per ton (bulk) [2]	
	Price range	Average	Price range	Average
	Dollars	*Dollars*	*Dollars*	*Dollars*
1932–33:				
December	0.55–0.85	0.70	4.00– 8.00	6.12
January	.40– .65	.53	2.00– 4.00	3.46
February	.35–1.15	.74	2.00–15.00	6.95
March	.85–1.75	1.16	8.00–22.50	13.91
April	1.00–1.35	1.12	8.00–20.00	13.02
May [3]	1.25–1.35	1.30	15.00–20.00	17.50
Weighted average		.78		7.66
1934:				
January	.75–1.90	1.28	5.00–30.00	17.08
February	.60– .75	.66	3.00– 6.00	4.88
March	.60– .75	.66	4.00– 6.00	5.30
April	.60– .85	.66	4.00– 6.00	4.16
May [3]	.75– .90	.85		
Weighted average		.74		6.42
1934–35:				
November [3]			10.00–15.00	10.62
December	1.00–1.55	1.23	10.00–20.00	14.21
January	.85–2.15	1.26	10.00–40.00	14.50
February	1.35–3.00	2.32	15.00–55.00	36.50
March	[3] 2.65–3.00	2.85	35.00–55.00	45.75
Weighted average		1.56		20.71
1935–36:				
December	1.15–1.85	1.37	12.00–25.00	17.52
January	.75–1.40	1.06	10.00–22.00	13.78
February	.65–1.00	.81	6.00–12.00	8.36
March	.55–1.10	.74	4.00–20.00	7.08
April	.80–1.50	1.14	6.00–25.00	12.17
May [3]	.75–1.10	.94	6.00–10.00	7.67
Weighted average		.92		10.01
1936–37:				
December	.30–1.45	1.07	8.00–20.00	13.00
January	.60– .95	.75	4.00–12.00	6.60
February	.65–1.00	.81	5.00–12.00	7.50
March	.85–1.35	1.10	10.00–17.50	12.60
April	1.00–2.25	1.56	10.00–32.50	20.77
May [3]	1.85–2.25	2.07	20.00–32.50	27.00
Weighted average		.99		10.73

[1] Monthly averages are unweighted averages of daily market news prices. Seasonal averages were computed by weighting monthly averages by monthly carlot shipments.

[2] Cash to growers.

[3] Less than 10 quotations.

Shipping-point prices for the second-early and intermediate crops trend up or down closely in accordance with the supply from the various shipping States and the general quality of the crop at any one time. Carlot prices in Mississippi, a second-early crop State, are shown by weeks in table 24 for the 5 years 1933–37.

TABLE 24.—*Prices of cabbage f. o. b. Crystal Springs, Miss., and nearby shipping points, by weeks, 1933–37* [1]

Year and week ended	Price per western crate		Year and week ended	Price per western crate	
	Range	Average		Range	Average
1933	*Dollars*	*Dollars*	*1936*	*Dollars*	*Dollars*
May 6	1.75–2.00	1.84	May 2	0.90–1.20	1.09
13	1.65–2.00	1.82	9	.80–1.15	.97
20	1.25–1.65	1.42	16	.70–.90	.74
27	1.75–1.75	1.75	23	.75–1.00	.85
			30	.80–.90	.81
Weighted average		1.73			
			Weighted average		.84
1934					
May 5	0.80–1.15	1.01	*1937*		
12	.80–.80	.80	May 8	1.60–2.25	1.88
17	.75–.80	.79	15	1.50–2.00	1.74
26	.60–.80	.67	22	1.65–2.00	1.75
June 2	.60–.65	.62	29	1.50–1.50	1.50
Weighted average		.78	Weighted average		1.80
1935					
May 4	1.30–2.25	1.84			
11	1.00–1.25	1.10			
18	.75–1.00	.87			
25	.85–1.25	1.06			
Weighted average		1.22			

[1] Weekly averages are unweighted averages of daily market news prices; seasonal averages are computed by weighting daily carlot shipments.

PRICES IN CITY MARKETS

Prices established in the markets depend upon such factors as the available supply, the consumer demand, and the general quality of the cabbage. Freight and handling charges are also taken into consideration when prices are established. The price that city dealers are willing to pay determines the price that country dealers will pay for the cabbage in producing districts. Therefore, growers, dealers, and anyone interested in marketing the crop may obtain valuable information from a study of prices in the leading markets during a period of years.

Average wholesale prices by types, States of origin, and months, for New York, Philadelphia, Pittsburgh, and Chicago, are shown in tables 25, 26, 27, and 28, for the 1932 to 1936 crops. The wholesale prices for each type and month are simple averages obtained by averaging the midpoint of the daily price range for cabbage of good merchantable quality and condition much of which was U. S. No. 1 grade. The seasonal average for each type is weighted by estimating the unloads of each type from each State for each month.

Study of tables 25 to 28, inclusive (pp. 105–125), shows that approximately the same price trends prevailed in the four markets in any one season. Comparison of prices in the various markets might indicate

at first glance that one market pays higher prices for certain types of cabbage than others. For example, in 3 out of the 5 years for which prices are given the seasonal weighted average price for domestic-type cabbage was highest in Pittsburgh. Similarly the seasonal weighted-average price for pointed-type cabbage was highest in Chicago in 4 out of the 5 years. Such comparisons of wholesale prices, however, are not justifiable as varying freight rates from sources of supply play an important part in the establishment of a price level in a market at any particular time. If a market is forced to go a great distance for its cabbage supply the wholesale price is likely to be considerably higher at that time, while another large market may be getting supplies produced nearby and only a small part of the price established at the time would be attributed to freight charges.

Comparison of shipping-point prices and receiving-market prices for cabbage during 1932–36 indicates that margins between f. o. b. prices plus transportation charges and city wholesale prices are small. However, such a comparison of average shipping-point and city wholesale prices is very unsatisfactory because it is not possible to get exact comparisons. At the outset it is difficult to obtain quotations of like quality and condition over comparable periods. At times, especially during periods of low prices, much cabbage is shipped on consignment or joint account and naturally no shipping-point f. o. b. prices enter into such transactions. As market-news prices usually show a range there is no way of knowing how much cabbage is sold at different prices within the range thus making it impossible to weight average prices accurately. In many markets substantial portions of the receipts are by motortruck at a cheaper rate than by rail and this affects a comparison of city prices with shipping-point prices plus freight.

With such limitations in mind it is interesting to compare certain monthly averages of shipping-point prices plus freight with average wholesale prices in the markets. In May 1936 the average f. o. b. shipping-point price for Mississippi cabbage of good merchantable quality was about $0.84 per western crate or approximately $1.05 per hundredweight (table 24). This price plus freight from Crystal Springs to Chicago totaled about $1.67 per hundredweight (table 5). The average wholesale price for Mississippi cabbage in Chicago during the same month was $1.82 per hundredweight (table 28, p. 121) making a margin of $0.15 per hundredweight between the average shipping-point price plus freight and the Chicago wholesale price. However, no allowance is made for the cost of icing which, if added to the shipping-point price plus freight would reduce the margin still more. A similar comparison in 1933, however, shows the average shipping-point price plus freight to be $2.79 per hundredweight as compared with the Chicago price of $2.57 per hundredweight (tables 5, 24, and 28). This would indicate that receivers of Mississippi cabbage at Chicago in 1933 operated at a loss although it is quite possible that some of the limitations noted in the previous paragraph would account for considerable error in computing average prices.

Another comparison shows that the average shipping-point price of Texas cabbage in January 1936 was $1.06 per western crate or approximately $1.33 per hundredweight (table 23). This price plus freight from San Benito to Chicago would equal about $2.28 per hundredweight as compared with the Chicago average wholesale

price of $2.36 per hundredweight for the same month (table 28). A like comparison in March of the same year shows the average shipping-point price plus freight to be $1.88 while the average wholesale price for Texas cabbage in Chicago during the same month was only $1.80 per hundredweight. A number of other comparisons show that margins in city markets are larger than the examples cited and in many periods the comparisons indicate that dealers buying cabbage on an f. o. b. shipping-point basis operated at a loss.

Examination of the prices in the various markets indicates considerable variation in the seasonal averages that may be expected for the different types of cabbage during any one season. In comparing prices for the three important types, Danish, domestic, and pointed, the seasonal average price for Danish cabbage is usually considerably lower for a season's crop than for domestic- and pointed-type in any of the four markets. In New York City, for example, the seasonal average price for the 1936 crop of Danish-type cabbage was $1.24 per hundredweight (table 25, p. 105). In the same market the seasonal average price for the 1936 crop of domestic cabbage averaged $2.52 per hundredweight and pointed type averaged $2.25 per hundredweight. Such a price relationship would be expected because during the late winter and spring months domestic and pointed types are supplied largely by the Southern States from which transportation costs are higher. Danish type for the New York market on the other hand is mostly produced in New York State. As suggested heretofore, many other factors such as supply and general quality affect the price level but a seasonal average price is likely to be considerably higher for a type that has to be shipped from distant sources than for a type which is produced in close proximity to the market.

Among the comparisons of prices at the receiving market one of the most interesting is the relationship of the wholesale price of southern new cabbage with the price of old-crop storage cabbage with which it competes. The wholesale price of Texas domestic cabbage and the wholesale price of Wisconsin Danish type in Chicago during December and January furnishes a good comparison. The simple average wholesale price in Chicago for Texas domestic-type cabbage for these 2 months for the four seasons 1932–33 to 1935–36 was $2.71 per hundredweight as compared with an average of $1.17 per hundredweight for Wisconsin Danish-type cabbage (table 28, p. 121). The fact that the average price of Texas cabbage is about $1.54 cents higher than that of Wisconsin cabbage indicates that consumers are willing to pay a considerable premium for fresh new green cabbage at this season.

Considering the individual markets separately, the relative prices of the various types of cabbage for the five seasons based on a simple average of seasonal prices and using the average price of Danish type as 100 percent, were as follows: Philadelphia—domestic, 203; pointed, 238; savoy, 212; Chicago—domestic, 213; pointed 272; savoy, 196; red, 261; Pittsburgh—domestic, 196; pointed 215; savoy, 182. A similar relationship for New York City is not given because during 4 years of the period the price of Danish cabbage is quoted on a bulk-per-ton basis while prices for other types are quoted on the basis of hundredweight (table 25).

These percentages show that the seasonal average prices for domestic and pointed-type cabbage are generally considerably higher than

the seasonal average prices for Danish-type cabbage, but the same relationship does not hold true during the months when these types compete with each other. During the fall, when the bulk of the Danish crop is marketed, the average prices received for Danish-type cabbage compare favorably with the average price for domestic type and are often higher. The fact that the seasonal average prices for domestic and pointed types are higher is largely due to the higher prices paid for these types marketed as new green cabbage during the spring and the summer months.

Considering the three cities for which comparable prices are available for the five seasons, the domestic-type price averaged about 103 percent above the price of Danish; the pointed-type price about 140 percent above; and the savoy-type about 96 percent above the price of Danish-type.

SUMMARY

Cabbage is produced commercially in 30 States, but nearly half of the total crop is produced in New York, Texas, and Wisconsin. Other important producing States are Pennsylvania, Colorado, California, Michigan, Florida, New Jersey, Ohio, Virginia, North Carolina, and Mississippi.

The cabbage crop is classed as "fall", "early", "second early", "intermediate", and "late". The fall crop is mostly marketed during November and December; the early, from January to April; the second early, from April to June; the intermediate in June and July; and the late, from September to February.

Cabbage is classified according to type as Danish, domestic, pointed, red, and savoy. The first three types are the most important commercially. Danish Ballhead and Hollander are the principal varieties of Danish type grown principally in the Northern States for supplying the markets during the fall and winter. The leading domestic varieties produced in nearly all sections are Copenhagen Market, Glory of Enkhuizen, Flat Dutch, Succession, and All Seasons. Important varieties of pointed-type cabbage grown principally in the Southeastern States are Charleston Wakefield and Early Jersey Wakefield.

During 1932–36 an average of nearly 174,000 acres was devoted to cabbage production in the United States. Production averaged 1,109,500 tons or over 17 pounds per capita.

In harvesting cabbage it is the aim to cut only the nondefective heads. Grading and packing practices vary in different shipping sections. Some growers grade and pack their crop in the field and haul it direct to market by motortruck or to railroad sidings where it is loaded into cars. Others haul the cabbage in bulk to shippers' loading platforms or packing sheds where it is graded, packed, and loaded for shipment. In the northern late States most of the Danish crop is cut and placed in storage for marketing during the winter.

Growers and shippers in many States grade their cabbage in accordance with requirements of United States standards and a large percentage of the crop is quoted and sold on the basis of these standards. In the five seasons ended in 1935–36 the number of Federal-State inspections per season ranged from 10 to 23 percent of the total carlot shipments.

Most of the cabbage produced in the Southern and Western States is packed in containers for shipment. The three most popular types used in these areas are the western crate, the half crate, and the 1½-bushel hamper. Late cabbage from northern producing areas is shipped in bulk and in sacks. Sacks holding 50-pounds have recently become the most popular size in New York State.

Refrigerator cars are used for practically all rail shipments. It is general practice to ship early and midseason stock under refrigeration. Snow or crushed ice is used over the tops of loads in containers and if the cabbage is loaded in bulk it is general practice to fill the bunkers with ice during warm weather. A-type ventilators are also used in bulk loads. During extremely cold weather it is often necessary to use heater service for shipments of northern Danish cabbage.

A large percentage of the late Danish crop is placed in storage for supplying the markets during the late fall and winter. During 1933–36 approximately from one-sixth to one-fourth of the total late Danish crop was in the hands of growers and dealers on January 1, most of which was in New York and Wisconsin. The estimated shrinkage and loss in storage ranged from about 7 to 12 percent of the late Danish crop during 1933–36.

Production of cabbage for sauerkraut manufacture averaged nearly 141,000 tons, or about one-eighth of the total crop, in 1932–36. About four-fifths of the total production of cabbage for sauerkraut manufacture is in New York, Wisconsin, Ohio, Indiana, and Michigan.

Much of the cabbage crop, particularly in southern producing areas, is grown on credit obtained from various sources. The principal sources of credit include fertilizer companies, local dealers or representatives of city dealers, local merchants, banks and Federal loaning agencies. Shippers or dealers who advance production loans to growers usually control the marketing of the crop.

A large percentage of the carlot sales are on an f. o. b. shipping-point basis. There are also many sales on a delivered basis and some consignment and joint-account sales. During seasons of excessive production and low prices there is likely to be a predominance of delivered, consignment, and joint-account sales. Considerable quantities are sold for cash at the farms to truckers and other buyers.

During the last few years somewhat less than half of the cabbage harvested for market was shipped by rail or boat and the remainder by motortruck. The movement by truck has increased materially in recent years and in some producing areas located near the large markets practically all shipments are by motortruck. Rail and boat shipments averaged 28,000 cars in the 5-year period 1932–36, as contrasted to an average of 40,170 cars for the 5-year period 1927–31. In 1936 New York and Texas shipped more cabbage by rail and boat than all of the other 31 States combined.

The movement of the crop to market including rail, boat, and truck shipments is largest in October and smallest in April; 12.6 percent of the total movement in 1934 was in October and 6.8 percent was in April.

The principal sources of supplies for the markets in the North Atlantic States are the South Central and South Atlantic States for early and midseason cabbage and the North Atlantic States, mainly New York for late cabbage. The North Central States are supplied with early cabbage principally from Texas and other South Central

States while midseason and late supplies are obtained mostly from the North Central States and to some extent from the North Atlantic States. The Southern States are generally well supplied with early and midseason cabbage from producing localities within the same area but draw late supplies from the North Central, North Atlantic, and Western States. Markets in the Western States rely on western producing areas for practically all of their supplies. In nine large markets where records of rail, boat, and truck receipts are available the unloads averaged about 25 pounds per capita in 1935, although there was considerable variation among the different markets.

Foreign trade of the United States in cabbage is of very minor importance. Imports averaged only about 0.02 percent of the average production of cabbage for market during 1932–36. Canada, which is the principal export market, received 761 carloads from the United States in 1936.

Trading practices and the physical facilities in marketing cabbage vary considerably in the different cities. The most common channels of distribution are from carlot receiver to jobber, jobber to retailer, and retailer to consumer. Truck receipts are handled in various ways—through jobbing markets, farmers' markets, direct to retailers or chain stores, or direct to consumers residences. Most of the chain-stores supplies are supplemented by purchases in less than carlots at city jobbing markets, farmers' markets, or direct from truckers.

The demand for cabbage is relatively inelastic and shortages in supply are likely to result in more than a proportionate increase in price whereas a crop surplus usually causes more than a proportionate drop in price. Prices, therefore, often fluctuate widely from year to year and even during a crop-marketing season.

During the 10-year period 1927–36 the average farm price of fall to second early cabbage was $22.55 per ton compared with $21.84 per ton for the intermediate crop and $12.62 per ton for the late crop.

Prices for late cabbage in the fall and early winter months are largely dependent upon the size of the late crop but during the late winter and early spring the price trend for the remainder of the storage crop is influenced materially by the size of the next season's early crop with which it competes.

In western and central New York shipping points the weighted average shipping-point prices of sacked cabbage in carlots for the seasons 1932–33 to 1936–37 ranged from $8.57 per ton to $33.53 per ton. During the same period the season weighted average price for cabbage in carlots at lower Rio Grande Valley, Tex., shipping points ranged from 74 cents to $1.56 per western crate, and at Crystal Springs, Miss. and nearby shipping points, from 78 cents to $1.80 per western crate.

Wholesale prices in the city markets in general follow the same trend in any given period. In the principal markets from 1932 to 1936 the seasonal wholesale price of Danish-type cabbage averaged considerably lower than the prices for domestic and pointed-type cabbage although during the fall months prices for Danish type are usually about the same or slightly higher than prices for domestic type. Comparison of city wholesale prices with f. o. b. shipping point prices plus transportation charges indicate that city dealers deal in cabbage on relatively small margins.

TABLES

TABLE 25.—*Average wholesale price per 100 pounds of cabbage in less than carlots, New York, by types, States of origin, and months, crop years 1932–36* [1]

1932 CROP (DECEMBER 1931 TO MARCH 1933)

Type and State of origin	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Domestic:																	
Texas	3.25	3.01	2.88	4.30	4.55	4.49	[2] 4.71										
Alabama						5.63											
New York									1.03	0.69	0.53						
Iowa								[2] 1.60									
New Jersey								[2] 1.23									
Average	3.28	3.00	2.89	4.26	4.57	4.49	4.72	[2] 1.61	1.16	.69	.53						2.27
Danish:																	
New York [3]											12.73	12.67	14.09	12.62	14.60	17.08	
Average											12.73	12.67	14.09	12.62	14.60	17.08	13.61
Pointed:																	
Florida	3.24	2.55	2.62	4.50	3.58												
Alabama				5.44	4.81												
South Carolina				[2] 4.06	3.57	4.09											
Georgia					4.34												
North Carolina						2.83											
Virginia						2.42	2.91										
Maryland							[2] 3.59										
New York, Long Island								[2] 1.52									
New Jersey								[2] 1.02									
Average	3.24	2.54	2.62	4.61	3.90	3.31	3.17	1.24									3.01
Savoy:																	
Florida	3.03	2.64	2.12	3.11	3.88												
Texas	2.70	2.34	1.99	2.88	[2] 3.64												
Average	2.73	2.39	2.05	3.03	3.76												2.66
Red:																	
Florida		4.06	3.42	3.41	3.45												
Texas					4.17	3.69											
New York												.94	.89	.68			
Average		3.98	3.27	3.37	3.46	3.76						.94	.89	.68			2.03

[1] Average wholesale prices as shown are based on stock of good merchantable quality and condition; monthly prices are simple averages of daily range of selling prices. In computing monthly averages some scattering quotations not shown by States in this table were used. The seasonal average for each type is weighted by the estimated unloads of that type for each month.

[2] Less than 10 quotations.

[3] Prices quoted per ton, bulk basis.

TABLE 25.—*Average wholesale price per 100 pounds of cabbage in less than carlots, New York, by types, States of origin, and months, crop years 1932-36*—Continued

1933 CROP (NOVEMBER 1932 TO MARCH 1934)

Type and State of origin	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
Domestic:	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Florida		2.38		2.17														
Texas		2.60	1.74	2.35	2.41													
South Carolina		2.11																
Virginia										1.99								
New York										1.57								
Average		2.37	1.69	2.27	2.41					1.68								2.07
Danish:																		
New York [3]											27.15	28.12	36.83	47.98	48.94			
Average											27.15	28.12	36.83	47.98	48.94			36.79
Pointed:																		
Florida	2.03	2.18	1.84	2.26	2.16	2.43	3.01											
South Carolina	1.97	2.11	1.38			2.40	2.85											
North Carolina							2.14											
Virginia							1.70	1.35										
Alabama							2.64											
New Jersey								1.95	1.47	1.77								
Maryland								1.81										
Average	2.03	2.13	1.76	2.20	2.13	2.41	2.37	1.69	1.46	1.77								2.06
Savoy:																		
Texas			1.91	1.79	[2] 2.23													
South Carolina			1.90	[2] 1.98														
Florida			2.05	2.20	2.48	2.44	2.46											
Average			1.89	1.96	2.42	2.42	2.44											2.11
Red:																		
Florida			2.44	2.55	2.35	2.42	2.79											
Average			2.37	2.48	2.35	2.42	2.81											2.43

1934 CROP (DECEMBER 1933 TO MARCH 1935)

Type and State of origin	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
Domestic:	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
California	3.58																
Texas		2.58	1.91	1.94	2.04	2.30											
Florida		2.56	2.04	2.08	2.19												
Louisiana			1.55														
Alabama						1.82											
Mississippi						1.96	[2] 1.33										
New York									[2] 1.24	0.95							
Average	3.48	2.60	1.96	1.99	1.99	2.01	1.49		[2] 1.24	.94							1.94
Danish:																	
New York [3]											13.73	12.98	15.00	16.24	29.88	47.19	
Average											13.73	12.98	15.00	16.24	29.88	47.19	19.44
Pointed:																	
South Carolina	3.42	2.34				2.21											
Florida	3.16	2.50	2.01	2.07	2.02	2.00											
Georgia						2.00											
Virginia						[2] 1.64	.87										
North Carolina						1.82	.93										
New Jersey							1.04										
Pennsylvania							.87										
Nearby								.72	.91								
Average	3.34	2.45	2.04	2.06	2.00	2.12	.92	.72	.91								1.60
Savoy:																	
South Carolina		2.36															
Texas		2.44	2.31	1.88	2.27												
Florida		2.93	3.00	2.19	2.52												
Average		2.59	2.83	2.01	2.38												2.48
Red:																	
Florida		5.91	6.76	4.12	3.37	3.51											
Texas				3.10	2.90												
New York											1.23	1.21	1.42	1.52	2.31		
Average		5.66	6.76	3.73	3.27	3.51	[2] 3.66				1.23	1.21	1.42	1.52	2.31		3.29

[2] Less than 10 quotations.

[3] Prices quoted per ton, bulk basis.

TABLE 25. *Average wholesale price per 100 pounds of cabbage in less than carlots, New York, by types, States of origin, and months, crop years 1932–36*—Continued

1935 CROP (NOVEMBER 1934 TO MARCH 1936)

Type and State of origin	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Domestic:																		
Texas		2.87	3.02	3.66	[2] 4.04													
South Carolina			2.74															
Florida				3.98	5.62	5.44	2.57											
California				3.78	4.62													
Mississippi							2.20											
Alabama							2.34											
Tennessee								1.82										
New Jersey and nearby								.89	0.66	0.78	1.04							
New York									[3] .73	.77	.81	0.78	[4] 0.78	[4] 0.88				
Average		2.83	2.88	3.73	5.39	5.37	2.46	1.31	.68	.79	.98	.78	[4] .78	[4] .88				2.24
Danish:																		
New York [1]												17.52	19.25	21.21	21.95	22.45	17.64	20.33
Average												17.52	19.25	21.21	21.95	22.45	17.64	20.33
Pointed:																		
South Carolina	2.51	2.29	2.14		[2] 4.95	4.71	2.26											
Florida		2.26	2.31		[2] 6.16	5.12	2.43											
North Carolina							2.14											
Georgia							2.44											
Virginia							1.58	.85										
Louisiana							1.99											
Maryland								.84										
Average	2.51	2.24	2.24		5.73	4.88	2.15	.86										2.53
Savoy:																		
South Carolina			2.82	3.16	3.62		2.40											
Texas			2.69	2.76														
Florida					4.13	3.99	2.23											
New Jersey												[4] 1.15						
Average			2.78	3.04	3.88	3.99	2.34					[4] 1.14						1.73

Red:																		
Florida			3.52	4.56	4.59	3.67	2.84	3.47										
Texas				3.74														
New York [4]											1.22	1.23	1.52	2.16	2.87	4.07		
Average			3.50	4.28	4.37	3.67	2.81	3.32			[4] 1.18	[4] 1.20	[4] 1.52	[4] 2.16	[4] 2.87	[4] 4.07		[4] 2.98

1936 CROP (NOVEMBER 1935 TO MARCH 1937)

Domestic:																		
Texas		3.39	2.66	2.40	2.16	2.69	2.25											
Florida		[2] 3.45	2.78	2.44	2.12	2.40	1.88											
South Carolina		[2] 2.65																
Mississippi							2.10	[3] 2.78										
Georgia							2.26											
Louisiana								2.71										
Tennessee								[3] 3.40										
New Jersey								2.99	2.91	3.19	1.83	1.25	1.18					
Pennsylvania									3.07	4.41	2.14	1.36	1.10					
New York									[2] 3.62	3.06	1.85	.99						
Long Island									3.50	3.05	1.83							
Virginia										3.46								
Average		3.24	2.75	2.43	2.13	2.50	2.13	2.90	3.02	3.31	1.90	[4] 1.18	1.10					2.52
Danish:																		
New York											1.72	1.23	1.15	1.31	1.03	1.08	1.29	
Massachusetts												1.15						
Average											1.71	1.21	1.18	1.31	1.03	1.08	1.29	1.24
Pointed:																		
South Carolina	[2] 2.32	2.94				2.28	1.93											
Florida		3.60	2.76	2.46	2.10	2.40	1.91											
Louisiana						2.60	2.00											
Georgia							2.13											
Virginia							1.84	2.45										
North Carolina							1.74											
Average	[2] 2.32	3.06	2.73	2.46	2.10	2.38	1.92	2.52										2.25

[2] Less than 10 quotations.

[3] Prices quoted per ton, bulk basis.

[4] Street sales.

TABLE 25.—*Average wholesale price per 100 pounds of cabbage in less than carlots, New York, by types, States of origin, and months, crop years 1932—36*—Continued

1936 CROP (NOVEMBER 1935 TO MARCH 1937)

Type and State of origin	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
Savoy:	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
South Carolina		[2] 2.31	2.51	2.65														
Florida			3.02	2.96	1.83	2.76												
Texas			2.69	2.40	2.16													
New Jersey										1.75	1.38							
Long Island										1.75	1.38							
Average		2.18	2.70	2.75	2.08	2.61	2.96			1.75	1.38							2.27
Red:																		
Florida				4.79	3.23	3.12	4.18											
Texas					2.71	2.48												
New Jersey										2.09	2.14	1.42						
Long Island										2.05	2.14							
New York											1.76	1.28	1.15	1.28	1.06	1.13	1.16	
Pennsylvania													1.35					
Average			4.44	4.75	3.15	3.01	4.15	5.03		2.09	2.09	1.34	1.24	1.28	1.06	1.13	1.16	2.34

Compiled from daily market news reports of the Bureau of Agricultural Economics.

[2] Less than 10 quotations.

TABLE 26.—*Average wholesale price per 100 pounds of cabbage in less than carlots, Philadelphia, by types, States of origin, and months, crop years 1932–36* [1]

1932 CROP (DECEMBER 1931 TO MARCH 1933)

Type and State of origin	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Domestic:																	
Texas	3.21	3.18	2.97	4.75	4.86	4.26	[2] 4.16										
Pennsylvania								1.34									
New York											0.54						
Average	3.21	3.10	2.92	4.68	4.86	4.26	4.31	1.37	1.48		.54						3.38
Danish:																	
New York										0.70	.61	0.64	0.70	0.61	0.80	0.85	
Pennsylvania											[2] .66	[2] .62	[2] .74				
Average										.70	.63	.65	.71	.61	.80	.85	.69
Pointed:																	
Florida	3.33	2.46	2.46	4.18													
South Carolina				4.69	3.84												
Mississippi						4.00											
Virginia						[2] 1.98	[2] 2.93										
Average	3.33	2.46	2.46	4.27	3.80	3.63	[2] 3.18										3.47
Savoy:																	
Florida		2.73	2.07														
Texas		2.30	1.83	[2] 2.06													
Average		2.67	1.95	2.26	2.51												2.34

[1] Average wholesale prices as shown are based on stock of good merchantable quality and condition; monthly prices are simple averages of daily range of selling prices. In computing monthly averages some scattering quotations not shown by States in this table were used. The seasonal average for each type is weighted by the estimated unloads of that type for each month.

[2] Less than 10 quotations.

TABLE 26.—*Average wholesale price per 100 pounds of cabbage in less than carlots, Philadelphia, by types, States of origin, and months, crop years 1932–36*—Continued

1933 CROP (NOVEMBER 1932 TO FEBRUARY 1934)

Type and State of origin	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	Weighted average
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Domestic:																	
Texas		2.32	1.83	1.81													
Florida			1.68	2.17	2.33												
Alabama							3.15										
Louisiana							2.47										
Pennsylvania								[3] 0.97	[3] 0.85	[3] 1.60							
New York											[2] 1.19						
Maryland								[3] 1.49									
Virginia								[3] 1.09									
New Jersey								[3] 1.43									
Average		2.32	1.83	2.07	2.34		2.99	[3] 1.20	[3] .85	[3] 1.60	[2] 1.19						1.74
Danish:																	
New York											1.45	1.42	1.77	2.40	2.29	2.24	
Pennsylvania												1.42	1.77				
Average											1.45	1.42	1.77	2.40	2.29	2.24	1.93
Pointed:																	
South Carolina	2.10	2.20			2.21	2.37	3.16										
Florida			1.90	2.17	2.25	[2] 1.99											
Georgia							[2] 3.39										
North Carolina							[2] 2.42										
Virginia							[2] 1.69	[3] 1.09									
Average	2.10	2.20	1.87	2.17	2.24	2.37	2.65	[3] 1.09									2.27
Savoy:																	
Texas			1.79	1.83													
Average			1.78	1.96													1.87

1934 CROP (NOVEMBER 1933 TO FEBRUARY 1935)

Domestic:																	
Texas		4.26	2.55	1.88	1.93	2.05	2.10										
Florida			[2] 2.37	2.06	2.02	[2] 2.01											
Alabama						1.84	1.92										
Georgia							1.91										
Mississippi							1.91										
South Carolina							2.19										
Pennsylvania										[3] 1.19	[3] 0.85						
New York										[3] .91	[3] .86	0.64	0.62				
Average		4.26	2.54	1.95	1.99	1.98	1.97			[3] 1.13	[3] .86	.64	.62				1.70
Danish:																	
New York												.68	.62	0.72	0.70	1.55	.84
Average												.68	.62	.72	.70	1.55	.84
Pointed:																	
Florida		3.38	2.52	2.05	2.02	[2] 1.96											
South Carolina	[2] 3.85	3.19	2.11			2.03	2.26										
Louisiana						1.66	[3] 1.79										
Mississippi							1.96										
Texas							1.89										
Alabama							1.74										
Georgia							1.88										
Virginia								[3] 0.84									
New Jersey								[3] .69									
Maryland								[3] .67									
Average	[2] 3.85	3.28	2.38	2.03	1.99	1.86	1.98	[3] .79									2.21
Savoy:																	
Florida				2.52	2.14												
Average				2.47	2.18												2.28
Red:																	
Florida					3.29	2.14											
Average					3.29	1.84											2.81

[2] Less than 10 quotations.

[3] Street sales.

TABLE 26.—*Average wholesale price per 100 pounds of cabbage in less than carlots, Philadelphia, by types, States of origin, and months, crop years 1932–36*—Continued

1935 CROP (NOVEMBER 1934 TO MARCH 1936)

Type and State of origin	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Domestic:																		
Texas		[2] 3.20	2.78	3.61														
Florida				4.07	5.32													
Mississippi							2.45											
New Jersey								[3] 0.67	[3] 0 58									
Pennsylvania									[3] .58	[3] 0.80	[3] 0.75							
New York										[3] .84	[3] .79	0.75						
Average		[2] 3.20	2.77	3.71	5.15		2.44	[3] .67	[3] .58	[3] .82	[3] .78	.75						2.46
Danish:																		
New York		--										.79	0.82	1.05	1.14	1.28	0.94	1.04
Average												.79	.82	1.05	1.14	1.28	.94	1.04
Pointed:																		
South Carolina	2.25	2.36	[2] 2.28			4.94	2.73											
Florida				4.52	5.68	5.03												
North Carolina							2.12											
Virginia								[3] .78										
Average	2.25	2.36	2.29	4.52	5.68	4.90	2.24	[3] .81										3.50
Savoy:																		
South Carolina			2.22															
Florida					4.64													
Average			2.23		4.64													3.44

1936 CROP (NOVEMBER 1935 TO MARCH 1937)

Domestic:																		
Texas		3.35	2.69	2.11	1.96	2.52	2.25											
Florida				2.41	2.14	2.42												
Mississippi							2.09											
Tennessee								3.20										
New Jersey [3]								2.60	2.97									
Pennsylvania [3]									4.14	2.88	1.84	1.07						
New York [3]										2.85	1.84	1.22						
Average		3.35	2.69	2.26	2.06	2.49	2.14	3.18	3.22	3.01	1.82	1.12						2.32
Danish:																		
Pennsylvania											[3] 1.85	[3] 1.23	[3] 1.02	[3] 1.35				
New York											[3] 1.80	[3] 1.25	[3] 1.10	[3] 1.31	1.07	1.15	1.39	
Average											[3] 1.84	[3] 1.25	[3] 1.08	[3] 1.30	1.07	1.15	1.39	1.22
Pointed:																		
South Carolina	2.26	2.63				2.23	1.80											
Florida			2.57	2.43	2.14	2.39												
Virginia [2]								[3] 2.06										
Average	2.24	2.74	2.57	2.43	2.14	2.34	1.81	[3] 2.08										2.10
Savoy:																		
South Carolina			2.06	[3] 2.19														
Pennsylvania																		
Average			2.15	2.20														2.17
Red:																		
New York												1.54		1.21				
Average												1.43		1.21				1.32

[2] Less than 10 quotations.

[3] Street sales.

Compiled from daily market news reports of the Bureau of Agricultural Economics.

TABLE 27.—*Average wholesale price per 100 pounds of cabbage in less than carlots, Pittsburgh, by types, States of origin, and months, crop years 1932–36* [1]

1932 CROP (DECEMBER 1931 TO APRIL 1933)

Type and State of origin	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	Weighted average
Domestic:	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Texas	2.79	2.78	2.77	4.39	4.36	4.23	[2] 3.61											
California				[2] 4.31														
Louisiana					[2] 3.57													
Mississippi						4.06												
Ohio								1.13										
Iowa								1.32										
New York									0.83	0.80	0.72							
Average	2.79	2.78	2.77	4.28	4.26	4.20	[2] 3.64	1.19	.89	.80	.72							2.75
Danish:																		
New York											.66	0.70	0.60	0.63	0.79	0.92	0.83	
Average											.66	.68	.60	.63	.79	.92	.83	.71
Pointed:																		
South Carolina					3.76													
Mississippi						3.88												
Average					3.77	3.81												3.78
Savoy:																		
Texas		2.30	2.05	2.45														
Average		2.30	2.05	2.45														2.27
Red:																		
New York											[3] 80							
Average											[3] 80							.80

1933 CROP (JANUARY 1933 TO FEBRUARY 1934)

Type and State of origin	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Domestic:																
Texas	1.89	2.17	2.36	2.48												
Florida			2.55	3.01												
New York								1.19	[1] 1.32							
Alabama					3.00											
Mississippi					3.04											
Tennessee						2.78										
Ohio						3.60	1.90									
Average	1.85	2.17	2.41	2.86	2.96	3.27	2.02	1.46	[1] 1.32							2.58
Danish:																
New York										1.50			2.64	2.48		
Pennsylvania										1.51						
Average										1.50			2.64	2.48		2.25
Pointed:																
Florida			2.50	2.58												
South Carolina				2.80	[2] 4.34											
Georgia				[2] 2.31	[2] 2.80											
Mississippi					3.07											
Virginia						[2] 1.86										
Maryland						2.39										
Average			2.50	2.83	3.12	2.22										2.77
Savoy:																
Virginia	1.37	1.46														
Texas		2.06														
Average	1.41	1.71														1.61

[1] Average wholesale prices as shown are based on stock of good merchantable quality and condition; monthly prices are simple averages of daily range of selling prices. In computing monthly averages some scattering quotations not shown by States in this table were used. The seasonal average for each type is weighted by the estimated unloads of that type for each month.

[2] Less than 10 quotations.

TABLE 27.—*Average wholesale price per 100 pounds of cabbage in less than carlots, Pittsburgh, by types, States of origin and months, crop years 1932–36*—Continued

1934 CROP (NOVEMBER 1933 TO MARCH 1935)

Type and State of origin	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Domestic:																		
Texas		3.79	2.76	1.89	1.91	1.87	2.24											
Arizona		3.97	3.06															
Florida			2.83	2.08	2.06													
Louisiana					[2] 1.48	1.60	1.96											
Alabama						[2] 1.49												
Mississippi							1.88											
Tennessee								1.66										
Virginia								1.63										
Ohio								1.81	1.38									
New Jersey								1.53	1.34									
Average		3.79	2.79	1.93	1.87	1.78	1.99	1.64	1.30									1.89
Danish:																		
New York												0.70	0.56	0.62	0.73	1.62	2.61	1.17
Average												.70	.56	.62	.73	1.62	2.61	1.17
Pointed:																		
South Carolina		3.58	2.16															
Florida			2.21	[2] 1.89														
Virginia								1.13										
Maryland								[2] 1.09										
Average		3.58	2.19	1.88			2.08	1.17										1.97
Savoy:																		
South Carolina			3.30															
Texas			[2] 2.82	2.53	2.10	1.88												
Florida			[2] 2.92															
Virginia	[2] 2.04																	
Average	[2] 2.04		2.97	2.51	2.11	1.88												2.49

1935 CROP (DECEMBER 1934 TO MARCH 1936)

Type and State of origin	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Domestic:																	
Texas		2.68	3.45	[2] 4.54													
Florida			4.93	6.07	6.05	3.51											
Mississippi						2.50											
Alabama						2.12											
Tennessee							1.66										
Ohio							1.13	0.92									
Pennsylvania										0.66							
Average		2.66	3.74	5.90	6.03	2.63	1.43	.94		.68							3.06
Danish:																	
New York											[3] 0.66	0.80	1.09	1.17	1.33	0.98	
Pennsylvania											.78	.78					
Average											.67	.79	1.09	1.17	1.33	.98	1.17
Pointed:																	
Florida				5.35	5.59												
South Carolina	2.36				4.92	2.85											
Virginia							1.28										
Average	2.36			5.35	5.05	2.45	1.24										3.70
Savoy:																	
South Carolina	[1] 2.95	2.72	3.67														
Texas		2.67	3.39														
Florida				4.62													
Average	2.73	2.77	3.58	4.62													3.12
Red:																	
Florida				5.07													
Average				5.07													

[1] Less than 10 quotations.

[2] Street sales.

TABLE 27.—*Average wholesale price per 100 pounds of cabbage in less than carlots, Pittsburgh, by types, States of origin, and months, crop years 1932–36*—Continued

1936 CROP (NOVEMBER 1935 TO MARCH 1937)

Type and State of origin	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
Domestic:	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Texas		3.26	2.63	2.29	2.09	2.73	2.45											
Florida				2.31	2.25	2.38												
Alabama							1.96											
Mississippi							2.06	[2] 3.17										
Louisiana							1.76											
Tennessee								3.57										
Ohio								5.46										
New Jersey									4.35									
Pennsylvania											[3] 1.42							
Average		3.26	2.64	2.26	2.13	2.54	2.18	4.25	4.36		1.42							2.58
Danish:																		
Pennsylvania											[3] 1.59	1.17	0.98					
New York												1.17		1.38	1.16	1.20	1.52	
Average											[3] 1.67	1.17	1.09	1.38	1.16	1.20	1.52	1.26
Pointed:																		
South Carolina	2.79	2.90					1.90											
Georgia							1.95											
Average	2.79	2.90					1.63											1.81
Savoy:																		
South Carolina			2.64	2.15														
Virginia		1.80																
Texas				[3] 2.44														
Average		2.01	2.65	2.25														2.43

[2] Less than 10 quotations.

[3] Street sales.

Compiled from daily market news reports of the Bureau of Agricultural Economics.

TABLE 28.—*Average wholesale price per 100 pounds of cabbage in less than carlots, Chicago, by types, States of origin and months, crop years 1932–36* [1]

1932 CROP (DECEMBER 1931 TO MARCH 1933)

Type and State of origin	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
Domestic:	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Texas	2.97	2.65	2.70	4.05	4.04	4.58											
California				3.69	[2] 4.00	3.66	[2] 3.24										
Alabama					3.86	[2] 4.58											
Mississippi						3.71	3.24		0.62	0.67							
Average	2.97	2.65	2.71	3.98	3.98	4.17	3.14		.62	.67							3.42
Danish:																	
Wisconsin											0.63	0.65	0.63	0.49	0.75		
Average											.63	.66	.66	.49	.75	1.02	.65
Pointed:																	
Florida	3.83		3.01														
Louisiana			2.73	3.63	3.59	4.28											
Alabama				3.85	3.81	[2] 4.58											
Mississippi						4.18	3.24										
Average	3.83		2.84	3.70	3.70	4.12	3.23										3.80
Savoy:																	
Texas	2.50	2.07	1.80	2.17	2.47												
Average	2.50	2.07	1.80	2.17	2.47												2.13
Red:																	
Texas		3.68	2.65	3.18	2.92												
Florida			3.37		4.45												
Average		3.68	2.88	3.18	3.30												3.24

[1] Average wholesale prices as shown are based on stock of good merchantable quality and condition; monthly prices are simple averages of daily range of selling prices. In computing monthly averages some scattering quotations not shown by States in this table were used. The seasonal average for each type is weighted by the estimated unloads of that type for each month.

[2] Less than 10 quotations.

TABLE 28.—*Average wholesale price per 100 pounds of cabbage in less than carlots, Chicago, by types, States of origin and months, crop years 1932-36*—Continued

1933 CROP (DECEMBER 1932 TO JANUARY 1934)

Type and State of origin	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Domestic:																	
Texas	2.22	1.72	1.86	2.27	2.60												
Louisiana	1.98		1.29														
Arizona		1.86															
Alabama		1.34			2.77	2.84											
California				2.53	[1] 2.55												
Georgia					2.70												
Mississippi						2.57											
Missouri							3.03										
Illinois							3.36	2.69	3.02								
Tennessee							2.84										
Washington									2.57								
Colorado									2.32								
Wisconsin										1.59							
Average	2.06	1.66	1.73	2.34	2.71	2.75	3.19	2.69	2.64	1.59							2.30
Danish:																	
Wisconsin											1.53	1.77	2.32	2.03			
Average											1.53	1.77	2.32	2.03			1.86
Pointed:																	
Louisiana	[1] 2.11					2.67											
Florida			2.66	2.56	2.80												
Georgia					2.88	3.21											
South Carolina					2.79												
Mississippi						2.77											
Average	2.41		2.60	2.54	2.71	2.77											2.66
Red:																	
Florida			[1] 2.56		2.90												
Texas				[1] 2.11													
New York												2.75	2.68				
Wisconsin													2.69				
Average			2.46	1.92	2.90							2.75	2.68				2.65

1934 CROP (DECEMBER 1933 TO MARCH 1935)

Domestic:																	
Texas	3.92	2.73	1.78	1.83	1.79	1.85											
Arizona	4.12	2.84	[2] 1.76														
Louisiana	3.23																
California		2.59	1.88	[2] 1.86				2.36									
Florida		2.55	2.02	2.28													
Oregon		2.18															
Alabama					1.58	[2] 1.81											
Mississippi						1.77	1.39										
Illinois									[2] 1.54	0.83		0.55	0.77				
Wisconsin									1.88	.95							
Missouri							1.82										
Tennessee							1.58										
Average	3.67	2.68	1.91	1.98	1.73	1.81	1.73	2.03	1.86	.89		.55	.77				1.79
Danish:																	
Wisconsin											.67	.59	.78	0.92	1.59	2.61	
Michigan															1.30		
New York																2.76	
Average											.67	.59	.78	.92	1.60	2.04	.90
Pointed:																	
Florida	3.82	2.62	2.04	2.31													
Louisiana			[2] 1.67														
South Carolina	4.05																
Mississippi						1.59											
Virginia							[2] 1.47										
Average	4.00	2.61	1.96	2.10		1.63	1.64										2.40
Savoy:																	
Texas			2.23	1.80	1.76												
Michigan														1.52			
Average			2.22	1.80	1.77									1.52			1.83
Red:																	
Florida			7.02	4.98	4.01												
Texas				4.03	3.08												
California							3.30										
Illinois												1.08					
Wisconsin												1.06	1.06	1.21	1.46		
Michigan													1.08		1.38		
Average			6.84	4.51	3.39		3.40					1.06	1.08	1.21	1.46		2.78

[2] Less than 10 quotations.

TABLE 28.—*Average wholesale price per 100 pounds of cabbage in less than carlots, Chicago, by types, States of origin and months, crop years 1932–36* —Continued

1935 CROP (DECEMBER 1934 TO FEBRUARY 1936)

Type and State of origin	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	Weighted average
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
Domestic:																	
Texas	[2] 3.14	2.59	3.40														
Arizona		2.15															
Louisiana		2.01															
California			3.53	4.87	4.76	2.61											
Florida				6.02	5.71												
Mississippi						2.17											
Tennessee							1.50										
Missouri							1.37										
Illinois								0.58	0.73	0.76	0.85	0.93					
Wisconsin									.73	.79	.85	.93					
Average	[2] 3.08	2.43	3.49	5.37	5.14	2.17	1.48	.58	.73	.78	.85	.93					2.35
Danish:																	
Wisconsin											.80	1.03	1.09	1.07	1.42		
Illinois														1.07			
New York															1.62		
Average											.80	1.03	1.09	1.07	1.51		.98
Pointed:																	
South Carolina					5.45												
Florida					5.58	2.52											
Louisiana						2.30											
Average	2.51				5.52	2.27											4.14
Savoy:																	
Texas		2.57	2.47														
Florida					4.62												
Average		2.57	2.47		4.62												3.22
Red:																	
Texas		2.98	3.22														
California		2.92	2.93	[2] 3.61													
Florida			3.86	5.29	4.23	2.83											
New York													2.79	2.87			
Average		3.13	3.51	4.75	4.19	3.20							2.79	2.87			3.11

1936 CROP (DECEMBER 1935 TO MARCH 1937)

Domestic:																	
Texas	2.99	2.36	2.00	1.80	2.31	[1] 1.95											
Louisiana					2.19												
California					2.34	1.81	[1] 3.99	[1] 3.95									
Florida					2.50												
Mississippi						1.82	[1] 2.81										
Missouri							2.97										
Tennessee							3.13										
Washington								[1] 3.89									
Illinois								3.23	2.63	1.55	1.21	1.10	1.22				
Kentucky								4.29									
Colorado								[1] 4.54	3.75								
Wisconsin									3.55	1.57	1.21	1.10	1.22				
Average	3.04	2.35	2.00	1.80	2.37	1.86	3.17	3.63	3.38	1.59	1.21	1.10	1.28				2.27
Danish:																	
Illinois											1.21	1.10	1.34				
Wisconsin											1.21	1.10	1.35	1.18	1.00		
New York												1.51	1.56	1.43	1.38	1.66	
Average											1.21	1.24	1.46	1.32	1.28	1.66	1.31
Pointed:																	
South Carolina	3.28					2.04											
Florida			1.97		2.57												
Georgia						2.10											
Average	3.28	2.24	1.97		2.66	2.00											2.52
Savoy:																	
Texas				1.74	1.84												
Average				1.74	1.84												1.78
Red:																	
Texas			4.30	3.25	2.38												
Florida			4.64	3.55	2.98	[1] 3.45											
Illinois											[1] 1.37		1.36				
Wisconsin											[1] 1.37		1.36				
New York												[1] 1.68	1.50	1.44	1.39		
Average			4.66	3.48	2.80	3.40					1.37	1.65	1.49	1.48	1.40		3.06

[1] Less than 10 quotations.

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