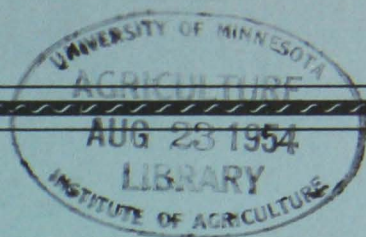


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Developments in the Poultry Industry

United States - - Minnesota

HANDBOOK AND DIGEST
For Agricultural Extension Workers and Other Leaders
in the Poultry Industry

by W. H. Dankers
Extension Economist - Marketing

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U. S. DEPARTMENT OF AGRICULTURE

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Developments in the Egg and Poultry Industry

W. H. Dankers*

Extension Economist in Marketing

Introduction

Minnesota was fourth in the United States in the number of farm chickens raised in 1953, and also fourth in the number of chickens on farms January 1, 1954. In both of these, Iowa was first, Pennsylvania second and California third.

Minnesota was third in the total number of eggs produced in 1953. Iowa was first and Pennsylvania second.

Minnesota was second in the number of turkeys raised in 1953 and was exceeded only by California. Virginia was in third place, Iowa in fourth, and Texas dropped to fifth place.

There has been almost continuous expansion in all phases of the Minnesota poultry industry during the last twenty years. Egg production in 1953 was about 2.4 times as high as in the prewar years of 1935-39. The number of turkeys raised each year nearly tripled during this period. There was practically no commercial broiler production in Minnesota before 1940. This enterprise is still not especially significant in terms of the contribution to total cash farm receipts, but significant forward strides have been made.

The production of poultry and poultry products ranges from a minor sideline enterprise on some Minnesota farms, to a major enterprise on other farms, and to a highly commercialized business on still other farms. There is a trend toward specialization within the poultry industry.

1. Egg production and farm chicken meat. Egg production is supplemented by poultry meat production from male birds purchased along with female birds for flock replacement, and from fowl that have been in the laying flock and are being replaced. This egg and farm poultry enterprise is becoming more specialized toward egg production because the percentage of "sexed" chicks purchased from hatcheries is constantly increasing. In 1953 the cash income from eggs provided 9.7 percent of the total cash farm receipts in Minnesota, and chicken meat (not including commercial broilers) provided 1.2, or a total for this enterprise of 10.9 percent.

2. Commercial broiler production. In 1953 commercial broiler production provided .3 percent of total Minnesota cash farm receipts. As indicated by the term "commercial" broiler production, this enterprise is usually highly specialized and commercialized.

3. Turkey production. In 1953 Minnesota turkey production and turkey sales provided 2.3 percent of total cash farm receipts. This highly specialized and commercialized enterprise has in recent years divided itself into two enterprises, namely the production of Bronze and other large turkeys, and the production of Beltsville and other small turkeys which are sold largely as turkey fryers and broilers. Some producers are active in both enterprises, while others have preferred to specialize in one or the other.

All together the poultry enterprises in Minnesota provided 13.5 percent of total cash farm receipts in 1953. This was higher than in other recent years, when income from poultry and poultry products provided from 10 to 11 percent of total cash farm receipts.

An example of increased efficiency in Minnesota's poultry industry is the increase in egg production per hen from an annual average of less than 90 eggs in the late twenties and early thirties to 165 eggs in 1953 (based on the January 1 inventory of hens and pullets). Egg production per hen in Minnesota is now considerably above the United States average.

Nearly 70 percent of the eggs produced in Minnesota are sold outside of the state. Chicago is an important market, but a large proportion of Minnesota eggs move to the more distant markets of the East, West, and South, so that Minnesota producers, handlers and others have a national interest in the poultry industry.

To assist in the analysis and study of the developments in the egg and poultry industry, this handbook, and the poultry statistics included are presented as reference material. An index precedes the statistical tables so that any section may be easily located. In the "notes" which follow the different tables, attention is called to the "highlights", and to important items that can be observed from the tables.

The statistical information was obtained and calculated from egg and poultry reports published by the various Divisions of the Agricultural Marketing Service in the United States Department of Agriculture, the Minnesota Federal-State Crop and Livestock Reporting Service and the Department of Agricultural Economics, University of Minnesota.

* Alyce Piepho, Senior Clerk and Dolores Giese, Assistant Clerk, Agricultural Extension Marketing, assisted in the preparation of the material for this report.

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I. EGG PRODUCTION - U. S.

	Total Eggs Produced on Farms (a)	Index 1935-39 = 100	Hens and Pullets on Farms (b) January 1	Index 1935-39 = 100	Average Number of Layers on Farms during the year	Index 1935-39 = 100	Eggs per Layer (c)	Index 1935-39 = 100	Eggs per Layer (d)	Index 1935-39 = 100
	(million)		(million)		(million)					
1925-29	37,485	103	408	111	320	113	93	93	117	91
1930-34	36,768	101	397	108	303	107	93	93	121	94
1935-39	36,381	100	364	100	283	100	100	100	128	100
1940-44	48,659	134	443	121	344	121	110	110	141	110
1945-49	55,724	153	439	120	347	123	127	127	161	126
1950	58,734	161	424	115	342	121	139	139	172	134
1951	59,265	163	410	112	331	117	144	144	175	137
1952	60,985	168	420	114	342	121	145	145	178	139
1953	61,704	170	404	110	340	120	153	153	182	142
1954			414	113						

(a) Non-farm egg production (from small flocks not actually on farms) is about 10 percent of farm production.

(b) This includes the pullets which are laying, and those not laying, but which are kept for egg production.

(c) Based on the number of hens and pullets on farms January 1.

(d) Based on the average number of layers on farms during the year.

Note: 1. There has been a large increase in the total production of eggs. The percentage increase in total egg production has been more than three times the percentage increase in human population since the pre-war years of 1935-39.

2. There has been a continuous increase in the number of eggs per hen. In 1953 there were 70 percent more eggs produced than the average annual production for 1935-39, with only 20 percent more laying hens.

II. EGG PRODUCTION - Minnesota

	Total Eggs Produced on Farms	Index 1935-39 = 100	Hens and Pullets on Farms (a) January 1	Index 1935-39 = 100	Average Number of Layers on Farms during the year	Index 1935-39 = 100	Eggs per Layer (b)	Index 1935-39 = 100	Eggs per Layer (c)	Index 1935-39 = 100
	(million)		(million)		(million)					
1925-29	1,424	89	16.2	98	12.9	99	87	91	110	89
1930-34	1,457	91	16.9	102	12.9	99	86	90	113	92
1935-39	1,599	100	16.6	100	13.0	100	96	100	123	100
1940-44	2,864	179	24.1	145	19.4	149	138	144	148	120
1945-49	3,764	236	27.0	163	21.9	168	139	148	172	140
1950	3,820	239	25.2	152	20.9	161	151	157	183	149
1951	3,842	240	24.5	147	20.7	159	157	163	186	151
1952	3,731	233	23.6	142	19.8	152	158	165	189	154
1953	3,813	239	23.1	139	19.6	151	165	172	195	158
1954			23.3	140						

(a) This includes the pullets which are laying and those not laying but which are kept for egg production.

(b) Based on the number of hens and pullets on farms January 1.

(c) Based on the average number of layers on farms during the year.

Note: 1. There has been a great expansion in the egg enterprise in Minnesota since the pre-war years of 1935-39. In the last several years, total egg production was more than 2 1/3 times as large as the average annual production for 1935-39. This was due to an increase of over 50 percent in egg production per hen, and an increase in numbers of hens and pullets. The increase in numbers of hens and pullets came before 1945. Since then there has been a considerable decrease.

2. To what extent the egg enterprise in Minnesota can remain on an expanded basis will depend on production handling, and distribution costs compared with costs in other states and areas. Most areas of Minnesota are in a favorable situation for low cost production because feeds are in surplus and comparatively cheap. Much will depend on flock management and marketing methods.

III. MONTHLY EGG PRODUCTION AND PERCENTAGE OF YEARLY TOTAL - U. S.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Monthly Average
	M i l l i o n s													
1925-29	1874	2775	4744	5371	5099	4115	3517	2988	2401	1863	1311	1427	37484	3124
1930-34	2213	3051	4656	5122	4884	3866	3226	2739	2265	1817	1392	1536	36768	3064
1935-39	2239	2790	4375	4896	4653	3755	3192	2715	2270	1951	1637	1907	36380	3032
1940-44	3442	4070	5657	6012	5808	4751	4074	3527	3048	2784	2523	2963	48659	4055
1945-49	4477	4902	6345	6361	6029	5050	4403	3820	3443	3450	3429	4011	55719	4643
1950	5238	5203	6242	6110	5901	4997	4500	4123	3847	4047	4062	4464	58734	4894
1951	5070	5173	6156	6040	5881	5060	4543	4112	3943	4240	4345	4793	59356	4946
1952	5362	5668	6386	6164	5938	4991	4431	4125	4081	4371	4480	5037	61016	5085
1953	5416	5304	6272	6068	5872	5051	4642	4346	4206	4614	4803	5267	61861	5155
1954	5448	5476	6605	6271	6071	5251								
Percent Monthly Production Was of the Total Egg Production for the Year														
1925-29	5.0	7.4	12.6	14.3	13.6	11.0	9.4	8.0	6.4	5.0	3.5	3.8	100.0	
1930-34	6.0	8.3	12.7	13.9	13.3	10.5	8.8	7.4	6.2	4.9	3.8	4.2	100.0	
1935-39	6.2	7.7	12.0	13.4	12.8	10.3	8.8	7.5	6.2	5.4	4.5	5.2	100.0	
1940-44	7.1	8.4	11.6	12.3	11.9	9.8	8.4	7.2	6.3	5.7	5.2	6.1	100.0	
1945-49	8.0	8.8	11.4	11.4	10.8	9.1	7.9	6.9	6.2	6.2	6.1	7.2	100.0	
1950	8.9	8.9	10.6	10.4	10.0	8.5	7.7	7.0	6.5	6.9	6.9	7.7	100.0	
1951	8.6	8.7	10.4	10.2	9.9	8.5	7.7	6.9	6.6	7.1	7.3	8.1	100.0	
1952	8.8	9.3	10.4	10.2	9.7	8.1	7.3	6.8	6.7	7.2	7.3	8.2	100.0	
1953	8.8	8.6	10.1	9.8	9.5	8.2	7.5	7.0	6.8	7.4	7.8	8.5	100.0	
1954														

Continued on Page 4

- Note:
1. The spring peak in U. S. egg production and the fall low point came earlier in the last several years than in previous years. This is the result of earlier spring hatchings, more rapid maturing of pullets, birds laying at a younger age and consequently earlier fall egg production.
 2. Because of the seasonality, or variation in monthly egg production, there is need for storing eggs as a means of leveling out the supply for consumption.
 3. Comparatively low egg production in the late summer and early fall months results in a short supply of shell eggs at that time, even though the supply of eggs for the year may be comparatively abundant.
 4. Egg production has "leveled out" greatly during the last 20 years. This is indicated by the following:
 - (a) For the five year periods of 1925-29 and 1930-34, egg production in the peak month of April was $3 \frac{1}{2}$ to 4 times as large as in the low production month of November. In recent years egg production in the peak month of March has been less than $1 \frac{1}{2}$ times as large as in the low production month of September.
 - (b) The peak monthly production in earlier years was 13 to 14 percent of total annual production. In the last few years it has been only about 10 percent. In the earlier years April was consistently the peak month, but since 1950 it has been March.
 - (c) In the earlier years egg production in the low production month of November was below 4 percent of total annual production. In recent years production in September, which was the low production month, was between 6.5 and 7.0 percent of total annual production.

IV. MONTHLY EGG PRODUCTION AND PERCENTAGE OF YEARLY TOTAL - Minnesota

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Monthly Average
	M i l l i o n s													
1925-29	59.8	83.0	158.8	212.6	216.6	174.2	146.6	123.0	96.0	65.4	40.0	44.2	1420.2	118.3
1930-34	76.4	100.8	172.8	217.8	218.4	170.0	136.8	116.6	93.0	62.4	41.2	50.4	1456.6	121.4
1935-39	88.2	101.0	167.6	211.4	230.4	187.6	154.2	129.8	106.2	78.6	61.4	82.8	1599.2	133.3
1940-44	221.4	238.4	305.4	337.8	348.6	290.4	246.6	212.2	175.4	147.2	143.0	197.6	2864.0	238.7
1945-49	353.8	343.0	399.4	394.6	388.8	338.8	298.2	263.6	225.8	211.4	235.0	311.6	3764.0	313.7
1950	374.0	344.0	380.0	360.0	363.0	320.0	285.0	262.0	241.0	248.0	283.0	360.0	3820.0	318.3
1951	387.0	344.0	367.0	346.0	351.0	315.0	291.0	272.0	256.0	255.0	294.0	364.0	3842.0	320.2
1952	374.0	354.0	375.0	361.0	353.0	300.0	269.0	248.0	228.0	237.0	278.0	353.0	3730.0	310.8
1953	384.0	345.0	376.0	362.0	355.0	306.0	282.0	261.0	227.0	239.0	295.0	368.0	3800.0	316.7
1954	386.0	359.0	396.0	361.0	354.0	321.0								
	Percent Monthly Production Was of the Total Egg Production for the Year													
1925-29	4.2	5.8	11.2	15.0	15.2	12.3	10.3	8.7	6.8	4.6	2.8	3.1	100.0	8.3
1930-34	5.2	6.9	11.9	14.9	15.0	11.7	9.4	8.0	6.4	4.3	2.8	3.5	100.0	8.3
1935-39	5.5	6.3	10.5	13.2	14.4	11.7	9.7	8.1	6.7	4.9	3.8	5.2	100.0	8.3
1940-44	7.7	8.3	10.7	11.8	12.2	10.2	8.6	7.4	6.1	5.1	5.0	6.9	100.0	8.3
1945-49	9.4	9.1	10.6	10.5	10.4	9.0	7.9	7.0	6.0	5.6	6.2	8.3	100.0	8.3
1950	9.8	9.0	9.9	9.4	9.5	8.4	7.5	6.9	6.3	6.5	7.4	9.4	100.0	8.3
1951	10.0	9.0	9.6	9.0	9.1	8.2	7.6	7.1	6.7	6.6	7.6	9.5	100.0	8.3
1952	10.0	9.5	10.1	9.7	9.4	8.0	7.2	6.6	6.1	6.4	7.5	9.5	100.0	8.3
1953	10.1	9.1	9.9	9.5	9.3	8.0	7.4	6.9	6.0	6.3	7.8	9.7	100.0	8.3
1954														

- Note: 1. In earlier years Minnesota egg production reached a peak in the month of May which was later than for the United States. A large number of Minnesota pullets are now being brought into production earlier in the fall. For this reason monthly egg production has been quite uniformly high during January to March, if allowance is made for the smaller number of days in February.
2. A larger percentage of total annual egg production is obtained in the winter months of December, January, and February in Minnesota than in the United States as a whole.

V. PRICE PER DOZEN RECEIVED BY FARMERS - U. S. Mid-Month Prices

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Simple Annual Average
(Cents per Dozen)													
1925-29	38.6	30.9	24.0	23.0	27.7	23.9	25.4	27.4	31.5	36.7	43.4	45.5	31.5
1930-34	23.3	17.1	14.6	14.3	13.7	13.3	14.6	16.6	20.0	23.2	27.4	25.8	18.7
1935-39	22.3	20.5	17.6	17.7	18.0	18.1	19.5	20.8	23.9	26.1	29.1	26.7	21.7
1940-44	28.6	26.1	24.3	24.2	24.6	25.7	27.8	29.6	32.6	35.4	38.2	38.0	29.6
1945-49	43.8	38.7	37.8	38.0	38.4	39.6	42.4	46.1	48.6	51.1	50.7	49.4	43.7
1950	31.2	29.6	31.6	30.9	29.6	30.1	34.3	38.0	40.4	43.2	45.6	57.7	36.9
1951	42.6	41.4	43.7	43.2	45.2	44.7	46.6	49.6	55.0	55.6	56.5	51.1	47.9
1952	40.5	34.7	34.0	35.2	34.2	35.7	43.3	48.2	48.7	50.3	51.9	46.6	41.9
1953	45.8	42.0	44.7	45.5	45.9	45.7	47.7	50.2	51.4	53.3	49.7	48.5	47.5
1954	46.3	45.7	38.7	35.0	33.1	32.9							
Index of Monthly Prices - Simple Annual Average = 100													
1925-29	123	98	76	73	88	76	80	87	100	117	138	144	100
1930-34	125	92	78	77	74	71	78	89	107	124	147	138	100
1935-39	103	94	82	82	83	83	90	96	110	120	134	123	100
1940-44	97	88	82	82	83	87	94	100	110	120	129	128	100
1945-49	100	89	86	87	88	91	97	105	111	117	116	113	100
1950	85	80	86	84	80	82	93	103	110	117	124	156	100
1951	89	86	91	90	94	93	97	104	115	116	118	107	100
1952	96	83	81	84	82	85	103	115	116	120	124	111	100
1953	96	88	94	96	97	96	100	106	108	112	105	102	100
1954													

- Note:
1. The degree of "seasonality" in egg prices has been less than in egg production. - Compare with Table III.
 2. The lowest mid-month prices for eggs occurred from about February or March through June, when monthly production of eggs was at or near the yearly peak. - Compare with Table III.
 3. The highest mid-month prices for eggs occurred in the fall months when monthly production of eggs was at or near the yearly low point. - Compare with Table III.
 4. Producers are getting flocks into production earlier in the fall than they used to. Because more eggs were produced in the fall and winter months, egg prices in recent years already declined in late fall and rose again earlier the next summer, compared with earlier periods.
 5. Producers who bring their flocks into production in late summer and early fall have a decided advantage, and can "cash in" on higher egg prices.

VI. PRICE PER DOZEN RECEIVED BY FARMERS - Minnesota Mid-Month Prices

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Simple Annual Average
	(Cents per Dozen)												
1930-34	20.0	15.0	14.0	13.0	13.0	11.0	12.0	14.0	16.0	20.0	24.0	23.0	16.3
1935-39	19.0	18.0	16.0	16.0	17.0	16.0	17.0	18.0	20.0	24.0	25.0	23.0	19.1
1940-44	24.0	23.0	23.0	24.0	24.0	24.0	26.0	27.0	29.0	31.0	33.0	32.0	26.7
1945-49	36.2	33.9	34.9	35.8	35.8	36.1	37.4	39.6	40.8	43.3	41.7	40.1	38.0
1950	25.2	25.0	27.0	27.0	26.6	26.4	28.6	30.4	33.2	36.5	37.3	46.3	30.8
1951	31.7	34.8	38.5	39.0	42.0	41.1	38.7	44.6	50.2	48.8	49.0	41.2	41.6
1952	31.0	27.8	29.8	30.5	29.9	30.5	39.0	44.0	43.0	46.0	45.0	35.0	36.0
1953	37.0	36.0	41.0	41.5	41.5	42.5	42.5	45.5	46.5	49.5	43.0	39.0	42.1
1954	38.4	39.5	33.0	29.5	27.5	27.0							
	Index of Monthly Prices - Simple Annual Average = 100												
1930-34	123	92	86	80	80	68	74	86	99	123	147	142	100
1935-39	100	94	84	84	89	84	89	94	105	126	131	120	100
1940-44	90	86	86	90	90	90	98	101	109	116	124	120	100
1945-49	95	89	92	94	94	95	99	104	108	114	110	106	100
1950	82	81	88	88	86	86	93	99	108	118	121	150	100
1951	76	83	92	94	101	99	93	107	121	117	118	99	100
1952	86	77	83	85	83	85	109	122	120	128	125	97	100
1953	88	85	97	98	99	101	101	108	110	118	102	93	100
1954													

- Note: 1. The low level of prices for eggs in the depression years of the 30's. In some months they were less one-third of the prices for the same months in recent years.
2. The range in egg prices from the low in late spring to the high in fall. Earlier chicks, good young flock management, rapidly maturing pullets and fall egg production will help Minnesota producers increase their returns from the poultry enterprise.
3. The price received by Minnesota farmers for a dozen of eggs is continuously below the average U. S. price. Nearly 70 percent of the supply of Minnesota eggs is sold outside of the state at markets considerably removed from the point of production. This involves a transportation cost which along with other handling costs must be covered by the consumer's price. This makes for a lower residual price to the producer. Surplus feed supplies and lower feed costs are to the advantage of the producer in holding his production costs down, which in turn makes it possible for him to sell at a lower price per dozen.

VII. AVERAGE ANNUAL FARM PRICES RECEIVED FOR EGGS, AND PERCENT OF PARITY - U. S.

Year	Farm Price (Cents per doz.)	"Effective" Parity Price (Cents per doz.)	Percent Farm Price Was of Parity
1930-34	18.7	29.2	64
1935-39	21.7	28.9	75
1940-44	29.5	31.8	93
1945-49	43.6	47.0	93
1950	36.9	51.1	72
1951	47.9	52.7	91
1952	41.9	50.7	83
1953	47.5	47.4	100
1954			

- Note: 1. The farm price of eggs was continually below 90 percent of parity before the World War II period, and has been below 90 percent of parity in several recent years.
2. Much progress has been made in the poultry industry during the last 25 years in better breeding, feeding and housing, and in lower mortality. All this has greatly reduced cost of production. This is one of the reasons why total egg production in the United States in 1953 was 70 percent above the 1935-39 annual average, and in Minnesota 139 percent above. This increase in production was achieved during a period when egg prices were sometimes less than 90 percent of parity. It is quite clear that egg production will continue at a comparatively high level even though egg prices are considerably below parity.

VIII. MARGINS BETWEEN FARM AND MINNEAPOLIS RETAIL PRICES OF EGGS - Minnesota

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1935-39	11.7	10.0	10.6	9.4	8.4	9.1	9.5	10.6	11.4	12.1	12.2	11.7
1940-44	12.4	12.6	11.5	11.2	11.4	11.2	11.8	12.4	13.5	14.8	15.8	15.1
1945-49	22.3	18.7	17.3	16.4	17.0	17.0	17.9	19.0	22.9	23.4	23.0	23.3
1950	19.3	17.3	17.2	18.6	17.7	17.6	16.7	20.9	20.3	22.2	24.8	25.0
1951	25.7	18.4	19.8	18.8	17.8	17.8	22.4	19.3	19.6	23.9	24.6	24.6
1952	22.1	22.5	18.7	19.9	16.4	19.1	19.0	20.5	22.9	21.3	18.6	24.9
1953	20.7	19.9	18.4	18.2	18.1	18.3	19.2	19.2	24.2	25.6	23.5	23.4
1954	22.4	20.1	20.2	19.5								

- Note: 1. The information furnished in this table is of value only in indicating variations and trends. A considerable proportion of the eggs originally sold by producers, and especially the lower value eggs such as those stained, of irregular shape and of lower quality, move into other marketing channels. Therefore, the Minneapolis retail price is not representative of the consumer price for all of the eggs originally sold by producers. The margins are also based on Minnesota average mid-month prices to producers. Special studies of egg prices received by producers show that prices vary greatly in Minnesota. The prices received by producers for the eggs marketed in Minneapolis are usually higher than the Minnesota average mid-month prices.
2. Margins between Minnesota average farm prices and Minneapolis retail prices for eggs tend to follow a fairly consistent seasonal pattern. Margins are usually lowest in spring when prices received by farmers are lowest, and highest in fall, when prices received by farmers are highest. Handling margins are frequently based on a percentage of the cost of the product. This would result in a higher margin per dozen in fall.
3. The per dozen margin has been considerably higher during the last several years compared with the pre-war period.

IX. FORM IN WHICH EGGS WERE USED

Year	Eggs Produced	Eggs Consumed		Total Eggs Sold	Eggs Sold As Liquid Egg Products ⁽¹⁾								Sold As Shell Eggs	
		Eggs Used for Hatching	Eggs in Farm House-hold		Total	Shell Egg Equiv.	For Immediate Consumption	Shell Egg Equiv.	Frozen Egg (2)	Shell Egg Equiv.	Dried Egg (3)	Shell Egg Equiv.		
		Million	Million		Thousand Pounds	Million	Thousand Pounds	Million	Thousand Pounds	Million	Thousand Pounds	Million		
1945-49	55707	261	7830	47617	648,408	6063	18,078	169	307,937	2879	322,416	3015	41554	
1950	58734	165	6864	51705	696,663	6514	20,115	188	322,014	3011	354,534	3315	45191	
1951	59265	148	6552	52565	408,654	3821	18,340	171	316,317	2958	73,997	692	48744	
1952	60985	135	6686	54164	382,394	3575	18,404	172	287,952	2692	76,038	711	50589	
1953	61704	121	6557	55026	411,274	3845	21,094	197	313,064	2927	77,116	721	51181	
1954														
Percent of Total Eggs Used in Various Forms														
1945-49	100.0	.5	14.1	85.4		10.8		.3		5.1		5.4	74.6	87.3
1950	100.0	.3	11.7	88.0		11.1		.3		5.1		5.7	76.9	87.4
1951	100.0	.2	11.1	88.7		6.5		.3		5.0		1.2	82.2	92.7
1952	100.0	.2	11.0	88.8		5.9		.3		4.4		1.2	82.9	93.4
1953	100.0	.2	10.6	89.2		6.2		.3		4.7		1.2	83.0	93.0
1954														

- (1) The shell egg equivalents (number of eggs) used in liquid egg products was obtained by dividing the number of pounds of liquid by 38.5 to obtain the number of cases of eggs used. This figure was in turn multiplied by 360 to obtain the number of individual eggs used.
- (2) Does not include the liquid egg which was frozen and dried later.
- (3) Includes the liquid egg which was frozen and dried later.
- (4) Weight of liquid egg.

Note: 1. The very high percent of total egg production and total egg sales used in shell form.
 2. The liquid egg and dried egg industries became significant during the period of World War II, as a means of simplifying overseas shipments.
 3. Only a little more than 1 percent of total egg production has been dried during the last few years. The major portion of the production of liquid egg is frozen, and is later used as liquid egg in baking and in processed food products.
 4. The liquid egg industry provides a good way of carrying over the excess supply of eggs in periods of

X. MONTHLY PRODUCTION OF LIQUID EGG - United States

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	Volume Produced (Million Pounds)												
1950-53	27.0	50.8	80.8	83.4	89.2	62.5	31.3	17.8	12.0	7.6	5.9	6.5	474.8
1950	44.0	73.4	116.5	112.6	125.9	93.2	58.5	32.6	21.6	9.9	6.1	2.4	696.7
1951	22.7	34.7	77.0	83.7	87.5	49.6	22.5	13.7	7.6	4.3	3.1	2.3	408.7
1952	23.3	48.1	62.7	63.7	71.1	48.9	21.9	12.1	11.0	7.0	6.0	6.6	382.4
1953	18.0	47.0	66.9	73.7	72.4	58.1	22.3	12.7	8.0	9.1	8.4	14.7	411.3
1954	30.0	48.0	93.0	85.0									
	Percent Monthly Production Was of the Total for the Year												
1950-53	5.7	10.7	17.0	17.6	18.8	13.2	6.6	3.7	2.5	1.6	1.2	1.4	100.0
1950	6.3	10.5	16.7	16.2	18.1	13.4	8.4	4.7	3.1	1.4	.9	.3	100.0
1951	5.5	8.5	18.8	20.4	21.4	12.1	5.5	3.4	1.9	1.1	.8	.6	100.0
1952	6.1	12.6	16.4	16.6	18.6	12.8	5.7	3.2	2.9	1.8	1.6	1.7	100.0
1953	4.4	11.4	16.3	17.9	17.6	14.1	5.4	3.1	2.0	2.2	2.0	3.6	100.0
1954													

- Note: 1. The production of liquid egg permits salvaging high quality eggs which are not suitable for the shell egg market, such as eggs with irregular shapes, cracked or otherwise abnormal shell conditions, and eggs which are too large or too small.
2. About 3/4 of the volume of liquid egg is produced during the February-June period when production of eggs exceeds consumption.

XI. MONTHLY UTILIZATION OF LIQUID EGG - United States

(Percent of Total Production)

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	<u>1950-53</u>												
Frozen	72.9	74.2	79.3	76.9	72.1	64.3	56.6	61.0	63.5	62.5	61.4	73.1	71.5
For Drying	20.1	19.6	17.8	19.7	25.2	32.5	40.0	30.3	32.3	26.1	31.3	20.6	24.4
For Immediate Consumption	7.0	6.2	2.9	3.4	2.7	3.2	3.4	8.7	4.2	11.4	7.3	6.3	4.1
	<u>1950</u>												
Frozen	67.7	64.0	66.9	57.1	46.0	31.5	30.4	41.2	39.0	45.8	39.3	57.3	50.8
For Drying	26.4	30.9	31.6	40.1	52.4	67.1	67.4	53.0	58.2	45.4	52.1	30.0	46.3
For Immediate Consumption	5.9	5.1	1.5	2.8	1.6	1.4	2.2	5.8	2.8	8.8	8.6	12.7	2.9
	<u>1951</u>												
Frozen	68.2	73.7	87.1	87.0	85.5	80.0	86.6	79.6	84.1	73.7	83.1	68.6	83.1
For Drying	23.4	18.8	10.4	9.6	12.1	16.2	8.2	8.5	9.0	5.3	3.7	11.6	12.4
For Immediate Consumption	8.4	7.5	2.5	3.4	2.4	3.8	5.2	11.9	6.9	21.0	13.2	19.8	4.5
	<u>1952</u>												
Frozen	76.9	79.1	87.2	86.4	88.4	86.4	75.7	77.1	85.2	69.2	74.5	75.8	83.8
For Drying	16.8	15.0	9.7	9.2	7.8	9.3	19.4	11.9	10.8	17.1	19.5	18.0	11.4
For Immediate Consumption	6.3	5.9	3.1	4.4	3.8	4.3	4.9	11.0	4.0	13.7	6.0	6.2	4.8
	<u>1953</u>												
Frozen	86.2	85.4	84.3	87.5	85.1	85.0	76.1	76.3	80.5	70.3	59.8	75.2	83.4
For Drying	4.7	7.3	9.9	9.3	10.8	10.4	20.2	13.4	13.8	21.8	35.0	21.6	11.5
For Immediate Consumption	9.1	7.3	5.8	3.2	4.1	4.6	3.7	10.3	5.7	7.9	5.2	3.2	5.1

- Note: 1. Because a large percentage of the volume of liquid egg is produced during the season when egg production exceeds consumption only a small percentage of it is used for "immediate consumption". A large percentage of the volume produced during the surplus production season is frozen and stored and is used during the season of short supply.
2. The volume of liquid egg dried is usually quite low. It rises considerably in a year like 1950 when production is high in relation to the prevailing demand, and egg prices are comparatively low.

XII. LIQUID EGG PRODUCTS - United States

Year	Total Production of Liquid Egg (Million Pounds)	Percent of Total	Whole Egg (Million Pounds)	Percent of Total	Mixed Whole Egg (Million Pounds)	Percent of Total	Albumen (Million Pounds)	Percent of Total	Yolks* (Million Pounds)	Percent of Total
1940-44	887.3	100.0	694.6	78.3	43.7	4.9	79.8	9.0	69.2	7.8
1945-49	648.4	100.0	430.0	66.3	52.0	8.0	94.3	14.6	72.1	11.1
1950	696.7	100.0	448.5	64.3	68.7	9.9	110.7	15.9	68.8	9.9
1951	408.7	100.0	141.5	34.6	75.3	18.4	116.4	28.5	75.5	18.5
1952	382.4	100.0	92.5	24.2	73.5	19.2	132.7	34.7	83.7	21.9
1953	411.3	100.0	114.1	27.7	64.7	15.7	137.6	33.5	94.9	23.1
1954										

* Plain yolks, sugared yolks, salted yolks and yolk emulsion.

Note: 1. There has been a constant increase in the percentage of the volume of liquid egg that was separated, and sold as albumen and yolks.

2. There has been an increase in the percentage of the volume of liquid egg that was prepared and sold as "mixed" whole egg. Mixed whole egg is different from whole egg in that the product has a certain percentage of albumen or yolks as specified by the buyer.

XIII. BREEDS OF CHICKENS - United States

(Birds in National Poultry Improvement Plan Hatchery Supply Flocks)

	Number of states reporting	Total number of birds (million)	Percent of the Total Number of Birds from Each Breed							Total
			White Leghorn	Cross Mated (1)	New Hampshire	Rhode Island Red	White Rock	Barred Rock	Other Breeds	
1943-44	40	19.0	25.9	7.7	20.0	8.2	18.6	13.1	6.7	100.0
1945-49	41	26.5	24.2	12.4	28.8	6.2	14.6	9.1	4.7	100.0
1950	47	33.8	21.6	16.4	38.9	4.1	10.1	5.8	3.1	100.0
1951	47	37.6	18.9	17.7	41.4	3.3	11.9	4.0	2.8	100.0
1952	47	33.8	20.1	20.0	36.2	3.2	14.8	3.5	2.2	100.0
1953										
1954										

(1) This figure is somewhat arbitrary. In some states cross mated birds are reported under the respective purebred heading, and in some states flocks are cross mated only a part of the year to produce broilers. For the rest of the year they are mated as purebreds for the production of purebred chicks.

- Note:
1. There has been a definite trend toward purchasing chicks from Cross Mated parents.
 2. The New Hampshire breed has increased.
 3. Both White Leghorns and White Rocks have had a slight decline, but have held fairly steady.
 4. Barred Rocks have been on a definite decline.
 5. The concentration on specific breeds is very noticeable in late years. In 1951, about 90 percent of all breeding stock consisted of New Hampshires, White Leghorns, Cross Mated and White Rocks. The percent was still higher in 1952.

XIV. CHICKS HATCHED BY COMMERCIAL HATCHERIES - U. S.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	M i l l i o n s												
1940-44	44.9	103.2	229.7	281.7	242.5	119.7	51.9	34.7	29.7	29.9	29.2	29.2	1226.3
1945-49	59.3	117.9	253.4	315.3	244.2	110.1	60.5	46.3	43.0	47.1	48.1	43.4	1388.6
1950	86.7	141.8	267.0	284.5	214.6	104.7	76.5	75.9	72.9	74.5	70.7	68.3	1538.1
1951	96.0	161.0	270.0	317.0	271.0	143.0	104.8	89.1	76.9	83.0	83.6	87.0	1782.4
1952	121.9	190.4	292.5	289.8	216.0	116.6	85.0	78.4	79.9	86.4	87.8	94.7	1739.4
1953	125.2	170.2	277.0	287.5	229.8	136.6	96.8	91.0	86.9	97.9	107.5	116.2	1822.6
1954	138.5	192.8	310.4	308.9	225.3								
	Percent Monthly Hatch Was of the Total Hatch for the Year												
1940-44	3.7	8.4	18.7	23.0	19.8	9.8	4.2	2.8	2.4	2.4	2.4	2.4	100.0
1945-49	4.3	8.5	18.2	22.7	17.6	7.9	4.4	3.3	3.1	3.4	3.5	3.1	100.0
1950	5.6	9.2	17.4	18.5	14.0	6.8	5.0	4.9	4.7	4.8	4.6	4.5	100.0
1951	5.4	9.0	15.1	17.8	15.2	8.0	5.9	5.0	4.3	4.7	4.7	4.9	100.0
1952	7.0	11.0	16.8	16.7	12.4	6.7	4.9	4.5	4.6	5.0	5.0	5.4	100.0
1953	6.8	9.3	15.2	15.8	12.6	7.5	5.3	5.0	4.8	5.4	5.9	6.4	100.0
1954													

Note: 1. Over fifty percent of the total number of chicks were hatched during the comparatively short season of March, April, and May in the earlier years of 1940-44 and 1945-49. The situation has changed somewhat because more "early" chicks are being ordered for flock replacement, and more chicks are also being ordered for broiler production throughout the year. The net result has been to level off the seasonal peak and low point in monthly hatchings.

2. The length of the main hatching season is affected by prices of eggs and poultry:

- (a) Favorable egg prices during the winter months stimulate early hatches.
- (b) Favorable egg prices during the hatching season stimulate late hatches, and unfavorable prices discourage them.
- (c) Favorable poultry prices stimulate summer hatches for the production of broilers.

XV. CHICKS HATCHED BY COMMERCIAL HATCHERIES - Minnesota

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	T h o u s a n d s												
1940-44	192	3,044	12,170	19,170	17,413	7,134	296	--	--	--	--	--	59,419
1945-49	51	1,600	14,604	22,413	18,066	3,295	79	48	45	44	64	64	60,373
1950	300	2,190	14,420	21,640	16,390	1,730	180	170	140	160	210	170	57,700
1951	230	2,660	13,530	20,150	17,265	2,715	200	230	155	130	210	155	57,650
1952	500	2,840	15,200	19,600	12,190	950	200	175	145	125	130	130	52,185
1953	500	3,400	15,200	18,800	13,200	1,460	200	190	195	185	210	200	53,740
1954	750	4,600	18,000	18,500	11,500								
	Percent Monthly Hatch Was of the Total Hatch for the Year												
1940-44	.3	5.1	20.5	32.3	29.3	12.0	.5	--	--	--	--	--	100.0
1945-49	.1	2.6	24.2	37.1	29.9	5.5	.1	.1	.1	.1	.1	.1	100.0
1950	.5	3.8	25.0	37.5	28.4	3.0	.3	.3	.2	.3	.4	.3	100.0
1951	.4	4.6	23.5	35.0	29.9	4.7	.3	.4	.3	.2	.4	.3	100.0
1952	1.0	5.4	29.1	37.7	23.4	1.8	.4	.3	.3	.2	.2	.2	100.0
1953	.9	6.3	28.3	35.0	24.6	2.7	.4	.3	.4	.3	.4	.4	100.0
1954													

- Note: 1. The Minnesota hatching business is very seasonal. Nearly 90 percent of the chicks are hatched in March, April, and May.
2. There is a tendency toward earlier hatching in Minnesota in recent years. This is indicated by larger hatches in February and March, and smaller hatches in May and June compared with the same months in earlier years.
3. The increase in late summer and fall hatching reflects the increase in broiler production in Minnesota.

XVI. CHICKS HATCHED FOR LAYING FLOCK REPLACEMENTS

Year	Total Number of Chicks Hatched by Commercial Hatcheries	Chicks Raised for Laying Flock Replacement	Percent of Total Chicks Hatched	Percent of Laying Flock Replacements Purchased as "Sexed" Chicks
	M i l l i o n			
1942-44	1392.6	892.0	64.1	19
1945-49	1388.6	733.0	52.8	25
1950	1538.1	635.0	41.3	32
1951	1782.4	663.0	37.2	33
1952	1739.4	617.0	35.5	37
1953	1822.6	615.0	33.7	42
1954				44(1)

(1) Preliminary

- Note: 1. The steady decline in the percent of total chicks hatched which are for laying flock replacement. This is due to the increase hatchings for broiler production and to the purchase of "sexed" chicks for flock replacement.
2. The steady increase in the percent of laying flock replacement chicks which are purchased as sexed chicks.

XVII. DEATH LOSS OF LAYERS

Year	West North Central Region	East North Central Region	North Atlantic Region	Southern Region	Western Region	United States	Minnesota
	Death Loss Percentage of Chickens on Hand January 1						
1940-44	19.6	19.4	14.7	17.0	19.5	18.2	21.0
1945-49	17.0	18.2	17.4	18.4	19.6	17.9	16.4
1950	16.9	18.7	19.7	19.0	19.8	18.5	16.7
1951	17.7	19.0	19.3	20.6	21.0	19.3	17.0
1952	18.5	19.8	20.7	22.0	22.8	20.5	17.0
1953	19.8	19.1	22.1	21.7	23.4	20.6	18.0
1954							

- Note: 1. The death loss of layers has increased in recent years in all regions of the United States. About one out of every five layers was lost during the last several years.
2. The North Atlantic region used to have the smallest death loss of layers, but in recent years the smallest death loss was in the North Central region.
3. Minnesota's death loss of layers was far above the United States average for the period of 1940-44. Since then it has been materially reduced and is now below the United States average and also below the average for the West North Central region.

XVIII. CHICKEN MEAT SOLD, LIVE WEIGHT OF BIRDS, AND PRICES RECEIVED - United States

Year	Total Chicken Meat Sold (Million Pounds)	Mature Chickens (Million Pounds)	% of Total	Young Chickens (Million Pounds)	% of Total	Commercial Broilers Sold (Million Pounds)		Average Live Weight per Bird Sold Pounds			Price to Producers Cents	
						Commercial Broilers Sold (Million Pounds)	% of Total	Mature Chickens	Young Chickens	Commercial Broilers	(1) Chickens	Broilers
United States												
1935-39	1629	749	46.0	677	41.6	203	12.4	4.8	3.3	2.9	14.8	19.6
1940-44	2801	1049	37.5	1093	39.0	659	23.5	5.2	3.5	2.9	19.1	23.2
1945-49	3233	1178	36.4	989	30.6	1066	33.0	5.2	3.7	3.0	27.1	31.7
1950	3785	1034	27.3	813	21.5	1938	51.2	5.3	3.8	3.1	22.3	27.4
1951	4340	973	22.4	904	20.8	2463	56.8	5.3	3.9	3.1	25.1	28.6
1952	4477	949	21.2	829	18.5	2699	60.3	5.4	3.9	3.0	22.3	28.8
1953	4730	959	20.3	754	15.9	3017	63.8	5.4	4.0	3.1	22.3	27.1
1954												
Minnesota												
1935-39	20.3	7.4	36.5	11.9	58.6	1.0	4.9	4.8	3.8	2.7	--	--
1940-44	32.3	11.8	36.5	18.5	57.3	2.0	6.2	4.9	3.9	2.7	16.5	26.6
1945-49	141.1	77.9	55.2	59.1	41.9	4.1	2.9	4.8	4.0	2.9	22.6	34.6
1950	104.4	67.5	64.7	30.3	29.0	6.6	6.3	4.9	4.0	3.0	17.1	28.0
1951	109.8	62.3	56.8	36.6	33.3	10.9	9.9	4.7	4.1	3.0	19.4	28.8
1952	100.5	58.7	58.4	30.3	30.2	11.5	11.4	4.8	4.3	2.9	16.5	29.5
1953	99.8	59.7	59.8	28.1	28.2	12.0	12.0	4.9	4.3	2.9	16.5	27.6
1954												

(1) Average price of all chickens sold from farm flocks, including mature and young chickens.

- Note:
1. The percentage of total chicken meat sold in the United States which is supplied from Commercial broiler production has increased. The increase has been comparatively rapid in the last several years.
 2. The commercial broiler industry in Minnesota supplies only a small percentage of the total poultry meat sold in the state. However, considerable growth in the broiler industry is indicated.
 3. The average weight of mature chickens sold in Minnesota is lower than the U. S. average. This very likely is the result of a larger percentage of Leghorn and other "egg laying" flocks in Minnesota compared with the United States.

XIX. APPROXIMATE AVERAGE WEIGHTS AND PROCESSING SHRINKAGES IN POULTRY (1)

Kind and Class	Approximate Average Weights			Approximate Shrinkages		
	Live	Dressed (2)	Ready to Cook (3)	Live to Dressed	Live to Ready to Cook	Dressed to Ready to Cook
	P o u n d s			P e r c e n t		
Chickens:						
Hens	5.5	4.9	3.7	10.5	32.5	25.0
Roasters	5.0	4.5	3.4	10.5	33.0	25.0
Broilers, Fryers	3.0	2.6	1.9	11.5	36.0	28.0
All Chickens	4.0	3.6	2.6	11.0	35.0	27.0
Turkeys:						
Hens and Toms	11.0	9.8	8.2	11.0	25.5	16.5
Hens and Toms	18.0	16.2	13.9	10.0	23.0	14.5
Hens and Toms	27.0	24.6	21.2	9.0	21.5	13.5
Fryers	7.0	6.2	5.0	12.0	28.0	18.0
All Turkeys	18.5	16.6	13.9	10.0	25.0	16.5
Ducks	6.0	5.3	4.2	11.0	30.5	22.0
Geese	14.0	12.4	10.2	11.5	27.5	18.0

- (1) Based on data from various sources, including large-volume commercial operations and studies made under laboratory conditions.
- (2) Dressed poultry has had only the blood and feathers removed.
- (3) Ready to cook poultry has had the blood, feathers, head and feet removed and has been drawn (eviscerated). Ready to cook weights include abdominal fat, if any, and neck and giblets.

Note: 1. There is a substantially larger shrinkage in young birds than in mature birds. This is indicated for both turkeys and chickens.

2. Chickens have a much larger shrinkage than turkeys, and also a larger shrinkage than geese and ducks.

3. Turkey fryers (broilers) have a considerably lower shrinkage than chicken broilers and fryers.

XX. MID-MONTH FARM PRICES RECEIVED FOR CHICKENS - United States

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Simple Annual Average
Farm Chickens* - Cents Per Pound													
1930-34	13.5	13.5	13.8	14.3	13.9	13.5	13.4	13.3	13.5	12.7	12.2	11.7	13.4
1935-39	14.6	14.8	15.1	15.6	15.4	15.2	14.8	14.6	15.1	14.7	14.4	14.1	15.1
1940-44	17.7	18.0	18.5	19.1	19.5	19.4	19.4	19.7	19.8	19.8	19.4	19.3	19.3
1945-49	27.0	26.8	27.8	28.2	27.7	27.6	28.0	27.6	27.3	26.6	25.2	26.1	27.2
1950	21.5	21.5	23.3	22.5	21.8	21.0	22.3	24.1	22.9	21.3	22.0	22.6	22.2
1951	24.9	27.1	28.7	29.0	29.3	27.0	26.4	24.6	23.9	23.0	22.6	23.3	25.8
1952	25.0	24.9	24.9	24.0	22.5	21.7	21.8	22.4	21.9	20.6	21.6	22.2	22.8
1953	23.2	24.0	25.2	24.9	24.8	22.9	23.0	22.7	21.6	20.2	20.8	21.0	22.9
1954	21.6	21.7	22.4	21.0									
Commercial Broilers - Cents Per Pound													
1952	28.8	29.3	28.1	27.1	25.3	26.8	29.3	31.0	31.3	29.1	31.6	29.7	29.0
1953	27.9	27.7	28.1	28.0	27.2	26.2	28.3	27.9	27.1	26.7	28.0	23.2	27.2
1954	24.6	22.6	23.4	24.5									

* Does not include commercial broilers.

- Note: 1. The mid-month price for chickens does not vary greatly from month to month. This is quite different from the large variation in monthly egg prices.
2. The average mid-month prices for chickens during the period of 1945-49 and in later years were about double what they were in the ten year period of 1930-39.
3. Although chicken prices have been considerably below parity during the last several years, production of poultry meat has continued at a comparatively high level. This is the result of increased efficiency and lower production costs compared with earlier years.

XXI. MID-MONTH FARM PRICES RECEIVED FOR CHICKENS - Minnesota

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Simple Annual Average
Farm Chickens* - Cents Per Pound													
1940-44	14.6	14.6	14.9	15.3	16.1	16.1	16.7	17.2	17.4	16.5	16.0	16.5	15.9
1945-49	21.4	20.9	21.0	21.3	21.6	21.8	23.5	23.5	23.2	22.7	21.1	20.9	21.9
1950	15.5	15.0	15.0	16.0	14.5	15.5	16.5	19.0	18.5	16.5	16.0	16.0	16.2
1951	17.0	20.0	22.0	24.0	25.0	20.5	21.0	20.0	20.0	18.0	17.0	17.0	20.1
1952	17.5	17.2	16.1	16.0	14.5	15.5	16.0	18.0	17.0	16.0	15.5	16.5	16.3
1953	17.0	18.0	19.0	20.0	21.0	18.0	19.5	19.0	18.0	16.0	16.0	16.5	18.2
1954													
Commercial Broilers - Cents Per Pound													
1952	28.0	28.5	28.5	28.0	28.0	27.5	27.0	27.5	28.5	27.5	30.0	29.5	28.2
1953	29.0	29.0	28.0	28.0	28.0	28.0	28.5	27.5	27.5	25.5	25.5	25.5	27.5
1954													

* Does not include commercial broilers.

- Note: 1. Minnesota broiler prices were consistently higher than the U. S. average in the earlier periods (see Table XVIII). This was the result of limited production and special local market outlets. With increased broiler production in Minnesota, this spread in price has practically disappeared. (Compare Table XX and XXI and also see Table XVII)
2. Minnesota chicken prices have been consistently lower than the U. S. average. The chicken meat enterprise (young and mature chickens) is largely supplementary to the egg enterprise in Minnesota. A large proportion of the chicken meat comes from egg laying breeds and strains. Farm prices are the residual of prices paid by consumers, less the costs of transportation and handling. A lower cost of production in Minnesota, especially a lower feed cost, compared with other areas, is another reason why Minnesota producers can market chickens at lower farm prices than producers in some of the other areas.

Index of Red Meat and Poultry Meat Production - U. S.

Year	Pork	Beef	Veal	Lamb and Mutton	Total Red Meat	Lard
1930-34	119	94	88	99	105	141
1935-39	100	100	100	100	100	100
1940-44	156	120	117	114	136	157
1945-49	144	140	144	96	140	141
1950	146	137	118	69	136	161
1951	157	127	102	60	135	176
1952	157	139	113	74	142	177
1953	139	179	150	84	154	148
1954						

Year	Chicken	Turkey	Total Poultry Meat	Total Red and Poultry Meat	Index of Human Population
1930-34	107	73	103	105	97
1935-39	100	100	100	100	100
1940-44	143	139	142	137	101
1945-49	158	179	161	143	109
1950	175	210	179	143	117
1951	198	240	203	145	117
1952	202	264	210	152	119
1953	212	249	217	163	121
1954					123

- Note: 1. Total meat production was at a low level during the 1935-39 period. This period included two drouth years. There was less feed available for livestock and less meat produced.
2. There has been a substantial increase in total meat production since 1935-39. Meat production has increased at a more rapid rate than human population.
3. The largest percentage increase in meat production since 1935-39 was in poultry and especially turkey.
4. The production of lamb and mutton has declined since the 1935-39 period.

XXIII. PER CAPITA CONSUMPTION OF RED MEAT, POULTRY MEAT, AND EGGS - United States

A. Red Meat

Year	Index - 1935-39 Annual Average = 100									
	Pork		Beef		Veal		Lamb and Mutton		All Red Meat	
	Pounds	Index	Pounds	Index	Pounds	Index	Pounds	Index	Pounds	Index
1910-14	65.1	117	64.8	118	6.6	81	7.1	106	143.6	115
1915-19	63.0	113	61.1	111	6.8	84	5.3	79	136.2	109
1920-24	67.5	121	57.8	105	7.9	97	5.4	81	138.6	111
1925-29	66.9	120	53.8	98	7.3	90	5.3	79	133.3	106
1930-34	67.3	121	51.2	93	7.1	88	6.7	100	132.3	106
1935-39	55.7	100	54.8	100	8.1	100	6.7	100	125.3	100
1940-44	71.8	129	56.4	103	8.6	106	6.7	100	143.5	115
1945-49	68.6	123	62.6	114	10.1	125	5.6	84	146.9	117
1950	68.1	122	62.5	114	7.9	97	3.9	58	142.4	114
1951	70.6	127	55.2	101	6.6	81	3.4	51	135.8	108
1952	71.6	129	61.2	112	7.1	88	4.1	61	144.0	115
1953	63.6	114	76.3	139	9.4	116	4.4	66	153.7	123
1954										

Note: 1. Per capita consumption of red meats has been fairly uniform over a long period of time, varying somewhat with employment and consumer purchasing power. It increased substantially in 1953 because there was an abundant supply of beef, and prices to consumers were quite favorable.

B. Poultry Meat, All Meat and Eggs

Year	Chicken		Turkey		All Poultry Meat		All meat - Red Meat and Poultry Meat		Eggs	
	Pounds	Index	Pounds	Index	Pounds	Index	Pounds	Index	Number	Index
1910-14	20.0	112	2.0	77	22.0	107	165.6	114	309	104
1915-19	18.4	103	2.0	77	20.4	100	156.6	107	296	99
1920-24	18.7	104	2.0	77	20.7	101	159.3	109	313	105
1925-29	20.1	112	2.0	77	22.1	108	155.4	107	334	112
1930-34	19.9	111	2.0	77	21.9	107	154.2	106	311	104
1935-39	17.9	100	2.6	100	20.5	100	145.8	100	298	100
1940-44	23.8	133	3.4	131	27.2	133	170.7	117	325	109
1945-49	25.0	140	4.1	158	29.1	142	176.0	121	382	128
1950	26.4	147	4.8	185	31.2	152	173.6	119	383	129
1951	28.8	161	5.2	200	34.0	166	169.8	116	395	133
1952	29.6	165	5.4	208	35.0	171	179.0	123	407	137
1953	29.4	164	5.0	192	34.4	168	188.1	129	397	133
1954										

- Note: 1. Low production resulted in a low level of consumption of all meats during the period of 1935-39.
2. There has been a substantial increase in per capita consumption of both meat and eggs since the late thirties. The largest increase in per capita consumption of meat was in poultry meat and especially in turkey.
3. Per capita consumption of all meats was at a high level during the last number of years. This was largely the result of full employment and high purchasing power.

XXIV. CASH RECEIPTS FROM POULTRY AND PERCENT OF TOTAL FARM MARKETINGS

Year	Eggs		Chickens		Commercial Broilers (1)		Turkeys		All Poultry (2)		Total Cash Receipts from Farm Marketing	
	Million Dollars	% of Total	Million Dollars	% of Total	Million Dollars	% of Total	Million Dollars	% of Total	Million Dollars	% of Total	Million Dollars	% of Total
United States												
1935-39	485	6.2	213	2.7	39	.5	63	.8	812	10.2	7,954	100.0
1940-44	992	6.6	431	2.9	161	1.1	135	.9	1719	11.5	14,926	100.0
1945-49	1716	6.4	585	2.2	353	1.3	252	1.0	2906	10.9	26,761	100.0
1950	1564	5.5	411	1.5	530	1.9	262	.9	2767	9.8	28,328	100.0
1951	2093	6.4	472	1.4	703	2.1	341	1.1	3609	11.0	32,799	100.0
1952	1877	5.8	396	1.2	778	2.4	342	1.1	3393	10.5	32,373	100.0
1953	2185	7.1	381	1.2	817	2.6	318	1.0	3701	11.9	30,975	100.0
1954												
Minnesota												
1935-39	19.0	5.7	10.1	3.1	--	--	5.2	1.6	34.3	10.4	329	100.0
1940-44	58.6	9.2	22.9	3.6	.6	.1	12.0	1.9	94.1	14.8	634	100.0
1945-49	111.9	6.6	30.8	1.8	1.4	.1	24.5	1.5	168.6	10.0	1,148	100.0
1950	89.1	7.5	16.7	1.4	1.8	.2	25.4	2.1	133.0	11.2	1,188	100.0
1951	119.7	6.9	19.2	1.1	3.1	.2	30.9	1.8	172.9	10.0	1,276	100.0
1952	100.8	6.8	14.6	1.0	3.3	.2	29.5	2.0	148.2	10.0	1,275	100.0
1953	123.0	9.7	15.4	1.2	3.3	.3	28.5	2.3	170.2	13.5	1,262	100.0
1954												

(1) Includes consumption in household of producers, which is less than 1 percent of production.

(2) Does not include ducks, geese, and "other poultry" which is about 1 percent of farm receipts for poultry.

- Note:
1. Cash receipts from all poultry and poultry products in the United States and in Minnesota have been averaging 10 to 12 percent of the total cash receipts from farm marketings.
 2. The egg enterprise is comparatively important in the Minnesota poultry industry. Cash receipts from eggs constitute a higher percentage of total cash farm receipts than for the United States as a whole.
 3. The commercial broiler enterprise is on the increase in Minnesota, but to date is contributing only a small amount to the total cash farm receipts in Minnesota.
 4. Minnesota is an important turkey state. Cash receipts from turkeys have in recent years ranged from 17 to 20 percent of cash receipts from all poultry and poultry products. The cash receipts from turkeys constitute over 2 percent of total cash farm receipts compared with about 1 percent for the United States as a whole.

XXV. TURKEYS RAISED ON FARMS

Year	West North Central Region		East North Central Region		North Atlantic Region		Southern Region (1)		Western Region		United States		Minnesota		
	Mil.	% of Total	Mil.	% of Total	Mil.	% of Total	Mil.	% of Total	Mil.	% of Total	Mil.	% of Total	Mil.	% of U. S. Total	% of West North Central Region Total
1930-34	5.5	26.7	1.5	7.3	.9	4.4	8.1	39.3	4.6	22.3	20.6	100.0	1.7	8.3	30.9
1935-39	8.2	30.4	2.2	8.2	1.6	5.9	8.4	31.1	6.6	24.4	27.0	100.0	2.2	8.1	26.8
1940-44	10.3	31.0	3.0	9.1	2.2	6.6	8.0	24.1	9.7	29.2	33.2	100.0	3.1	9.3	30.1
1945-49	10.2	26.9	4.5	11.8	3.5	9.2	7.9	20.8	11.9	31.3	38.0	100.0	3.6	9.5	35.3
1950	11.1	25.4	5.4	12.3	3.9	8.9	10.2	23.3	13.2	30.1	43.8	100.0	4.1	9.4	36.9
1951	12.3	23.4	6.1	11.6	4.3	8.2	13.5	25.7	16.3	31.1	52.5	100.0	4.6	8.8	37.4
1952	12.9	21.2	7.1	11.7	5.3	8.7	17.7	29.1	17.8	29.3	60.8	100.0	5.2	8.6	40.3
1953	13.4	23.7	7.2	12.8	4.7	8.3	15.2	26.9	16.0	28.3	56.5	100.0	5.6	9.9	41.8
1954															

(1) Includes South Atlantic and South Central Regions.

Note: 1. The number of turkeys raised in the United States increased steadily up to 1952. The increase in production was shared by all regions, however some regions increased more than others.

2. In late years Minnesota has produced about 2/5 of all the turkeys in the West North Central region, and about 9 percent of the total for the United States.

XXVI. DEATH LOSS OF TURKEYS

Year	A. Young Turkeys Lost - Percent of the Total Number Bought and Home Hatched					United States
	West North Central Region	East North Central Region	North Atlantic Region	Southern Region (1)	Western Region	
1940-44	26.0	22.5	20.5	37.0	21.5	28.1
1945-49	16.4	17.2	16.2	25.0	15.4	18.5
1950	15.0	15.0	12.0	20.0	14.0	15.6
1951	13.0	14.0	11.0	17.0	10.0	12.9
1952	12.0	13.0	10.0	16.0	10.0	12.6
1953	10.0	11.0	9.0	10.0	9.0	9.4
1954						
	B. Breeding Stock Lost - Percent of Breeders on Hand Jan. 1					
1940-44	11.0	10.0	8.0	12.9	7.3	10.9
1945-49	7.2	8.2	7.0	11.0	5.6	8.1
1950	7.0	8.0	7.0	9.0	7.0	7.9
1951	7.0	8.0	7.0	9.5	6.0	7.5
1952	7.0	6.0	6.0	6.0	5.0	5.7
1953	6.0	6.0	8.0	6.5	5.0	6.1
1954						

(1) Includes South Atlantic and South Central Regions.

- Note: 1. Great progress has been made in all regions in reducing death losses of turkey breeding stock and young turkeys.
2. Both the Western and North Atlantic regions have had consistently lower death losses of young turkeys than the West North Central region. With only a few exceptions these regions have also had lower death losses of breeding stock.

XXVII. SHIFT TO BELTSVILLE WHITE AND OTHER SMALLER TURKEYS AND SOURCE OF TURKEY HATCHING EGGS - Minnesota

A. Number of Turkey Breeder Hens - January 1						
Year	Bronze and Other Heavy Breeds (000)	Percent of Total	Beltsville and Other Light Breeds (000)	Percent of Total	Total All Breeds (000)	Percent of Total
1951	138	81.1	32	18.9	170	100.0
1952	171	77.4	50	22.6	221	100.0
1953	158	78.6	43	21.4	201	100.0
1954	145	58.9	101	41.1	246	100.0

B. Source of Turkey Eggs for Minnesota Hatcheries						
Year	Minnesota Flocks (000)	Percent of Total	Other States (000)	Percent of Total	All Eggs (000)	Percent of Total
1951	6,736	64.0	3,789	36.0	10,525	100.0
1952	9,316	69.2	4,143	30.8	13,459	100.0
1953	9,338	73.3	3,395	26.7	12,733	100.0

Note: 1. The shift to the production of Beltsville and other light breed turkeys is indicated by the large increase in the number of breeder hens of these breeds on hand January 1. Since 1952 there has been a considerable decline in the number of Bronze breeder hens kept in Minnesota.

2. During the last several years Minnesota has produced a larger percentage of its turkey hatching eggs. A higher proportion of Beltsville eggs were produced in Minnesota than the proportion of Bronze.

XXVIII. AVERAGE LIVE WEIGHT OF TURKEYS SOLD

Year	West North Central Region				East North Central Region				North Atlantic Region			
	Hens	Toms	Fryers	All	Hens	Toms	Fryers	All	Hens	Toms	Fryers	All
	P o u n d s				P o u n d s				P o u n d s			
1930-34	--	--	--	13.6	--	--	--	14.1	--	--	--	14.0
1935-39	--	--	--	14.6	--	--	--	14.8	--	--	--	14.8
1940-44	12.5	18.9	--	15.7	12.5	18.5	--	15.5	12.6	18.9	--	15.8
1945-49	13.9	22.6	--	18.2	13.7	21.4	--	17.6	13.4	20.6	--	17.0
1950	14.2	23.6	--	18.9	14.2	22.6	--	18.4	13.7	21.1	--	17.4
1951	14.0	23.5	--	18.7	14.1	22.5	--	18.3	13.6	21.1	--	17.4
1952	14.0	24.2	7.3	18.2	14.5	23.5	7.9	17.1	14.0	22.0	8.0	14.4
1953	14.2	24.9	7.8	17.2	14.8	24.2	7.8	16.5	14.5	23.0	8.8	15.4
1954												

Year	Southern Region				Western Region				United States				Minnesota			
	Hens	Toms	Fryers	All	Hens	Toms	Fryers	All	Hens	Toms	Fryers	All	Hens	Toms	Fryers	All
	P o u n d s				P o u n d s				P o u n d s				P o u n d s			
1930-34	--	--	--	13.6	--	--	--	14.5	--	--	--	13.8	--	--	--	13.8
1935-39	--	--	--	14.3	--	--	--	15.7	--	--	--	14.8	--	--	--	14.6
1940-44	12.2	17.8	--	15.0	13.5	21.5	--	17.6	12.8	19.3	--	16.1	12.2	19.2	--	15.7
1945-49	12.9	19.9	--	16.4	14.7	24.8	--	19.8	13.9	22.4	--	18.1	13.8	22.6	--	18.2
1950	13.0	20.2	--	16.6	15.0	25.4	--	20.2	14.1	23.0	--	18.6	14.1	23.8	--	19.0
1951	12.4	19.1	--	15.8	14.3	24.3	--	19.3	13.6	22.2	--	17.9	13.8	23.4	--	18.6
1952	13.9	21.5	7.7	15.1	15.0	26.0	7.7	18.5	14.3	23.7	7.6	16.9	13.6	23.7	7.9	17.1
1953	14.0	21.7	7.5	15.4	14.9	26.4	7.9	19.1	14.5	24.3	8.0	17.0	14.8	24.2	7.8	16.5
1954																

- Note: 1. It appears that the weight at which Bronze hens and toms (large turkeys) are being marketed is still increasing. Turkey fryers (Beltsvilles and other small turkeys) were not separately reported until 1952. The inclusion of fryers in reporting the average live weight of hens and toms in 1950 and 1951 reduced the average weight figure so that it is not entirely comparable with the figures for 1952 and 1953 nor for earlier years when very few small breed turkeys were raised.
2. The average live weight of turkeys sold is the largest in the Western region and lowest in the Southern region.
3. The average live weight of turkeys sold in the West North Central region and in Minnesota is comparatively large, even though a much larger percentage of the turkeys are marketed before November 1 than in other regions of the country. (See Table XXIX)

XXIX. SEASONALITY IN MARKETING TURKEYS

A. Percent of Turkeys Marketed in the Different Seasons ⁽¹⁾ - United States					
Year	Before August 1	August - October	November	December	January or Later
1940-44	(2)	11.1	40.6	35.6	12.6
1945-49	(2)	20.9	38.4	30.0	10.7
1950	(2)	23.3	39.0	29.2	8.5
1951	(2)	36.1	33.8	22.7	7.4
1952	8.9	33.5	30.5	21.2	5.9
1953	9.0	35.8	30.2	20.2	4.8
1954					

(1) Breeders not included.

(2) Included in August to October figure before 1952.

B. Percent of Turkeys Marketed Before November in the Different Regions

Year	Western Region	West North Central	East North Central	North Atlantic	Southern Region	United States
1951	37.6	38.6	29.3	26.3	38.0	36.1
1952	40.9	51.1	33.0	26.3	43.4	42.4
1953(3)	44.6	52.7	33.8	23.4	48.0	44.9

(3) Intentions

- Note: 1. The marketing of turkeys is still highly seasonal, although it is less seasonal than in the earlier periods of 1940-44 and 1945-49. More than half of the turkeys are still being marketed in November and December.
2. A higher percentage of the young turkeys raised in the West North Central region are sold in October and earlier compared with other regions. One reason is the abundant feed supply in the region and continuous heavy feeding up to maturity. Another reason is the distance to major consuming centers requiring that the birds move into market channels at an earlier date so that they can be offered on the holiday market.

XXX. FARM PRICES RECEIVED FOR TURKEYS - United States

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Simple Annual Average
U. S. Prices - Mid-Month (Cents Per Pound)													
1940-44	22.4	22.0	21.8	21.7	21.4	21.1	21.2	21.8	22.7	23.7	25.8	26.9	25.9
1945-49	37.2	35.3	34.8	34.7	33.2	32.9	34.2	34.9	35.8	36.8	37.2	38.9	35.5
1950	32.6	31.6	31.6	30.1	27.4	28.8	30.5	33.9	33.4	31.7	32.5	34.3	31.5
1951	33.9	34.5	35.3	35.3	35.4	35.8	35.3	35.3	36.3	35.8	37.8	39.6	35.9
1952	37.1	36.1	34.5	34.5	32.0	32.3	31.9	32.6	33.2	32.9	33.7	34.6	33.8
1953	33.6	33.3	33.6	33.3	32.5	31.7	32.3	32.7	32.4	33.3	33.9	34.4	33.1
1954	33.2	32.7	33.1	32.8	30.5	30.1							
U. S. Effective Parity Prices													
1950	35.9	--	--	--	--	36.9	36.9	37.2	37.6	37.6	37.9	38.2	--
1951	38.6	39.2	39.8	40.2	40.0	40.2	40.0	40.0	40.0	40.2	40.3	40.3	39.9
1952	40.2	40.3	40.3	40.5	40.5	40.0	40.0	40.2	39.8	39.5	39.3	39.3	40.0
1953	38.6	38.4	38.5	38.2	38.2	37.7	38.1	38.1	37.9	37.8	37.9	38.1	38.1
1954	37.8	37.8	37.9	37.9	38.1	37.8							
Percent That U. S. Farm Prices Were of Parity													
1950	90.8	--	--	--	--	78.0	82.7	91.1	88.8	84.3	85.8	89.9	--
1951	87.8	88.0	88.7	87.8	88.5	89.1	88.3	88.3	90.8	89.1	93.8	98.3	90.0
1952	92.3	89.6	85.6	85.2	79.0	80.8	79.8	81.1	83.4	83.3	85.8	88.0	84.5
1953	87.0	86.7	87.3	87.2	85.1	84.1	84.8	85.8	85.5	88.1	89.4	90.3	86.9
1954	87.8	86.5	87.3	86.5	80.0	80.0							

- Note: 1. Turkey prices have been about 50 percent higher during the early 1950's compared to the prices which prevailed during the 1940-44 period.
2. Turkey prices have been fluctuating between 80 to 90 percent of parity. This has been a sufficient incentive to bring forth the necessary supply, with occasional threats of an "over supply".

XXXI. FARM PRICES RECEIVED FOR TURKEYS - Minnesota

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Simple Annual Average
Prices - Mid-Month (Cents Per Pound)													
1950	34.0	35.0	35.0	33.0	24.5	30.0	33.0	38.0	34.5	31.0	31.0	35.0	32.8
1951	36.0	36.0	39.0	38.0	37.0	37.0	37.0	38.0	39.0	35.0	36.0	38.0	38.3
1952	39.0	36.0	35.0	36.0	31.0	30.0	31.0	31.0	32.0	31.0	32.0	34.0	33.2
1953	35.0	37.0	38.0	37.0	35.0	33.0	32.0	33.0	33.0	33.0	33.0	33.0	34.3
1954	35.0	32.0	31.0	31.0	31.0	31.0							
Percent That Minnesota Turkey Prices Were of U. S. Effective Parity Prices													
1950	94.7	--	--	--	--	81.3	89.4	102.2	91.8	82.4	81.8	91.6	--
1951	93.3	91.8	98.0	90.5	92.5	92.0	92.5	95.0	97.5	87.1	89.3	94.3	96.0
1952	97.0	89.3	86.8	88.9	76.5	75.0	77.5	77.1	80.4	78.5	81.4	86.5	83.0
1953	90.7	96.3	98.7	96.9	91.6	87.5	84.0	86.6	87.1	87.3	87.1	86.6	90.0
1954	92.6	84.7	81.8	81.8	81.4	82.0							

Note: 1. Minnesota turkey prices are usually below the U. S. average during the heavy marketing season of October, November and December. During this season a large proportion of the dressed turkeys are exported to other states. During the remainder of the year Minnesota prices are usually above the U. S. average. This is probably a reflection of a high proportion of local sales and a saving in costs of transportation, which in turn is reflected in a higher price to producers.

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