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1951 APPLE PRODUCTION COSTS

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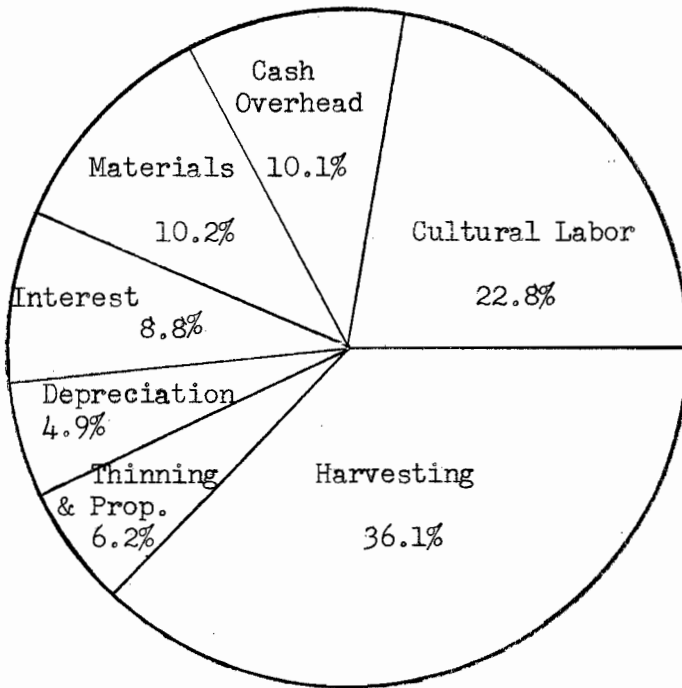
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This report is a summary of yield and cost data on thirteen blocks of Gravenstein and Late Variety apples. Most blocks have both but the information has been kept separate. The average figures may not represent the county average for the yield is higher than the average for all orchards. These data should be useful as a guide to new and prospective owners in pointing out the approximate costs of the various orchard operations.

This year the costs are higher than last and the returns are less. The cost per ton for the Gravenstein variety is \$31.72 compared to \$27.15 for the 1950 season. The returns averaged \$37.28 per ton compared to \$50.52 last season.

The average cost for growing the Gravenstein crop is \$121.02 per acre. Add to this harvesting costs, taxes and other cash costs and the figure becomes \$263.36 per acre. Next add interest and depreciation on average investment and the total cost per acre this year is \$307.36.



The Relative Proportion
of the Cost Items in
Gravenstein Production

1951

1951 Outlets and Returns of Fruit in this Study

	PACKED		CANNED		DRIED		PEDDLERS		VINEGAR	
	Grav.	Lates	Grav.	Lates	Grav.	Lates	Grav.	Late	Grav.	Lates
Disposal Percent	23.6	7.8	41.0	60.7	27.1	27.4	2.3	2.1	6.0	2.0
Returns Percent	31.2	17.7	44.1	55.0	22.0	24.0	1.6	2.7	1.1	.6

SUMMARY APPLE PRODUCTION COSTS & RETURNS
(From the 13 blocks studied)

	Gravensteins		Lates	
	1950	1951	1950	1951
Average Yield Per Acre (Tons)	11.1	9.7	10.3	14.6
Ave. Total Cost Per Ton (Dollars)	\$ 27.15	31.72	27.66	24.00
Ave. Returns Per Ton	50.52	37.28	63.06	45.08
Per Acre Costs				
Labor:				
Pruning	\$ 30.42	32.07	37.75	47.43
Brush Disposal	* 4.59	6.49	3.84	5.96
Applying Fertilizer	* 1.81	1.73	2.16	4.41
Spraying	14.41	18.61	9.93	15.01
Cultivation	8.47	11.23	7.23	10.61
Miscellaneous	8.76	8.83	10.68	-----
Thinning	* 34.80	14.65	28.68	26.16
Propping	* 9.16	7.63	10.12	9.52
Materials:				
Fertilizer Material	* 10.94	9.57	7.53	16.48
Spray Materials	17.58	21.16	22.29	24.16
Other Materials	.93	7.51	4.50	11.40
Sub-Total - Growing Costs	\$ 109.01	121.02	116.15	140.87
Harvesting:				
Picking	78.59	78.47	63.76	92.35
Hauling and Box Rental	37.63	32.78	28.22	29.78
Cash Overhead (Taxes, insurance, etc.)	28.54	31.21	25.18	38.39
Total Cash Costs	253.25	263.36	298.03	239.04
Depreciation (Trees, buildings, equip.)	18.89	16.98	21.66	17.14
Interest on Investment at 5%	27.91	27.02	30.30	29.25
TOTAL COST	300.50	307.36	285.43	349.99

* This average operation cost applies to the orchards reporting the expansion.

Ors are listed in order of management income per acre which appears in the next to last column. Gravenstein orchards are listed first followed by their average and the late variety orchards in the last half of the table.

TABLE 1: PROFIT FACTORS IN INDIVIDUAL APPLE ORCHARDS, 1951.

No.	Yield Tons Per A.	Ave. Price /Ton, All	Total Income /Acre	Cultural Labor Per A.	Thir., Prop. Per A.	Harvest- ing Cost Per A.	Material Cost Per A.	Cash Overhead Per Acre	Depre- ciation Per A.	Int. on Invest. Per A.	Total Cost Per A.	Mgmt. Income Per A.	Capital & Mgmt. Income/A
GRAVENSTEIN ORCHARDS													
1	17.4	42.49	740.66	89.85	39.26	166.11	46.49	40.20	19.22	28.22	429.35	311.31	339.53
2	29.5	27.72	818.93	115.53	35.97	252.71	25.27	92.98	12.50	25.00	559.96	258.97	283.97
3	16.0	40.72	649.35	69.65	10.52	200.76	51.50	37.90	19.94	30.86	421.13	228.22	259.08
4	18.3	35.18	642.44	77.76	30.41	154.47	74.09	55.25	15.27	28.35	435.60	206.84	235.19
5	15.2	36.00	546.26	95.27	52.37	158.91	29.96	25.09	37.92	41.92	441.44	104.82	146.74
6	10.4	36.07	374.58	87.51	11.23	79.52	47.78	29.34	15.27	28.35	298.00	76.58	104.93
7	9.5	38.11	360.89	76.48	8.86	132.54	27.28	28.70	12.50	25.00	311.36	49.53	74.53
8	4.8	44.10	212.86	30.94	2.77	57.35	16.15	16.01	17.69	24.43	165.34	47.52	71.95
9	11.5	30.30	348.95	93.48	21.74	69.57	39.13	24.24	25.25	33.41	306.82	42.13	75.54
10	12.0	37.16	447.38	105.69	38.89	156.50	39.38	39.56	27.13	33.08	440.23	7.15	40.23
11	5.1	32.18	163.15	50.66	-----	60.27	12.59	17.36	21.20	32.90	194.98	-31.83	1.07
12	24.8	36.50	904.38	68.75	358.12	237.19	162.39	95.68	29.32	37.83	989.28	-84.90	-47.06
13	6.7	31.72	211.37	101.95	15.89	80.33	22.65	45.93	12.50	25.00	304.25	-92.88	-67.88
AVE.													
'51	9.7	37.28	361.21	70.23	19.24	111.13	31.55	31.21	16.98	27.02	307.36	53.85	80.87
'50	11.1	50.52	558.36	61.90	23.43	115.71	23.67	28.54	18.89	27.91	300.05	258.31	286.22
LATE VARIETY ORCHARDS													
1	28.5	40.64	1157.20	82.56	15.89	205.84	33.42	46.56	15.27	28.35	427.89	729.31	757.66
2	22.7	43.41	984.72	86.73	12.58	178.32	37.34	45.32	15.27	28.35	403.92	580.80	609.15
3	18.7	43.05	803.58	51.55	64.76	127.57	51.16	37.39	15.27	28.35	376.05	427.53	455.88
4	8.9	93.32	831.83	111.39	29.59	88.33	112.14	67.59	29.32	37.83	476.19	355.64	393.47
5	15.4	47.05	725.22	91.08	40.85	139.88	46.90	33.97	15.27	28.35	396.30	328.92	357.27
6	5.7	100.75	573.73	80.94	35.27	67.68	44.91	28.09	14.69	28.35	299.93	273.80	302.15
7	14.2	40.50	575.30	75.67	8.78	110.39	37.80	32.01	15.27	28.35	308.27	267.03	295.38
8	14.6	40.55	596.69	82.63	12.31	119.31	34.03	33.90	19.22	28.22	329.62	263.07	291.29
9	15.3	40.02	610.86	44.15	11.51	208.72	35.24	28.42	12.50	25.00	365.62	245.24	270.24
10	8.9	41.23	365.13	59.41	.59	66.92	22.70	22.42	15.27	28.35	215.66	149.47	177.82
11	13.8	38.57	533.00	120.39	59.63	131.25	71.31	29.09	37.92	41.92	491.51	41.49	83.41
12	6.8	35.56	240.30	51.25	-----	72.15	12.88	17.56	21.20	32.90	207.94	32.36	65.26
13	8.2	40.72	331.84	117.11	34.25	69.54	26.47	92.81	12.50	25.00	377.68	-45.84	-20.84
AVE.													
'51	14.6	45.08	657.43	79.07	21.03	124.34	40.84	38.39	17.14	29.25	349.99	307.44	336.69
'50	10.3	63.06	650.90	68.81	20.01	92.14	27.33	25.18	21.66	30.30	285.33	365.47	395.77

TABLE 2: YIELD, PRICES AND COSTS PER TON

No.	Yield Tons Per Acre	Per Cent Packed Fruit	Price Packed Fruit Per T.	Average Price Per T.	Cultur- al Labor	Thin. and Prop.	Picking	Hauling & Box & Rental	Material Costs	Cash Over- head	Depre- cia- tion	Int. on Invest- ment	Total Cost	Manage- ment Income
GRAVENSTEIN ORCHARDS														
1	17.4	50.0	51.44	42.49	5.16	2.25	8.13	1.40	2.67	2.30	1.10	1.62	24.63	17.86
2	29.5	12.7	47.30	27.72	3.91	1.22	4.86	3.69	.86	3.15	.42	.84	18.95	8.77
3	16.0	----	-----	40.72	4.37	.66	7.83	4.76	3.23	2.37	1.25	1.94	26.41	14.31
4	18.3	----	-----	35.18	4.26	1.66	6.96	1.50	4.06	3.02	.84	1.55	23.85	11.33
5	15.2	16.8	46.00	36.00	6.28	3.45	6.13	4.34	1.98	1.65	2.50	2.76	29.09	6.91
6	10.4	----	-----	36.07	8.43	1.08	6.16	1.50	4.50	2.83	1.47	2.73	28.70	7.37
7	9.5	27.5	46.57	38.11	8.08	.94	9.00	4.99	2.88	3.03	1.32	2.64	32.88	5.23
8	4.8	39.0	53.83	44.10	6.41	.57	11.28	.60	3.35	3.32	3.66	5.06	34.25	9.85
9	11.5	44.2	36.07	30.30	8.11	1.89	4.15	1.89	3.40	2.11	2.19	2.90	26.64	3.36
10	12.0	23.5	55.36	37.16	8.78	3.23	7.11	5.89	3.27	3.29	2.25	2.75	36.57	.59
11	5.1	6.6	37.11	32.18	9.99	----	9.55	2.34	2.48	3.43	4.18	6.49	38.46	-6.28
12	24.8	29.6	55.88	36.50	2.77	14.46	6.99	2.58	6.56	3.86	1.18	1.53	39.93	-3.43
13	16.7	27.7	37.00	31.72	15.30	2.39	8.19	3.86	3.39	6.89	1.88	3.75	45.65	-13.93
AVE.														
'51	9.7	23.6	49.01	37.28	7.25	1.98	8.09	3.38	3.26	3.22	1.75	2.79	31.72	5.56
'50	11.1	28.2	83.10	50.52	5.60	2.12	7.08	3.39	2.14	2.58	1.71	2.53	27.15	23.37
LATE VARIETY ORCHARDS														
1	28.5	----	-----	40.60	2.90	.56	5.73	1.50	1.17	1.63	.54	1.00	15.03	25.61
2	22.7	7.0	73.93	43.41	3.82	.56	6.36	1.50	1.65	2.00	.67	1.25	17.81	25.60
3	18.7	7.2	79.10	43.05	2.76	3.47	5.37	1.47	2.74	2.00	.82	1.52	20.15	22.90
4	8.9	88.5	102.62	93.32	12.50	3.32	7.57	2.34	12.58	7.58	3.29	4.24	53.42	39.90
5	15.4	11.3	101.03	47.05	5.91	2.65	7.57	1.50	3.04	2.21	.99	1.84	25.71	21.34
6	5.7	53.1	155.21	100.75	14.21	6.19	10.00	1.89	7.89	4.93	2.58	4.98	52.67	48.08
7	14.2	----	-----	40.50	5.33	.62	6.31	1.46	2.66	2.25	1.07	2.00	21.70	18.80
8	14.6	2.8	60.00	40.55	5.65	.84	7.22	.95	2.33	2.32	1.31	1.93	22.55	18.00
9	15.3	.6	30.00	40.02	2.89	.76	8.68	5.00	2.31	1.86	.82	1.63	23.95	16.07
10	8.9	.9	70.77	41.23	6.71	.07	6.07	1.49	2.56	2.53	1.72	3.20	24.35	16.88
11	13.8	----	-----	38.57	8.71	4.32	5.68	3.82	5.16	2.10	2.75	3.03	35.57	3.00
12	6.8	8.2	65.14	35.56	7.58	----	6.98	3.70	1.91	2.60	3.13	4.87	30.77	4.79
13	18.2	20.1	42.00	40.72	14.35	4.20	4.85	3.68	3.25	11.39	1.53	3.07	46.34	-5.62
AVE.														
'51	14.6	7.9	100.93	45.08	5.41	1.44	6.49	2.04	2.80	2.63	1.18	2.01	24.00	21.08
'50	10.3	14.4	99.60	63.06	6.67	1.93	6.19	2.79	2.65	2.44	2.10	2.94	27.66	35.40

TABLE 3: LABOR AND MATERIAL COSTS PER ACRE FOR GROWING THE CROP UP TO HARVEST

* The average operation costs apply only to the orchards reporting that operation, so the average totals are less than a sum of all items.

No.	Pruning	Brush Dispos.	Apply Fert.	Spray	Culti- vation	Misc.	Total Cultur- al Labor	Thin- ning	Prop- ping	Fertil- izers	Spray Mater- ials	Misc. Mater- ials	Total Mater- ials	Total Growing Cost
GRAVENSTEIN ORCHARDS														
1	46.85	15.63	1.48	14.78	11.11	----	89.85	37.78	1.48	7.99	38.50	-----	46.49	175.60
2	75.35	10.66	1.10	17.69	10.73	----	115.53	34.00	1.97	10.18	15.09	-----	25.27	176.77
3	33.83	4.14	-----	18.05	13.63	----	69.65	5.26	5.26	9.47	39.02	-----	51.50	131.67
4	47.07	3.87	5.58	8.71	12.53	----	77.76	4.98	25.43	31.66	31.23	11.20	74.09	182.26
5	36.09	9.16	5.56	32.64	11.82	----	95.27	40.26	12.11	3.27	26.69	-----	29.96	177.60
6	56.47	7.83	4.70	10.65	7.86	----	87.51	4.40	6.83	24.98	21.80	-----	46.78	145.52
7	24.65	9.03	1.05	25.81	15.94	----	76.48	2.53	6.33	9.68	17.62	-----	27.28	112.62
8	14.92	.52	.31	11.54	3.65	----	30.94	2.77	-----	1.73	14.42	-----	16.15	49.86
9	65.22	10.87	8.69	4.35	4.35	----	93.48	21.74	-----	21.74	17.39	-----	39.13	154.35
10	44.45	7.89	1.33	26.39	16.80	8.83	105.69	33.33	5.56	5.17	28.21	6.00	39.38	183.96
11	18.82	3.42	-----	20.53	7.89	----	50.66	-----	-----	-----	12.59	-----	12.59	63.25
12	-----	-----	6.25	46.88	15.62	----	68.75	333.12	25.00	15.47	146.92	-----	162.39	589.26
13	58.38	12.07	1.35	14.13	16.02	----	101.95	12.96	2.93	10.14	12.51	-----	22.65	140.49
AVE.														
'51	*32.07	* 6.49	*1.73	18.61	11.23	*8.83	70.23	*14.65	*7.63	*9.57	21.16	*7.51	31.55	121.02
'50	30.42	* 4.59	*1.81	14.41	8.47	*8.76	61.90	*34.80	*9.16	*10.94	17.58	* .93	23.69	109.01
LATE VARIETY ORCHARDS														
1	57.14	4.36	.96	12.68	7.42	----	82.56	-----	15.89	10.63	22.79	-----	33.42	131.87
2	56.33	4.07	5.07	12.23	9.03	----	86.73	-----	12.58	15.11	22.23	-----	37.34	136.65
3	29.86	2.62	3.39	6.76	8.92	----	51.55	53.60	11.16	20.00	19.76	11.40	51.16	167.47
4	46.11	18.06	7.64	21.52	18.06	----	111.39	21.95	7.64	46.85	65.29	-----	112.14	253.12
5	56.10	8.00	5.15	14.20	7.63	----	91.08	17.60	23.25	25.10	21.80	-----	46.90	178.83
6	49.97	6.43	7.28	9.13	8.13	----	80.94	22.63	12.64	27.40	17.51	-----	44.91	161.12
7	41.62	3.70	6.26	9.17	14.92	----	75.67	-----	8.78	20.73	17.07	-----	37.80	122.25
8	46.73	10.82	1.39	10.23	13.46	----	82.63	12.31	-----	7.38	26.65	-----	34.03	128.97
9	-----	-----	.81	33.34	10.00	----	44.15	3.26	8.33	12.47	22.77	-----	35.24	90.98
10	40.04	3.06	.54	8.17	7.60	----	59.41	-----	.59	8.37	14.33	-----	22.70	82.70
11	41.09	10.44	16.00	37.18	15.68	----	120.39	45.84	13.79	3.73	67.58	-----	71.31	251.33
12	19.25	3.50	-----	21.00	7.50	----	51.25	-----	-----	-----	12.88	-----	12.88	64.13
13	74.65	10.27	1.02	20.83	10.34	----	117.11	32.34	1.91	9.82	16.65	-----	26.47	177.83
AVE.														
'51	*47.43	* 5.96	*4.41	15.01	10.61	----	79.00	*26.16	*9.52	*16.48	24.16	*11.40	40.84	140.87
'50	37.75	* 3.84	*2.16	9.93	7.23	*10.68	68.81	*28.68	*10.12	*7.53	22.29	* 4.50	27.33	116.15

TABLE 4: CASH OVERHEAD COSTS PER ACRE - 1951

	Graven- stein	Late Vari- ety	Your Orchard Number
General expense - estimated at 5% of labor & material costs	11.61	13.26	
County Taxes	11.00	10.34	
Repairs to Equipment	.63	1.15	
Insurance	4.13	4.98	
Other Cash Costs	3.84	8.66	
Total Cash Overhead Costs	31.21	38.39	

Cash costs not covered under labor and material costs are included in the above cash overhead costs. General expense is figured at 5% of total labor and material costs. It covers small un-reported cash expenditures such as office expense, use of auto on orchard business and interest on operating capital. The last 3 items were not incurred in all cases. Averages shown, however, are based upon the entire acreage in the group. The last item, "other cash costs" covers paid supervision and operating overhead in a few orchards.

TABLE 4: INVESTMENT, INTEREST ON INVESTMENT AND DEPRECIATION PER ACRE - 1951

	Graven- stein	Late Vari- ety	Your Orchard Number
Trees - all estimated at \$500 cost, \$250 average value	250.00	250.00	250.00
General Buildings for Equipment	33.24	36.65	
Tillage Equipment, Where Owned	2.98	2.68	
Spraying Equipment, Where Owned	22.98	47.08	
Props	9.15	26.76	
Miscellaneous Other Equipment	17.87	9.96	
Land	246.68	285.48	
Average Total Investment	540.53	585.06	
Interest on Average Investment of 5%	27.02	29.25	
Depreciation:			
Trees	12.50	12.50	12.50
Buildings for Equipment	1.74	2.03	
Tillage Equipment	.27	.39	
Spraying Equipment	2.71	3.98	
Props	1.09	2.38	
Miscellaneous Other Equipment; ladders, picking bags	3.19	2.27	
Average Total Depreciation	16.98	17.14	

Values shown in the above table are not intended to represent the amount of capital required to go into the apple growing business. Except for land, they are figured at one-half of the original cost as a basis for calculating a nominal interest charge which is considered a proper part of the cost of production in this study. The cost of bringing trees to bearing age was estimated the same for all orchards at \$500 an acre. Tree depreciation was figured on the basis of 40 years of productive life. Item averages are for the acreage reporting. Average total investment and depreciation figures are less than a sum of the various items since all items were not reported for all orchards. Equipment overhead for tractors and any contract work is included in labor costs.

YIELD AND COST INFORMATION FOR EACH COOPERATOR FOR '50 & '51

GRAVENSTEINS

Block No.	Yield Tons Per A.		Price Per Ton		Cost Per Ton		Growing Costs Per A.		Cash Costs Per Acre		Total Income/A	
	1950	1951	1950	1951	1950	1951	1950	1951	1950	1951	1950	1951
1	2.9	5.1	\$55.53	\$32.18	\$57.59	\$38.46	\$57.80	\$63.25	\$113.06	\$140.88	\$26.92	\$1.07
2	42.2	24.8	71.92	36.50	24.35	39.93	417.71	589.26	961.26	922.13	2043.66	-47.06
3	7.7	----	47.83	-----	40.61	-----	161.00	-----	256.95	-----	86.66	-----
4	---	9.5	-----	38.11	-----	32.88	-----	112.62	-----	328.12	-----	74.53
5	13.4	12.0	53.82	37.16	33.05	36.57	163.32	183.96	373.42	380.02	311.78	40.26
6	10.2	17.4	65.49	42.49	33.15	24.63	158.34	175.60	292.12	381.91	357.06	339.53
8	35.7	16.0	64.43	40.72	19.39	26.41	198.34	131.67	641.70	363.29	1639.26	259.08
9	3.8	6.7	58.29	31.72	56.58	45.65	95.89	140.49	180.25	266.75	31.58	-67.88
10	17.0	15.2	57.52	36.00	21.35	29.09	160.28	177.60	323.49	361.60	688.53	146.74
12	19.8	11.5	57.73	30.30	22.91	26.64	168.20	154.35	387.71	248.16	707.27	75.54
13	11.5	---	45.75	-----	24.50	-----	61.44	-----	245.25	-----	270.38	-----
16	1.4	4.8	51.12	44.10	81.31	34.25	43.73	49.86	71.20	123.22	-17.37	71.95
17	34.3	18.3	45.39	35.18	16.89	23.85	220.51	182.26	527.34	392.00	1008.29	235.19
18	22.7	10.4	37.88	36.07	17.73	28.70	117.24	145.52	369.48	392.00	486.71	104.93
24	19.7	29.5	47.36	27.72	26.91	18.95	179.74	176.77	483.64	522.46	428.64	283.97
AVE.	-11.1	9.7	50.52	37.28	27.15	31.72	109.01	121.02	253.25	263.36	286.22	80.87
LATE APPLES												
1	3.0	6.8	57.10	35.56	58.70	30.77	60.08	64.13	126.51	153.84	27.96	65.26
2	8.9	8.9	119.61	93.32	42.56	53.42	190.45	253.12	316.07	326.32	721.29	393.47
4	---	15.3	-----	40.02	-----	23.95	-----	90.98	-----	328.12	-----	270.24
6	4.8	14.6	57.47	40.55	40.76	52.67	88.87	128.97	148.63	282.18	107.61	291.29
10	13.3	13.8	53.94	38.57	31.47	35.57	207.11	251.33	338.78	424.50	341.06	83.41
12	4.9	---	62.12	-----	55.30	-----	130.07	-----	214.76	-----	67.16	-----
13	3.3	---	43.28	-----	58.81	-----	66.34	-----	156.30	-----	-26.18	-----
17	21.1	18.7	60.51	43.05	36.16	20.15	244.36	167.47	386.94	332.43	325.64	455.88
18	12.7	15.4	66.47	47.05	33.62	27.71	226.62	178.83	376.31	352.68	448.84	357.27
19	10.1	5.7	87.41	100.75	23.88	52.67	135.01	161.12	240.19	256.89	622.86	302.15
20	18.5	22.7	57.93	43.41	13.16	17.81	101.88	136.65	274.58	360.30	767.57	609.15
21	20.4	28.5	61.63	40.64	13.89	15.03	129.19	131.89	334.06	384.27	903.13	757.66
22	8.4	8.9	59.63	41.23	24.17	24.35	67.44	82.70	152.03	172.04	329.72	172.82
23	5.3	14.2	60.65	40.50	34.16	21.70	70.38	122.25	128.25	264.65	169.96	295.38
24	10.7	8.2	48.03	40.72	33.90	46.34	163.31	177.83	326.05	340.18	176.64	-20.84
AVE.	10.3	14.6	63.06	45.08	27.11	24.00	116.15	140.87	233.47	303.60	395.77	336.69