

FLORIDA AGRICULTURAL STATISTICS

Citrus Maturity and Yield Tests

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AND CONSUMER SERVICES
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To the many growers, who allowed picking of fruit samples from their groves, the Orange County Commissioners, who maintain our test facilities, and citrus organizations who have voluntarily cooperated in this program, we offer our sincere thanks.

The report was assembled under the direction of James W. Todd and Harry M. Whittaker of the Florida Crop and Livestock Reporting Service.

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CITRUS MATURITY TESTING PROGRAM

Introduction

Since the processing industry began to utilize the bulk of the orange crop in Florida, the concept of production estimates and forecasts only in terms of boxes of a given weight has become obsolete. To be more meaningful, forecasts and estimates of production need to be expressed in terms of total pounds of solids as well as in terms of boxes. This interest has been expressed to the Florida Crop and Livestock Reporting Service by both processors and growers.

HISTORY

In the late 1950's the Service began to collect fruit samples of oranges monthly to determine if maturity and yield factors could be projected in advance of harvest. For several years fieldmen picked a single fruit from each grove that they entered to make monthly counts and size measurements in their regular drop and growth surveys. These fruit were combined into a single sample for each type of orange—early, midseason and late—and juice was extracted with the aid of an electrically operated reamer. The necessary weights and test results were accumulated. Within a few seasons it was determined that declines in acid, increases in soluble solids and ratio, increases and later decreases in juice, and increases in pounds-solids followed predictable patterns. It appeared from these data that changes in these elements could be predicted over time if sufficient observations were available to provide a valid statistical base. None of the results of these tests were published. The yield of pounds-solids shown in these tests appears to be correlated with changes in yield levels of fruit received at the processing plants.

In early 1963, following the disastrous freeze of December 1962, the industry was very concerned over the level of pounds-solids yield that would be obtained from Valencia oranges which had been damaged severely. In response to requests from the Citrus Crop Estimates Advisory Committee and others in the citrus industry, the Florida Crop and Livestock Reporting Service conducted a series of tests using fruit from randomly selected sample groves. Three successive tests were made at 2 week intervals. These indicated rather accurately the abnormally low level of yields of juice and pounds of solids in Valencias that spring.

This pilot project provided experience in a regular survey procedure which would yield statistically reliable results. Sufficient funds and manpower were available to finance the work and a regular program of surveys on a monthly basis was begun October 1, 1963. The sample size selected in these first surveys provided for 50 groves each for early, midseason and late oranges. Reports were issued individually on early and midseason oranges on the first of each month from October through January in the 1963-64 season, and from October 1 through February 1 in the 1964-65 and 1965-66 seasons. Valencia orange test results were reported on October 1 through April 1 in the 1963-64 season, and through May 1 in the 1964-65 season. In the 1965-66 season, Valencias were tested at the first of each month from October through February and, beginning in February, a midmonth report was added, continuing through April of that season. In the 1966-67 season, testing began September 1 and midmonth tests were added to the previous monthly programs.

In 1967 following a statistical evaluation of the preceding four years' results, the Service responded to industry requests for area data from the maturity and yield tests, and expanded sample sizes. In that year, the number of early orange groves was increased to 73, midseasons to 55, and Valencias to 100. September 1 was continued as the first test date and the schedule of midmonth tests was retained.

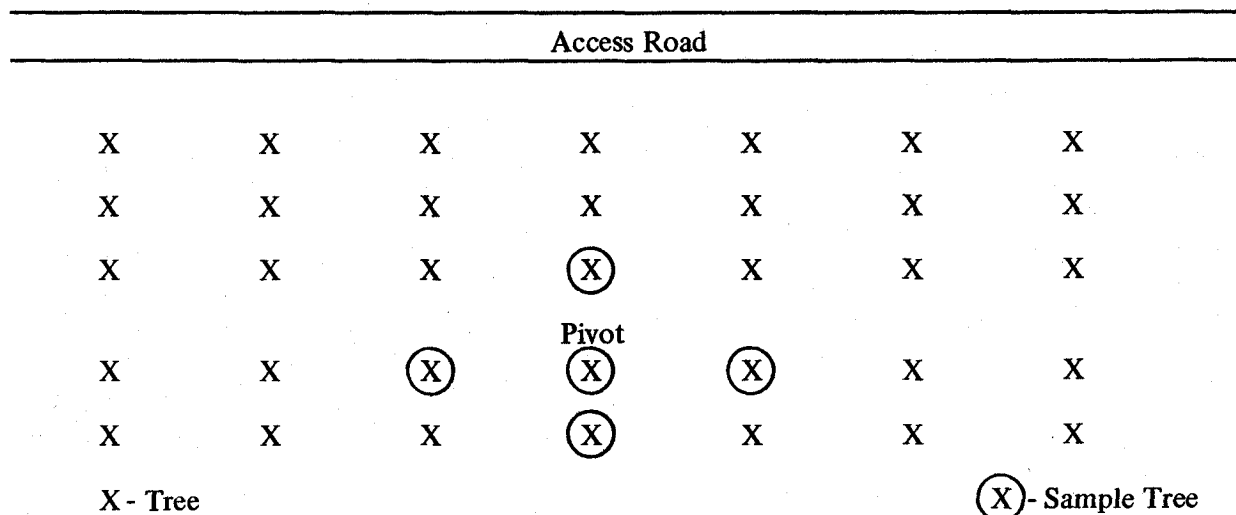
In the 1964-65 season, seedless grapefruit tests were added to the program with a separate series for white and pink varieties. A series for seedy grapefruit was added in the 1965-66 season. The data for grapefruit are now published in this report.

SAMPLING

Each month, starting in September, the Florida Crop and Livestock Reporting Service collects fruit samples from each sample grove. Each sample consists of 15 oranges or 5 grapefruit. The samples are picked from preselected groves and predetermined sample trees. The number of samples are as follows: early orange, 80; midseason orange, 60; late (Valencia) orange, 110; seedy grapefruit, 25; white seedless, 62; and pink or red seedless, 52.

Sample groves and trees remain relatively constant from year to year in order to measure changes more accurately. Each sample is picked from a randomly selected cluster of five trees. Sample fruit are selected from the pivot tree's side nearest the road of travel and from the side of the other four sample trees nearest the pivot tree. Three oranges or one grapefruit are picked from each of the five sample trees. This procedure insures that fruit from all exposures are included in the samples.

LOCATION OF SAMPLE TREES FOR MATURITY AND YIELD TESTS



TESTING

Early and midseason oranges are now tested on the first of each month beginning September 1 and continuing through February 1. They are also tested December 15. Late oranges are tested on the first of each month beginning October 1 and terminating June 1. They are also tested April 15. Grapefruit tests are run the 1st of each month from September through December.

All maturity tests are run at the department's testing facilities located at the Orange County Agricultural Center at 2350 E. Michigan Avenue in Orlando. The testing laboratory was built with funds and labor donated by Florida Citrus Mutual, the Florida Citrus Processors Association, the Florida Fresh Fruit Shippers Association (now Florida Citrus Packers) and the Orange County Commissioners.

All samples are run through an FMC 091 test extractor using mechanical pressure only. This machine utilizes a .040 short strainer and standard 5/8 inch orifice tube. The beam setting is 1/4 inch and no restrictors are used. Only the 3 inch cup is used for oranges, and only the 5 inch cup for grapefruit. The extractor and specifications correspond to those used for official State tests when this program began. State tests are now run on the FMC 091B utilizing air pressure.

COMPARISONS WITH STATE TESTS

These Maturity Test Results are not directly comparable with the published State test results. There are several reasons for the differences in pounds of juice per box and pounds solids per box. One reason is that the fruit is sampled from two different fruit populations—samples for the State tests are of fruit currently being delivered to processing plants, while the Maturity Test Results are from samples of fruit remaining on the trees at the time the sample is taken. However, the major areas of difference are in the extraction method and the quantity of juice that is being measured. The Maturity Test Results reflect the total quantity of unfinished juice extracted using the FMC 091 equipped as indicated above. For the State tests, juice is extracted by State inspectors on the FMC 091B. The air pressure setting currently in use is 45 pounds PSI. At this level, the quantity of juice extracted from a given lot of oranges exceeds that which can be extracted using the FMC 091 equipped as indicated above. Furthermore, the State test is made to establish the quantity of finished juice upon which payment for fruit is based, and therefore the unfinished juice weight determined by State inspectors is reduced using juice factors established by an industry committee under regulations set by the Florida Department of Citrus. These factors vary within season according to the committee ruling based on current conditions.

The finished quantity of juice entered on State inspection certificates will always be less than the amount of unfinished juice that was extracted by the State inspector. This will also be less than the amount of unfinished juice reported in Maturity Test Results for the corresponding date.

In addition to establishing juice factors, the Florida Department of Citrus also regulates the quantity of juice which processing plants are allowed to recover. Control is based on the quantity

of finished juice. Currently, the season average recovery rate is limited to 102 percent of the quantity of finished juice received at each plant.

The final season average yield as given in the narrative summaries by seasons in this publication is the final per box yield of FCOJ as reported by the Florida Citrus Processors Association.

FORECASTS OF YIELD OF FCOJ

The forecasts of yield are based upon linear regressions. The final yield as reported by the Florida Citrus Processors Association for all fruit used to make FCOJ is the dependent variable; the pounds-solids determined from the maturity and yield surveys is the independent variable. Actual yield data is incorporated into the forecast starting in February. The linear regression indications are adjusted by the juice factor and recovery limit prevailing at the date of the maturity and yield surveys.

The regressions currently utilize the data from the 1968-69 through 1979-80 seasons excluding the 1970-71 and 1976-77 freeze years. Starting with the 1965-66 season the industry standard for FCOJ was changed from 42° Brix to 45° Brix. This standard continued through 1979-80. The industry changed to 43.4° Brix for the 1980-81 season.

THE 1972-73 SEASON

The initial FCOJ forecast on October 13, 1972, suggested an all orange season average yield of 1.29 gallons per box. On December 12 the FCOJ yield projection was lowered to 1.26. The reduction was caused primarily by lower than average juice development. However, the ideal growing conditions during December resulted in a sharp rise in both juice content and total soluble solids and the January indication was raised to 1.33 for all oranges. In February the yield projection was lowered to 1.32 due to slightly lower indications for Valencia juice content. This estimate was maintained through the May forecast. By June 1 the Brix and juice per box had developed sufficiently to return the projected level to 1.33 gallons. Final yield for all oranges was 1.33176 gallons. The final yield of early and midseason oranges was 1.28800 and the Valencia yield was 1.38279 gallons.

THE 1973-74 SEASON

The FCOJ yield projection in October, based on regression analysis of maturity and yield test results, was 1.28 gallons per box for all oranges. The projected yield was increased to 1.32 gallons in December. This increase followed excellent growing weather during the fall with maturity results showing a substantial increase in the pounds of unfinished juice per box. However, it was necessary to reduce the January yield to 1.30 gallons. January 1 test results showed some depression in yield which was apparently caused by the advent of colder weather which brought 4 nights of below freezing temperatures in December with scattered, light fruit damage occurring on the morning of December 12. Yield was continued unchanged through March, increased to 1.31 gallons in April, but again dropped to 1.30 gallons for the final May and June projections. Final yield for all oranges was 1.29725 gallons. The final yield for early and midseason oranges

was 1.26386 and the Valencia yield was 1.34205 gallons. The yield for late season Valencias dropped sharply, particularly following very heavy rainfall in late June when fruit remaining for harvest softened rapidly.

THE 1974-75 SEASON

The October 1, 1974, FCOJ maturity and yield test results indicated an all orange yield of 1.29 gallons per box. The original projection was unchanged through April. Early and midseason oranges were forecast in October to reach 1.25 gallons per box and achieved 1.25275 gallons. In May, maturity test results and the Valencias utilized as reported by the Florida Citrus Processors Association suggested an increase in projected yield; the May 1 all orange projection was raised to 1.30 gallons. With a better than average increase in Valencia pounds-solids during May, the June 1 all orange forecast was again raised to 1.31 gallons. The Valencias were of excellent quality this year as shown by the average yield of 1.39936 gallons. The final yield of FCOJ for all oranges was 1.31482.

THE 1975-76 SEASON

The first FCOJ yield projection of the 1975-76 season was 1.35 gallons per box. The December expected yield figure was unchanged from October at 1.35 gallons. By January, the lower than average Brix of late oranges caused a reduction in expected yield to 1.34 gallons. In the February forecast, the all oranges projected yield was reduced to 1.31. On March 9, there was a further reduction to 1.30 gallons. This yield estimate was held until the June 9 forecast when all the orange FCOJ yield regression calculations suggested a yield of 1.29. This gradual lowering of the FCOJ yield forecast from January to June was caused by the failure of the soluble solids to reach average levels. There was very little late bloom to indicate lower expectations. The early and midseason orange final yield was 1.26386 gallons, the late orange final was 1.31855 and the all orange yield, 1.28879 gallons.

THE 1976-77 SEASON

The October FCOJ forecast for the 1976-77 season was 1.29 gallons per box. December and January forecasts continued at 1.29 gallons. The February projection, at 1.17 gallons per box, was lower as a result of the January 18-21 freeze. The prolonged freezing temperatures on these nights occurred in all major citrus areas and were the most severe since December 1962. The effects of the freeze in lowering juice and solids yields were greater than indicated by the February forecast, and this situation persisted in subsequent forecasts which were lowered each month thereafter, necessitating reduction in FCOJ yield to 1.12 in March, then 1.08 in April, and finally, to a season average 1.06945 gallons per box. For early and midseason oranges the yield changed from the January forecast of 1.24 gallons to a season final of 1.07914 while Valencias dropped from 1.36 gallons to 1.05032 gallons.

THE 1977-78 SEASON

The first FCOJ yield projection for the 1977-78 season was 1.28 gallons per box for all oranges. The 1.28 all orange projection was maintained through January. There were some light and scattered freezing temperatures the middle of January that caused some juice loss. A freeze

survey conducted at the end of January showed there was some dryness from fruit icing that caused continued reductions in expected juice yield. The February all orange yield projection was lowered to 1.25 with another lowering to 1.24 the first of April. The early and midseason orange final yield was 1.20407, the late final yield, 1.26487, and the all orange yield was 1.23123 gallons.

THE 1978-79 SEASON

The October 1, 1978, all orange FCOJ yield was projected at 1.29 gallons per box. The 1.29 yield projection was held through January. Very good growing conditions and absence of severe cold resulted in an increase to 1.32 gallons on February 1 and 1.33 on March 1. The mild spring weather along with adequate moisture helped the all orange yield reach a final average of 1.34058. The early and midseason orange yield was 1.30909, the highest since the 1967-68 season when the yield was 1.32174. The late orange final for this season was 1.37985 gallons.

The usable juice factor for early and mids started at 86, then moved to 89 for the balance of the season. Valencias started with an 89 factor and progressed to a record high factor of 93 for a two week trial period, after which it was lowered to 92 until the end of the season.

This year's bloom was one of the most uniform in recent history with almost no late bloom, which resulted in the high yield and excellent quality.

THE 1979-80 SEASON

The October projection of FCOJ yield for the 1979-80 season was 1.30 gallons per box, 45° Brix equivalent. The projection was lowered to 1.28 gallons in December based on low juice weight per box, then reversed again to 1.32 gallons in January because of excellent conditions and much improved maturity survey averages. The projection was increased to 1.33 gallons in February and continued in March. As a result of the early March freeze the April projection was lower at 1.31. The final all orange yield was 1.33497 gallons. The early and midseason final yield was 1.30205 and the final value for late oranges was 1.37834.

THE 1980-81 SEASON (THE FIRST SEASON AT 43.4° Brix)

The all orange FCOJ yield projection on October 1 was 1.37 gallons of 43.4° Brix equivalent and was continued through January. The mornings of January 13 and 14 saw the most severe freeze since 1962. Temperatures were in the high teens and low 20's for long durations in most citrus producing counties except the lower East Coast which escaped with little damage. The all orange FCOJ projection for February 1 was lowered to 1.19 gallons per box. This level was continued until May 1 when the yield was raised to 1.20 gallons. The final early and mid orange yield was 1.21081 with the late yield at 1.20688 gallons. The final all orange FCOJ yield was 1.20935.

EARLY ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
FROM SAMPLE GROVES
1972-73 THROUGH 1980-81

CROP YEAR	SAMPLE GROVES	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
NUMBER		PERCENT			POUNDS	
SEPTEMBER 1						
1972-73	73	2.10	9.20	4.42	40.35	3.70
1973-74	73	2.00	8.99	4.55	43.02	3.84
1974-75	74	1.49	8.95	6.28	47.40	4.24
1975-76	75	1.46	9.19	6.54	47.32	4.34
1976-77	80	1.72	9.23	5.49	43.53	4.01
1977-78	80	2.02	9.61	4.83	41.20	3.95
1978-79	80	1.91	9.20	4.86	41.34	3.80
1979-80	80	2.00	9.54	4.81	40.47	3.86
1980-81	80	2.13	9.63	4.56	40.39	3.88
OCTOBER 1						
1972-73	73	1.50	9.52	6.49	46.10	4.38
1973-74	73	1.36	9.10	6.85	48.00	4.37
1974-75	74	1.15	9.41	8.55	50.53	4.75
1975-76	75	1.10	9.62	9.08	50.11	4.82
1976-77	80	1.22	9.48	7.97	47.82	4.53
1977-78	80	1.34	9.45	7.19	46.26	4.37
1978-79	80	1.42	9.81	7.01	45.54	4.47
1979-80	80	1.34	9.27	6.97	46.42	4.30
1980-81	80	1.34	9.67	7.38	47.95	4.63
NOVEMBER 1						
1972-73	73	1.14	10.58	9.47	50.00	5.29
1973-74	71	1.04	9.97	9.80	52.25	5.21
1974-75	71	1.00	10.20	10.57	52.45	5.35
1975-76	69	0.94	10.56	11.66	52.45	5.54
1976-77	80	1.02	10.75	10.80	49.85	5.35
1977-78	77	1.14	10.45	9.35	49.16	5.13
1978-79	80	1.06	10.56	10.14	49.19	5.19
1979-80	79	1.02	10.45	10.38	50.53	5.28
1980-81	79	1.13	10.40	9.45	50.57	5.26

CONTINUED

EARLY ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
FROM SAMPLE GROVES
1972-73 THROUGH 1980-81

CROP : SAMPLE : : SOLUBLE : : JUICE : : SOLIDS :
YEAR : GROVES : : ACID : : SOLIDS : : RATIO : : PER BOX : : PER BOX

NUMBER

PERCENT

POUNDS

DECEMBER 1

1972-73	71	1.01	11.26	11.36	50.22	5.65
1973-74	69	0.93	11.14	12.24	52.42	5.83
1974-75	62	0.98	11.41	11.91	51.59	5.89
1975-76	58	0.82	11.54	14.41	52.48	6.05
1976-77	75	0.94	11.58	12.53	49.73	5.76
1977-78	70	0.95	11.36	12.22	50.15	5.69
1978-79	74	0.96	11.82	12.49	50.74	5.99
1979-80	73	0.90	11.19	12.61	50.21	5.62
1980-81	73	0.97	11.34	11.90	50.91	5.77

DECEMBER 15

1972-73	64	0.98	11.66	12.22	50.34	5.86
1973-74	55	0.94	11.44	12.93	51.93	5.94
1974-75	53	0.98	11.65	12.16	50.86	5.93
1975-76	50	0.88	11.77	13.67	52.44	6.17
1976-77	64	0.93	11.77	12.83	49.21	5.79
1977-78	59	0.94	11.65	12.59	49.37	5.75
1978-79	64	0.91	12.06	13.43	50.99	6.14
1979-80	61	0.90	11.73	13.13	50.79	5.96
1980-81	64	0.99	11.86	12.21	50.96	6.04

JANUARY 1

1972-73	55	0.91	11.95	13.36	50.95	6.09
1973-74	48	0.94	11.68	12.80	51.73	6.04
1974-75	46	0.91	11.78	13.14	50.11	5.90
1975-76	40	0.85	12.04	14.42	51.93	6.26
1976-77	53	0.89	12.10	13.80	49.86	6.04
1977-78	52	0.88	11.96	13.83	48.93	5.86
1978-79	54	0.88	12.25	14.08	49.64	6.08
1979-80	53	0.87	12.20	14.21	49.64	6.06
1980-81	52	0.99	12.11	12.45	49.51	6.00

CONTINUED

EARLY ORANGES

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM SAMPLE GROVES
 1972-73 THROUGH 1980-81

CROP YEAR	SAMPLE GROVES	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
NUMBER	PERCENT	POUNDS				
FEBRUARY 1						
1972-73	35	0.88	12.63	14.61	49.81	6.29
1973-74	27	0.85	12.79	15.38	51.05	6.53
1974-75	25	0.85	12.89	15.55	49.79	6.42
1975-76	22	0.85	12.90	15.45	49.34	6.37
1976-77	25	0.78	12.83	16.95	42.52	5.48
1977-78	23	0.89	12.51	14.56	47.89	6.01
1978-79	26	0.89	13.57	15.49	48.44	6.57
1979-80	34	0.83	13.15	15.88	49.11	6.46
1980-81	23	0.75	12.28	16.96	41.23	5.07

MIDSEASON ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
FROM SAMPLE GROVES
1972-73 THROUGH 1980-81

CROP : SAMPLE : : SOLUBLE : : JUICE : : SOLIDS
YEAR : GROVES : : ACID : : SOLIDS : : RATIO : : PER BOX : : PER BOX

NUMBER PERCENT POUNDS

SEPTEMBER 1

1972-73	55	2.36	9.13	3.92	41.16	3.75
1973-74	55	2.30	8.85	3.91	43.64	3.85
1974-75	56	1.90	8.69	4.76	46.57	4.05
1975-76	57	1.65	8.92	5.55	49.35	4.40
1976-77	60	1.98	8.93	4.63	44.52	3.97
1977-78	60	2.23	9.33	4.27	42.17	3.93
1978-79	60	2.14	8.96	4.24	41.83	3.74
1979-80	60	2.19	9.22	4.26	40.84	3.76
1980-81	60	2.30	9.41	4.14	42.09	3.96

OCTOBER 1

1972-73	55	1.79	9.50	5.47	47.90	4.55
1973-74	55	1.66	8.89	5.47	49.31	4.38
1974-75	56	1.45	9.12	6.64	50.84	4.64
1975-76	57	1.27	9.24	7.63	52.83	4.88
1976-77	60	1.40	9.26	6.92	49.43	4.57
1977-78	60	1.56	9.20	6.09	47.71	4.39
1978-79	60	1.58	9.36	6.03	46.40	4.34
1979-80	60	1.53	9.01	5.98	47.51	4.28
1980-81	60	1.54	9.43	6.22	49.68	4.69

NOVEMBER 1

1972-73	55	1.37	10.65	8.13	51.38	5.47
1973-74	55	1.22	9.87	8.29	53.43	5.27
1974-75	56	1.26	10.22	8.49	53.19	5.44
1975-76	57	1.01	10.32	10.64	55.18	5.70
1976-77	59	1.18	10.53	9.26	51.98	5.47
1977-78	60	1.21	10.20	8.60	51.68	5.27
1978-79	60	1.19	10.25	8.80	50.86	5.21
1979-80	60	1.17	10.12	8.76	52.21	5.28
1980-81	59	1.27	10.39	8.40	52.21	5.42

CONTINUED

MIDSEASON ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
FROM SAMPLE GROVES
1972-73 THROUGH 1980-81

CROP : SAMPLE : : SOLUBLE : : JUICE : SOLIDS
YEAR : GROVES : ACID : SOLIDS : RATIO : PER BOX : PER BOX

NUMBER PERCENT POUNDS

DECEMBER 1

1972-73	54	1.23	11.35	9.46	51.65	5.86
1973-74	55	1.11	11.02	10.22	54.93	6.05
1974-75	56	1.12	11.43	10.64	52.70	6.02
1975-76	56	0.89	11.20	13.02	55.43	6.21
1976-77	59	1.07	11.40	11.09	51.17	5.82
1977-78	60	1.05	11.18	10.95	51.91	5.81
1978-79	59	1.05	11.48	11.21	52.32	6.00
1979-80	60	0.99	11.00	11.24	51.54	5.67
1980-81	59	1.10	11.44	10.72	50.27	5.74

DECEMBER 15

1972-73	53	1.11	11.70	10.88	52.04	6.09
1973-74	54	1.05	11.45	11.18	54.09	6.19
1974-75	57	1.19	11.86	10.28	51.64	6.13
1975-76	54	0.94	11.61	12.79	54.11	6.29
1976-77	57	1.01	11.53	11.86	51.09	5.88
1977-78	56	1.04	11.60	11.41	51.93	6.02
1978-79	53	0.99	11.81	12.11	52.29	6.17
1979-80	59	1.02	11.54	11.42	52.68	6.08
1980-81	56	1.13	11.84	10.63	52.26	6.19

JANUARY 1

1972-73	47	1.15	12.29	10.89	52.33	6.43
1973-74	48	1.07	11.83	11.23	54.05	6.39
1974-75	50	1.05	11.89	11.63	52.04	6.19
1975-76	48	0.94	11.82	12.92	53.70	6.36
1976-77	54	0.99	11.86	12.37	51.41	6.10
1977-78	52	1.00	11.88	12.12	51.99	6.18
1978-79	52	0.98	12.06	12.45	51.36	6.19
1979-80	54	0.93	12.10	13.21	51.83	6.27
1980-81	52	1.12	12.15	11.07	50.93	6.19

CONTINUED

MIDSEASON ORANGES

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM SAMPLE GROVES
 1972-73 THROUGH 1980-81

CROP YEAR	SAMPLE GROVES	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
NUMBER	PERCENT	POUNDS				
FEBRUARY 1						
1972-73	36	1.07	13.08	12.57	51.49	6.74
1973-74	38	0.95	12.73	13.68	53.64	6.83
1974-75	39	0.99	12.80	13.28	51.20	6.56
1975-76	32	0.97	12.82	13.41	52.98	6.79
1976-77	35	0.92	12.65	14.19	45.97	5.82
1977-78	34	0.95	12.25	13.03	51.26	6.29
1978-79	30	1.00	13.09	13.33	51.31	6.71
1979-80	37	0.93	13.02	14.10	51.16	6.67
1980-81	32	0.89	12.51	14.64	43.94	5.51

LATE ORANGES

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM SAMPLE GROVES
 1972-73 THROUGH 1980-81

CROP YEAR	SAMPLE GROVES	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
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NUMBER PERCENT POUNDS

OCTOBER 1

1972-73	100	2.99	8.89	3.00	44.25	3.93
1973-74	100	2.79	8.35	2.99	46.20	3.86
1974-75	100	2.52	8.38	3.39	47.93	4.01
1975-76	101	2.39	8.49	3.60	49.33	4.19
1976-77	110	2.65	8.62	3.29	45.18	3.90
1977-78	110	2.80	8.67	3.13	44.73	3.88
1978-79	110	2.84	8.89	3.16	42.51	3.77
1979-80	110	2.68	8.53	3.21	43.43	3.70
1980-81	110	2.77	9.01	3.28	46.80	4.22

NOVEMBER 1

1972-73	100	2.42	9.58	4.00	49.18	4.70
1973-74	100	2.29	8.96	3.95	51.39	4.60
1974-75	100	2.14	9.20	4.40	52.21	4.80
1975-76	101	1.94	9.10	4.78	53.01	4.82
1976-77	110	2.11	9.39	4.50	49.11	4.61
1977-78	110	2.21	9.36	4.29	48.83	4.57
1978-79	110	2.28	9.68	4.29	48.06	4.65
1979-80	110	2.13	9.12	4.34	49.53	4.51
1980-81	110	2.37	9.66	4.11	50.20	4.85

DECEMBER 1

1972-73	100	2.02	9.91	5.01	50.73	5.03
1973-74	100	1.89	9.86	5.28	54.47	5.37
1974-75	100	1.87	10.44	5.67	53.17	5.55
1975-76	101	1.62	9.87	6.19	55.27	5.46
1976-77	110	1.76	10.34	5.93	51.79	5.36
1977-78	110	1.84	10.16	5.59	51.12	5.19
1978-79	110	1.89	10.47	5.62	50.65	5.30
1979-80	110	1.83	9.94	5.47	51.36	5.11
1980-81	110	1.87	10.29	5.57	52.08	5.36

CONTINUED

LATE ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
FROM SAMPLE GROVES
1972-73 THROUGH 1980-81

CROP YEAR	SAMPLE GROVES	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
NUMBER	PERCENT	POUNDS				
JANUARY 1						
1972-73	100	1.71	10.93	6.48	53.02	5.80
1973-74	100	1.73	10.52	6.15	54.05	5.69
1974-75	100	1.59	11.01	7.07	53.82	5.92
1975-76	101	1.50	10.64	7.20	55.19	5.87
1976-77	110	1.54	10.94	7.20	53.19	5.82
1977-78	110	1.58	10.71	6.85	52.77	5.65
1978-79	110	1.61	11.09	7.00	51.71	5.73
1979-80	110	1.57	10.81	6.97	53.51	5.79
1980-81	110	1.76	10.94	6.35	53.33	5.83
FEBRUARY 1						
1972-73	100	1.48	11.58	7.97	53.28	6.17
1973-74	100	1.42	11.42	8.15	55.24	6.31
1974-75	100	1.41	11.67	8.38	53.99	6.30
1975-76	101	1.40	11.30	8.18	55.05	6.22
1976-77	110	1.36	11.47	8.54	49.81	5.72
1977-78	109	1.42	11.30	8.13	53.03	5.99
1978-79	109	1.44	11.96	8.44	52.62	6.28
1979-80	108	1.42	11.72	8.33	53.71	6.29
1980-81	110	1.57	11.40	7.39	50.81	5.80
MARCH 1						
1972-73	100	1.42	12.07	8.65	53.54	6.46
1973-74	99	1.31	11.95	9.22	54.68	6.53
1974-75	99	1.28	12.35	9.73	54.45	6.72
1975-76	100	1.30	12.00	9.37	54.30	6.52
1976-77	106	1.27	12.04	9.64	46.38	5.58
1977-78	108	1.35	11.82	8.89	52.52	6.21
1978-79	109	1.31	12.48	9.64	52.08	6.50
1979-80	108	1.31	12.34	9.47	53.71	6.63
1980-81	107	1.38	11.91	8.78	47.22	5.63
MARCH 15						
1976-77	99	1.19	12.27	10.46	45.94	5.64
1979-80	107	1.21	12.68	10.62	53.11	6.73
1980-81	101	1.31	12.06	9.32	46.36	5.60

CONTINUED

LATE ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
FROM SAMPLE GROVES
1972-73 THROUGH 1980-81

CROP : SAMPLE : : SOLUBLE : : JUICE : SOLIDS
YEAR : GROVES : ACID : SOLIDS : RATIO : PER BOX : PER BOX

NUMBER PERCENT POUNDS

APRIL 1

1972-73	96	1.22	12.59	10.45	53.29	6.71
1973-74	94	1.13	12.47	11.22	56.07	6.98
1974-75	95	1.16	12.93	11.28	55.17	7.13
1975-76	97	1.12	12.27	11.18	54.80	6.72
1976-77	88	1.12	12.34	11.17	45.93	5.67
1977-78	104	1.16	12.34	10.78	51.76	6.39
1978-79	105	1.19	13.08	11.19	53.02	6.93
1979-80	105	1.11	12.85	11.67	52.15	6.70
1980-81	82	1.21	12.07	10.19	47.26	5.71

APRIL 15

1972-73	93	1.13	12.81	11.48	54.75	7.01
1973-74	86	1.11	12.67	11.55	55.45	7.03
1974-75	87	1.18	13.22	11.41	54.62	7.22
1975-76	92	1.05	12.35	11.96	54.86	6.77
1976-77	67	1.03	12.75	12.55	45.76	5.82
1977-78	100	1.11	12.58	11.57	52.56	6.61
1978-79	94	1.11	13.21	12.11	53.81	7.11
1979-80	90	1.07	12.85	12.21	52.58	6.76
1980-81	65	1.11	12.26	11.16	48.03	5.89

MAY 1

1972-73	75	1.07	13.07	12.38	54.67	7.15
1973-74	69	1.04	12.86	12.60	55.69	7.17
1974-75	74	1.09	13.57	12.77	54.74	7.42
1975-76	74	1.01	12.81	12.93	56.24	7.20
1976-77	49	1.00	13.19	13.31	46.78	6.17
1977-78	77	1.03	12.89	12.68	52.96	6.83
1978-79	65	1.06	13.57	13.04	52.67	7.15
1979-80	54	1.00	13.10	13.29	53.33	6.99
1980-81	43	1.05	12.45	11.99	49.75	6.18

CONTINUED

LATE ORANGES

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM SAMPLE GROVES
 1972-73 THROUGH 1980-81

CROP YEAR		SAMPLE GROVES	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
NUMBER		PERCENT			POUNDS		
JUNE 1							
1972-73	54	0.95	13.45	14.52	54.42	7.33	
1973-74	29	0.90	13.42	15.04	54.19	7.27	
1974-75	38	0.99	14.11	14.60	51.92	7.32	
1975-76	35	0.87	12.95	15.06	55.16	7.15	
1976-77	28	0.92	13.95	15.37	45.74	6.39	
1977-78	45	0.91	13.67	15.22	53.60	7.33	
1978-79	30	0.90	13.60	15.33	52.89	7.19	
1979-80	28	0.92	13.22	14.50	53.66	7.10	
1980-81	15	0.92	12.78	14.18	51.94	6.61	

EARLY ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

SEASON AND DATE	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
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NUMBER PERCENT POUNDS

1972-73 (35 GROVES)

SEP	1	2.10	9.20	4.42	40.35	3.70
OCT	1	1.57	9.50	6.16	46.25	4.38
NOV	1	1.20	10.52	8.93	49.83	5.24
DEC	1	1.07	11.33	10.78	50.18	5.68
DEC	15	1.01	11.61	11.75	50.47	5.86
JAN	1	0.92	11.85	13.08	51.61	6.12
FEB	1	0.88	12.63	14.61	49.81	6.29

1973-74 (27 GROVES)

SEP	1	2.00	8.99	4.55	43.02	3.84
OCT	1	1.45	9.21	6.54	47.79	4.40
NOV	1	1.10	9.97	9.37	52.25	5.21
DEC	1	0.97	11.22	11.82	52.28	5.86
DEC	15	0.94	11.50	12.57	52.60	6.05
JAN	1	0.95	11.76	12.73	51.47	6.05
FEB	1	0.85	12.79	15.38	51.05	6.53

1974-75 (25 GROVES)

SEP	1	1.60	9.01	5.96	46.50	4.18
OCT	1	1.23	9.43	8.12	50.42	4.76
NOV	1	1.04	10.31	10.37	52.75	5.44
DEC	1	0.99	11.40	11.78	51.61	5.89
DEC	15	1.01	11.68	11.81	50.75	5.93
JAN	1	0.93	11.82	13.04	50.29	5.95
FEB	1	0.85	12.89	15.55	49.79	6.42

CONTINUED

EARLY ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

SEASON AND : : SOLUBLE : : JUICE : : SOLIDS
DATE : ACID : SOLIDS : RATIO : PER BOX : PER BOX

NUMBER PERCENT POUNDS

1975-76 (22 GROVES)

SEP	1	1.56	9.35	6.52	46.54	4.33
OCT	1	1.20	9.73	8.43	50.14	4.87
NOV	1	1.04	10.72	10.87	52.10	5.57
DEC	1	0.86	11.76	13.97	52.64	6.18
DEC	15	0.92	12.03	13.31	52.66	6.31
JAN	1	0.88	12.18	14.17	51.86	6.31
FEB	1	0.85	12.90	15.45	49.34	6.37

1976-77 (25 GROVES)

SEP	1	1.84	9.35	5.15	43.15	4.03
OCT	1	1.33	9.59	7.38	47.51	4.55
NOV	1	1.09	10.94	10.23	49.74	5.43
DEC	1	1.01	11.83	11.78	50.30	5.95
DEC	15	0.99	12.10	12.51	48.98	5.93
JAN	1	0.92	12.21	13.50	49.65	6.06
FEB	1	0.78	12.83	16.95	42.52	5.48

1977-78 (23 GROVES)

SEP	1	2.08	9.60	4.64	41.62	3.98
OCT	1	1.41	9.37	6.76	45.89	4.30
NOV	1	1.20	10.45	8.91	48.77	5.09
DEC	1	0.99	11.44	11.66	49.70	5.69
DEC	15	0.94	11.68	12.54	49.33	5.76
JAN	1	0.91	12.05	13.47	48.26	5.82
FEB	1	0.89	12.51	14.56	47.89	6.01

CONTINUED

EARLY ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

SEASON AND : : SOLUBLE : : JUICE : : SOLIDS
DATE : : ACID : : SOLIDS : : RATIO : : PER BOX : : PER BOX

NUMBER PERCENT POUNDS

1978-79 (26 GROVES)

SEP	1	2.01	9.35	4.70	40.78	3.81
OCT	1	1.50	9.84	6.65	45.56	4.48
NOV	1	1.13	10.68	9.54	48.96	5.22
DEC	1	1.02	11.96	11.89	51.31	6.13
DEC	15	0.95	12.26	13.13	50.74	6.20
JAN	1	0.91	12.47	13.86	49.79	6.20
FEB	1	0.89	13.57	15.49	48.44	6.57

1979-80 (34 GROVES)

SEP	1	2.04	9.53	4.70	40.79	3.89
OCT	1	1.38	9.34	6.82	46.26	4.32
NOV	1	1.05	10.49	10.16	50.52	5.30
DEC	1	0.92	11.28	12.40	50.26	5.67
DEC	15	0.89	11.79	13.35	50.48	5.96
JAN	1	0.86	12.22	14.41	49.36	6.03
FEB	1	0.83	13.15	15.88	49.11	6.46

1980-81 (23 GROVES)

SEP	1	2.20	9.78	4.49	38.88	3.79
OCT	1	1.38	9.82	7.26	46.98	4.60
NOV	1	1.15	10.45	9.40	50.99	5.33
DEC	1	1.01	11.45	11.55	50.94	5.83
DEC	15	1.04	11.88	11.75	50.20	5.96
JAN	1	1.00	11.97	12.35	49.37	5.92
FEB	1	0.75	12.28	16.96	41.23	5.07

MIDSEASON ORANGES

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM IDENTICAL SAMPLE TREES
 1972-73 THROUGH 1980-81

 SEASON AND : : SOLUBLE : : JUICE : : SOLIDS
 DATE : ACID : SOLIDS : RATIO : PER BOX : PER BOX

NUMBER PERCENT POUNDS

1972-73 (36 GROVES)

SEP	1	2.36	9.13	3.92	41.16	3.75
OCT	1	1.87	9.55	5.24	48.59	4.64
NOV	1	1.44	10.72	7.71	52.00	5.58
DEC	1	1.30	11.39	8.94	51.70	5.89
DEC	15	1.16	11.80	10.37	52.20	6.17
JAN	1	1.16	12.28	10.72	52.04	6.38
FEB	1	1.07	13.08	12.57	51.49	6.74

1973-74 (38 GROVES)

SEP	1	2.30	8.85	3.91	43.64	3.85
OCT	1	1.73	8.98	5.23	49.58	4.45
NOV	1	1.29	9.91	7.90	54.21	5.37
DEC	1	1.16	11.01	9.77	55.15	6.07
DEC	15	1.07	11.48	10.94	54.17	6.21
JAN	1	1.09	11.78	10.98	54.19	6.38
FEB	1	0.95	12.73	13.68	53.64	6.83

1974-75 (39 GROVES)

SEP	1	1.93	8.68	4.70	46.77	4.07
OCT	1	1.45	9.03	6.56	51.24	4.63
NOV	1	1.26	10.25	8.47	53.85	5.52
DEC	1	1.15	11.45	10.43	53.23	6.09
DEC	15	1.21	11.86	10.16	52.19	6.19
JAN	1	1.06	11.92	11.53	52.63	6.28
FEB	1	0.99	12.80	13.28	51.20	6.56

 CONTINUED

MIDSEASON ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

SEASON AND DATE	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
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NUMBER PERCENT POUNDS

1975-76 (32 GROVES)

SEP	1	1.77	9.04	5.25	49.56	4.47
OCT	1	1.38	9.37	7.09	52.62	4.93
NOV	1	1.11	10.50	9.76	55.33	5.82
DEC	1	0.95	11.42	12.35	55.88	6.38
DEC	15	1.00	11.77	12.01	54.56	6.42
JAN	1	0.98	11.87	12.33	54.37	6.46
FEB	1	0.97	12.82	13.41	52.98	6.79

1976-77 (35 GROVES)

SEP	1	2.11	9.01	4.36	44.66	4.01
OCT	1	1.52	9.36	6.36	49.60	4.63
NOV	1	1.25	10.68	8.74	51.81	5.53
DEC	1	1.17	11.59	10.20	51.45	5.95
DEC	15	1.09	11.73	11.09	51.14	6.00
JAN	1	1.05	12.01	11.65	51.55	6.19
FEB	1	0.92	12.65	14.19	45.97	5.82

1977-78 (34 GROVES)

SEP	1	2.33	9.33	4.07	42.32	3.95
OCT	1	1.66	9.26	5.73	47.89	4.44
NOV	1	1.29	10.33	8.14	52.08	5.38
DEC	1	1.13	11.24	10.19	52.30	5.88
DEC	15	1.10	11.67	10.80	52.64	6.14
JAN	1	1.04	11.96	11.78	52.62	6.29
FEB	1	0.95	12.25	13.03	51.26	6.29

CONTINUED

MIDSEASON ORANGES

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM IDENTICAL SAMPLE TREES
 1972-73 THROUGH 1980-81

 SEASON AND : : SOLUBLE : : JUICE : : SOLIDS
 DATE : : ACID : : SOLIDS : : RATIO : : PER BOX : : PER BOX

NUMBER PERCENT POUNDS

1978-79 (30 GROVES)

SEP	1	2.19	8.92	4.13	42.55	3.79
OCT	1	1.63	9.34	5.83	47.40	4.43
NOV	1	1.25	10.20	8.32	51.55	5.26
DEC	1	1.12	11.48	10.43	53.27	6.11
DEC	15	1.01	11.68	11.81	53.23	6.22
JAN	1	1.01	12.06	12.15	52.10	6.28
FEB	1	1.00	13.09	13.33	51.31	6.71

1979-80 (37 GROVES)

SEP	1	2.23	9.29	4.20	40.63	3.77
OCT	1	1.57	9.08	5.86	47.49	4.31
NOV	1	1.20	10.15	8.55	52.09	5.29
DEC	1	1.02	10.96	10.89	51.34	5.63
DEC	15	1.04	11.93	11.19	53.20	6.14
JAN	1	0.95	12.09	12.90	52.35	6.33
FEB	1	0.93	13.02	14.10	51.16	6.67

1980-81 (32 GROVES)

SEP	1	2.34	9.38	4.05	41.91	3.93
OCT	1	1.58	9.41	6.01	49.49	4.65
NOV	1	1.33	10.38	8.06	52.21	5.42
DEC	1	1.15	11.45	10.22	50.29	5.75
DEC	15	1.17	11.84	10.25	51.88	6.14
JAN	1	1.14	12.10	10.83	50.86	6.15
FEB	1	0.89	12.51	14.64	43.94	5.51

LATE ORANGES

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM IDENTICAL SAMPLE TREES
 1972-73 THROUGH 1980-81

SEASON AND DATE	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
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NUMBER PERCENT POUNDS

1972-73 (75 GROVES)

OCT	1	3.03	8.98	2.99	44.18	3.96
NOV	1	2.47	9.66	3.95	49.19	4.74
DEC	1	2.04	9.99	4.99	50.89	5.08
JAN	1	1.74	10.99	6.43	53.07	5.84
FEB	1	1.51	11.63	7.82	53.40	6.21
MAR	1	1.44	12.11	8.59	53.52	6.48
APR	1	1.25	12.71	10.36	53.42	6.79
APR	15	1.14	12.86	11.43	54.81	7.05
MAY	1	1.07	13.07	12.38	54.67	7.15

1973-74 (69 GROVES)

OCT	1	2.86	8.41	2.96	45.95	3.86
NOV	1	2.31	8.97	3.91	51.13	4.59
DEC	1	1.92	9.95	5.26	54.48	5.42
JAN	1	1.75	10.60	6.12	53.97	5.72
FEB	1	1.42	11.47	8.16	55.13	6.32
MAR	1	1.33	12.05	9.23	55.33	6.67
APR	1	1.12	12.50	11.34	55.84	6.98
APR	15	1.11	12.68	11.63	55.47	7.04
MAY	1	1.04	12.68	12.60	55.69	7.17

1974-75 (74 GROVES)

OCT	1	2.55	8.40	3.34	48.16	4.04
NOV	1	2.18	9.18	4.28	52.34	4.80
DEC	1	1.91	10.51	5.57	53.35	5.61
JAN	1	1.65	11.05	6.80	53.78	5.94
FEB	1	1.44	11.68	8.21	54.11	6.32
MAR	1	1.31	12.37	9.51	54.96	6.79
APR	1	1.19	12.98	11.04	55.51	7.20
APR	15	1.20	13.24	11.21	54.75	7.25
MAY	1	1.09	13.57	12.77	54.74	7.42

CONTINUED

LATE ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

SEASON AND DATE	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
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NUMBER PERCENT POUNDS

1975-76 (74 GROVES)

OCT	1	2.47	8.53	3.51	48.95	4.17
NOV	1	1.97	9.11	4.73	52.92	4.82
DEC	1	1.64	9.87	6.09	55.05	5.43
JAN	1	1.54	10.67	7.06	54.96	5.83
FEB	1	1.43	11.35	8.06	54.65	6.20
MAR	1	1.33	12.08	9.22	54.10	6.54
APR	1	1.14	12.36	11.08	54.52	6.74
APR	15	1.06	12.38	11.87	54.68	6.77
MAY	1	1.01	12.81	12.93	56.24	7.20

1976-77 (49 GROVES)

OCT	1	2.72	8.74	3.26	44.93	3.92
NOV	1	2.16	9.50	4.45	48.93	4.64
DEC	1	1.83	10.46	5.78	51.53	5.39
JAN	1	1.58	11.04	7.07	53.37	5.89
FEB	1	1.39	11.57	8.41	50.22	5.82
MAR	1	1.30	12.25	9.51	46.49	5.69
APR	1	1.15	12.57	11.06	46.46	5.84
APR	15	1.05	12.89	12.36	46.13	5.94
MAY	1	1.00	13.19	13.31	46.78	6.17

1977-78 (77 GROVES)

OCT	1	2.87	8.73	3.07	44.94	3.93
NOV	1	2.25	9.38	4.22	48.90	4.58
DEC	1	1.89	10.16	5.46	51.33	5.22
JAN	1	1.61	10.71	6.72	52.96	5.67
FEB	1	1.44	11.57	7.98	53.22	6.01
MAR	1	1.37	11.85	8.76	52.81	6.26
APR	1	1.19	12.37	10.58	52.07	6.45
APR	15	1.12	12.56	11.40	53.08	6.67
MAY	1	1.03	12.89	12.68	52.96	6.83

CONTINUED

LATE ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

SEASON AND : : SOLUBLE : : JUICE : : SOLIDS
DATE : : ACID : : SOLIDS : : RATIO : : PER BOX : : PER BOX

NUMBER PERCENT POUNDS

1978-79 (65 GROVES)

OCT	1	2.90	8.98	3.11	42.13	3.78
NOV	1	2.31	9.78	4.27	47.98	4.69
DEC	1	1.95	10.61	5.51	50.51	5.35
JAN	1	1.65	11.19	6.85	51.61	5.77
FEB	1	1.48	12.04	8.24	52.62	6.32
MAR	1	1.32	12.51	9.60	51.85	6.48
APR	1	1.21	13.16	11.05	53.04	6.98
APR	15	1.14	13.33	11.86	53.58	7.14
MAY	1	1.06	13.57	13.04	52.67	7.15

1979-80 (54 GROVES)

OCT	1	2.73	8.59	3.18	42.84	3.68
NOV	1	2.18	9.21	4.28	49.26	4.54
DEC	1	1.84	9.96	5.44	50.87	5.06
JAN	1	1.59	10.83	6.88	53.32	5.77
FEB	1	1.43	11.76	8.26	53.52	6.29
MAR	1	1.33	12.38	9.44	53.89	6.67
APR	1	1.12	12.88	11.64	52.54	6.77
APR	15	1.07	12.88	12.21	52.98	6.83
MAY	1	1.00	13.10	13.29	53.33	6.99

1980-81 (43 GROVES)

OCT	1	2.78	8.93	3.24	46.53	4.16
NOV	1	2.41	9.72	4.06	50.14	4.88
DEC	1	1.93	10.41	5.47	51.81	5.39
JAN	1	1.82	11.04	6.18	53.11	5.86
FEB	1	1.65	11.61	7.12	52.54	6.10
MAR	1	1.44	12.12	8.52	49.49	6.00
APR	1	1.24	12.24	10.06	49.31	6.04
APR	15	1.13	12.33	11.09	49.15	6.06
MAY	1	1.05	12.45	11.99	49.75	6.18

EARLY ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

DATE :1972-73:1973-74:1974-75:1975-76:1976-77:1977-78:1978-79:1979-80:1980-81

PERCENT ACID

SEP 1	2.10	2.00	1.60	1.56	1.84	2.08	2.01	2.04	2.20
OCT 1	1.57	1.45	1.23	1.20	1.33	1.41	1.50	1.38	1.38
NOV 1	1.20	1.10	1.04	1.04	1.09	1.20	1.13	1.05	1.15
DEC 1	1.07	0.97	0.99	0.86	1.01	0.99	1.02	0.92	1.01
DEC 15	1.01	0.94	1.01	0.92	0.99	0.94	0.95	0.89	1.04
JAN 1	0.92	0.95	0.93	0.88	0.92	0.91	0.91	0.86	1.00
FEB 1	0.88	0.85	0.85	0.85	0.78	0.89	0.89	0.83	0.75

PERCENT SOLUBLE SOLIDS

SEP 1	9.20	8.98	9.01	9.35	9.35	9.60	9.35	9.53	9.78
OCT 1	9.50	9.21	9.43	9.73	9.59	9.37	9.84	9.34	9.82
NOV 1	10.52	9.97	10.31	10.72	10.94	10.45	10.68	10.49	10.45
DEC 1	11.33	11.22	11.40	11.76	11.83	11.44	11.96	11.28	11.45
DEC 15	11.61	11.50	11.68	12.03	12.10	11.68	12.26	11.79	11.88
JAN 1	11.85	11.76	11.82	12.18	12.21	12.05	12.47	12.22	11.97
FEB 1	12.63	12.79	12.89	12.90	12.83	12.51	13.57	13.15	12.28

RATIO

SEP 1	4.42	4.54	5.96	6.52	5.15	4.64	4.70	4.70	4.49
OCT 1	6.16	6.54	8.12	8.43	7.38	6.76	6.65	6.82	7.26
NOV 1	8.93	9.37	10.37	10.87	10.23	8.91	9.54	10.16	9.40
DEC 1	10.78	11.82	11.78	13.97	11.78	11.66	11.89	12.40	11.55
DEC 15	11.75	12.57	11.81	13.31	12.51	12.54	13.13	13.35	11.75
JAN 1	13.08	12.73	13.04	14.17	13.50	13.47	13.86	14.41	12.35
FEB 1	14.61	15.38	15.55	15.45	16.95	14.56	15.49	15.88	16.96

EARLY ORANGES

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM IDENTICAL SAMPLE TREES
 1972-73 THROUGH 1980-81

 DATE :1972-73:1973-74:1974-75:1975-76:1976-77:1977-78:1978-79:1979-80:1980-81

POUNDS JUICE PER BOX

SEP 1	40.35	43.14	46.50	46.54	43.15	41.62	40.78	40.79	38.88
OCT 1	46.25	47.79	50.42	50.14	47.51	45.89	45.56	46.26	46.98
NOV 1	49.83	52.25	52.75	52.10	49.74	48.77	48.96	50.52	50.99
DEC 1	50.18	52.28	51.61	52.64	50.30	49.70	51.31	50.26	50.94
DEC 15	50.47	52.60	50.75	52.66	48.98	49.33	50.74	50.48	50.20
JAN 1	51.61	51.47	50.29	51.86	49.65	48.26	49.79	49.36	49.37
FEB 1	49.81	51.05	49.79	49.34	42.52	47.89	48.44	49.11	41.23

POUNDS SOLIDS PER BOX

SEP 1	3.70	3.85	4.18	4.33	4.03	3.98	3.81	3.89	3.79
OCT 1	4.38	4.40	4.76	4.87	4.55	4.30	4.41	4.32	4.60
NOV 1	5.24	5.21	5.44	5.57	5.43	5.09	5.22	5.30	5.33
DEC 1	5.68	5.86	5.89	6.18	5.95	5.69	6.13	5.67	5.83
DEC 15	5.86	6.05	5.93	6.31	5.93	5.76	6.20	5.96	5.96
JAN 1	6.12	6.05	5.75	6.31	6.06	5.82	6.20	6.03	5.92
FEB 1	6.29	6.53	6.42	6.37	5.48	6.01	6.57	6.46	5.07

MIDSEASON ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

DATE :1972-73:1973-74:1974-75:1975-76:1976-77:1977-78:1978-79:1979-80:1980-81

PERCENT ACID

SEP 1	2.36	2.30	1.93	1.77	2.11	2.33	2.19	2.23	2.34
OCT 1	1.87	1.73	1.45	1.38	1.52	1.66	1.63	1.57	1.58
NOV 1	1.44	1.29	1.26	1.11	1.25	1.29	1.25	1.20	1.33
DEC 1	1.30	1.16	1.15	0.95	1.17	1.13	1.12	1.02	1.15
DEC 15	1.16	1.07	1.21	1.00	1.09	1.10	1.01	1.04	1.17
JAN 1	1.16	1.09	1.06	0.98	1.05	1.04	1.01	0.95	1.14
FEB 1	1.07	0.95	0.99	0.97	0.92	0.95	1.00	0.93	0.89

PERCENT SOLUBLE SOLIDS

SEP 1	9.13	8.85	8.68	9.04	9.01	9.33	8.92	9.29	9.38
OCT 1	9.55	8.98	9.03	9.37	9.36	9.26	9.34	9.08	9.41
NOV 1	10.72	9.91	10.25	10.50	10.68	10.33	10.20	10.15	10.38
DEC 1	11.39	11.01	11.45	11.42	11.59	11.24	11.48	10.96	11.45
DEC 15	11.80	11.48	11.86	11.77	11.73	11.67	11.68	11.53	11.84
JAN 1	12.28	11.78	11.92	11.87	12.01	11.96	12.06	12.09	12.10
FEB 1	13.08	12.73	12.80	12.82	12.65	12.25	13.09	13.02	12.51

RATIO

SEP 1	3.92	3.91	4.70	5.25	4.36	4.07	4.13	4.20	4.05
OCT 1	5.24	5.23	6.56	7.09	6.36	5.73	5.83	5.86	6.01
NOV 1	7.71	7.90	8.47	9.76	8.74	8.14	8.32	8.55	8.06
DEC 1	8.94	9.77	10.43	12.35	10.20	10.19	10.43	10.89	10.22
DEC 15	10.37	10.94	10.16	12.01	11.09	10.80	11.81	11.19	10.25
JAN 1	10.72	10.98	11.53	12.33	11.65	11.78	12.15	12.90	10.83
FEB 1	12.57	13.68	13.28	13.41	14.19	13.03	13.33	14.10	14.64

MIDSEASON ORANGES

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM IDENTICAL SAMPLE TREES
 1972-73 THROUGH 1980-81

 DATE :1972-73:1973-74:1974-75:1975-76:1976-77:1977-78:1978-79:1979-80:1980-81

POUNDS JUICE PER BOX

SEP 1	41.16	43.64	46.77	49.56	44.66	42.32	42.55	40.63	41.91
OCT 1	48.59	49.58	51.24	52.62	49.60	47.89	47.40	47.49	49.49
NOV 1	52.00	54.21	53.85	55.33	51.81	52.08	51.55	52.09	52.21
DEC 1	51.70	55.15	53.23	55.88	51.45	52.30	53.27	51.34	50.29
DEC 15	52.20	54.17	52.19	54.56	51.14	52.64	53.23	53.20	51.88
JAN 1	52.04	54.19	52.63	54.37	51.55	52.62	52.10	52.35	50.86
FEB 1	51.49	53.64	51.20	52.98	45.97	51.26	51.31	51.16	43.94

POUNDS SOLIDS PER BOX

SEP 1	3.75	3.85	4.07	4.47	4.01	3.95	3.79	3.77	3.93
OCT 1	4.64	4.45	4.63	4.93	4.63	4.44	4.43	4.31	4.65
NOV 1	5.58	5.37	5.52	5.82	5.53	5.38	5.26	5.29	5.42
DEC 1	5.89	6.07	6.09	6.38	5.95	5.88	6.11	5.63	5.75
DEC 15	6.17	6.21	6.19	6.42	6.00	6.14	6.22	6.14	6.14
JAN 1	6.38	6.38	6.28	6.46	6.19	6.29	6.28	6.33	6.15
FEB 1	6.74	6.83	6.56	6.79	5.82	6.29	6.71	6.67	5.51

LATE ORANGES

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

DATE :1972-73:1973-74:1974-75:1975-76:1976-77:1977-78:1978-79:1979-80:1980-81

PERCENT ACID

OCT	1	3.03	2.86	2.55	2.47	2.72	2.87	2.90	2.73	2.78
NOV	1	2.47	2.31	2.18	1.97	2.16	2.25	2.31	2.18	2.41
DEC	1	2.04	1.92	1.91	1.64	1.83	1.89	1.95	1.84	1.93
JAN	1	1.74	1.75	1.65	1.54	1.58	1.61	1.65	1.59	1.82
FEB	1	1.51	1.42	1.44	1.43	1.39	1.44	1.48	1.43	1.65
MAR	1	1.44	1.33	1.31	1.33	1.30	1.37	1.32	1.33	1.44
APR	1	1.25	1.12	1.19	1.14	1.15	1.19	1.21	1.12	1.24
APR	15	1.14	1.11	1.20	1.06	1.05	1.12	1.14	1.07	1.13
MAY	1	1.07	1.04	1.09	1.01	1.00	1.03	1.06	1.00	1.05

PERCENT SOLUBLE SOLIDS

OCT	1	8.98	8.41	8.40	8.53	8.74	8.73	8.98	8.59	8.93
NOV	1	9.66	8.97	9.18	9.11	9.50	9.38	9.78	9.21	9.72
DEC	1	9.99	9.95	10.51	9.87	10.46	10.16	10.61	9.96	10.41
JAN	1	10.99	10.60	11.05	10.67	11.04	10.71	11.19	10.83	11.04
FEB	1	11.63	11.47	11.68	11.35	11.57	11.57	12.04	11.76	11.61
MAR	1	12.11	12.05	12.37	12.08	12.25	11.85	12.51	12.38	12.12
APR	1	12.71	12.50	12.98	12.36	12.57	12.37	13.16	12.88	12.24
APR	15	12.86	12.68	13.24	12.38	12.89	12.56	13.33	12.88	12.33
MAY	1	13.07	12.86	13.57	12.81	13.19	12.89	13.57	13.10	12.45

RATIO

OCT	1	2.99	2.96	3.34	3.51	3.26	3.07	3.11	3.18	3.24
NOV	1	3.95	3.91	4.28	4.73	4.45	4.22	4.27	4.28	4.06
DEC	1	4.99	5.26	5.57	6.09	5.78	5.46	5.51	5.44	5.47
JAN	1	6.43	6.12	6.80	7.06	7.07	6.72	6.85	6.88	6.18
FEB	1	7.82	8.16	8.21	8.06	8.41	7.98	8.24	8.26	7.12
MAR	1	8.59	9.23	9.51	9.22	9.51	8.76	9.60	9.44	8.52
APR	1	10.36	11.34	11.04	11.03	11.06	10.58	11.05	11.64	10.06
APR	15	11.43	11.63	11.21	11.87	12.36	11.40	11.86	12.21	11.09
MAY	1	12.38	12.60	12.77	12.93	13.31	12.68	13.04	13.29	11.99

LATE ORANGES

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM IDENTICAL SAMPLE TREES
 1972-73 THROUGH 1980-81

 DATE :1972-73:1973-74:1974-75:1975-76:1976-77:1977-78:1978-79:1979-80:1980-81

POUNDS JUICE PER BOX

OCT 1	44.18	45.95	46.16	48.95	44.93	44.94	42.13	42.84	46.53
NOV 1	49.19	51.13	52.34	52.92	48.93	48.90	47.98	49.26	50.14
DEC 1	50.89	54.48	53.35	55.05	51.53	51.33	50.51	50.87	51.81
JAN 1	53.07	53.97	53.78	54.69	53.37	52.96	51.61	53.32	53.11
FEB 1	53.40	55.13	54.11	54.65	50.22	53.22	52.62	53.52	52.54
MAR 1	53.52	55.33	54.96	54.10	46.49	52.81	51.85	53.89	49.49
APR 1	53.42	55.84	55.51	54.52	46.46	52.07	53.04	52.54	49.31
APR 15	54.81	55.47	54.75	54.68	46.13	53.08	53.58	52.98	49.15
MAY 1	54.67	55.69	54.74	56.24	46.78	52.96	52.67	53.33	49.75

POUNDS SOLIDS PER BOX

OCT 1	3.96	3.86	4.08	4.17	3.92	3.93	3.78	3.68	4.16
NOV 1	4.74	4.59	4.80	4.82	4.64	4.58	4.69	4.54	4.88
DEC 1	5.08	5.42	5.61	5.43	5.39	5.22	5.35	5.06	5.39
JAN 1	5.84	5.72	5.94	5.83	5.89	5.67	5.77	5.77	5.86
FEB 1	6.21	6.32	6.32	6.20	5.82	6.01	6.32	6.29	6.10
MAR 1	6.48	6.67	6.79	6.54	5.69	6.26	6.48	6.77	6.00
APR 1	6.79	6.98	7.20	6.74	5.84	6.45	6.98	6.77	6.04
APR 15	7.05	7.04	7.25	6.77	5.94	6.67	7.14	6.83	6.06
MAY 1	7.15	7.17	7.42	7.20	6.17	6.83	7.15	6.99	6.18

SEEDY GRAPEFRUIT

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM SAMPLE GROVES
 1972-73 THROUGH 1980-81

CROP YEAR	SAMPLE GROVES NUMBER	ACID PERCENT	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
SEPTEMBER 1						
1972-73	25	1.78	9.50	5.35	29.00	2.75
1973-74	25	1.84	9.03	4.93	30.28	2.74
1974-75	25	1.60	8.81	5.59	38.73	3.41
1975-76	25	1.56	9.37	6.06	35.75	3.36
1976-77	25	1.76	9.19	5.27	28.73	2.64
1977-78	25	1.79	9.28	5.23	28.76	2.68
1978-79	25	1.79	9.08	5.10	29.06	2.64
1979-80	25	1.74	9.51	5.47	26.98	2.57
1980-81	25	1.81	9.94	5.51	32.68	3.26
OCTOBER 1						
1972-73	25	1.63	10.02	6.18	35.40	3.54
1973-74	25	1.54	9.11	5.98	35.64	3.26
1974-75	24	1.43	9.16	6.50	37.33	3.42
1975-76	25	1.40	9.51	6.88	38.59	3.68
1976-77	25	1.61	9.38	5.88	33.83	3.17
1977-78	25	1.55	9.65	6.29	32.63	3.15
1978-79	25	1.74	9.90	5.74	32.50	3.22
1979-80	25	1.54	9.37	6.16	30.84	2.89
1980-81	25	1.60	10.12	6.35	33.61	3.40

CONTINUED

SEEDY GRAPEFRUIT

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM SAMPLE GROVES
 1972-73 THROUGH 1980-81

CROP YEAR	SAMPLE GROVES	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
NUMBER		PERCENT			POUNDS	POUNDS
NOVEMBER 1						
1972-73	25	1.70	10.71	6.32	40.79	4.36
1973-74	23	1.56	9.70	6.29	41.80	4.06
1974-75	22	1.53	9.84	6.55	40.39	3.97
1975-76	23	1.36	10.05	7.52	40.39	4.34
1976-77	25	1.60	10.12	6.41	37.06	3.76
1977-78	23	1.57	10.14	6.53	37.17	3.76
1978-79	25	1.78	10.73	6.16	36.70	3.94
1979-80	22	1.47	9.76	6.70	37.04	3.61
1980-81	25	1.56	10.59	6.86	41.62	4.42
DECEMBER 1						
1972-73	21	1.55	10.96	7.10	41.85	4.59
1973-74	19	1.46	10.29	7.15	44.54	4.58
1974-75	20	1.56	10.85	7.08	43.02	4.66
1975-76	16	1.38	10.38	7.72	43.91	4.56
1976-77	18	1.69	10.67	6.40	38.01	4.06
1977-78	21	1.58	10.59	6.76	39.35	4.17
1978-79	22	1.72	11.29	6.68	39.57	4.47
1979-80	18	1.54	10.41	6.84	42.79	4.46
1980-81	19	1.64	11.22	6.88	38.52	4.33

SEEDY GRAPEFRUIT

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

DATE :1972-73:1973-74:1974-75:1975-76:1976-77:1977-78:1978-79:1979-80:1980-81

PERCENT ACID

OCT	1	1.64	1.60	1.47	1.44	1.67	1.56	1.76	1.59	1.64
NOV	1	1.70	1.58	1.57	1.40	1.65	1.57	1.80	1.52	1.60
DEC	1	1.55	1.46	1.56	1.38	1.69	1.58	1.72	1.54	1.64

PERCENT SOLUBLE SOLIDS

OCT	1	10.07	9.27	9.23	9.58	9.52	9.71	9.97	9.32	10.22
NOV	1	10.71	9.81	9.87	10.13	10.22	10.14	10.79	9.81	10.74
DEC	1	10.90	10.29	10.85	10.38	10.67	10.59	11.29	10.41	11.22

RATIO

OCT	1	6.18	5.85	6.31	6.73	5.73	6.31	5.72	5.90	6.25
NOV	1	6.32	6.25	6.39	7.39	6.26	6.54	6.09	6.50	6.72
DEC	1	7.10	7.15	7.08	7.72	6.40	6.76	6.68	6.84	6.88

POUNDS JUICE PER BOX

OCT	1	35.47	35.91	36.44	38.50	33.98	32.73	32.84	31.07	33.95
NOV	1	40.87	42.07	39.88	42.83	37.55	37.01	36.85	37.17	42.11
DEC	1	41.85	44.54	43.02	43.91	38.01	39.35	39.57	42.79	38.52

POUNDS SOLIDS PER BOX

OCT	1	3.58	3.34	3.37	3.69	3.23	3.19	3.23	2.89	3.47
NOV	1	4.37	4.14	3.93	4.35	3.84	3.75	3.98	3.64	4.53
DEC	1	4.59	4.58	4.66	4.56	4.06	4.17	4.47	4.46	4.33

WHITE SEEDLESS GRAPEFRUIT

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM SAMPLE GROVES
 1972-73 THROUGH 1980-81

CROP YEAR		SAMPLE GROVES	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
NUMBER	PERCENT		POUNDS				
SEPTEMBER 1							
1972-73	60	1.87	9.64	5.16	29.89	2.88	
1973-74	60	1.84	8.89	4.86	31.39	2.79	
1974-75	61	1.51	8.76	5.85	34.38	3.01	
1975-76	62	1.56	9.35	6.04	35.99	3.37	
1976-77	62	1.76	9.40	5.34	29.45	2.76	
1977-78	62	1.79	9.64	5.42	28.88	2.78	
1978-79	62	1.77	9.09	5.16	27.63	2.51	
1979-80	62	1.83	9.71	5.32	27.13	2.62	
1980-81	62	1.82	10.11	5.57	31.91	3.22	
OCTOBER 1							
1972-73	60	1.62	9.86	6.14	35.85	3.52	
1973-74	60	1.49	8.78	5.92	36.75	3.23	
1974-75	59	1.40	8.98	6.52	37.95	3.40	
1975-76	62	1.35	9.30	6.96	39.44	3.66	
1976-77	61	1.53	9.26	6.08	34.11	3.15	
1977-78	62	1.52	9.37	6.21	33.79	3.17	
1978-79	62	1.62	9.54	5.94	32.43	3.09	
1979-80	62	1.51	9.41	6.27	32.89	3.09	
1980-81	62	1.55	9.99	6.49	34.04	3.39	

CONTINUED

WHITE SEEDLESS GRAPEFRUIT

MATURITY AND YIELD TEST RESULTS
UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
FROM SAMPLE GROVES
1972-73 THROUGH 1980-81

CROP YEAR	SAMPLE GROVES	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
NUMBER	PERCENT	POUNDS				
NOVEMBER 1						
1972-73	58	1.50	10.07	6.77	40.38	4.07
1973-74	58	1.36	9.11	6.75	41.88	3.81
1974-75	57	1.37	9.44	7.01	41.01	3.86
1975-76	55	1.24	9.45	7.69	43.63	4.12
1976-77	60	1.45	9.65	6.71	37.65	3.64
1977-78	54	1.52	9.76	6.45	37.79	3.69
1978-79	60	1.53	9.92	6.56	36.88	3.65
1979-80	59	1.37	9.46	6.97	38.26	3.61
1980-81	59	1.44	10.29	7.20	42.02	4.32
DECEMBER 1						
1972-73	55	1.39	10.21	7.39	43.05	4.40
1973-74	55	1.29	9.22	7.24	44.74	4.13
1974-75	53	1.42	9.83	7.04	42.10	4.14
1975-76	49	1.16	9.44	8.19	46.11	4.35
1976-77	58	1.40	9.68	6.94	39.57	3.83
1977-78	51	1.41	9.79	7.03	39.86	3.90
1978-79	53	1.39	10.05	7.30	39.12	3.92
1979-80	54	1.32	9.76	7.47	41.55	4.05
1980-81	53	1.40	10.53	7.59	39.92	4.20

WHITE SEEDLESS GRAPEFRUIT

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

DATE : 1972-73; 1973-74; 1974-75; 1975-76; 1976-77; 1977-78; 1978-79; 1979-80; 1980-81

PERCENT ACID

OCT	1	1.63	1.49	1.42	1.36	1.54	1.54	1.63	1.52	1.57
NOV	1	1.51	1.35	1.38	1.24	1.45	1.53	1.54	1.38	1.45
DEC	1	1.39	1.29	1.42	1.16	1.40	1.41	1.39	1.32	1.40

PERCENT SOLUBLE SOLIDS

OCT	1	9.92	8.76	9.06	9.38	9.29	9.46	9.57	9.46	10.08
NOV	1	10.14	9.07	9.51	9.51	9.70	9.75	9.97	9.50	10.35
DEC	1	10.21	9.22	9.83	9.44	9.68	9.79	10.05	9.76	10.53

RATIO

OCT	1	6.10	5.94	6.48	6.94	6.04	6.17	5.91	6.24	6.44
NOV	1	6.75	6.78	6.99	7.74	6.70	6.43	6.54	6.94	7.20
DEC	1	7.39	7.24	7.04	8.19	6.94	7.03	7.30	7.47	7.59

POUNDS JUICE PER BOX

OCT	1	35.86	36.88	37.63	39.65	33.89	33.59	32.36	32.73	34.17
NOV	1	40.27	42.12	40.84	44.05	37.71	37.79	36.82	38.12	41.96
DEC	1	43.05	44.74	42.10	46.11	39.57	39.86	39.12	41.55	39.92

POUNDS SOLIDS PER BOX

OCT	1	3.54	3.23	3.40	3.71	3.15	3.18	3.09	3.09	3.43
NOV	1	4.09	3.82	3.88	4.18	3.66	3.68	3.66	3.61	4.34
DEC	1	4.40	4.13	4.14	4.35	3.83	3.90	3.92	4.05	4.20

PINK SEEDLESS GRAPEFRUIT

MATURITY AND YIELD TEST RESULTS
UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
FROM SAMPLE GROVES
1972-73 THROUGH 1980-81

CROP : SAMPLE : : SOLUBLE : : JUICE : SOLIDS
YEAR : GROVES : ACID : SOLIDS : RATIO : PER BOX : PER BOX

	NUMBER	PERCENT			POUNDS		
		SEPTEMBER 1					
1972-73	50	1.79	9.57	5.33	29.81	2.85	
1973-74	50	1.86	9.02	4.86	30.94	2.79	
1974-75	51	1.61	9.04	5.66	33.68	3.04	
1975-76	52	1.57	9.57	6.15	35.83	3.43	
1976-77	52	1.79	9.62	5.42	28.42	2.73	
1977-78	52	1.88	10.00	5.37	27.68	2.76	
1978-79	52	1.79	9.30	5.28	26.88	2.50	
1979-80	52	1.86	9.78	5.27	27.14	2.65	
1980-81	51	1.86	10.27	5.55	31.62	3.24	

OCTOBER 1

1972-73	50	1.56	9.91	6.40	36.49	3.60
1973-74	50	1.48	8.94	6.05	36.61	3.27
1974-75	47	1.43	9.33	6.63	37.64	3.51
1975-76	50	1.35	9.51	7.10	40.10	3.81
1976-77	52	1.53	9.52	6.27	33.73	3.21
1977-78	52	1.57	9.68	6.24	32.98	3.19
1978-79	52	1.63	9.69	5.99	32.18	3.12
1979-80	52	1.50	9.45	6.33	32.69	3.09
1980-81	51	1.59	10.15	6.43	34.30	3.48

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PINK SEEDLESS GRAPEFRUIT

MATURITY AND YIELD TEST RESULTS
 UNADJUSTED AVERAGES FOR REGULAR BLOOM FRUIT
 FROM SAMPLE GROVES
 1972-73 THROUGH 1980-81

CROP YEAR	SAMPLE GROVES	ACID	SOLUBLE SOLIDS	RATIO	JUICE PER BOX	SOLIDS PER BOX
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NUMBER PERCENT POUNDS

NOVEMBER 1

1972-73	50	1.45	10.13	7.04	40.52	4.10
1973-74	50	1.37	9.28	6.85	42.33	3.93
1974-75	43	1.40	9.95	7.22	41.17	4.09
1975-76	47	1.20	9.78	8.24	44.17	4.32
1976-77	49	1.45	9.98	6.94	37.47	3.74
1977-78	49	1.51	10.15	6.84	37.17	3.76
1978-79	49	1.49	10.12	6.86	36.87	3.72
1979-80	49	1.40	9.72	7.01	38.17	3.70
1980-81	45	1.44	10.40	7.30	42.80	4.45

DECEMBER 1

1972-73	47	1.33	10.21	7.75	43.12	4.40
1973-74	41	1.27	9.75	7.75	44.73	4.36
1974-75	39	1.39	10.47	7.67	42.50	4.41
1975-76	45	1.19	10.06	8.60	45.81	4.61
1976-77	46	1.39	10.06	7.37	39.25	3.95
1977-78	44	1.46	10.47	7.30	39.42	4.12
1978-79	45	1.34	10.15	7.63	38.95	3.95
1979-80	44	1.34	9.93	7.46	40.82	4.05
1980-81	37	1.41	10.73	7.70	40.03	4.29

PINK SEEDLESS GRAPEFRUIT

MATURITY AND YIELD TEST RESULTS
UNADJUSTED MATCHED AVERAGES FOR REGULAR BLOOM FRUIT
FROM IDENTICAL SAMPLE TREES
1972-73 THROUGH 1980-81

DATE :1972-73;1973-74;1974-75;1975-76;1976-77;1977-78;1978-79;1979-80;1980-81

PERCENT ACID

OCT	1	1.56	1.51	1.46	1.37	1.37	1.59	1.64	1.52	1.62
NOV	1	1.45	1.37	1.41	1.20	1.46	1.52	1.49	1.41	1.44
DEC	1	1.33	1.27	1.39	1.19	1.39	1.46	1.34	1.34	1.41

PERCENT SOLUBLE SOLIDS

OCT	1	9.94	9.10	9.48	9.60	9.55	9.78	9.73	9.53	10.23
NOV	1	10.15	9.37	10.04	9.83	9.99	10.18	10.14	9.76	10.46
DEC	1	10.21	9.75	10.47	10.06	10.06	10.47	10.15	9.93	10.73

RATIO

OCT	1	6.42	6.06	6.60	7.08	6.24	6.24	5.97	6.29	6.35
NOV	1	7.03	6.89	7.22	8.26	6.94	6.82	6.85	6.96	7.31
DEC	1	7.75	7.75	7.67	8.60	7.37	7.30	7.63	7.46	7.70

POUNDS JUICE PER BOX

OCT	1	36.49	37.19	37.33	40.07	33.89	32.70	32.02	32.46	34.32
NOV	1	40.59	42.69	41.10	44.32	37.64	37.16	36.81	38.12	43.29
DEC	1	43.12	44.73	42.50	45.81	39.25	39.42	38.95	40.82	40.03

POUNDS SOLIDS PER BOX

OCT	1	3.61	3.38	3.53	3.84	3.23	3.19	3.12	3.09	3.50
NOV	1	4.11	4.00	4.11	4.35	3.76	3.77	3.73	3.71	4.52
DEC	1	4.40	4.36	4.41	4.61	3.95	4.12	3.95	4.05	4.29
