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## PRODUCTION DATA REPORT

Project 1108-13

Report 34

A Supplementary Report

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

May 1, 1961

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 first quarter of 1961.

The Chesapeake Corporation of Virginia

Continental Can Company, Inc.

Crown Zellerbach Corporation

Georgia Kraft Company

International Paper Company

North Carolina Pulp Company & Kieckhefer Container Co.

Olin Mathieson Chemical Corp., Forest Products Division

Owens-Illinois, Mill Division

St. Joe Paper Company

St. Regis Paper Company

Union Bag-Camp 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 quarter of 1961 is given in Table I together with, for purposes of comparison, the total production by quarters for 1958, 1959, and 1960. The total production by quarters for 1958 through 1961 to date is illustrated graphically in Figure 1.

Production data on a quarterly basis for 1960 and 1961 to date are shown in Table II for the major grades and in Table III for all grades. In

Table IV the percentage of total production which each grade represents is given on a quarterly basis for 1960 and 1961 to date. These percentage figures for each grade are based on the total production per quarter computed separately with the miscellaneous figure included and with the miscellaneous figure excluded. The current tonnage data for the major grades--namely, 26 lb., 33 lb., 38 lb., 42 lb., 47 lb., 69 lb., 90 lb., and miscellaneous--are illustrated graphically in Fig. 2 through 9, respectively, on a quarterly basis from 1958 through 1961 to date. Also shown in Fig. 2 through 9 is the percentage of total production which each major grade represents.

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 numerous comparisons which may be of interest, some of which are the following:

1. The total production of all grades for the first quarter of 1961 was 952,640 tons as shown in Table I. By comparison, the total production for the fourth quarter of 1960 was 960,990 tons.

2. Compared with the corresponding tonnages for the fourth quarter of 1960, tonnage of 26 lb., 38 lb., and 42 lb. decreased, whereas tonnages of the other major grades increased.

TABLE I

TOTAL TONNAGE OF ALL GRADES

	1958	1959	1960	1961
1st Quarter	836,013	902,850	1,015,716	952,640
2nd Quarter	793,764	1,013,064	1,009,697	
3rd Quarter	919,520	1,086,571	1,023,511	
4th Quarter	<u>940,090</u>	<u>1,007,280</u>	<u>960,990</u>	
Total	3,489,387	4,009,765	4,009,914	

TABLE II

TONNAGE OF MAJOR GRADES BY QUARTERS FOR 1960 AND 1961

Grade	<u>1960</u>			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
26 lb.	52,104	55,878	50,266	45,803
33 lb.	74,129	65,515	64,584	56,657
38 lb.	95,317	96,794	102,117	95,597
42 lb.	430,543	416,719	447,422	412,183
47 lb.	21,640	20,940	19,383	20,914
69 lb.	136,422	130,918	125,518	121,360
90 lb.	68,688	60,892	56,467	52,521
Misc.	111,493	138,726	131,203	121,567
		<u>1961</u>		
26 lb.	43,471			
33 lb.	65,013			
38 lb.	79,707			
42 lb.	394,850			
47 lb.	22,953			
69 lb.	128,782			
90 lb.	57,810			
Misc.	131,120			

TABLE III  
 TONNAGE OF ALL GRADES BY QUARTERS

Grade	1960				1961	
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	
26 lb.	52,104	55,878	50,266	45,803	43,471	
27 lb.	--	--	--	--	--	
28 lb.	847	1,178	2,973	1,195	1,776	
28.5 lb.	--	--	--	171	--	
29 lb.	--	79	123	48	--	
30 lb.	884	1,206	431	160	422	
31 lb.	--	111	--	--	--	
32 lb.	957	640	780	5,920	769	
33 lb.	74,129	65,515	64,584	56,657	65,013	
34 lb.	429	147	3,670	--	--	
35 lb.	--	300	229	303	253	
36 lb.	973	724	1,262	789	942	
37 lb.	--	108	--	--	--	
38 lb.	95,317	96,794	102,117	95,597	79,707	
39 lb.	--	--	--	124	--	
40 lb.	--	--	--	--	454	
41 lb.	--	--	--	99	30	
41.5 lb.	--	--	--	42	--	
42 lb.	430,543	416,719	447,422	412,183	394,850	
43.5 lb.	232	193	334	161	505	
45 lb.	10,752	10,336	9,175	10,249	11,356	
46 lb.	429	--	--	--	--	
47 lb.	21,640	20,940	19,383	20,914	22,953	
48 lb.	--	--	--	--	--	
49 lb.	--	--	25	--	--	
50 lb.	1,078	525	1,314	330	259	
51 lb.	--	76	--	163	--	
52 lb.	255	825	1,038	553	1,302	
53 lb.	--	42	75	--	--	
55 lb.	--	--	--	134	112	

TABLE III--Continued

TONNAGE OF ALL GRADES BY QUARTERS

Grade	1960				1961	
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	
56 lb.	158	317	144	213	83	
57 lb.	--	122	--	--	--	
58 lb.	--	--	272	--	--	
60 lb.	30	--	183	71	--	
61 lb.	87	--	--	--	--	
62 lb.	702	859	1,073	556	869	
63 lb.	32	--	--	--	84	
64 lb.	6,627	4,919	2,623	5,263	5,649	
65 lb.	27	35	50	--	--	
69 lb.	136,422	130,918	125,518	121,360	128,782	
70 lb.	--	--	--	6,611	4,069	
72 lb.	--	--	--	--	--	
75 lb.	--	--	--	--	--	
76 lb.	449	--	610	742	--	
82 lb.	228	286	--	--	--	
84 lb.	--	--	--	33	--	
85 lb.	204	287	167	458	--	
90 lb.	68,688	60,892	56,467	52,521	57,810	
Misc.	111,493	138,726	131,203	121,567	131,120	

TABLE IV  
PERCENTAGE OF TOTAL PRODUCTION REPRESENTED BY EACH GRADE

Grade	1960						1961					
	1st Qtr.		2nd Qtr.		3rd Qtr.		4th Qtr.		1st Qtr.		With- out b	
	With <sup>a</sup>	With- out b	With <sup>a</sup>	With- out b	With <sup>a</sup>	With- out b	With <sup>a</sup>	With- out b	With <sup>a</sup>	With- out b	With <sup>a</sup>	With- out b
26 lb.	5.1	5.8	5.5	6.4	4.9	5.6	4.8	5.5	4.7	5.3	4.7	5.3
27 lb.	--	--	--	--	--	--	--	--	--	--	--	--
28 lb.	0.1	0.1	0.1	0.1	0.3	0.3	0.1	0.1	0.2	0.2	0.2	0.2
28.5 lb.	--	--	--	--	--	--	c	c	--	--	--	--
29 lb.	--	--	c	c	c	c	c	c	--	--	--	--
30 lb.	0.1	0.1	0.1	0.1	c	c	c	c	c	0.1	c	0.1
31 lb.	--	--	c	c	--	--	--	--	--	--	--	--
32 lb.	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.7	0.1	0.1	0.1	0.1
33 lb.	7.3	8.2	6.5	7.5	6.3	7.2	5.9	6.7	6.8	7.9	6.8	7.9
34 lb.	c	c	c	c	0.4	0.4	--	--	--	--	--	--
35 lb.	--	--	c	c	c	c	c	c	c	c	c	c
36 lb.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 lb.	--	--	c	c	--	--	--	--	--	--	--	--
38 lb.	9.4	10.5	9.6	11.1	10.0	11.4	9.9	11.4	8.4	9.7	8.4	9.7
39 lb.	--	--	--	--	--	--	c	c	--	--	--	--
40 lb.	--	--	--	--	--	--	--	--	c	0.1	c	0.1
41 lb.	--	--	--	--	--	--	c	c	c	c	c	c
41.5 lb.	--	--	--	--	--	--	c	c	--	--	--	--
42 lb.	42.4	47.6	41.3	47.8	43.7	50.1	42.9	49.1	41.4	48.1	41.4	48.1
43.5 lb.	c	c	c	c	c	c	c	c	0.1	0.1	0.1	0.1
45 lb.	1.1	1.2	1.0	1.2	0.9	1.0	1.1	1.2	1.2	1.4	1.2	1.4
46 lb.	c	c	--	--	--	--	--	--	--	--	--	--
47 lb.	2.1	2.4	2.1	2.4	1.9	2.2	2.2	2.5	2.4	2.8	2.4	2.8
48 lb.	--	--	--	--	--	--	--	--	--	--	--	--
49 lb.	--	--	--	--	c	c	--	--	--	--	--	--
50 lb.	0.1	0.1	0.1	0.1	0.1	0.1	c	c	c	c	c	c
51 lb.	--	--	c	c	--	--	c	c	--	--	--	--
52 lb.	c	c	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
53 lb.	--	--	c	c	c	c	--	--	--	--	--	--
55 lb.	--	--	--	--	--	--	c	c	c	c	c	c

TABLE IV--Continued  
PERCENTAGE OF TOTAL PRODUCTION REPRESENTED BY EACH GRADE

Grade	1st Qtr.		2nd Qtr.		3rd Qtr.		4th Qtr.		1st Qtr.	
	With <sup>a</sup>	With- out <sup>b</sup>	With <sup>a</sup>	With- out <sup>b</sup>	With <sup>a</sup>	With- out <sup>b</sup>	With <sup>a</sup>	With- out <sup>b</sup>	With <sup>a</sup>	With- out <sup>b</sup>
56 lb.	c	c	c	c	c	c	c	c	c	c
57 lb.	--	--	c	c	--	--	--	--	--	--
58 lb.	--	--	--	--	c	c	--	--	--	--
59 lb.	c	c	--	--	--	--	--	--	--	--
60 lb.	--	--	--	--	c	c	c	c	--	--
61 lb.	c	c	--	--	--	--	--	--	--	--
62 lb.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
63 lb.	c	c	--	--	--	--	--	--	c	c
64 lb.	0.7	0.7	0.5	0.6	0.3	0.3	0.5	0.6	0.6	0.7
65 lb.	c	c	c	c	c	c	--	--	--	--
69 lb.	13.4	15.1	13.0	15.0	12.3	14.1	12.6	14.5	13.5	15.7
70 lb.	--	--	--	--	--	--	0.7	0.9	0.4	0.5
72 lb.	--	--	--	--	--	--	--	--	--	--
75 lb.	--	--	--	--	--	--	--	--	--	--
76 lb.	c	c	--	--	0.1	0.1	0.1	0.1	--	--
82 lb.	c	c	c	c	--	--	--	--	--	--
84 lb.	--	--	--	--	--	--	c	c	--	--
85 lb.	c	c	c	c	c	c	c	0.1	--	--
90 lb.	6.8	7.6	6.0	7.0	5.5	6.3	5.5	6.3	6.1	7.0
Misc.	11.0		13.7		12.8		12.7		13.8	

<sup>a</sup> Percentage based on the total production of all grades including miscellaneous.

<sup>b</sup> Percentage based on the total production of all grades excluding miscellaneous.

<sup>c</sup> Less than one-tenth of one per cent after being rounded off.

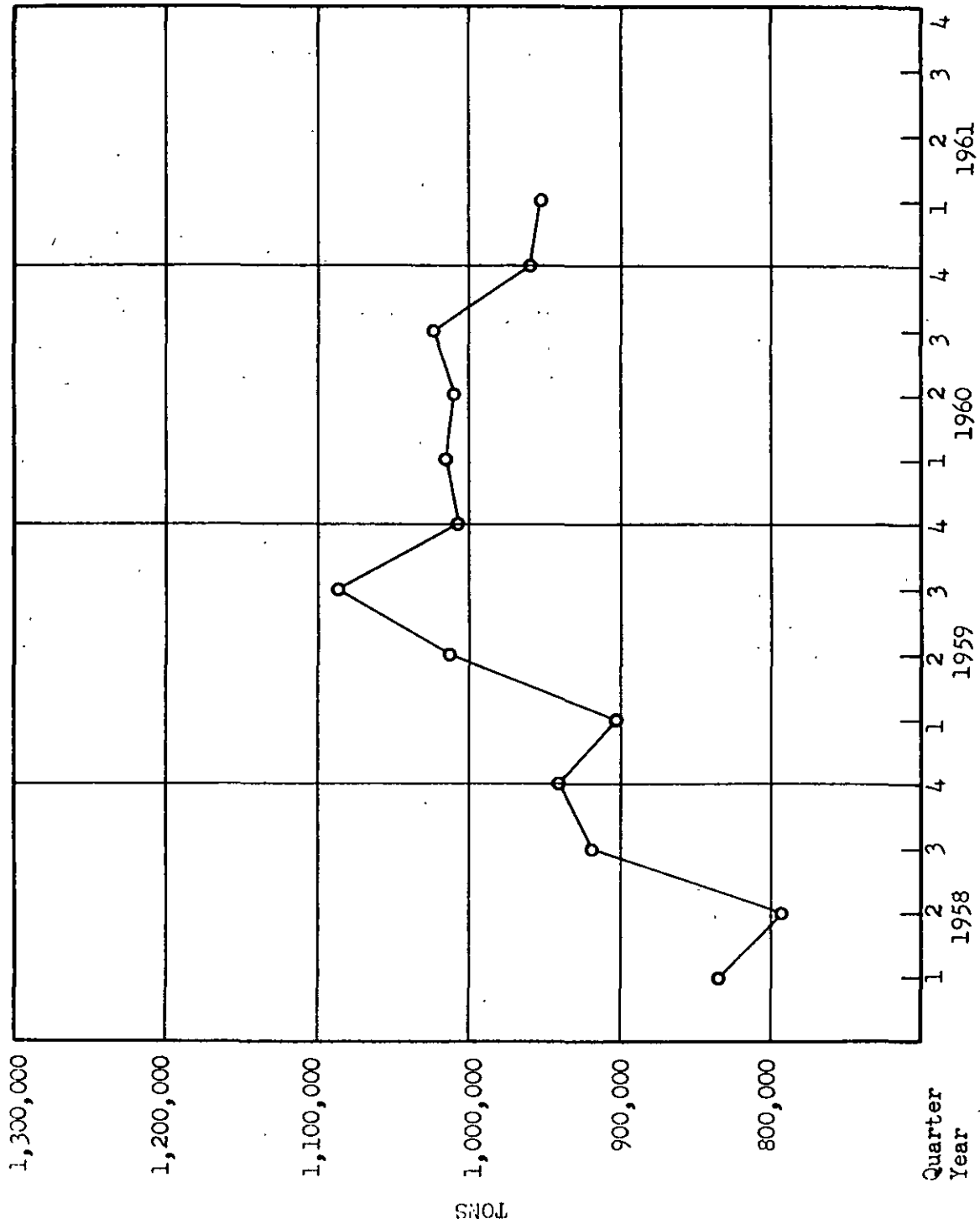


Figure 1. Total Production of All Grades

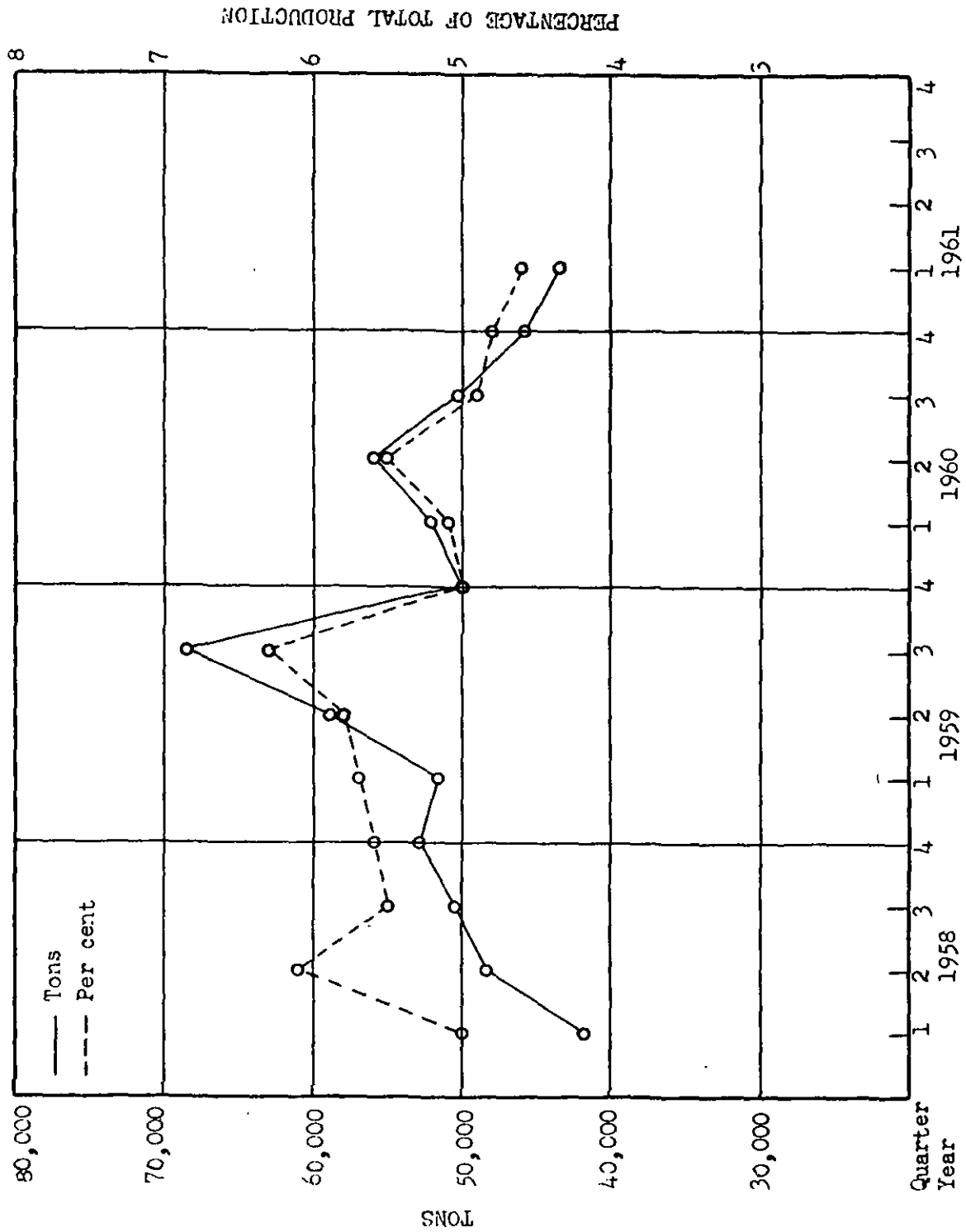


Figure 2. Production, 26 lb.

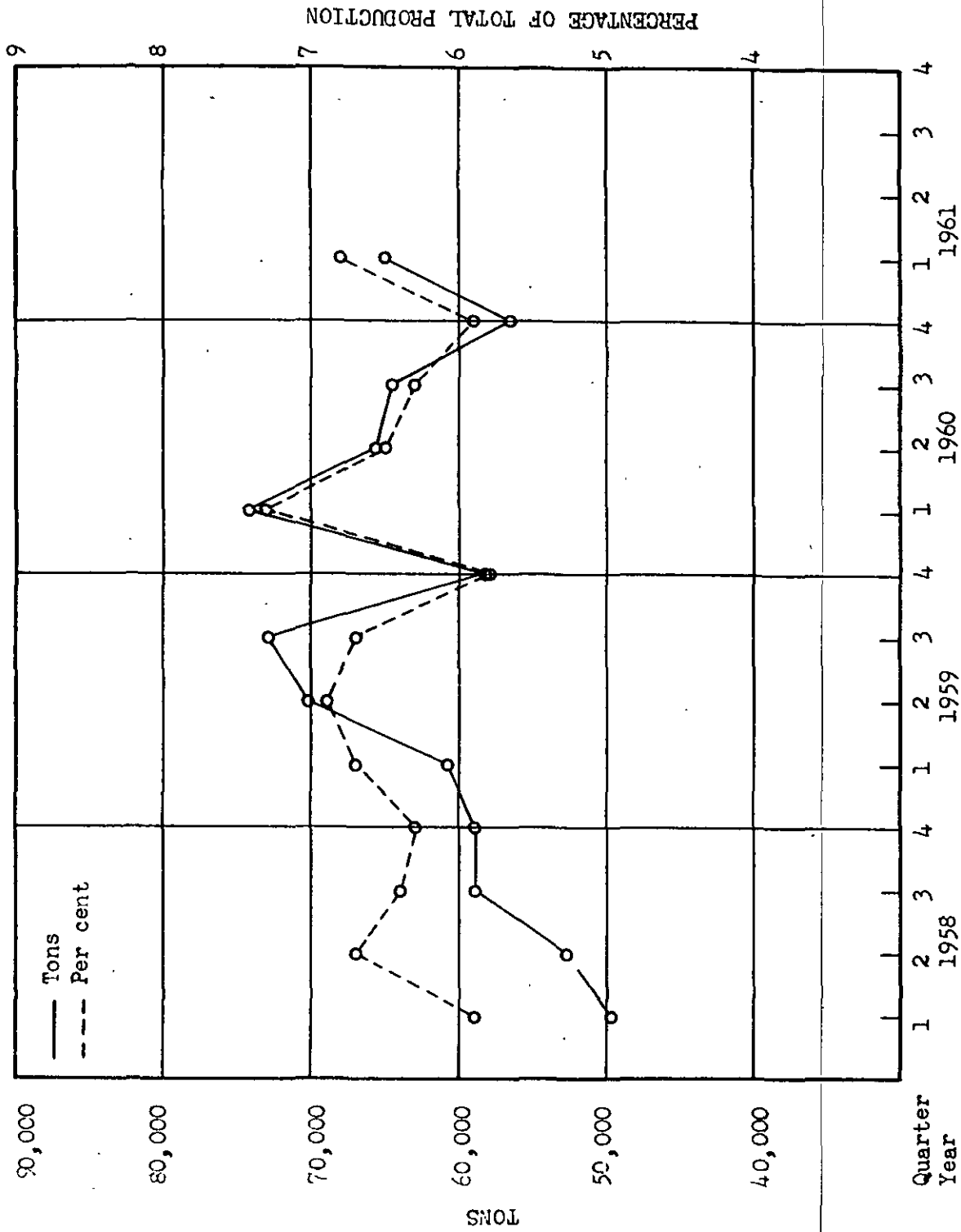


Figure 3. Production, 33 lb.

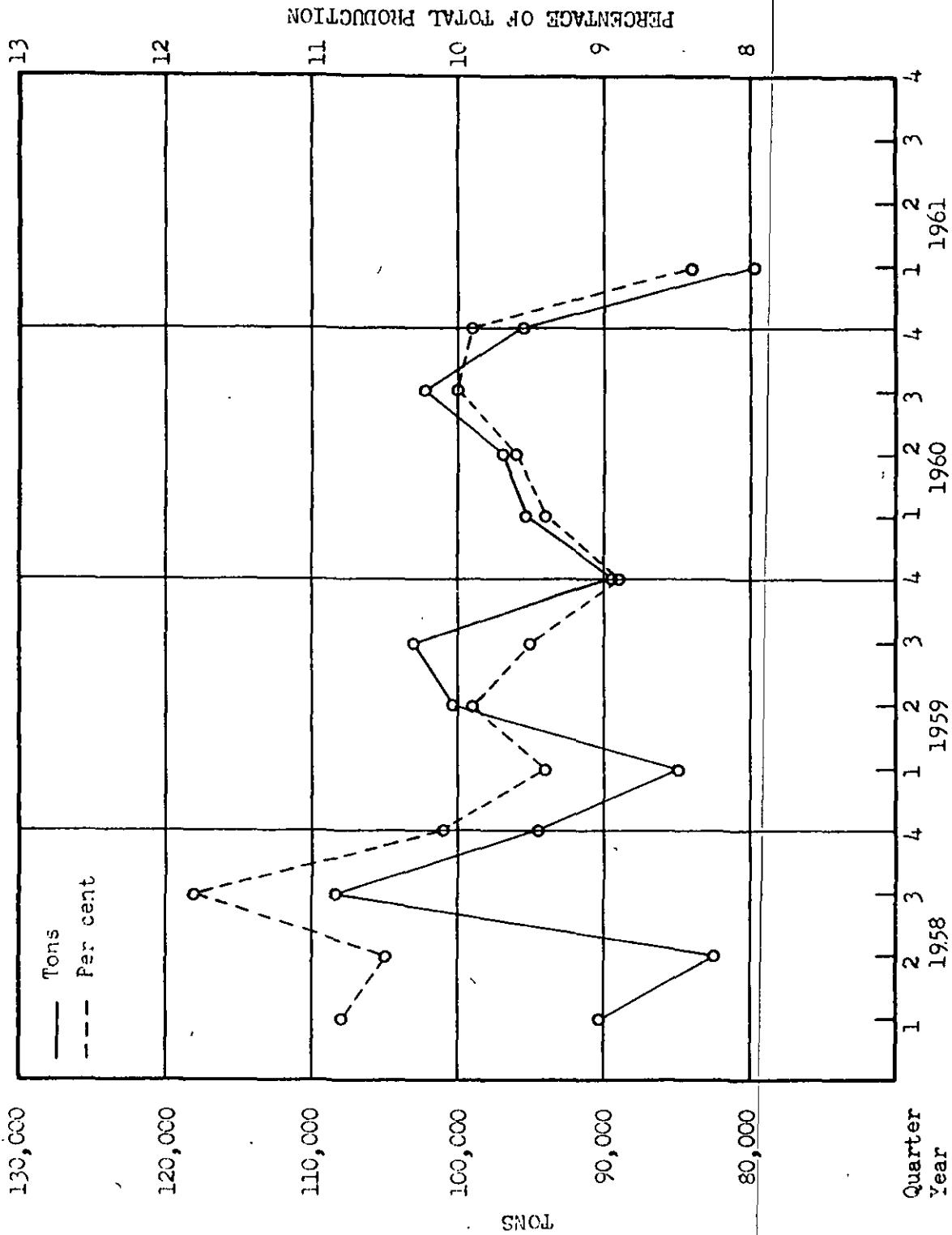


Figure 4. Production, 38 lb.

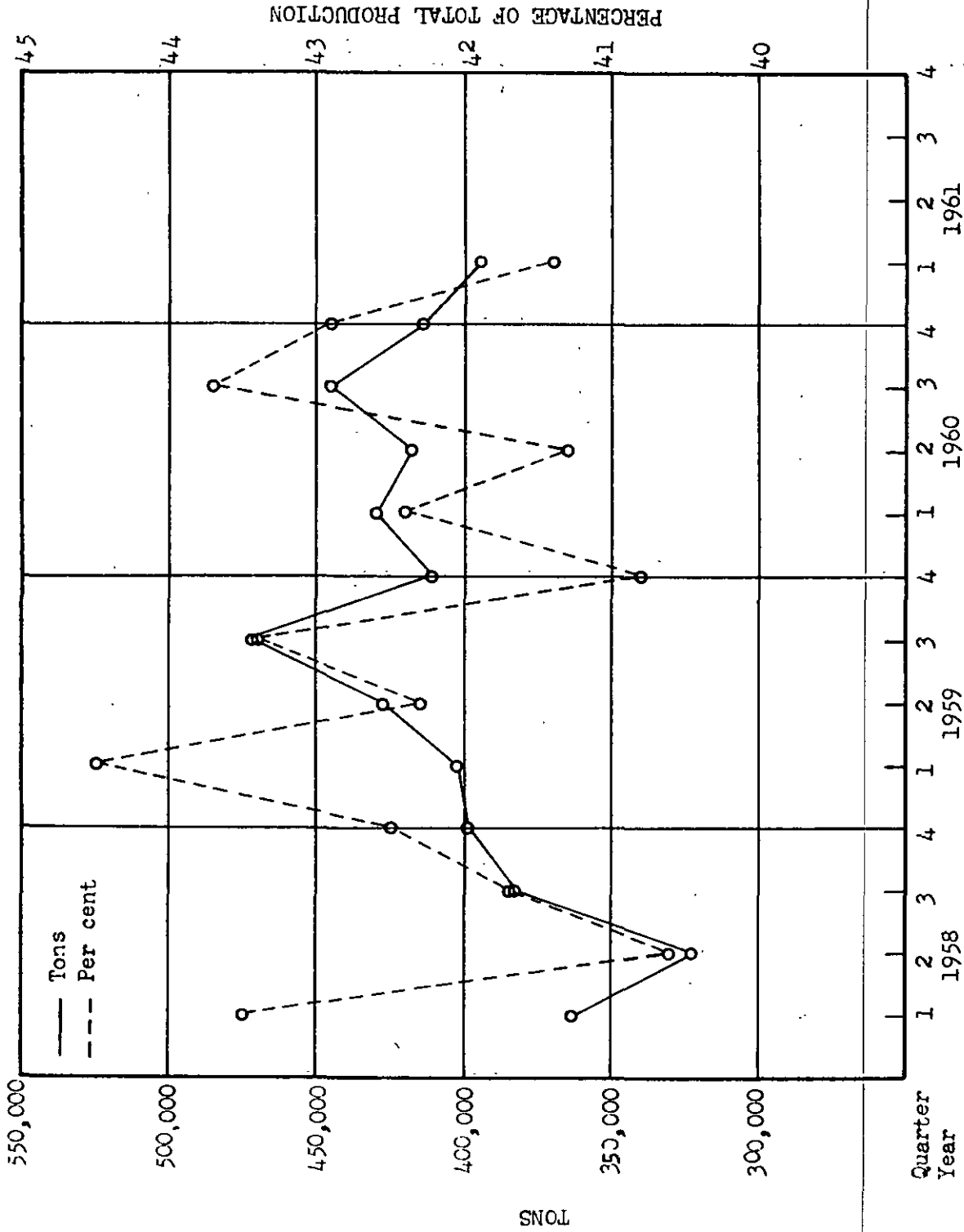


Figure 5. Production, 42 lb.

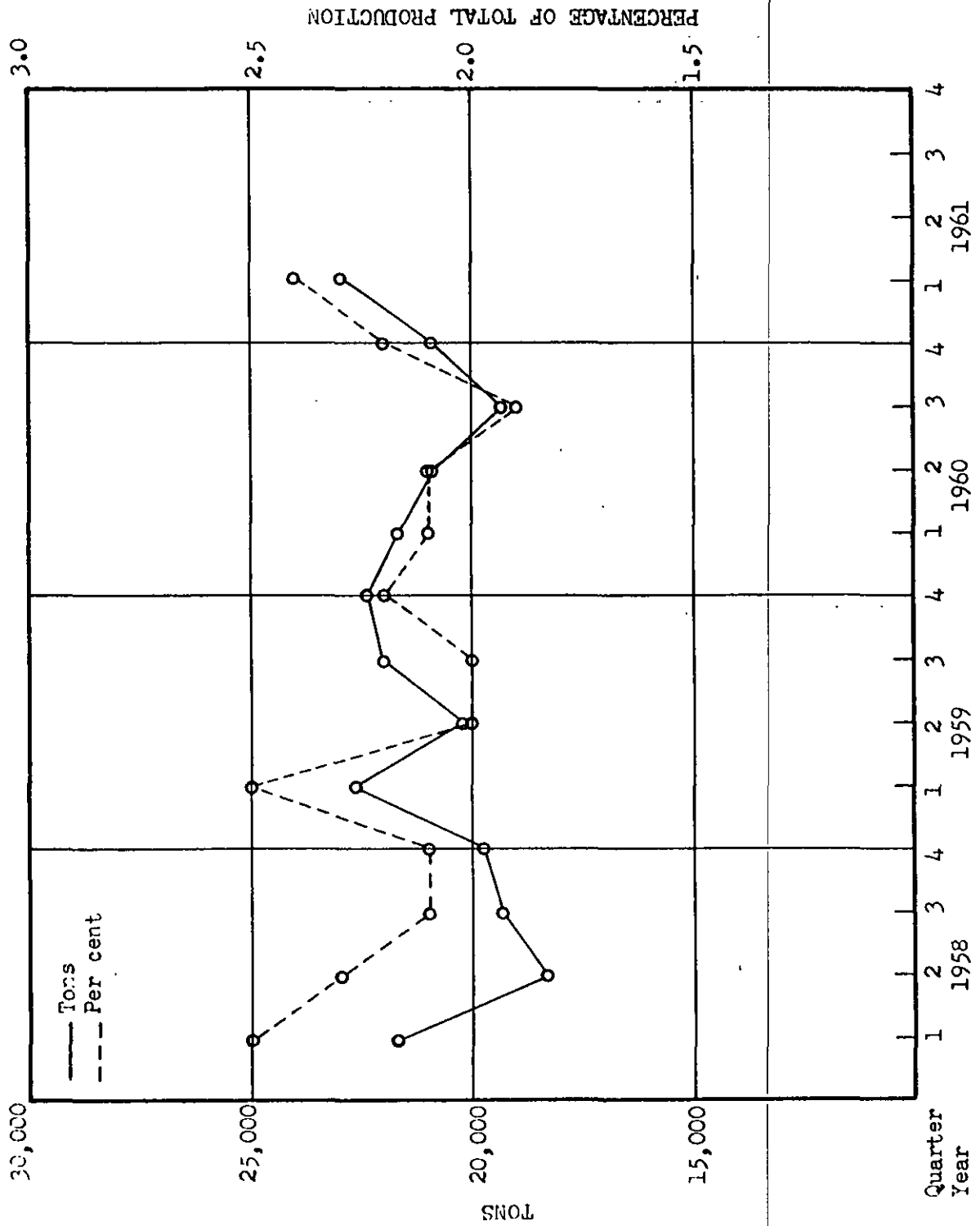


Figure 6. Production, 47 lb.

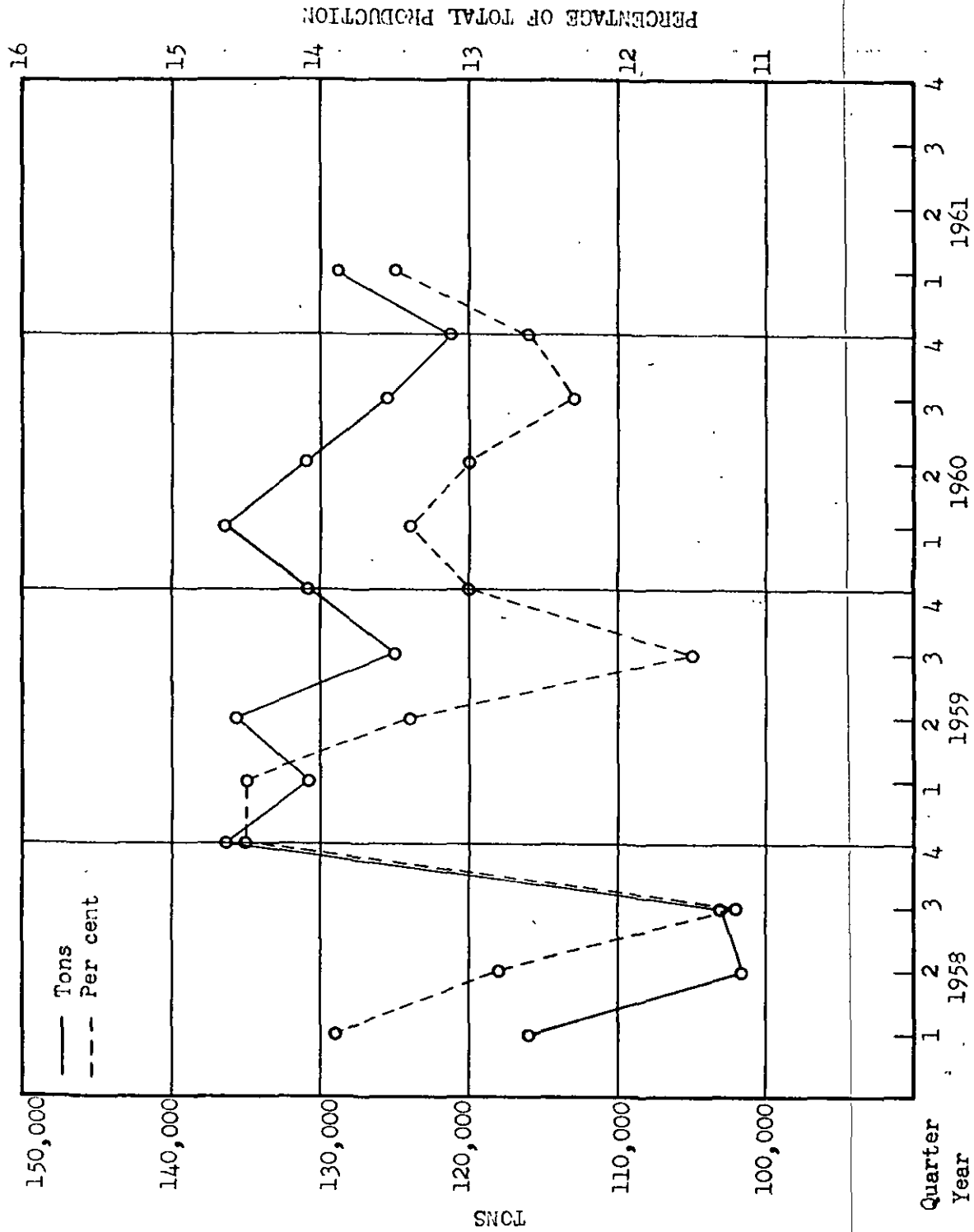


Figure 7. Production, 69 lb.

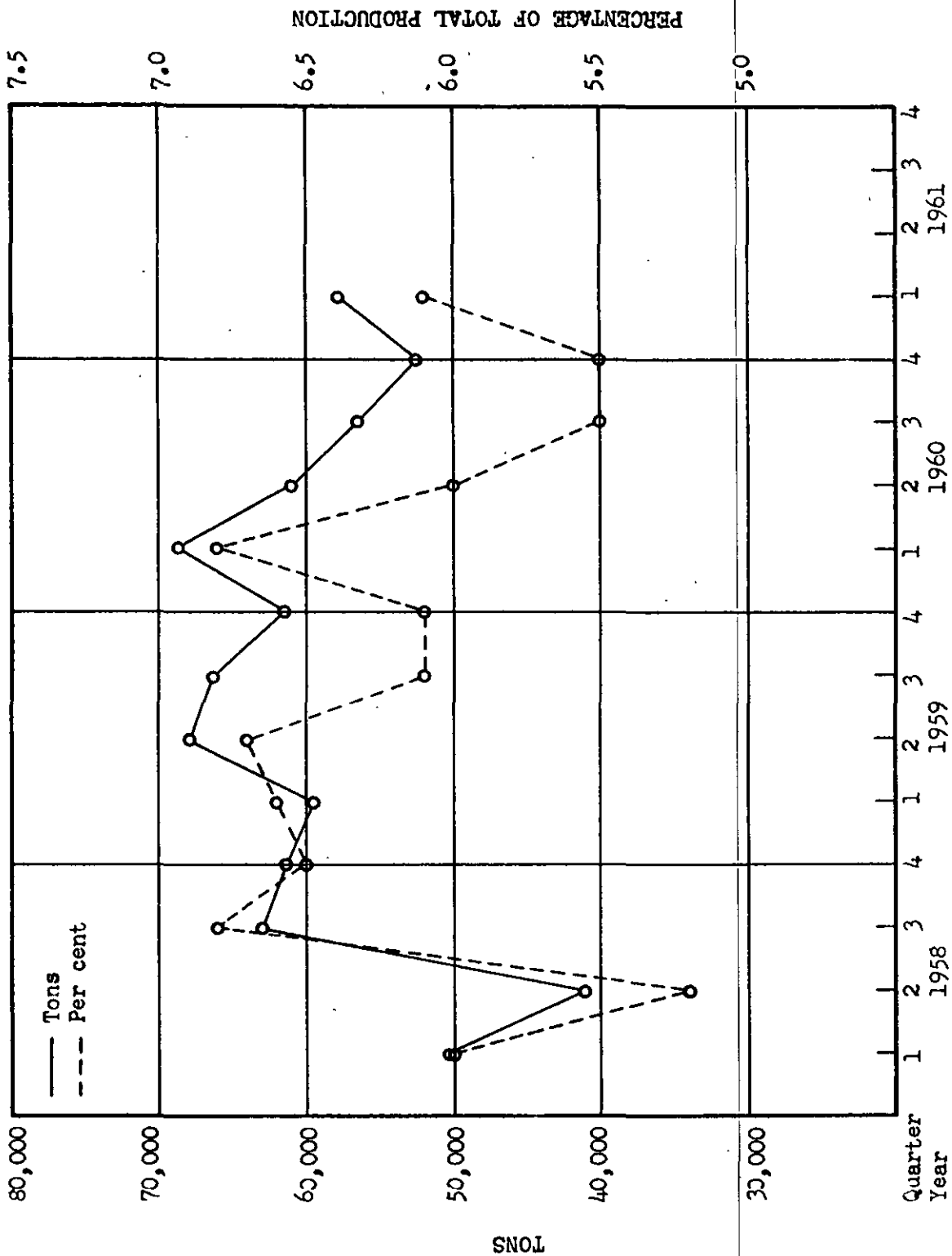


Figure 8. Production, 90 lb.

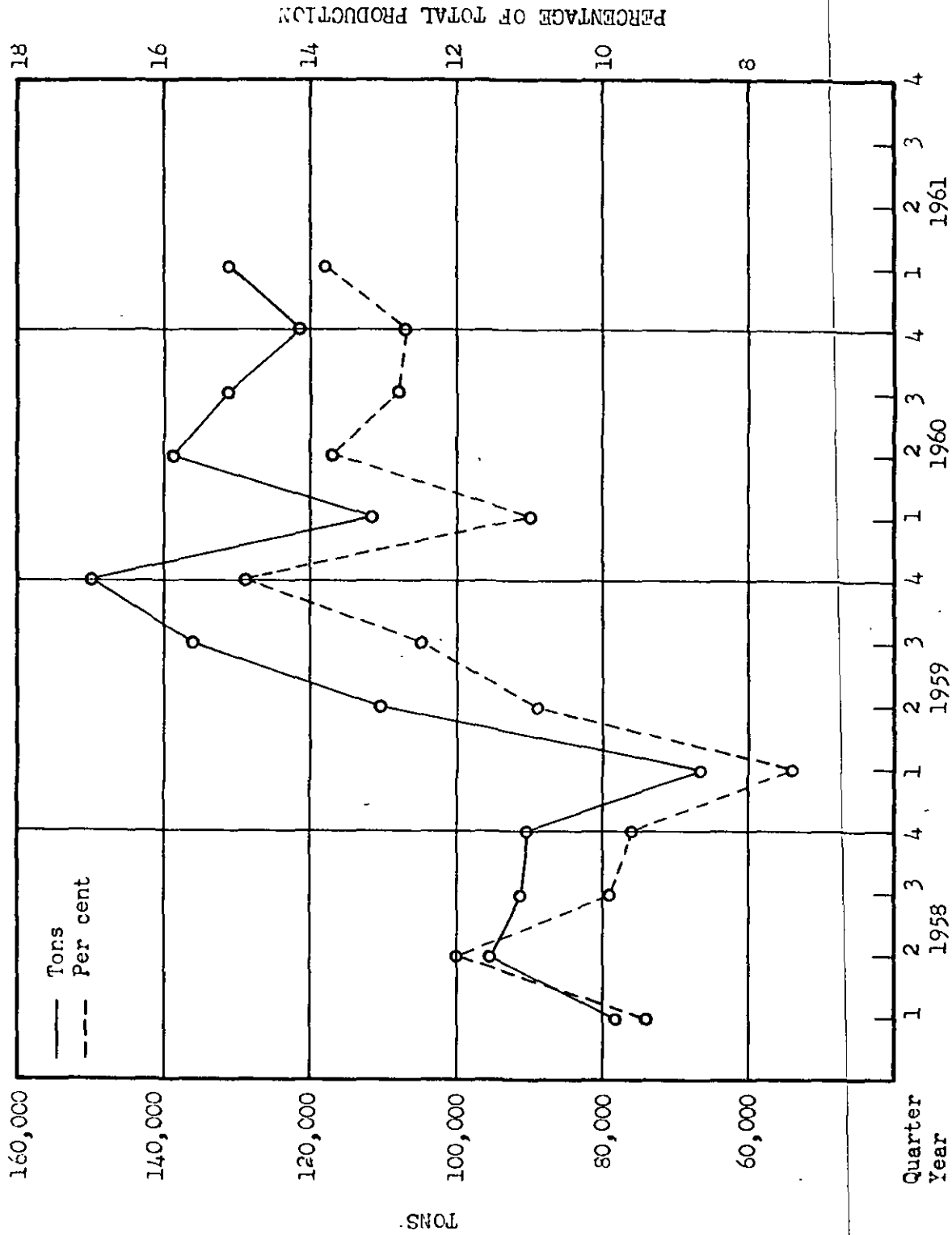


Figure 9. Production, Miscellaneous

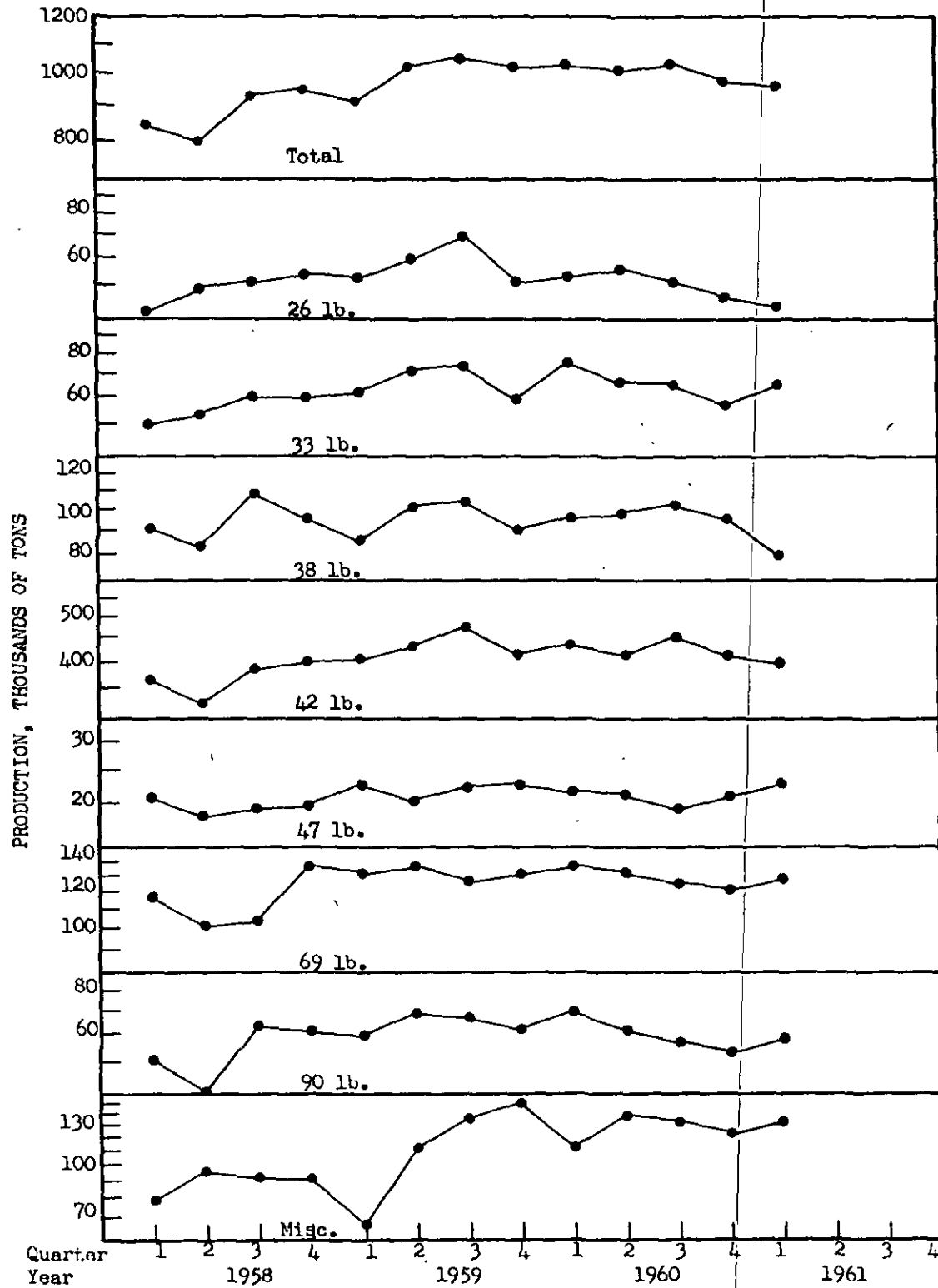



Figure 10. Comparison of Percentage Changes in Production for All Grades

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