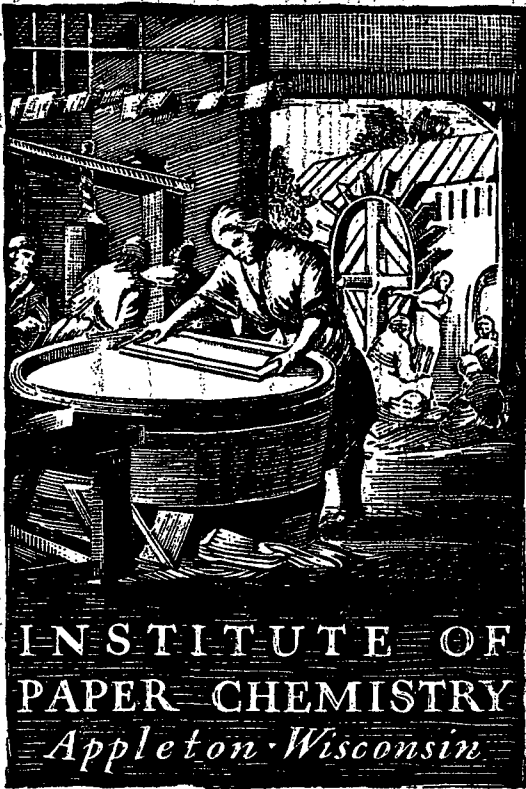


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PRODUCTION DATA REPORT

✓ Project 1108-13

Supplementary Report Thirteen

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

February 1, 1956

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

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The production data contained herein represent the production of linerboard as reported by the following Fourdrinier Kraft Board Institute member mills for the fourth quarter of 1955:

The Chesapeake Corporation of Virginia
Continental Can Company, Inc.
Gaylord Container Corporation
Georgia Kraft Company
International Paper Company
Olin Mathieson Chemical Corp., Forest Products Division
National Container Corporation
North Carolina Pulp Co. & Kieckhefer Container Co.
St. Joe Paper Company
St. Regis Paper Company
Southern Paperboard Corporation
Union Bag and Paper Corporation
West Virginia Pulp and Paper Company

As in previous reports, the data have been tabulated according to (1) total production by quarters and (2) production by grades by quarters.

The total production for the first, second, third, and fourth quarters of 1955 is given in Table I and graphically illustrated in Fig. 1. The total production for 1954 is also included in Table I and Fig. 1 for comparison. The production by grades per quarter may be seen in Table II

together with the corresponding tonnages for the previous four quarters. In addition, percentage production by grades is given in Table III for the current quarter and the previous four quarters. These figures are based on the total production per quarter computed separately with the miscellaneous figure included and with the miscellaneous figure excluded. The major tonnage grades--namely, 26-lb., 33-lb., 38-lb., 42-lb., 47-lb., 69-lb., 90-lb., and miscellaneous are illustrated in Fig. 2 through 9, respectively, together with the production for the previous quarters.

In order to give a better perspective of the above data, the tonnages for the major grades have been plotted on a semi-logarithmic scale (see Fig. 10) for the purpose of comparing the change in production of these grades. A useful measure is the "percentage change" which is defined as the change in production in tons for the present quarter divided by the tonnage level of the previous quarter. The advantage of semi-log graphs in this case is that the "percentage change" may be compared readily even though the magnitude of the tonnage levels may be vastly different. When two lines are parallel (regardless of magnitude), the "percentage change" of these two items is the same. When two lines are not parallel, the one with the greater (steeper) slope has the higher "percentage change."

There are a number of comparisons which may be of interest. Some of these are the following:

1. The figure for total production decreased only slightly from 965.2 thousand tons for the third quarter of 1955 to 959.0 thousand tons for the fourth quarter of 1955.

2. The total tonnage for 1955 was 3,756,373 as compared with a 1954 production tonnage of 3,110,727.

3. The tonnages of all major grades for the third and fourth quarters are shown below. Compared with the third quarter production of the corresponding grades, production of the following grades increased during the fourth quarter: 26-lb., 33-lb., 38-lb., 69-lb., and 90-lb.; whereas production of 42-lb. and 47-lb. decreased.

| | 1955 Tonnages | |
|--------|---------------|----------------|
| | Third Quarter | Fourth Quarter |
| 26-lb. | 76,568 | 88,026 |
| 33-lb. | 50,552 | 57,475 |
| 38-lb. | 71,121 | 73,506 |
| 42-lb. | 448,500 | 437,015 |
| 47-lb. | 37,456 | 30,985 |
| 69-lb. | 102,412 | 110,613 |
| 90-lb. | 53,013 | 55,850 |

4. The tonnage of miscellaneous linerboard decreased from 82,301 for the third quarter of 1955 to 76,551 for the fourth quarter of 1955.

TABLE I

TOTAL PRODUCTION OF ALL GRADES

| | | Total Tonnage |
|-------------|--|----------------|
| 1954 | | |
| 1st quarter | | 720,954 |
| 2nd quarter | | 770,597 |
| 3rd quarter | | 765,742 |
| 4th quarter | | <u>853,434</u> |
| Total | | 3,110,727 |
| 1955 | | |
| 1st quarter | | 886,487 |
| 2nd quarter | | 945,631 |
| 3rd quarter | | 965,247 |
| 4th quarter | | <u>959,008</u> |
| Total | | 3,756,373 |

Figure 1. Paper Board Production of All Grades

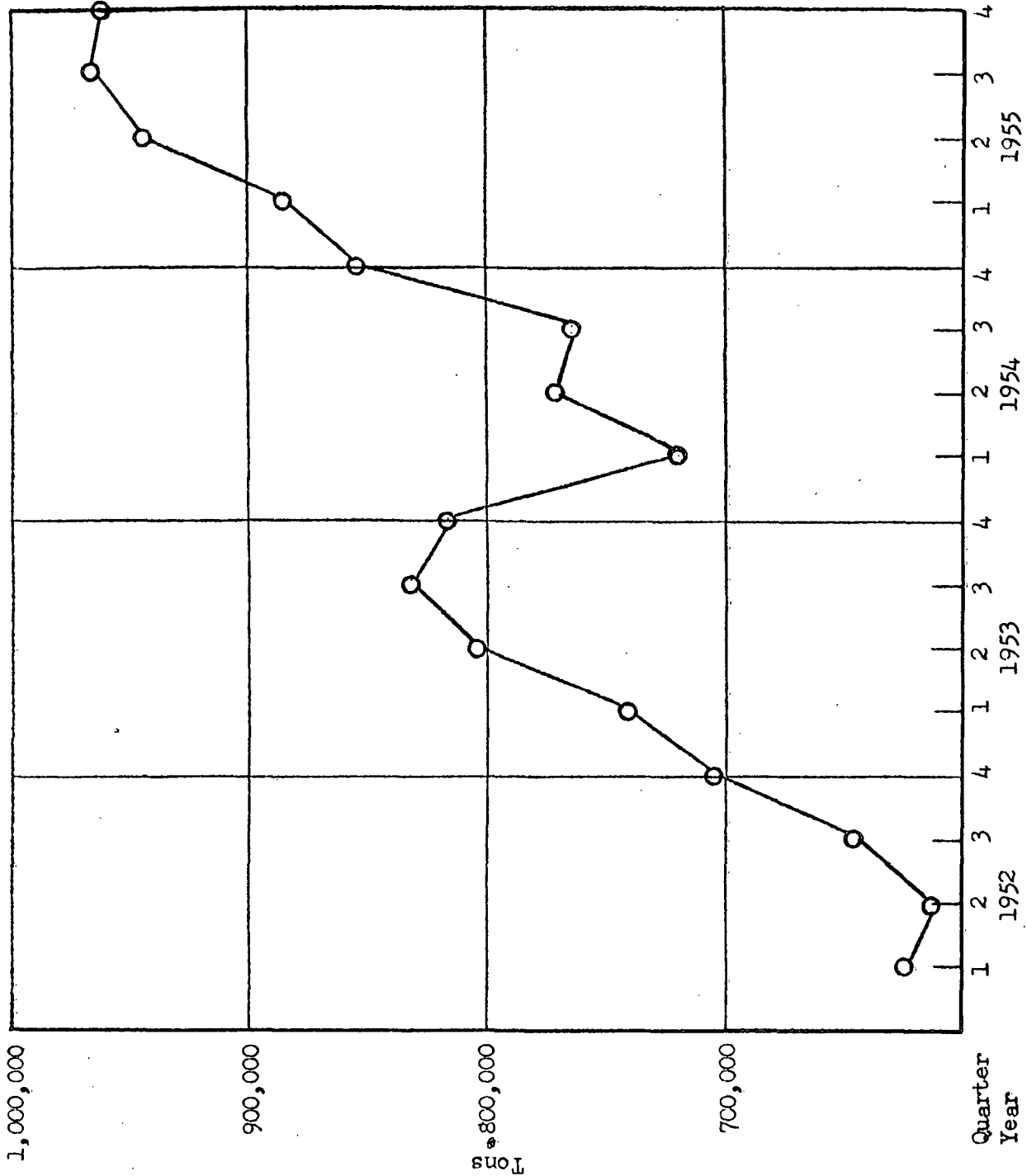


TABLE II

TOTAL TONNAGE BY GRADE

| | 26-lb. | 27-lb. | 28-lb. | 30-lb. | 32-lb. | 33-lb. | 36-lb. | 37-lb. | 38-lb. | 40-lb. | 42-lb. | 44-lb. |
|-------------|--------|--------|--------|--------|---------|--------|--------|--------|--------|---------------|---------|--------|
| 1954 | | | | | | | | | | | | |
| 4th quarter | 77,474 | -- | 2,301 | 4444 | 635 | 41,648 | 71 | 512 | 61,492 | -- | 395,928 | -- |
| 1955 | | | | | | | | | | | | |
| 1st quarter | 74,470 | -- | 2,948 | 2,113 | 465 | 47,507 | 1,251 | 357 | 60,999 | 768 | 399,826 | -- |
| 2nd quarter | 83,798 | -- | 3,120 | 2,759 | 533 | 52,559 | 153 | -- | 71,086 | -- | 429,010 | -- |
| 3rd quarter | 76,568 | 277 | 2,624 | 1,885 | 543 | 50,552 | 1,733 | -- | 71,121 | 7,550 | 448,500 | -- |
| 4th quarter | 88,026 | -- | 3,460 | 1,815 | 621 | 57,475 | 468 | -- | 73,506 | -- | 437,015 | 261 |
| | 45-lb. | 47-lb. | 48-lb. | 50-lb. | 51-lb. | 52-lb. | 54-lb. | 56-lb. | 57-lb. | 58-lb. | 59-lb. | |
| 1954 | | | | | | | | | | | | |
| 4th quarter | 13,827 | 39,947 | -- | 877 | 44 | 1,359 | -- | 441 | -- | -- | 155 | |
| 1955 | | | | | | | | | | | | |
| 1st quarter | 13,612 | 36,952 | -- | 1,431 | 209 | 1,307 | -- | 253 | 204 | -- | 144 | |
| 2nd quarter | 13,358 | 43,892 | 785 | 836 | 769 | 1,555 | -- | 155 | -- | 9 | -- | |
| 3rd quarter | 17,382 | 37,456 | 661 | 3,873 | 572 | 760 | -- | 311 | -- | -- | 227 | |
| 4th quarter | 14,613 | 30,985 | 744 | 2,351 | 623 | 512 | 305 | 159 | -- | -- | -- | |
| | 60-lb. | 62-lb. | 64-lb. | 65-lb. | 69-lb. | 75-lb. | 76-lb. | 90-lb. | 92-lb. | Miscellaneous | | |
| 1954 | | | | | | | | | | | | |
| 4th quarter | 67 | 482 | 8,348 | 917 | 92,112 | 281 | -- | 42,835 | 33 | | 71,204 | |
| 1955 | | | | | | | | | | | | |
| 1st quarter | -- | 94 | 7,577 | 2,417 | 94,340 | 279 | -- | 45,291 | -- | | 91,673 | |
| 2nd quarter | -- | 230 | 282 | 423 | 104,621 | 221 | -- | 50,210 | -- | | 85,267 | |
| 3rd quarter | -- | 399 | 1,020 | 1,476 | 102,412 | -- | 2,031 | 53,013 | -- | | 82,301 | |
| 4th quarter | -- | 269 | 415 | 1,092 | 110,613 | 90 | 1,189 | 55,850 | -- | | 76,551 | |

TABLE III

TOTAL PRODUCTION BY GRADES, PER CENT

| Year | Quarter | 26-lb. Grade | | 27-lb. Grade | | 28-lb. Grade | | 30-lb. Grade | | 32-lb. Grade | | 33-lb. Grade | | 36-lb. Grade | | 37-lb. Grade | | 38-lb. Grade | | 40-lb. Grade | | |
|------|-------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----|
| | | With ^a | With ^b | With ^a | With ^b | With ^a | With ^b | With ^a | With ^b | With ^a | With ^b | With ^a | With ^b | With ^a | With ^b | With ^a | With ^b | With ^a | With ^b | With ^a | With ^b | |
| 1954 | 4th quarter | 9.1 | 9.9 | -- | -- | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 4.9 | 5.3 | c | c | 0.1 | 0.1 | 7.2 | 7.9 | -- | -- | |
| 1955 | 1st quarter | 8.4 | 9.4 | -- | -- | 0.3 | 0.4 | 0.2 | 0.3 | 0.1 | 0.1 | 5.4 | 6.0 | 0.1 | 0.2 | c | c | 6.9 | 7.7 | 0.1 | 0.1 | |
| | 2nd quarter | 8.9 | 9.7 | -- | -- | 0.3 | 0.4 | 0.3 | 0.3 | 0.1 | 0.1 | 5.6 | 6.1 | c | c | -- | -- | 7.5 | 8.3 | -- | -- | |
| | 3rd quarter | 7.9 | 8.7 | c | c | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 5.2 | 5.7 | 0.2 | 0.2 | -- | -- | 7.4 | 8.1 | 0.3 | 0.9 | |
| | 4th quarter | 9.2 | 10.0 | -- | -- | 0.4 | 0.4 | 0.2 | 0.2 | 0.1 | 0.1 | 6.0 | 6.5 | c | 0.1 | -- | -- | 7.7 | 8.3 | -- | -- | |
| 1954 | 4th quarter | 46.4 | 50.6 | -- | -- | 1.6 | 1.8 | 4.7 | 5.1 | -- | -- | 0.1 | 0.1 | c | c | 0.2 | 0.2 | -- | -- | 0.1 | 0.1 | |
| 1955 | 1st quarter | 45.1 | 50.3 | -- | -- | 1.5 | 1.7 | 4.2 | 4.6 | -- | -- | 0.2 | 0.2 | c | c | 0.1 | 0.2 | -- | -- | c | c | |
| | 2nd quarter | 45.4 | 49.9 | -- | -- | 1.4 | 1.6 | 4.6 | 5.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | -- | -- | c | c | |
| | 3rd quarter | 46.5 | 50.8 | -- | -- | 1.8 | 2.0 | 3.9 | 4.2 | 0.1 | 0.1 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 | -- | -- | c | c | |
| | 4th quarter | 45.6 | 49.5 | c | c | 1.5 | 1.7 | 3.2 | 3.5 | 0.1 | 0.1 | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | c | c | c | c | |
| 1954 | 4th quarter | 57-lb. Grade | 58-lb. Grade | 59-lb. Grade | 60-lb. Grade | 62-lb. Grade | 64-lb. Grade | 65-lb. Grade | 66-lb. Grade | 69-lb. Grade | 75-lb. Grade | 76-lb. Grade | 90-lb. Grade | | | | | | | | | |
| 1955 | 1st quarter | 57-lb. Grade | 58-lb. Grade | 59-lb. Grade | 60-lb. Grade | 62-lb. Grade | 64-lb. Grade | 65-lb. Grade | 66-lb. Grade | 69-lb. Grade | 75-lb. Grade | 76-lb. Grade | 90-lb. Grade | | | | | | | | | |
| | 2nd quarter | 57-lb. Grade | 58-lb. Grade | 59-lb. Grade | 60-lb. Grade | 62-lb. Grade | 64-lb. Grade | 65-lb. Grade | 66-lb. Grade | 69-lb. Grade | 75-lb. Grade | 76-lb. Grade | 90-lb. Grade | | | | | | | | | |
| | 3rd quarter | 57-lb. Grade | 58-lb. Grade | 59-lb. Grade | 60-lb. Grade | 62-lb. Grade | 64-lb. Grade | 65-lb. Grade | 66-lb. Grade | 69-lb. Grade | 75-lb. Grade | 76-lb. Grade | 90-lb. Grade | | | | | | | | | |
| | 4th quarter | 57-lb. Grade | 58-lb. Grade | 59-lb. Grade | 60-lb. Grade | 62-lb. Grade | 64-lb. Grade | 65-lb. Grade | 66-lb. Grade | 69-lb. Grade | 75-lb. Grade | 76-lb. Grade | 90-lb. Grade | | | | | | | | | |
| 1954 | 4th quarter | -- | -- | -- | -- | c | c | c | 0.1 | 0.1 | 1.0 | 1.1 | 0.1 | 0.1 | 10.8 | 11.8 | c | c | -- | -- | 5.0 | 5.5 |
| 1955 | 1st quarter | c | c | -- | -- | c | c | -- | c | 0.9 | 1.0 | 0.3 | 0.3 | 10.6 | 11.9 | c | c | -- | -- | 5.1 | 5.7 | |
| | 2nd quarter | -- | -- | -- | -- | -- | -- | -- | c | c | c | c | c | 11.1 | 12.2 | c | c | -- | -- | 5.3 | 5.8 | |
| | 3rd quarter | -- | -- | -- | -- | -- | -- | -- | c | 0.1 | 0.1 | 0.2 | 0.2 | 10.6 | 11.6 | -- | -- | 0.2 | 0.2 | 5.5 | 6.0 | |
| | 4th quarter | -- | -- | -- | -- | -- | -- | -- | c | c | c | 0.1 | 0.1 | 11.5 | 12.5 | c | c | 0.1 | 0.1 | 5.3 | 6.3 | |
| 1954 | 4th quarter | 92-lb. Grade | | Miscellaneous | | With ^a | | | | | | | | | | | | | | | | |
| 1955 | 1st quarter | 92-lb. Grade | | Miscellaneous | | With ^a | | | | | | | | | | | | | | | | |
| | 2nd quarter | 92-lb. Grade | | Miscellaneous | | With ^a | | | | | | | | | | | | | | | | |
| | 3rd quarter | 92-lb. Grade | | Miscellaneous | | With ^a | | | | | | | | | | | | | | | | |
| | 4th quarter | 92-lb. Grade | | Miscellaneous | | With ^a | | | | | | | | | | | | | | | | |

a Percentage based on the total production of all grades including Miscellaneous.
 b Percentage based on the total production of all grades excluding Miscellaneous.
 c Less than a tenth of a per cent after rounding off.

Figure 2. Production, 26-lb.

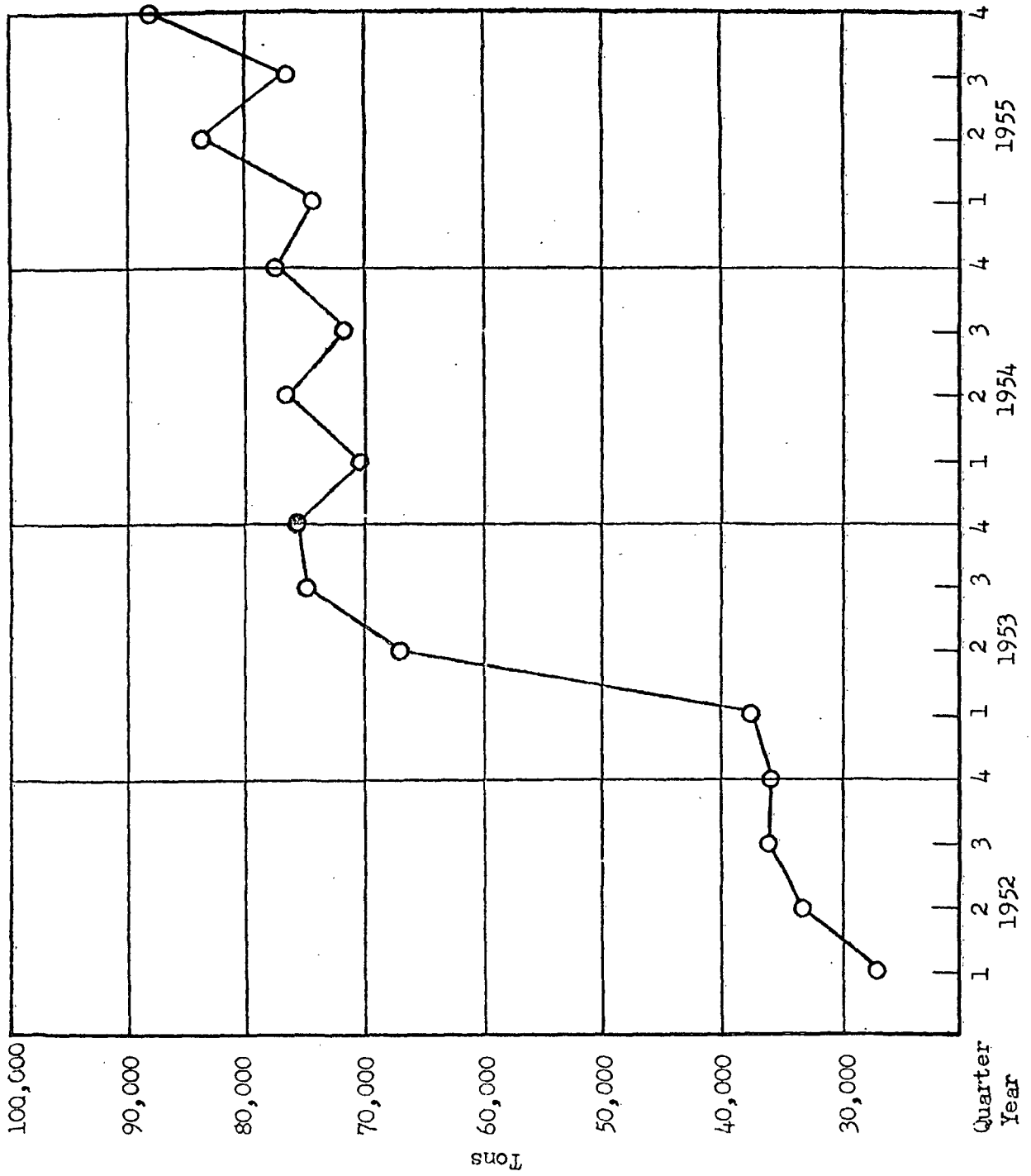


Figure 3. Production, 33-lb.

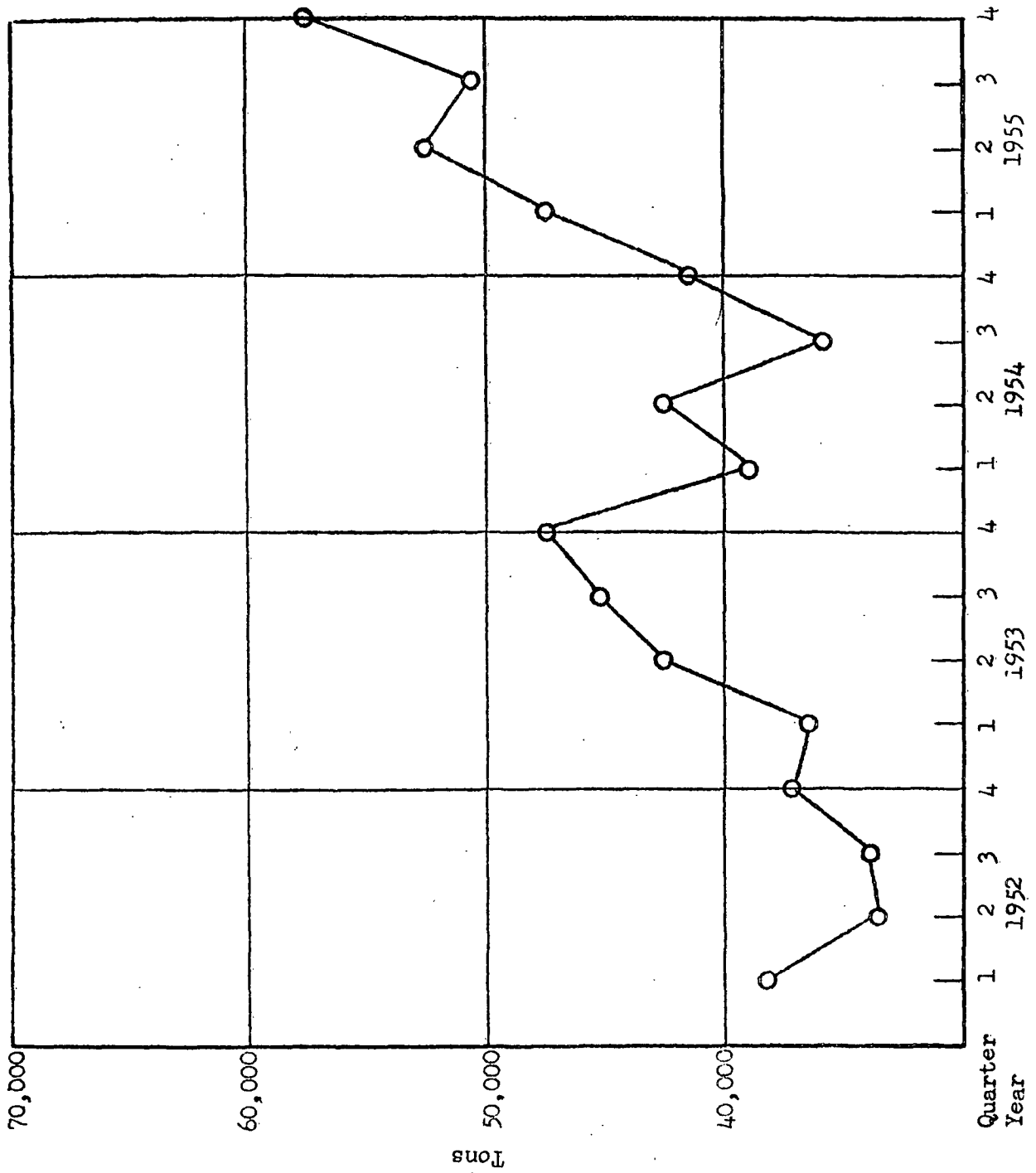


Figure 4. Production, 38-lb.

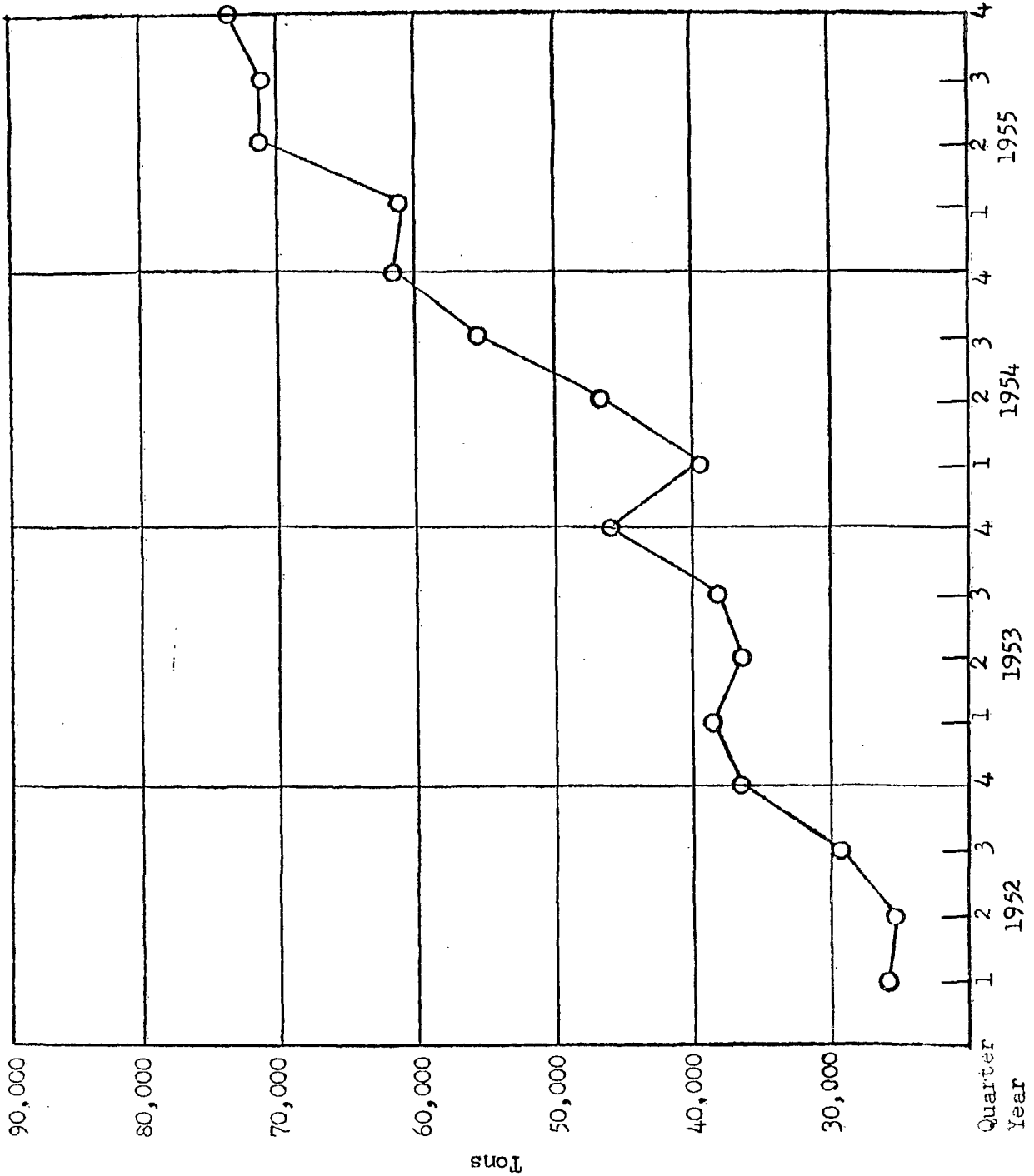


Figure 5. Production, 42-lb.

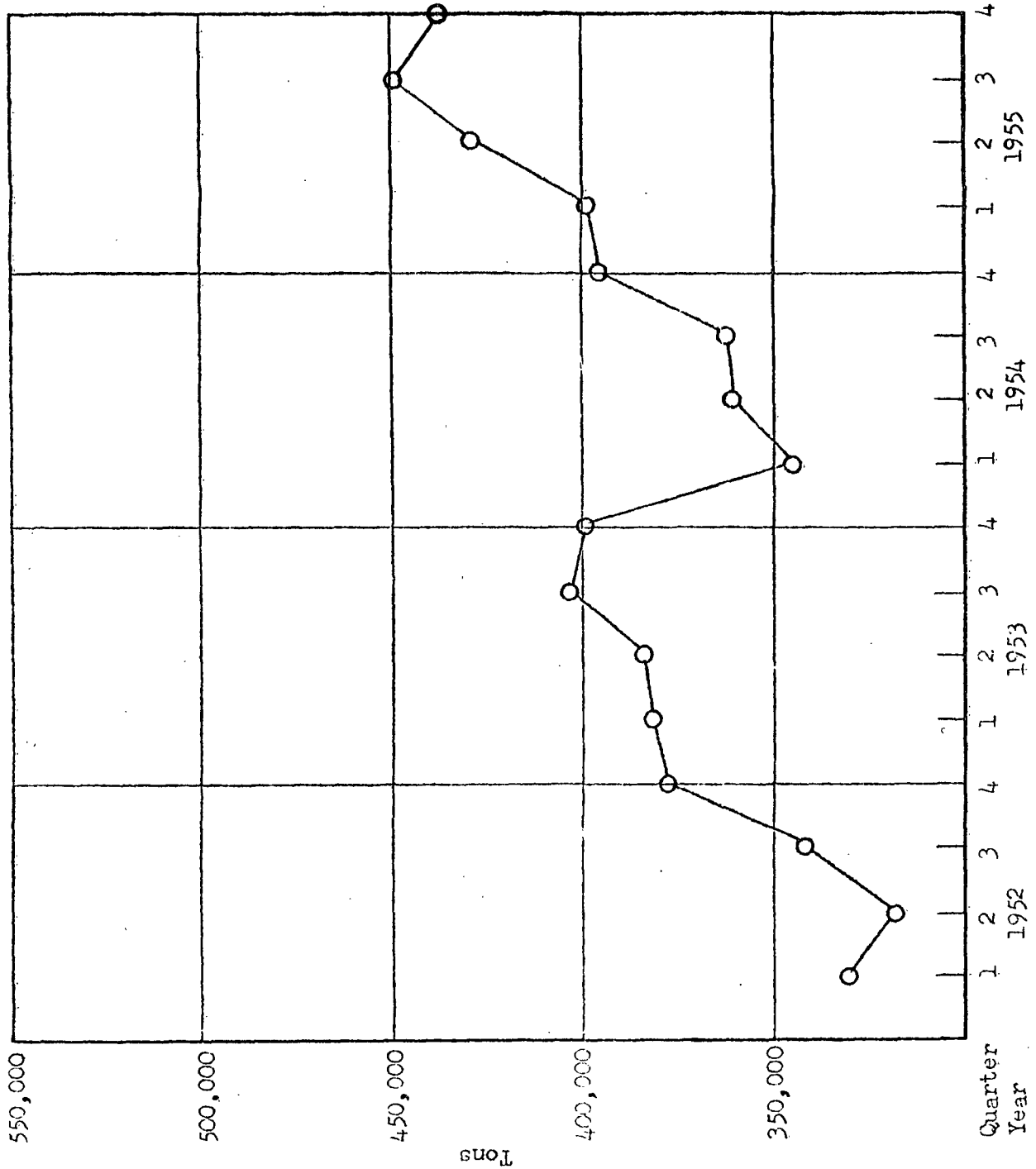


Figure 6. Production, 47-lb.

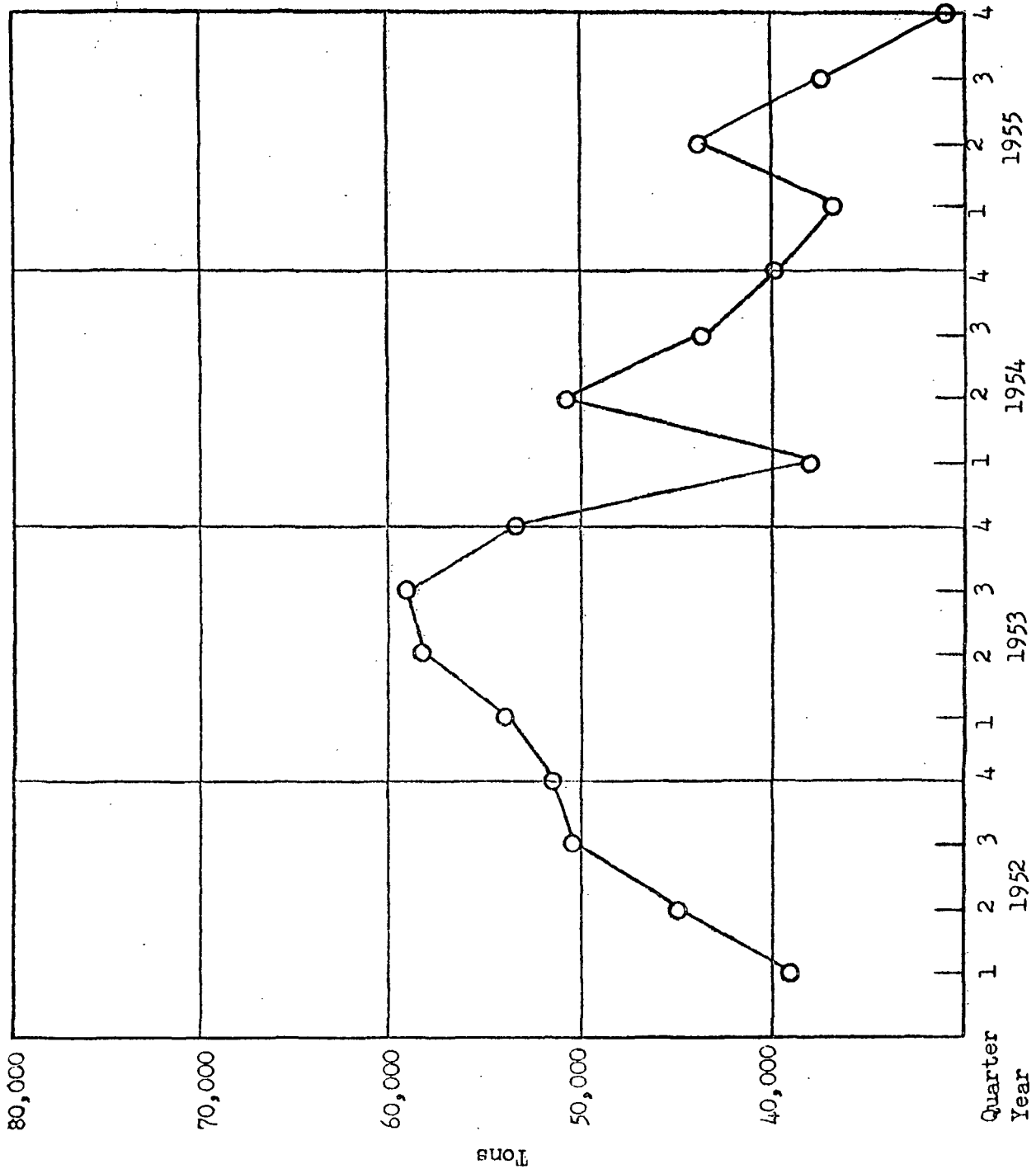


Figure 7. Production, 69-lb.

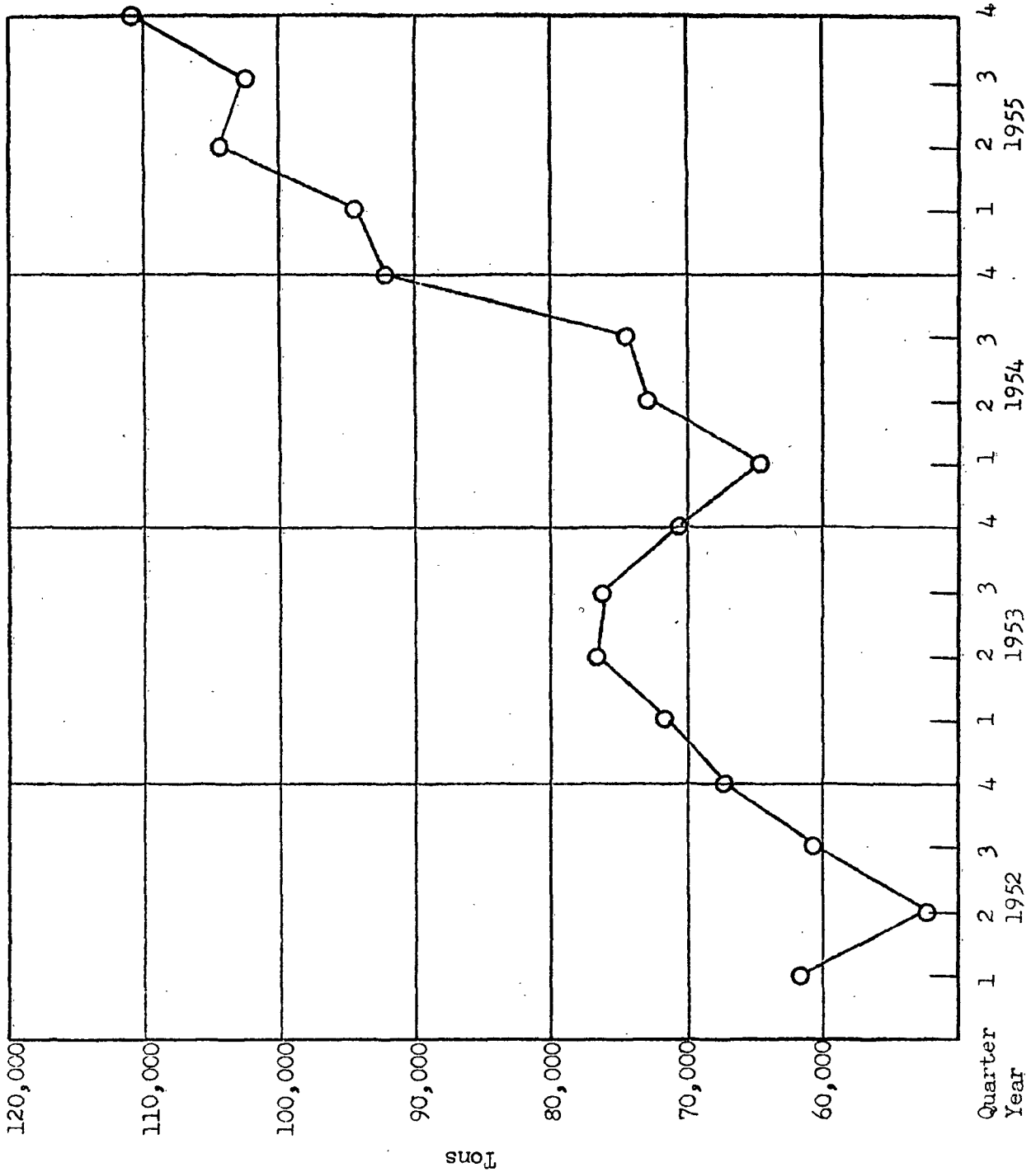


Figure 8. Production, 90-lb.

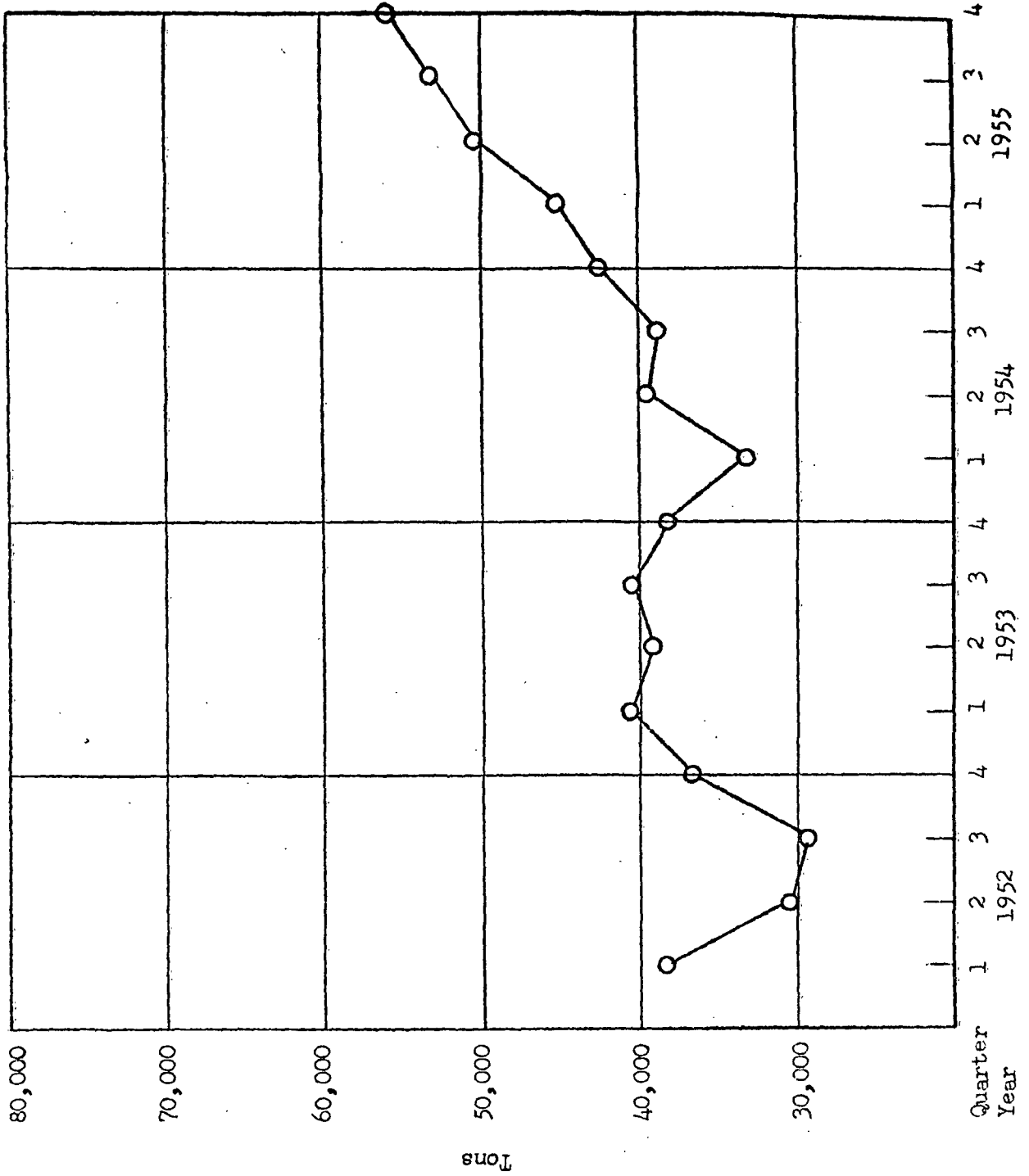
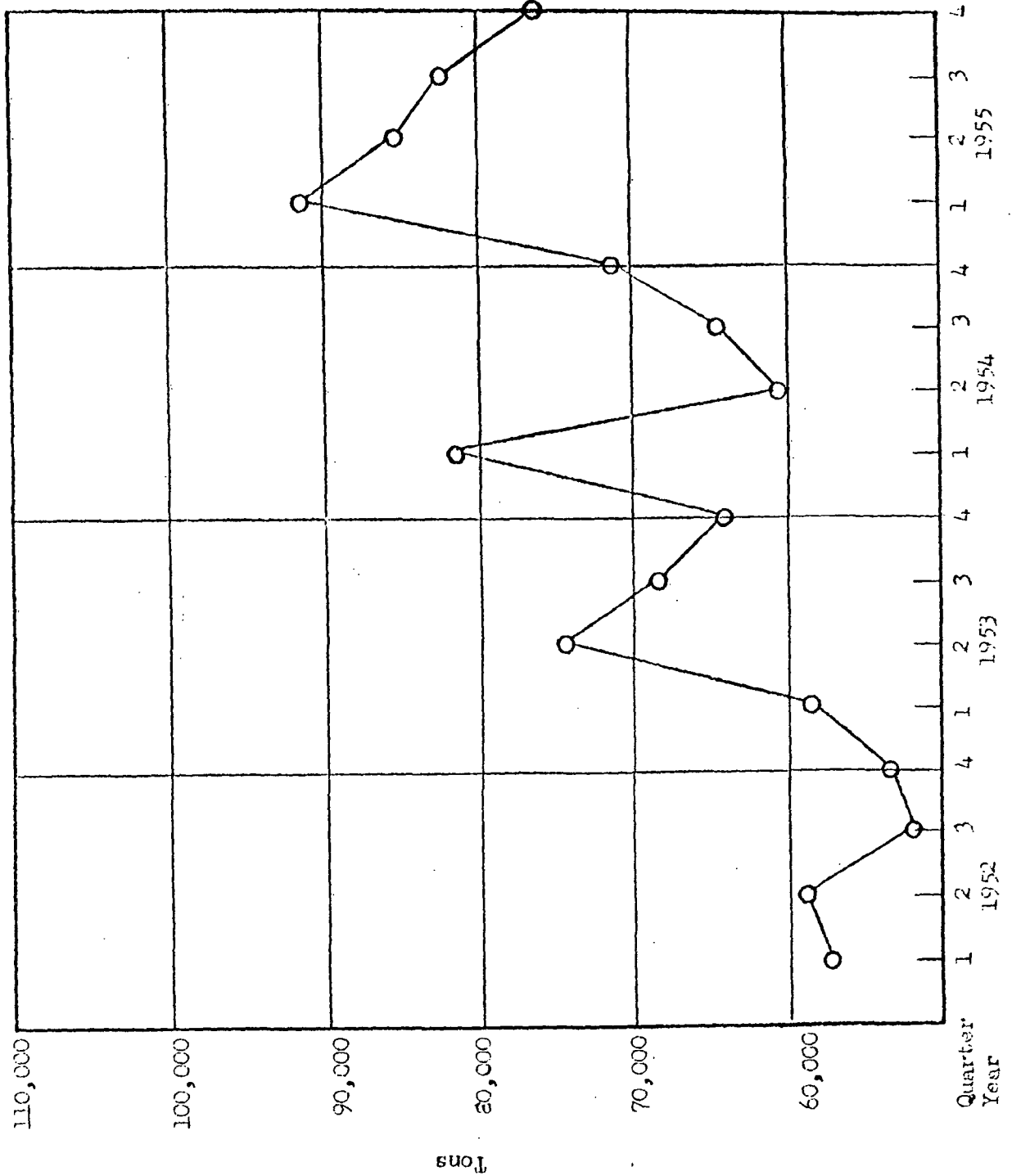


Figure 9. Production, Miscellaneous



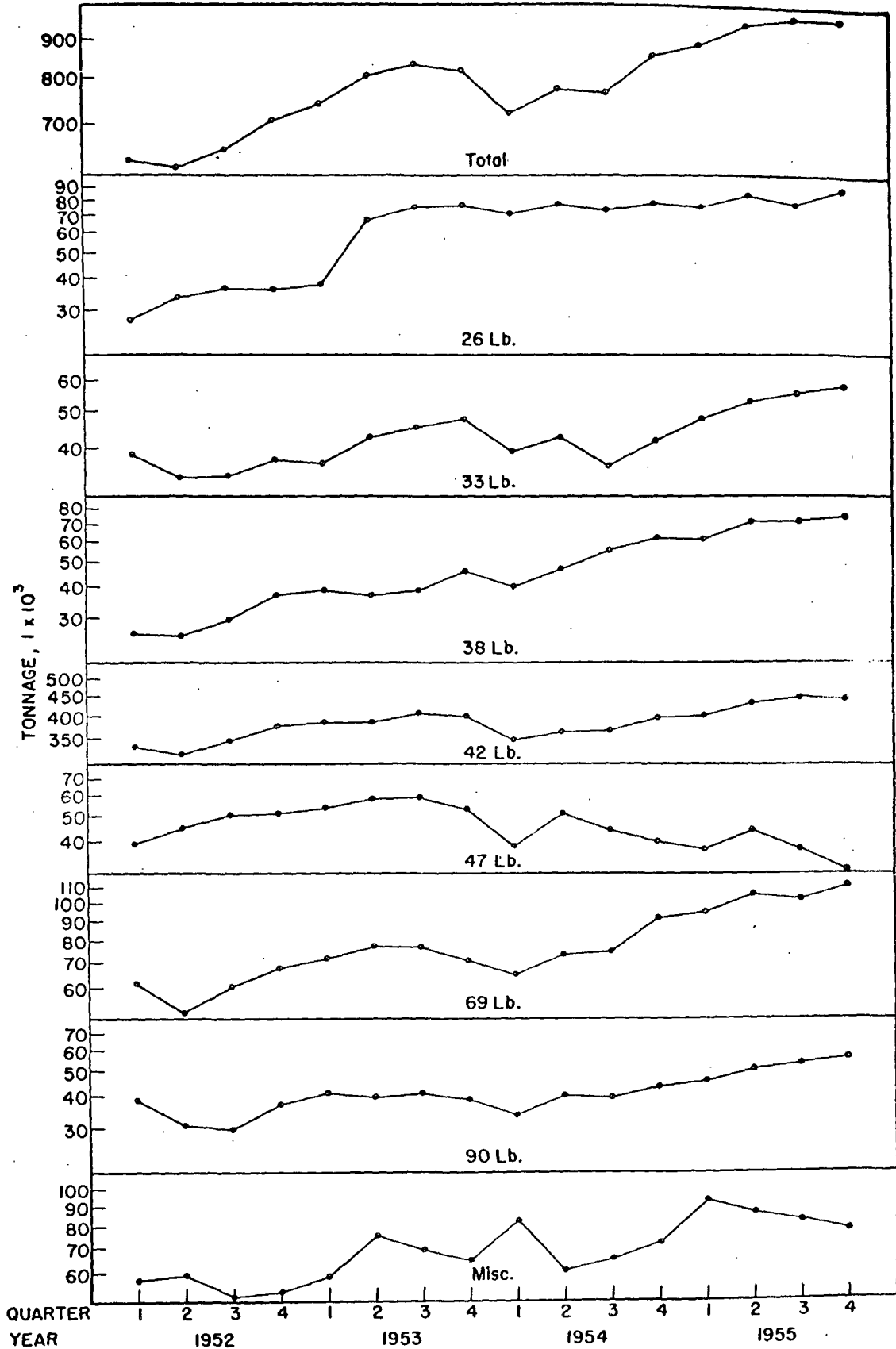


Figure 10.
 Comparison of Percentage Changes in Production for All Grades