

SUMMARY

Evaluations were made of pectins extracted from peel, membrane, and juice sacs of Silver Cluster grapefruit during a two-year maturation study of this fruit.

The pectins extracted from membrane were highest in yield, jelly grade, degree of methylation, purity, and relative viscosity, while those from juice sacs were lowest in yield, jelly grade, methoxyl content, purity, and equivalent weight. Peel extracted pectins were intermediate in most of these physical and chemical characteristics.

The order of component parts of Silver Cluster grapefruit for jelly units, from highest to lowest, was found to be membrane, peel, and juice sacs.

Grapefruit residue was found to be a better source of raw material for the manufacture of pectin than that from oranges.

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THE DEGREES BRIX & BRIX-ACID RATIOS OF ORANGES UTILIZED BY FLORIDA CITRUS PROCESSORS FOR THE SEASONS 1958-59 THROUGH 1963-64

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The authors have from time to time reported on the Brix and Brix-acid ratios of citrus fruits utilized by processors (1, 2, 3, 4). This new report, which contains more recent and more extensive data than the initial publication on oranges presented at the 1957 meeting of the Horticultural Society, was prepared at the request of the Quality Advisory Committee of the Florida Canners Association, and the brackets which were selected for degrees Brix and Brix-acid ratios were those recommended by that committee.

As in earlier reports, all information was obtained from the inspectors' worksheets, which are standard forms used for recording analyses of loads of fruit received at processing plants. For reasons of simplicity, loads rather than boxes were used as the basic unit in this tabulation, although the actual number of boxes utilized per tabulated month is listed, also. The analyses of

the individual loads are punched on IBM cards, then the desired data were extracted and grouped in respective Brix and ratio brackets as follows: Degrees Brix—less than 9.0, 9.0 to 9.99, 10.0 to 10.99, 11.0 to 11.99, 12.0 to 12.99, 13.0 to 13.99, and 14.0 degrees and higher; and ratios—less than 10.0 to 1, 10.0 to 10.99 to 1, 11.0 to 11.99 to 1, 12.0 to 12.99 to 1, 13.0 to 13.99 to 1, 14.0 to 14.99 to 1, 15.0 to 15.99 to 1, 16.0 to 16.99 to 1, 17.0 to 17.99 to 1, and 18.0 to 1 and higher. Each month was tabulated individually, and the percentages of loads falling into each of the categories for that period were calculated. The tabulations were drawn up so as to represent fruit received by all except the very small processors, with every alternate day's receipts for the months of November and March being included, and with every third day's receipts being tabulated for the principal six months of the processing season. In all, nearly 340,000 individual loads were tabulated. Since this represents more than one-third of all oranges received by all processing plants during these seasons, statistical sample variation is not considered to be a factor.

The results of the tabulation of the 1958-59 through 1963-64 seasons are shown on Tables 1

Table 1: Percent of Loads Meeting Various Degrees Briz-Ratio Combinations

NOVEMBER													
1960-61: (2,181,392 Boxes)													
	R A T I O												
	10-0-1	10-0-1	11-0-1	12-0-1	13-0-1	14-0-1	15-0-1	16-0-1	17-0-1	18-0-1	19-0-1 & up		
Opex													Total
-9.0			0.58	1.18	0.9%	1.0%	0.1%	0.5%	0.5%	0.6%			59.25
-10.0		0.9%	3.45	6.47	6.5%	3.9	2.8	2.0	1.2	1.7			28.81
-11.0	0.6%		4.1	7.1	7.0%	4.2	2.9	2.5	0.7	0.2			31.76
-12.0	0.4	2.6	3.47	4.4	4.5%	3.4	1.8	0.9	0.5	0.5			22.5%
-13.0	0.2	0.5	1.7	1.7	1.6%	1.1	0.8	0.3	0.1	0.4			8.3%
-14.0			0.1	0.2	0.2								0.25%
-15.0													0.0%
6 up													
Total	0.9%	6.0%	16.0%	21.7%	19.6%	13.1%	8.7%	6.2%	3.0%	4.5%			100.0%

1962-63:	RATIO										(Fresno Year)
	10-0-1	10-0-3	11-0-1	12-0-1	13-0-1	14-0-1	15-0-1	16-0-1	17-0-1	18-0-1	Avg
odrig											Total
8.0	0.15	1.15	1.66	2.25	1.01	0.75	0.5	0.25			46.75
9.0	0.5	1.88	13.0	7.3	1.8	2.1	0.6		0.15		46.75
10.0	0.1	1.1	0.3	0.3	1.3	0.3	0.7	0.2	0.2	0.35	38.15
11.0	0.8	2.7	2.3	1.0	0.7	0.3				0.2	8.05
12.0	0.8	0.5	0.3	0.1							1.06
13.0											0.35
14.0											0.35
15.0											0.35
Total	7.55	31.66	28.66	17.05	7.55	4.55	1.65	0.25	0.35	0.55	100.05

[illegible]

1960-61:	RATIO										
(1,395,617 Buses)	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total
0x10											0.0%
0.0		3.5%	6.5%	3.5%	1.1%	0.1%	0.1%				54.5%
9.0	2.3%	18.5%	19.7%	12.3%	4.2%	0.9%	0.5%		0.1%		54.5%
10.0		6.9	5.8	4.3	3.3	0.7	0.5				23.6%
11.0		1.3	2.1	1.4	1.2	0.6	0.1	0.2%			6.1%
12.0				0.1					0.2%		0.9%
13.0										0.2%	0.9%
14.0											0.1%
15.0											0.1%
Total	5.5%	25.5%	34.3%	22.6%	8.2%	2.1%	1.1%	0.2%	0.1%	0.1%	100.0%

1959-60:	RATIO										
	10.0-11.0	11.0-12.0	12.0-13.0	13.0-14.0	15.0-16.0	16.0-17.0	17.0-18.0	18.0-19.0	19.0-20.0	20.0-21.0	Total
0-10%	1.8%	4.8%	5.7%	3.6%	2.0%	0.9%	0.2%	0.2%	0.1%	0.1%	20.6%
10-20%	0.1%	1.8%	13.5%	15.9%	1.9%	1.8%	0.5%	0.5%	0.2%	0.2%	50.4%
20-30%	0.1%	0.2%	2.2%	2.2%	2.3%	0.1%	0.6%	0.6%	0.1%	0.1%	20.1%
30-40%	0.1%	1.2%	1.9%	2.0%	0.9%	0.6%	0.1%	0.1%	0.4%	0.1%	7.2%
40-50%	0.2%	0.4%	0.4%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	1.9%
50-60%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
60-70%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
70-80%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
80-90%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
90-100%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Total	1.8%	10.3%	25.2%	28.8%	17.1%	8.6%	1.5%	1.1%	1.2%	1.0%	100.0%

1958-59:	RATIO									
	1.72, 1.84 (Bose)	1.70, 1.71	1.70, 1.71	1.70, 1.71	1.70, 1.71	1.70, 1.71	1.70, 1.71	1.70, 1.71	1.70, 1.71	1.70, 1.71
Strips										
9.0	0.5X	0.8X	0.1X	0.2X						
9.0	5.1	10.5	7.0	0.1	1.1X	0.2X				
10.0	13.1	16.8	1.0	0.1			0.1X			
11.0	5.9	7.1	5.1	1.8	0.7	0.3		0.1X		
12.0	5.6	7.1	0.6	0.6	0.2	0.2		0.1	0.2	
13.0	0.1									0.1X
14.0										
& up										
Total	25.5X	35.8X	28.2X	9.6X	3.3X	1.0X	0.1X	0.2X	0.3X	100.0X

Table 2: Percent of Loads Meeting Various Degrees Briz-Ratio Combinations

DECEMBER													
1963-64: (\$,650,712 Boxes)													
Grains	R A T I O												
	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	and up		Total
-9.0		0.1%	0.2%	0.2%	1.2%	0.7%	0.6%	0.5%	0.3%	0.5%			4.4%
9.0	0.1%	0.1	1.1	2.6	3.2	2.9	1.5	2.0	0.9	1.2			11.8%
10.0	2.0	2.0	2.2	1.1	5.1	2.9	2.0	1.3	1.0	1.1			25.7%
11.0	0.8	1.2	3.2	6.4	6.2	4.7	2.9	1.1	2.1	1.4			29.2%
12.0	1.0	2.0	2.3	3.5	3.8	2.8	2.8	1.3	0.7	1.1			25.7%
13.0	1.2	0.7	1.0	1.1	0.8	0.5	0.5	0.2	0.1	0.1			4.6%
14.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1						0.6%
and up													
Total	2.4%	4.2%	10.1	20.1	21.4	16.2%	-9.8%	5.9%	4.1%	5.7%			100.0%

1962-63:	17,859,128 Rooms	R A T I O										Base Year
		11-0-1	11-1-1	12-0-1	13-0-1	14-0-1	15-0-1	16-0-1	17-0-1	18-0-1	19-0-1	
0-0-0	0.0	0.3	0.5	0.6	0.6	0.5	0.2	0.1	0.0	0.2	17.1%	
0-0-1	0.1	1.3	2.7	3.4	2.7	1.8	1.6	1.3	0.8	1.6	37.4%	
0-1-0	0.2	1.1	2.3	2.9	2.3	1.5	1.3	1.0	0.6	1.2	29.6%	
11-0-0	0.5	4.5	6.5	6.0	5.2	4.4	2.9	1.9	1.2	1.8	8.1%	
12-0-0	0.3	2.7	1.2	1.6	1.6	1.1	0.7	0.4	0.2	0.2	3.0%	
13-0-0	0.1	0.3	0.2	0.2	0.3	0.1	0.1	0.1	0.0	0.0	0.7%	
14-0-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	
15-0-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	
16-0-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	
17-0-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	
18-0-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	
19-0-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	
Total	2.3%	8.0%	14.7%	18.5%	16.6%	13.0%	9.5%	6.4%	4.1%	7.3%	100.0%	

1961-62:	R A T I O											
	9.0-10.0	10.0-11.0	11.0-12.0	12.0-13.0	13.0-14.0	14.0-15.0	15.0-16.0	16.0-17.0	17.0-18.0	18.0-19.0	Total	
0.0											0.0	
0.1	0.1%	0.3%	0.8%	1.5%	2.1%	0.5%	0.3%	0.1%			4.7%	
0.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
0.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
0.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
0.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
0.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
0.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
0.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
0.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
1.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
1.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
1.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
1.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
1.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
1.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
1.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
1.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
1.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
1.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
2.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
2.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
2.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
2.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
2.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
2.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
2.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
2.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
2.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
2.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
3.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
3.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
3.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
3.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
3.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
3.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
3.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
3.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
3.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
3.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
4.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
4.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
4.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
4.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
4.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
4.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
4.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
4.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
4.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
4.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
5.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
5.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
5.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
5.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
5.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
5.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
5.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
5.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
5.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
5.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
6.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
6.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
6.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
6.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
6.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
6.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
6.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
6.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
6.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
6.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
7.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
7.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
7.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
7.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
7.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
7.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
7.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
7.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
7.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
7.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
8.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
8.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
8.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
8.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
8.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
8.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
8.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
8.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
8.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
8.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
9.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
9.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
9.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
9.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
9.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
9.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
9.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
9.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
9.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
9.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
10.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
10.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
10.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
10.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
10.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
10.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
10.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
10.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
10.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
10.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
11.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
11.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
11.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
11.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
11.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
11.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
11.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
11.7	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
11.8	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
11.9	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
12.0	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
12.1	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
12.2	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
12.3	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
12.4	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
12.5	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
12.6	0.2	0.3	0.7	1.1	1.1	1.0	0.5	0.5	0.1%		7.5%	
12.7	0.2</											

1960-61:		R A T I O										Total
		10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up		
0.0-1												
0.0-1	0.9%	1.5%	1.1%	0.8%	0.2%						25.0%	
1.0-1	0.6%	1.5%	7.9	6.3	3.4	1.5	0.6%	0.2%			25.0%	
2.0-1	1.2	2.7	1.2	1.2	0.8	0.2	0.2%	0.2%	0.1%	0.2%	25.0%	
3.0-1	1.2	2.5	5.8	6.3	4.9	2.9	1.1	0.3	0.1		26.1%	
4.0-1	1.1	2.4	3.4	3.5	2.3	1.0	0.6	0.1			16.1%	
5.0-1	0.1	0.1	0.4	0.1	0.2						1.2%	
6.0-1												
7.0-1												
8.0-1												
9.0-1												
10.0-1												
11.0-1												
12.0-1												
13.0-1												
14.0-1												
15.0-1												
16.0-1												
17.0-1												
18.0-1 & up												
Total	1.3%	15.0%	26.0%	26.3%	15.5%	8.0%	3.3%	0.8%	0.2%	0.2%	100.0%	

1959-60:	R A T I O										
	10.33/-	10.36/-	11.0-11	12.0-1	13.0-2	14.0-3	15.0-4	16.0-1	17.0-1	18.0-1 & up	Total
Orbit											
8.0	0.0%	0.8%	1.7%	2.7%	2.2%	1.6%	1.1%	0.7%	0.6%	0.2%	2.6%
9.0	0.3%	1.3	1.4	6.3	5.3	3.2	1.9	1.1	0.6		26.6%
10.0	0.4	1.7	1.7	7.7	7.7	4.4	2.4	1.4	0.7		27.7%
11.0	0.9	2.3	3.8	5.2	4.8	3.2	1.9	0.9	0.5		23.8%
12.0	0.4	1.2	2.1	2.4	1.9	1.4	0.9	0.5	0.2	0.1	11.1%
13.0	0.2	0.2	0.2	0.3	0.3	0.2					4.4%
Total	2.1%	7.1%	15.6%	23.0%	21.1%	13.5%	8.1%	4.1%	2.2%	1.5%	100.0%

1958-59: (7,170, 192 Boxes)			R A T I O										Total
10-0-0			10-0-1	12-0-1	13-0-1	14-0-3	15-0-3	16-0-1	17-0-1	18-0-2	4 up		
0-0-0	0.1%	0.2%	0.3%	0.2%	0.1%							0.9%	10.7%
1-0-0	0.7%	2.4%	3.0%	2.1%	1.4%	0.6%	0.1%	0.1%				9.0%	10.7%
2-0-0	2.2%	5.3%	8.8%	6.3%	3.5%	1.5%	0.7	0.1				23.4%	23.4%
3-0-0	11.0	20.0	31.0	24.0	13.0	5.0	2.0	0.9	0.3	0.1%		86.1%	86.1%
4-0-0	12.0	2.5	3.8	5.0	4.6	2.5	1.0	0.1	0.1	0.2%		20.1%	20.1%
5-0-0	13.0	0.6	0.7	0.9	0.5	0.2						3.2%	3.2%
4 up													
4 up	8.8%	18.5%	27.1%	22.7%	13.1%	5.6%	2.3%	0.9%	0.2%	0.2%		100.0%	100.0%

through 8, with each table consisting of one month for the six years. It had been anticipated that this second report on oranges would include data for only five seasons, but the non-representative freeze year of 1962-63 has been tabulated for information purposes, at the request of the industry committee. However, since there is no specific current interest in any particular Brix-ratio combinations as there was at the time of the 1957 report, no attempt will be made here to study or to evaluate the data as was done in the original publications for grapefruit (1), oranges (2), and tangerines (3). Those persons who intend to make use of the data herein should refer to those reports.

In addition to these special compiled data which indicate the percentages meeting various Brix and ratio levels, this Division routinely tabulates and distributes seasonal summaries of percent citric acid and degrees Brix by week endings, including volume of movement, for all fruit received at processing plants (5). This information is available to all segments of the citrus industry, and published data for oranges will not be repeated here. However, the monthly averages for the six seasons involved have been graphically illustrated in Figure 1 for those persons interested in averages only, but not in the detailed breakdown in the following tables.

LITERATURE CITED

1. Stenstrom, E. C., and G. F. Westbrook. A study of the degrees Brix and Brix-acid ratios of grapefruit utilized by Florida citrus processors for the seasons 1952-53 through 1955-56. Proc. Fla. State Hort. Soc. 69: 118-120. (1956)
2. Westbrook, G. F., and E. C. Stenstrom. A study of the degrees Brix and Brix-acid ratios of oranges utilized by Florida citrus processors for the seasons 1952-53 through 1956-57. Proc. State Hort. Soc. 70: 247-259. (1967)
3. Westbrook, G. F. and E. C. Stenstrom. A study of the degrees Brix and Brix-acid ratios of tangerines utilized by Florida citrus processors for the seasons 1953-54 through 1956-57 and 1958-59. Proc. Fla. State Hort. Soc. 72: 290-297. (1959)
4. Westbrook, G. F., and E. C. Stenstrom. The degrees Brix and Brix-acid ratios of grapefruit utilized by Florida citrus processors for the seasons 1958-59 through 1961-62. Proc. Fla. State Hort. Soc. 76: 258-264. (1963)
5. Division of Fruit & Vegetable Inspection Annual Reports, 1958-59 through 1963-64.

Table 3: Percent of Loads Meeting Various Degrees Brix-Ratio Combinations

JANUARY

1963-64: (8,857,609 Boxes)		RATIO												Total
		10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	19.0-1	20.0-1 & up	
Brix	-9.0													0.6%
	9.0	0.2%	0.5%	0.3%	0.7%	0.9%	0.9%	0.6%	0.4%	0.2%	0.3%			5.0%
	10.0	0.5%	0.9%	1.0%	2.1%	3.0%	2.7%	1.5%	0.7%	0.4%	0.6%			13.4%
	11.0	1.0%	1.2%	2.1%	4.2%	4.4%	4.4%	2.3%	1.5%	0.8%	1.2%			23.1%
	12.0	2.6%	1.7%	2.8%	5.3%	5.3%	5.3%	2.8%	1.6%	0.9%	1.3%			27.3%
	13.0	3.4%	1.8%	2.0%	2.9%	3.8%	3.0%	2.2%	1.2%	0.6%	0.7%			21.6%
	14.0	1.0%	0.9%	1.3%	1.7%	1.7%	1.3%	0.6%	0.3%	0.2%	0.2%			9.2%
& up														
Total		8.7%	7.0%	9.0%	15.7%	19.2%	17.1%	10.2%	5.6%	3.1%	4.4%			100.0%

1960-63: (17,547,047 Boxes)		RATIO												Total
		10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	19.0-1	20.0-1 & up	
Brix	-9.0													1.7%
	9.0	0.5%	0.6%	0.3%	0.1%	0.1%	0.1%	1.0%	0.9%	0.9%	0.4%			11.8%
	10.0	0.5%	0.7%	0.7%	1.5%	2.3%	2.9%	3.6%	3.3%	2.7%	10.1%			28.3%
	11.0	0.3%	0.7%	1.6%	2.5%	3.5%	3.5%	4.4%	4.4%	3.7%	11.0%			35.0%
	12.0	0.8%	0.5%	0.9%	2.0%	2.4%	2.6%	2.3%	1.9%	1.6%	1.5%			17.9%
	13.0	0.1%	0.2%	0.4%	0.7%	0.8%	0.7%	0.5%	0.4%	0.3%	0.5%			4.6%
	14.0				0.1%	0.1%	0.1%	0.2%						0.5%
& up														
Total		1.6%	3.9%	4.7%	7.5%	9.9%	11.7%	12.0%	10.7%	8.8%	29.2%			100.0%

1961-62: (17,699,098 Boxes)		RATIO												Total
		10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	19.0-1	20.0-1 & up	
Brix	-9.0													0.7%
	9.0	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.3%			6.6%
	10.0	0.4%	0.4%	0.8%	1.2%	1.3%	1.0%	0.6%	0.2%	0.2%	0.3%			24.5%
	11.0	1.5%	1.5%	2.4%	5.8%	6.2%	3.0%	1.2%	0.7%	0.2%	0.2%			29.2%
	12.0	2.7%	2.5%	3.1%	8.1%	8.1%	3.3%	1.5%	0.8%	0.9%	0.7%			31.5%
	13.0	1.3%	1.9%	3.9%	4.8%	4.7%	3.2%	1.8%	1.0%	0.5%	0.5%			23.6%
	14.0	0.4%	0.8%	1.3%	1.1%	0.6%	0.6%	0.3%	0.2%	0.1%				6.2%
& up														
Total		6.4%	7.1%	14.0%	20.8%	20.8%	13.7%	8.4%	4.3%	2.1%	2.4%			100.0%

1960-61: (15,220,164 Boxes)		RATIO												Total
		10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	19.0-1	20.0-1 & up	
Brix	-9.0													3.9%
	9.0	0.2%	0.7%	0.7%	0.8%	0.6%	0.4%	0.2%	0.1%	0.2%				15.9%
	10.0	0.4%	2.1%	4.1%	5.6%	4.2%	1.7%	0.9%	0.6%	0.2%				29.2%
	11.0	1.2%	2.4%	5.8%	8.2%	6.3%	3.0%	1.2%	0.7%	0.2%				31.5%
	12.0	1.4%	3.0%	5.5%	7.4%	6.7%	4.2%	1.8%	0.8%	0.3%				31.5%
	13.0	0.7%	1.8%	3.7%	2.1%	2.4%	1.3%	0.7%	0.3%	0.1%				13.7%
	14.0	0.2%	0.2%	0.4%	0.5%	0.3%	0.2%	0.1%	0.1%					1.8%
& up														
Total		4.1%	10.2%	20.0%	25.6%	20.4%	11.0%	4.8%	2.5%	0.7%	0.7%			100.0%

1959-60: (15,360,600 Boxes)		RATIO												Total
		10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	19.0-1	20.0-1 & up	
Brix	-9.0													1.1%
	9.0	0.1%	0.5%	0.5%	0.3%	0.4%	0.3%	0.2%	0.1%	0.1%				8.8%
	10.0	0.1%	0.5%	1.0%	4.0%	4.4%	3.0%	1.2%	0.6%	0.4%				20.2%
	11.0	0.3%	0.9%	3.1%	5.6%	5.4%	3.8%	1.9%	1.0%	1.1%				25.8%
	12.0	0.3%	1.3%	2.9%	4.8%	5.4%	4.6%	2.6%	2.2%	1.1%				27.4%
	13.0	0.2%	0.8%	2.1%	3.0%	2.9%	1.8%	1.5%	0.7%	0.4%				13.9%
	14.0		0.2%	0.9%	0.6%	0.5%	0.3%	0.2%	0.1%	0.1%				6.5%
& up														
Total		0.9%	3.7%	9.7%	16.7%	21.5%	19.1%	13.5%	7.0%	3.8%	4.1%			100.0%

1958-59: (13,357,821 Boxes)		RATIO												Total
		10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	19.0-1	20.0-1 & up	
Brix	-9.0													2.5%
	9.0	0.4%	0.5%	0.6%	0.6%	0.3%	0.2%	0.2%	0.1%	0.2%				12.7%
	10.0	0.4%	1.4%	3.4%	4.4%	3.4%	1.1%	0.6%	0.3%	0.2%				26.9%
	11.0	1.1%	2.7%	5.1%	7.3%	6.6%	3.4%	1.6%	0.8%	0.2%				31.4%
	12.0	2.5%	3.4%	6.8%	9.4%	7.9%	3.7%	1.7%	0.5%	0.1%				37.5%
	13.0	0.7%	1.9%	3.5%	4.2%	3.9%	1.7%	0.9%	0.4%	0.1%				17.5%
	14.0	0.2%	0.4%	0.7%	0.7%	0.6%	0.3%	0.1%	0.1%					3.0%
& up														
Total		3.8%	10.2%	19.2%	25.6%	22.8%	10.8%	5.1%	2.2%	0.8%	0.5%			100.0%

Table 4: Percent of Loads Meeting Various Degrees Brix-Ratio Combinations

FEBRUARY

1963-64: (5,558,188 Boxes)		RATIO												Total
		10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	19.0-1	20.0-1 & up	
Brix	-9.0													0.6%
	9.0	0.7%	2.4%	1.6%	0.5%	0.2%	0.6%	0.1%	0.1%	0.2%	0.1%			5.7%
	10.0	2.3%	3.8%	2.4%	1.5%	1.2%	1.6%	1.2%	0.5%	0.4%	0.5%			14.6%
	11.0	2.3%	3.8%	2.4%	1.5%	1.2%	1.6%	1.2%	0.5%	0.4%	0.5%			14.6%
	12.0	2.5%	3.6%	3.5%	3.1%	2.7%	2.6%	2.0%	1.5%	0.7%	0.5%			22.7%
	13.0	1.6%	3.0%	3.8%	3.3%	3.1%	2.4%	1.9%	1.2%	0.9%	0.7%			22.1%
	14.0	1.3%	2.5%	3.0%	3.0%	2.6%	2.2%	1.7%	1.4%	0.8%	0.7%			19.2%
& up														
Total		10.7%	20.1%	17.8%	12.0%	10.7%	9.3%	8.0%	5.1%	3.0%	2.7%			100.0%

1962-63: (6,827,791 Boxes)		RATIO												Total
		10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	19.0-1	20.0-1 & up	
Brix	-9.0													7.6%
	9.0	5.7%	21.7%	9.4%	2.0%	0.4%	0.1%							39.4%
	10.0	10.1%	15.4%	8.6%	0.8%	0.1%	0.2%	0.2%	0.1%	0.1%	0.1%			32.0%
	11.0	3.3%	2.6%	1.0%	0.5%	0.5%	0.6%	0.5%	0.4%	0.2%	0.5%			10.1%
	12.0	0.5%	0.3%	0.4%	0.6%	0.6%	0.5%	0.5%	0.3%	0.3%	0.3%			4.3%
	13.0	0.1%	0.2%	0.2%	0.4%	0.8%	0.5%	0.4%	0.3%	0.4%	0.4%			1.8%
	14.0				0.2%	0.4%	0.6%	0.7%	0.4%	0.7%	0.1%			2.7%
& up														
Total		19.7%	44.0%	18.3%	5.4%	3.0%	2.7%	2.4%	1.6%	1.1%	1.6%			100.0%

1961-62: (13,703,668 Boxes)		RATIO												Total
		10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up			
Brix	-9.0												1.2%	
	9.0	0.2%	0.5%	0.3%	0.1%	0.1%							1.4%	
	10.0	0.8%	1.2%	0.9%	0.5%	0.3%	0.3%	0.2%	0.1%	0.1%	0.2%		6.6%	
	11.0	1.0%	1.4%	1.2%	1.3%	1.5%	2.0%	1.5%	0.7%	0.5%	0.7%		12.2%	
	12.0	0.9%	1.7%	1.9%	3.8%	3.9%	4.5%	3.5%	1.8%	0.9%	0.5%		26.9%	
	13.0	1.4%	2.0%	3.7%	5.4%	6.4%	5.1%	3.8%	2.0%	1.3%	1.7%		32.8%	
	14.0	1.1%	1.8%	3.7%	4.9%	4.1%	3.1%	2.3%	1.2%	0.7%	0.9%		26.1%	
	15.0													
Total	5.1%	8.6%	11.7%	16.0%	17.7%	13.3%	11.0%	5.8%	3.3%	5.7%	0.0%	100.0%		

WESTBROOK AND STENSTROM: BRIX-ACID STUDIES

281

Table 5: Percent of Loads Meeting Various Degree Brix-Ratio Combinations

MARCH													
1963-64: (3,527,737 Boxes)													
R A T I O													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0												6.5%	
9.0		0.7%	1.4%	1.8%	1.7%	0.7%	0.2%					26.5%	
10.0	0.7%	2.5	3.7	6.5	8.5	1.9	0.6					30.7%	
11.0	0.7	3.8	7.2	8.2	6.4	3.3	0.7	0.1%				37.7%	
12.0	1.1	3.2	4.9	5.5	5.1	2.1	0.6	0.4	0.2%	0.3%		23.4%	
13.0	0.6	1.8	2.5	2.8	1.6	0.7	0.3	0.2	0.2	0.5		11.2%	
14.0	0.3	0.5	0.7	0.6	0.5	0.4	0.2	0.2		0.3		3.7%	
4 up												100.0%	
Total	3.4%	12.5%	22.4%	25.4%	21.8%	9.2%	2.6%	1.3%	0.4%	1.1%			
1962-63: (9,129,177 Boxes)													
R A T I O (Freeze Year)													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0												4.4%	
9.0	1.7%	10.1	12.2	7.6	3.1	1.0	0.2%					35.2%	
10.0	3.7	14.3	16.0	7.1	2.5	0.7	0.3		0.1%			12.7%	
11.0	1.9	4.5	3.7	1.6	0.7	0.2	0.1					3.1%	
12.0	0.5	0.8	0.6	0.6	0.3	0.2	0.1					0.6%	
13.0			0.2	0.1	0.1	0.1						0.1%	
14.0							0.1	0.1	0.1%	0.1%		0.6%	
4 up												100.0%	
Total	7.8%	30.5%	32.2%	18.2%	7.4%	2.5%	0.9%	0.2%	0.3%	0.1%			
1961-62: (5,804,106 Boxes)													
R A T I O													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0												0.3%	
9.0	0.3%	0.8%	0.1%	0.1%	0.1%							0.3%	
10.0	1.2	3.3	2.4	1.9	0.6	0.2	0.1%	0.1%		0.1%		10.2%	
11.0	2.5	4.6	4.2	2.5	1.3	0.8	0.5	0.3	0.1%	0.4		17.2%	
12.0	3.1	3.3	2.7	1.7	0.5	0.7	0.5	0.8				12.0%	
13.0	3.0	3.5	4.2	3.8	2.8	1.9	2.0	1.3	0.8	1.3		23.6%	
14.0	2.4	2.9	3.4	4.2	3.4	3.0	1.8	1.1	1.0	1.9		25.1%	
4 up												100.0%	
Total	11.8%	19.7%	18.8%	16.0%	10.9%	7.2%	5.3%	3.4%	2.4%	4.5%			
1960-61: (4,573,920 Boxes)													
R A T I O													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0												0.6%	
9.0	0.2%	1.0%	0.3%	0.1%								6.5%	
10.0	0.9	3.9	6.5	2.8	0.9	0.3	0.2%	0.2%	0.4%	0.2%		16.3%	
11.0	0.9	3.1	3.3	1.3	1.1	1.1	0.9	0.7	0.5	0.7		13.6%	
12.0	0.5	1.2	1.3	1.6	1.8	1.9	2.4	1.4	0.8	1.1		14.0%	
13.0	0.2	0.4	1.8	3.8	4.9	5.2	4.3	2.8	1.4	2.7		27.5%	
14.0		0.4	1.9	3.9	4.8	3.9	2.9	1.3	1.1	1.5		21.7%	
4 up												100.0%	
Total	2.7%	10.0%	17.7%	15.4%	14.1%	12.6%	10.7%	6.4%	4.2%	6.2%			
1959-60: (3,176,980 Boxes)													
R A T I O													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0												0.3%	
9.0	0.5%	0.5%	0.2%	0.1%								11.3%	
10.0	1.8	12.7	9.8	3.9	1.1	0.3%	0.2%	0.2%				32.0%	
11.0	3.4	8.2	5.8	3.8	1.7	0.5	0.4	0.2	0.5	0.8		24.4%	
12.0	2.2	3.8	3.6	3.0	2.1	0.8	0.8	0.3	0.1%	0.3%		17.0%	
13.0	0.8	1.3	2.0	2.9	2.0	0.7	0.5	0.3	0.2	0.2		10.9%	
14.0		0.4	0.5	1.1	0.9	0.4	0.1					3.6%	
4 up												100.0%	
Total	11.1%	31.0%	26.5%	16.6%	8.1%	2.7%	2.0%	1.0%	0.3%	0.7%			
1958-59: (5,256,192 Boxes)													
R A T I O													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0												1.1%	
9.0	0.1%	0.3%	0.5%	0.2%								5.5%	
10.0	2.2	5.0	4.2	2.0	0.9	0.6	0.5%	0.2%			0.1%	16.3%	
11.0	2.9	6.0	4.6	2.0	1.0	1.0	0.5	0.4	0.3%		0.8	19.7%	
12.0	1.4	2.8	2.3	1.6	1.4	1.5	1.2	1.2	0.7	1.1		14.8%	
13.0	0.7	0.8	1.7	2.2	3.1	3.2	3.2	1.7	0.8	1.4		18.8%	
14.0	0.2	0.9	2.8	4.4	4.6	4.8	3.0	1.9	0.9	1.4		24.0%	
4 up												100.0%	
Total	7.9%	17.2%	17.8%	13.2%	11.4%	11.0%	8.4%	5.1%	2.7%	5.3%			

Table 6: Percent of Loads Meeting Various Degree Brix-Ratio Combinations

APRIL													
1963-64: (9,449,364 Boxes)													
R A T I O													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0												1.9%	
9.0		0.1%	0.1%	0.1%	0.1%	0.5%	0.3%	0.1%				13.6%	
10.0		0.3	0.8	1.9	3.8	3.5	2.0	0.9	0.3%			28.0%	
11.0		0.3	0.8	5.3	9.2	8.3	3.6	1.2	0.2			31.5%	
12.0	0.1	0.2	2.2	5.1	10.3	8.7	4.3	1.2	0.3	0.1%		18.8%	
13.0		0.1	0.9	3.3	5.8	5.3	2.3	0.8	0.2			5.3%	
14.0		0.1	0.4	1.0	1.6	1.3	0.6	0.2	0.1			1.6%	
4 up												100.0%	
Total	0.2%	1.3%	4.2%	17.0%	31.1%	27.6%	13.1%	1.1%	1.1%	0.2%			
1962-63: (6,311,801 Boxes)													
R A T I O (Freeze Year)													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0												1.2%	
9.0		0.1%	0.1%	0.2%	0.3%	0.2%	0.2%	0.1%				18.1%	
10.0		0.3	1.6	4.2	6.2	4.1	1.5	0.3	0.1%			10.1%	
11.0	0.1%	1.0	4.8	9.5	12.5	9.0	2.8	0.7				22.6%	
12.0		0.7	2.8	5.0	6.8	5.2	1.7	0.3	0.1			5.9%	
13.0		0.5	1.0	2.3	3.4	2.0	0.7	0.1				1.6%	
14.0		0.2	0.7	1.3	1.6	1.4	0.5	0.2				0.2%	
4 up												100.0%	
Total	0.1%	2.8%	11.2%	22.9%	34.3%	22.2%	7.6%	1.7%	0.2%				
1961-62: (9,852,274 Boxes)													
R A T I O													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0												4.0%	
9.0	0.1%	0.2%	0.7%	0.8%	0.9%	0.9%	0.3%	0.1%				20.5%	
10.0	0.1	1.0	3.0	6.3	5.6	3.2	1.1	0.3				33.7%	
11.0	0.3	1.6	5.7	10.1	8.8	4.7	1.7	0.5	0.2%	0.1%		11.7%	
12.0	0.4	1.8	7.9	12.7	7.7	3.1	1.7	0.4				14.4%	
13.0	0.3	1.0	2.1	2.7	2.3	1.6	0.6	0.2	0.1			10.0%	
14.0	0.4	0.7	0.7	0.9	0.7	0.5	0.3	0.1	0.1			4.4%	
4 up												100.0%	
Total	1.6%	6.3%	16.5%	28.7%	26.0%	13.9%	5.0%	1.4%	0.4%	0.2%			
1960-61: (7,945,020 Boxes)													
R A T I O													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0					0.2%							0.2%	
9.0					1.0%	0.2%						6.2%	
10.0		0.7%	4.6	2.8%	13.1	5.1	1.8	0.8	0.1%			18.8%	
11.0		0.8	5.0	10.5	13.2	4.2	0.7	0.1	0.1%			38.0%	
12.0		0.8	2.6	4.6	3.0	2.4	0.5	0.1				11.7%	
13.0		0.1	0.6	1.1	1.2	0.6	0.2	0.1	0.1	0.1%		14.1%	
14.0				0.2	0.2	0.2	0.3					0.9%	
4 up												100.0%	
Total	2.2%	13.6%	34.8%	36.2%	12.1%	2.5%	0.3%	0.7%	0.1%				
1959-60: (9,840,663 Boxes)													
R A T I O													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0												5.9%	
9.0					1.7%	0.8%	0.3%					22.0%	
10.0		0.6%	4.3	10.9	9.3	3.3	0.6	0.1%				29.1%	
11.0		1.0	7.0	16.2	10.0	3.0	0.7	0.1				38.0%	
12.0		0.8	3.7	7.7	5.9	2.5	0.7	0.1	0.1%			18.1%	
13.0		0.1	0.9	1.8	2.2	2.0	0.9	0.3	0.1			8.0%	
14.0				0.2	0.2	0.1	0.1	0.1				0.6%	
4 up												100.0%	
Total	0.1%	3.3%	17.4%	38.3%	28.1%	9.8%	2.5%	0.4%	0.1%				
1958-59: (10,189,212 Boxes)													
R A T I O													
°Brix	10.0-1	10.0-1	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1	18.0-1 & up	Total	
-9.0				0.1%								0.1%	
9.0		0.2%	1.4%	1.1	1.8%	0.8%	0.5%	0.1%				6.2%	
10.0		0.5%	3.3	6.5	5.9	2.9	1.0	0.3		0.1%		20.5%	
11.0		0.7	4.6	13.0	11.4	4.6	1.4	0.3				36.0%	
12.0		0.7	3.9	7.9	5.9	2.5	0.7	0.3				18.1%	
13.0		0.2	2.1	3.1	2.6	0.9	0.3	0.1		0.1		9.1%	
14.0			0.3	0.4	0.5	0.2	0.2	0.1		0.1		1.8%	
4 up												100.0%	
Total	2.3%	15.6%	34.6%	30.1%	11.9%	4.0%	1.2%	0.3%					

Table 7: Percent of Loads Meeting Various Degree Brix-Ratio Combinations

MAY												
1963-64: (8,210,962 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0			0.1%								0.1%	
9.0	0.1%	0.7	0.8%	0.5%	0.2%	0.2%	0.3%	0.2%			3.0%	
10.0	0.1	0.9	2.0	1.8	1.2	1.5	1.8	1.4	0.8%	0.3%	11.9%	
11.0		0.5	1.0	1.5	2.1	3.7	4.6	3.4	1.4	0.7	18.9%	
12.0			0.4	0.7	2.3	4.7	5.6	4.2	2.1	1.0	21.6%	
13.0			0.2	0.6	3.3	6.3	7.3	5.2	2.1	1.0	28.0%	
14.0			0.3	1.3	3.7	4.0	4.3	2.8	1.3	0.6	19.1%	
& up											4.8%	
Total	0.2%	2.2%	4.7%	6.4%	12.8%	21.2%	24.0%	17.2%	7.7%	3.6%	100.0%	
1962-63: (2,479,158 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0			0.3%		0.2%	0.1%					0.7%	
9.0			0.4	0.1%	0.5	1.3	0.6	0.7%	0.2%		4.1%	
10.0			0.2	0.7	1.8	6.1	5.8	3.2	1.6	0.5%	0.1%	20.0%
11.0			0.7	2.4	6.2	7.6	5.2	3.2	0.5	0.2	26.0%	
12.0			0.6	1.4	3.9	5.3	4.5	2.0	0.7	0.6	19.1%	
13.0			0.3	1.3	4.0	4.4	4.2	2.6	0.7	0.4	17.9%	
14.0			0.3	1.3	2.5	3.1	2.8	1.4	0.5	0.3	12.2%	
& up											4.8%	
Total	1.0%	3.0%	8.2%	24.1%	26.9%	20.6%	11.0%	2.9%	1.6%		100.0%	
1961-62: (17,024,775 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0											0.9%	
9.0											8.7%	
10.0			0.2%	0.1%	0.1%	0.2%	0.2%	0.1%	0.1%	0.1%	0.3%	
11.0			0.2	1.1	2.1	2.1	1.7	1.0	0.5	0.3	7.8%	
12.0			0.1%	0.2	4.0	7.8	7.1	4.7	2.2	0.9	0.3	28.0%
13.0			0.2	1.5	5.8	8.1	6.5	2.5	0.8	0.3	30.8%	
14.0			0.3	1.1	3.2	5.5	4.6	3.1	1.5	0.5	0.2	20.0%
& up			0.1%	0.4	0.8	1.5	1.6	0.7	0.4	0.2	0.1	7.6%
Total	0.1%	1.0%	4.5%	15.7%	25.0%	24.1%	16.6%	7.7%	3.1%	1.3%	100.0%	
1960-61: (13,236,381 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0											0.9%	
9.0											8.7%	
10.0			0.1%	0.2%	1.1	1.8	2.1	1.7	1.0	0.5	0.3	7.8%
11.0			0.7	4.0	7.8	7.1	4.7	2.2	0.9	0.3	28.0%	
12.0			0.2	1.5	6.8	8.1	6.5	2.5	0.8	0.3	30.8%	
13.0			0.3	1.1	3.2	5.5	4.6	3.1	1.5	0.5	0.2	20.0%
14.0			0.1%	0.4	0.8	1.5	1.6	0.7	0.4	0.2	0.1	7.6%
& up											1.0%	
Total	0.1%	1.0%	4.5%	15.7%	25.0%	24.1%	16.6%	7.7%	3.1%	1.3%	100.0%	
1959-60: (14,873,751 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0											0.9%	
9.0											8.7%	
10.0			0.1%	0.2%	1.1	1.8	2.1	1.7	1.0	0.5	0.3	7.8%
11.0			0.7	4.0	7.8	7.1	4.7	2.2	0.9	0.3	28.0%	
12.0			0.2	1.5	6.8	8.1	6.5	2.5	0.8	0.3	30.8%	
13.0			0.3	1.1	3.2	5.5	4.6	3.1	1.5	0.5	0.2	20.0%
14.0			0.1%	0.4	0.8	1.5	1.6	0.7	0.4	0.2	0.1	7.6%
& up											1.0%	
Total	0.1%	1.0%	4.5%	15.7%	25.0%	24.1%	16.6%	7.7%	3.1%	1.3%	100.0%	
1958-59: (13,148,037 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0											0.9%	
9.0											8.7%	
10.0			0.1%	0.2%	1.1	1.8	2.1	1.7	1.0	0.5	0.3	7.8%
11.0			0.7	4.0	7.8	7.1	4.7	2.2	0.9	0.3	28.0%	
12.0			0.2	1.5	6.8	8.1	6.5	2.5	0.8	0.3	30.8%	
13.0			0.3	1.1	3.2	5.5	4.6	3.1	1.5	0.5	0.2	20.0%
14.0			0.1%	0.4	0.8	1.5	1.6	0.7	0.4	0.2	0.1	7.6%
& up											1.0%	
Total	0.1%	1.0%	4.5%	15.7%	25.0%	24.1%	16.6%	7.7%	3.1%	1.3%	100.0%	

Table 8: Percent of Loads Meeting Various Degree Brix-Ratio Combinations

JUNE												
1963-64: (1,468,861 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0											1.2%	
9.0	0.3%	0.3%	0.3%	1.2%	0.7	0.1%	0.1%	0.1%	0.1%		2.7%	
10.0	0.3%	2.7	6.3	5.1	1.7	2.2	1.0	1.2	0.4	0.4%	20.2%	
11.0	0.1	0.3	3.6	4.0	2.0	2.1	1.4	1.7	1.1	0.6	18.0%	
12.0	0.1	0.5	1.6	2.7	1.8	1.7	1.4	2.6	1.7	2.3	19.0%	
13.0	0.1	0.2	0.3	0.5	0.6	3.1	4.5	4.1	2.4		16.2%	
14.0			0.1	0.3	0.4	2.1	3.9	6.0	4.5	2.4	19.7%	
& up											4.8%	
Total	0.6%	8.0%	16.1%	12.8%	7.9%	7.8%	11.1%	15.7%	11.9%	9.1%	100.0%	
1962-63: (Insufficient number of loads - not tabulated)												
(Freeze Year)												
1961-62: (1,115,035 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0											0.5%	
9.0											5.7%	
10.0			0.1%	0.4%	0.8	1.0	1.2	0.7	1.3		5.1%	
11.0			0.5	2.1	2.6	5.0	6.8	7.4	5.2	3.1	18.1%	
12.0			0.1%	1.1	2.6	5.0	6.8	7.4	5.2	4.5	32.7%	
13.0			0.2%	0.3	1.4	3.3	5.0	6.3	6.0	4.2	31.2%	
14.0			0.2%	0.7	1.2	1.8	2.4	2.8	1.7	1.1	12.3%	
& up											1.2%	
Total	0.2%	1.1%	4.1%	9.2%	15.5%	20.3%	20.7%	14.7%	13.9%		100.0%	
1960-61: (5,735,082 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0											0.3%	
9.0											2.2%	
10.0					0.1%	1.3	3.3	4.0	3.6	3.3	15.7%	
11.0				0.2%	0.9	3.6	7.1	7.6	5.3	4.7	29.5%	
12.0				0.3	1.4	5.0	8.1	5.7	3.2	2.6	26.2%	
13.0				0.3	1.6	3.7	5.1	3.4	1.7	1.6	17.4%	
14.0				0.2	0.8	3.3	3.9	5.1	1.4	1.3	8.7%	
& up											1.0%	
Total				1.0%	5.0%	15.1%	26.0%	23.4%	15.6%	13.9%	100.0%	
1959-60: (4,099,981 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0											2.4%	
9.0					0.3%	1.3	0.7%	0.7%	0.5%	0.2%	2.4%	
10.0					0.3%	2.9	3.6	3.2	1.2		1.2%	
11.0				0.7%	1.9	5.2	9.1	6.9	3.7	1.9	29.4%	
12.0				0.5	2.6	6.8	8.3	4.9	2.5	2.1	28.2%	
13.0				0.7	2.7	3.6	5.5	3.2	1.9	3.4	22.9%	
14.0				0.5	1.4	1.4	1.2	1.1	0.8	0.6	7.2%	
& up											1.0%	
Total				2.4%	9.8%	20.8%	28.0%	20.1%	11.5%	7.4%	100.0%	
1958-59: (5,556,993 Boxes)												
R A T I O												
Brix	10.0-1	10.0-2	11.0-1	12.0-1	13.0-1	14.0-1	15.0-1	16.0-1	17.0-1	18.0-1 & up	Total	
-9.0											1.0%	
9.0											7.5%	
10.0					0.1%	0.4%	1.5	2.3	1.8	1.4	7.4%	
11.0				0.7%	0.3	1.5	4.0	5.8	4.3	2.8	18.1%	
12.0				0.2%	0.9	3.6	10.7	6.3	3.3	2.4	20.7%	
13.0				0.2	1.6	1.4	7.0	7.1	4.5	3.7	27.2%	
14.0				0.2	0.5	2.1	2.8	1.9	1.2	2.6	11.3%	
& up											1.0%	
Total	0.6%	3.4%	15.5%	23.3%	28.0%	17.5%	15.2%				100.0%	

