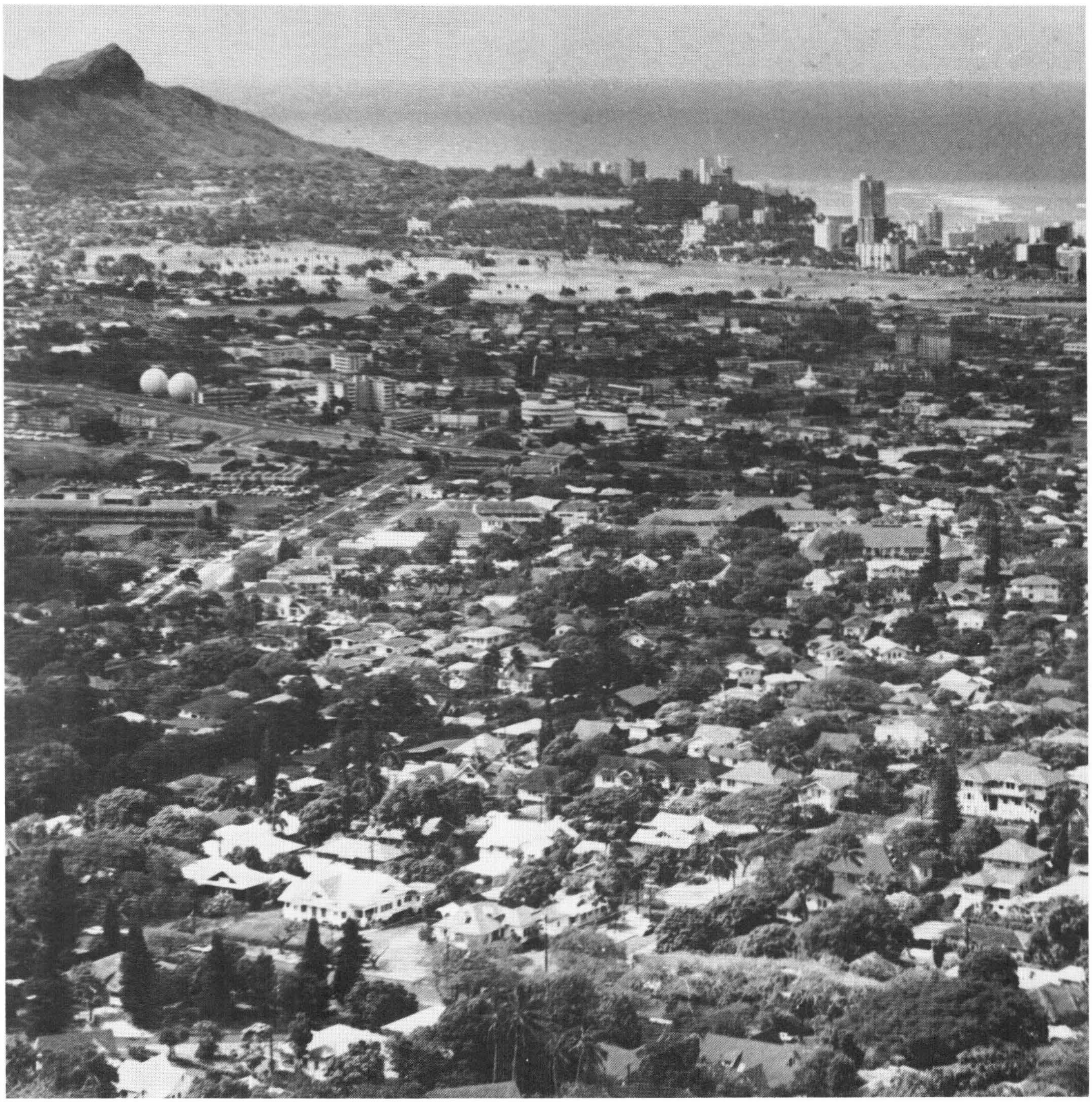
MARKET PENETRATION OF INSTANT KONA COFFEE IN HONOLULU, HAWAII

Harold R. Linstrom and Joseph T. Keeler

Agricultural Economics Report No. 67
Hawaii Agricultural Experiment Station / University of Hawaii / June 1966



ACKNOWLEDGMENTS

The following University of Hawaii student employees assisted in this survey: Eric Hill, Richard Simpson, and Lawi Andrew.

The authors thank the management of the following supermarket chains and independent grocers: Safeway, Star, Times, Chun-Hoon, Everybodys, and Kalakaua markets. Without their cooperation this study could not have been accomplished.

Thanks also go to Betty Kaya, Jane Torigoe, and Janet Yamamoto for their work in data tabulation and for their valuable clerical assistance.

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Background and Purpose of the Study

Since the pilot market test of instant Kona coffee in 1962[1/] a mainland processor has gone into commercial production of a pure Kona soluble coffee. The product appeared on grocers' shelves in Hawaii during December 1963. In January 1964 the U. S. Department of Agriculture in cooperation with the University of Hawaii began collecting sales data, by means of weekly store audits, on the movement of the new Kona instant and four comparably priced soluble coffees. After several weeks, two of the comparably priced products were dropped from the audit because of extremely weak sales records. The instant coffees which were eliminated were not close competitors with the remaining three products, even though they were in the same price range.

Three brands of instant coffee, therefore, remained in the audit. They will be referred to throughout this report as "Kona" (instant Kona), and brands "A" and "B". Brands A and B are well-established products both of which enjoy the advantage of considerable annual budgets for media advertising and promotion on a national scale. A modest local advertising campaign accompanied the introduction of instant Kona coffee in Honolulu.

Audits were conducted for well over a year in Oahu supermarkets. Some secondary data were also obtained from the processor regarding sales on the mainland. However, in respect to the processor's wishes and due to the confidential nature of these data, only general statements regarding mainland sales records will be presented in this report.

The purpose of this study is twofold: first, to measure over time the sales performance of an instant Kona coffee and, second, to see how well the new product fares in competition with well-known and long-established brands of instant coffee in the Hawaii market.

Why Instant Kona Coffee?

The following table, compiled by the Pan-American Coffee Bureau, illustrates soluble coffee's relative importance within the total U. S. coffee market during the last few years.

1/ "A Pilot Market Test of Instant Kona Coffee"; Harold R. Linstrom, Joseph T. Keeler, and C. Richard Creek; Agricultural Economics Report No. 65; Hawaii Agricultural Experiment Station, January 1964.

Table 1. Proportion of total cups of coffee consumed which were prepared from soluble, 1951-64 1/

Year	Percent soluble
1951	8.1
1952	9.4
1953	12.3
1954	16.4
1955	18.5
1956	21.3
1957	22.0
1958	23.1
1959	24.4
1960	24.6
1961	25.4
1962	27.1
1963	27.0
1964	27.2

1/ Annual Coffee Statistics, Pan-American Coffee Bureau, 1964.

The fact that this increase occurred during a period of generally increasing per capita coffee consumption, from 2.44 cups per day in 1951 to 2.79 cups per day in 1964, adds to the importance of these gains in the soluble segment of the market. Wider consumer acceptance and use of instant coffee and convenience foods in general, has encouraged the development of numerous gourmet and specialty items among the fully and partially processed products available in today's supermarket.

Since 1958 the Kona coffee situation has been one of decreasing returns, due to Kona's inescapable link to the world coffee price trend, and increasing costs for the Hawaii coffee farmer. The growing instant coffee market of recent years sparked an interest in producing a soluble Kona, a differentiated product readily indentifiable as Hawaiian and, hopefully, a product less dependent on changes in the general world coffee market. Interest in an instant Kona coffee resulted in the earlier mentioned pilot market test of the product in Honolulu during the summer and fall of 1962. Sales records and buyers' comments collected during the test period indicated that there was good reason to believe that an instant Kona coffee could obtain a small share (in keeping with its modest annual production record of about 13 million pounds, parchment) of the growing soluble coffee market. The 1962 findings were encouraging but limited in several respects. For example, meaningful measures of the sales of directly competing products were not available. Nevertheless, a mainland processor began producing a 100% Kona soluble coffee in 1963. The product was first introduced in Hawaii during December of that year. Sales records were kept on the Kona instant and several comparably priced competitors for more than a year. Some expansion of the mainland market paralleled the work in Hawaii during 1964. The processor's production and sales records, combined with the information obtained during the research here reported, reaffirms the market potential for an instant Kona coffee. Mainland market development efforts have thus far been fruitful, although apparently not outstanding.

What does the sales success of a soluble Kona coffee mean to Hawaii's coffee industry? Simply that one more step has been taken toward establishing Kona as a separate and unique coffee. Historically, most Kona coffee has been used as a blending agent in numerous popular brands of ground coffee. When so used, of course, the Kona coffee loses its identity. Efforts to establish Kona as a separate and unique product will, hopefully, aid in eventual partial escape from its historic link to world coffee prices. Continued work in the area of market development for pure Kona ground coffee has the same goal: to create a demand for Kona coffee as a specialty product so that it is no longer just another coffee or is lost in a blend of several coffee varieties from many parts of the world.

The Sample and the Audit

Sales audits began with a sample of 5 supermarkets. As instant Kona coffee became more readily available and as more stores stocked it, the sample was increased to 14 retail stores. Eleven of these were in the city of Honolulu and 3 were in Windward Oahu (2 in Kailua and 1 in Kaneohe). Because of variation in the number of stores involved, sales figures are shown on a "per store-per week" basis throughout this report.

The standard store audit method was used in this study. A count of shelf and stockroom supplies of the test products was made in each store each week. Stock transfers among stores as well as incoming shipments were taken into account. A week's count subtracted from that of the previous week revealed weekly sales.

Audits were made on Tuesday, Wednesday, and Thursday mornings to avoid, as much as possible, interfering with peak customer traffic days and hours. Each store was audited on the same day of the week and at about the same hour to assure equal lengths of sales periods among stores.

Instant Kona and its competitors were all displayed in the regular coffee section of each supermarket. Retailers were free to set up special displays and to expend in-store promotional efforts on their various coffees inasmuch as the test period was too long to ask them to do otherwise, and the tables and charts in this report point out when such things occurred among the test products.

Most price changes on the two non-Kona brands were the result of labelled "cents off" sales from the manufacturer.

Prices and Merchandising

At the beginning of the audit period, prices in the test stores ranged as shown in table 2 for the 2-ounce and 5-ounce jars of the various instant coffees included in the study.

Table 2. Price range of test coffees during first audit week

Coffee brand	2-ounce jar	5-ounce jar
Kona	$.59 - $.79 (average $.61)	$1.19 - $1.49 (average $1.26)
Brand "A"	$.55 - $.65 (average $.57)	$1.09 1/ - $1.49 (average $1.15)
Brand "B"	$.51 - $.65 (average $.55)	$ .89 - $1.39 (average $1.19)

1/ "Ten cents off" sale, in 5 stores.

Prices of all three brands were increased from 2 to 7 cents during the first 8 months of the sales audit. No pattern emerged in relation to price increases of specific brands among specific stores. The larger price increases (up to 7 cents) were graduated rises during a 3-month period. No single price increase was ever more than 5 cents per 5-ounce jar.

The final check of coffee prices in February 1965 provided the data for table 3 and showed the price ranges for 2-ounce and 5-ounce jars of instant coffee.

Table 3. Price range of test coffees during final audit week

Coffee brand	2-ounce jar	5-ounce jar
Kona	$.59 - $.79 (average $.67)	$1.29 - $1.43 (average $1.38)
Brand "A"	$.61 - $.67 (average $.64)	$1.13 1/ - $1.39 (average $1.33)
Brand "B"	$.57 - $.67 (average $.62)	$ .87 2/ - $1.39 (average $1.24)

1/ "Ten cents off" sale, in 9 stores.
2/ "Twenty cents off" sale, in 10 stores.

Other than those differences noted in the section which follows, factors such as in-store advertising materials and the number of facings (rows of package fronts facing customers) per product in each store remained consistent throughout the sales audit period.

The Sales Record

The data in table 4 indicate that, through the total study period, Brand "A" accounted for half the sales of the audited instant coffees. The remaining half was about evenly split between Kona and Brand "B". A quick visual comparison of week to week sales fluctuations may be obtained from figure 1.

Prices, special displays, and other promotional efforts obviously influenced instant coffee sales to some extent. In the thirteenth week of auditing the regular price of 5-ounce jars of Brand "A" increased 2 cents but, at the same time, 4 stores began a "10 cents off" sale on 5-ounce jars of Brand "A". The number of stores carrying "10 cents off" labels on Brand "A" had increased to 8 by the twentieth audit week. In addition, 3 stores which offered the special sale price also gave Brand "A" additional exposure by means of end-shelf displays during the fifteenth to the twenty-second weeks of sales auditing. Figure 1 shows that this was the period during which the highest rate of sales occurred for Brand "A".

Kona sales led Brand "B" and at times even outsold Brand "A" during the first 4 weeks of the study. However, in the fifteenth week, the price of 5-ounce jars of Kona instant went up 10 cents in 4 stores. Sales dropped almost immediately and, since 6 additional stores later joined in the 10 cents per jar price increase and continued the higher price throughout the remainder of the study, Kona never regained its sales advantage over Brand "B". Two-ounce jars of instant Kona also went up in price during the study. In all, 5 stores raised their price on the smaller jars. The increases ranged from 3 to 7 cents and no two stores upped their price in the same week.

At about the same time (week 15) that 5-ounce Kona prices were raised, prices for Brand "B" in 5-ounce jars also were raised. The price increase here ranged from 6 to 12 cents per jar and took place in 8 stores. So, in the fifteenth audit week the average price for large jars of instant Kona was up to $1.27. Brand "B", in 5-ounce jars, averaged $1.23 per jar in the fifteenth week.

Figure 1 again shows the decline in Brand "B" sales at about this time (week 15) in the study. However, sales for Brand "B" recovered more quickly and rose to a stronger weekly average than did Kona after its price increased.

During the forty-first week of sales audits 2 stores began a "10 cents off" sale on Brand "B" in 5-ounce jars. Seven weeks later a total of 9 stores carried the "10 cents off" label, a sale which continued in most of these stores throughout the remainder of the study period. Added to this was a "20 cents off" sale which was offered on Brand "B" in 5-ounce jars from time to time during the last 7 weeks of the study.

Table 4. Average weekly per store sales, in ounces, of three comparably priced instant coffees, for the period December 23, 1963 through February 22, 1965

Week number	Kona		Brand "A"		Brand "B"		Week's total	
	Ounces	%	Ounces	%	Ounces	%	Ounces	%
1	35.7	1/	1/	1/	19.0	1/	54.7	1/
2	87.0	1/	1/	1/	49.7	1/	136.7	1/
3	62.0	1/	1/	1/	53.3	1/	115.3	1/
4	52.4	29	77.6	44	48.1	27	178.1	100
5	48.5	26	90.0	47	50.6	27	189.1	100
6	43.1	31	61.0	43	36.0	26	140.1	100
7	55.6	32	75.4	44	42.0	24	173.0	100
8	63.9	43	57.8	38	29.0	19	150.7	100
9	75.4	42	62.6	34	42.8	24	180.8	100
10	68.4	35	81.4	41	47.1	24	196.9	100
11	58.4	27	116.6	55	38.4	18	213.4	100
12	65.6	39	60.2	35	44.8	26	170.6	100
13	46.8	24	102.8	54	42.6	22	192.2	100
14	101.4	39	110.4	42	49.8	19	261.6	100
15	44.0	25	87.2	49	47.1	26	178.3	100
16	70.6	29	118.0	48	56.8	23	425.4	100
17	35.0	18	124.2	63	39.2	19	198.4	100
18	36.1	13	178.0	66	55.2	21	269.3	100
19	35.9	11	237.0	72	56.4	17	329.3	100
20	42.4	15	193.8	68	49.8	17	286.0	100
21	31.6	16	121.8	63	41.2	21	194.6	100
22	50.1	22	137.8	59	44.0	19	231.9	100
23	29.6	16	114.0	62	40.8	22	184.4	100
24	32.6	16	119.4	59	50.4	25	202.4	100
25	30.9	15	114.2	56	60.0	29	205.1	100
26	23.0	11	125.8	61	59.2	28	208.0	100
27	40.1	20	101.6	51	56.9	29	198.6	100
28	33.2	23	68.9	47	43.7	30	145.8	100
29	36.6	20	95.1	51	54.1	29	185.8	100
30	44.5	23	103.2	54	42.9	23	190.6	100
31	39.8	21	103.4	55	46.2	24	189.4	100
32	38.0	24	74.2	47	46.9	29	159.1	100
33	46.6	25	87.7	47	53.8	28	188.1	100
34	35.3	21	84.4	49	50.5	30	170.2	100
35	43.4	25	78.8	46	49.9	29	172.1	100
36	54.2	30	82.4	46	43.6	24	180.2	100
37	45.3	22	106.0	50	59.2	28	210.5	100
38	42.1	23	89.2	49	51.4	28	182.7	100
39	37.8	23	82.8	51	43.1	26	163.7	100
40	36.0	24	76.4	51	37.1	25	149.5	100
41	41.1	25	75.5	46	48.4	29	165.0	100
42	47.0	27	78.4	46	45.6	27	171.0	100
43	45.0	26	78.8	45	49.5	29	173.3	100
44	38.2	27	57.4	41	44.1	32	139.7	100
45	41.8	25	87.6	52	38.0	23	167.4	100
46	49.0	27	87.2	47	48.6	26	184.8	100
47	43.6	23	85.9	45	62.1	32	191.6	100
48	53.0	30	56.3	31	70.4	39	179.7	100
49	38.9	21	94.2	51	51.3	28	184.4	100
50	37.5	24	69.7	46	45.9	30	153.1	100
51	45.4	30	55.6	37	48.8	33	149.8	100
52	48.0	29	65.2	40	51.8	31	165.0	100
53	33.9	19	89.2	48	61.4	33	184.5	100
54	37.8	23	79.6	49	45.8	28	163.2	100
55	40.2	29	53.4	38	47.0	33	140.6	100
56	46.6	25	81.6	43	59.8	32	188.0	100
57	36.1	22	70.4	42	61.1	36	167.6	100
58	41.4	26	68.9	42	52.4	32	162.7	100
59	46.1	25	68.3	38	67.3	37	181.7	100
60	41.4	25	79.3	49	41.6	26	162.3	100
61	38.5	25	71.8	48	40.5	27	150.8	100
62	37.4	23	72.4	44	54.9	33	164.7	100
Totals and average2/ percentage	2,826.8	24	5,427.8	50	3,008.9	26	11,263.5	100

1/ Brand "A" not audited in first three weeks. Not available in several stores. Since they would be misleading when compared with remainder of table, percentages for the 2 brands audited in these weeks are not shown.

2/ Averages based on 59 weeks' sales. Weeks 4 through 62.

Overall, substitution effects appear to be at least a partial explanation for sales fluctuations among the audited instant coffee brands. During the introductory period for instant Kona there obviously were some inroads made by the new product. At times Kona sales appear to have been made at the expense of Brand "A", at other times at the expense of Brand "B" sales. Beyond the first 15 or 16 weeks of the study a somewhat different pattern becomes apparent. Here, Kona and Brand "B" sales seem to move about more closely together and generally in the same direction, a direction usually opposite the fluctuations of Brand "A". It seems that, with regard to repeat purchases, instant Kona is thought of as more like Brand "B" than Brand "A". If so, consumers are right because Brand "B" is a mild South American (Colombian) coffee of the same variety as Kona.

Instant Kona coffee is currently sold on the mainland West Coast and in at least two Northeastern cities. Manufacturer's estimates set West Coast monthly sales at 1,500 to 2,000 cases--in 12 unit cases of 5-ounce jar equivalents.

Following this example and converting weekly per-store sales in Hawaii to 5-ounce jar equivalents reveals the sales pattern shown in table 5. Over the test period Brand "A" averaged one and a half cases of instant coffee per store per week, while Brand "B" and instant Kona averaged about three-fourths of a case weekly.

Good or Bad Sales Record

Such volume as is shown in table 5 and figure 1 might, at first glance, appear too small to warrant much optimism. However, several studies of grocery sales in supermarkets indicate that many items move off the shelves in amounts less than a case (24 units) per week. One of the best-known such surveys is the Dillon Study[2/], conducted during 1959 among the Dillon supermarkets in Kansas. Survey findings revealed that, among over 4,000 non-perishable grocery items, average sales were 12 units per item per week. Nine out of 10 grocery items sold less than one 24-unit case per week, and less than 6 percent of the items sold 1 or 2 cases per week.

By 1962, when the Colonial Study[3/] was conducted, nearly 6,000 items were available in the typical supermarket but the per-item sales pattern was very similar to that revealed by the Dillon work. Nine in 10 of the items available sold fewer than 24 units per week. Only 536 items out of over 4,700 in the groceries and nonfoods groups sold more than one 24-unit case per week, and less than half of these sold at the rate of over 2 cases per week.

Of course, one may not assume identical sales patterns at different points in time and in areas so divergent in geographic and socio-economic characteristics as Kansas and Hawaii. The point is that there exists a trend toward increased and varied items available to consumers in the nation's supermarkets. Competition for shelf space is becoming more and more keen as the number of items grows.

2/ Progressive Grocer, June 1960.
3/ Progressive Grocer, Colonial Study, 1964.

Table 5. Average weekly per store sales, in 5-ounce equivalents, of three comparably priced instant coffees, for the period December 23, 1963 through February 22, 1965

Week number	Kona	Brand "A"	Brand "B"
1	6	1/	4
2	17	1/	10
3	12	1/	11
4	10	16	10
5	10	18	10
6	9	12	7
7	11	15	8
8	13	12	6
9	15	13	9
10	14	16	9
11	12	23	8
12	13	12	9
13	9	20	9
14	20	22	10
15	9	17	9
16	14	24	11
17	7	25	8
18	7	36	11
19	7	47	11
20	8	39	10
21	6	24	8
22	10	28	9
23	6	23	8
24	7	24	10
25	6	23	12
26	5	25	12
27	8	20	11
28	7	14	9
29	7	19	11
30	9	21	9
31	8	21	9
32	8	15	9
33	9	18	11
34	7	17	10
35	9	16	10
36	11	16	9
37	9	21	12
38	8	18	10
39	8	16	9
40	7	15	8
41	8	15	10
42	9	16	9
43	9	16	10
44	8	12	9
45	8	18	8
46	10	18	10
47	9	17	12
48	11	11	14
49	8	19	10
50	8	14	9
51	9	11	10
52	10	13	10
53	7	18	12
54	8	16	9
55	8	11	9
56	9	16	12
57	7	14	12
58	8	14	10
59	9	14	13
60	8	16	8
61	8	14	8
62	7	14	11
Totals	564	1,088	601
Average units per week 2/	8.97	18.45	9.73

1/ Brand "A" not audited in first three weeks. Not available in several stores.

2/ Averages based on 59 weeks' sales. Weeks 4 through 62.

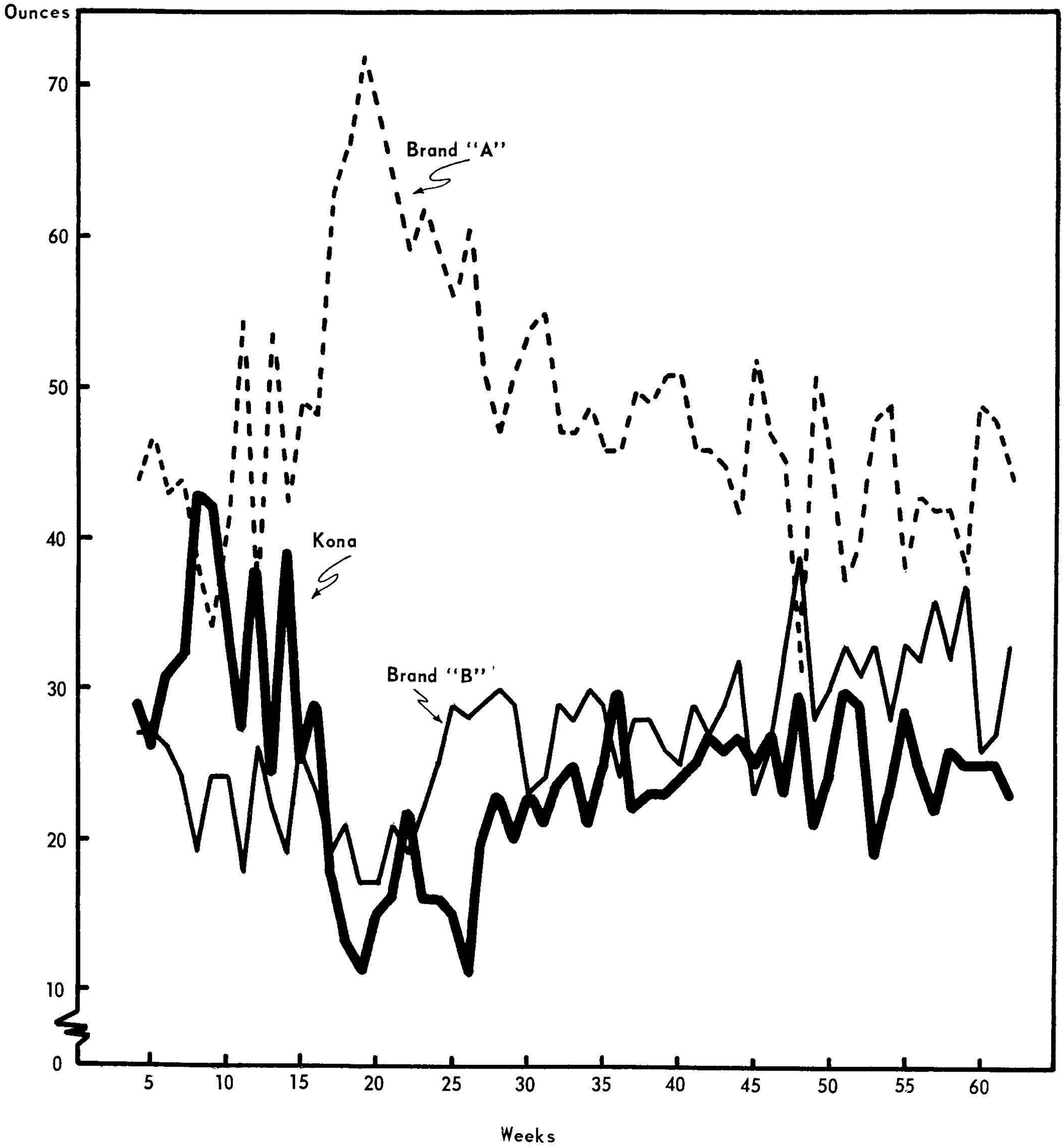

Figure 1. Percent of weekly per store sales (in ounces) of three comparably priced instant coffees, beginning with fourth week of auditing.

Therefore, each new product or product-form faces an increasingly stiff test when it enters the race.

As pointed out in the Dillon report:

> "...it is unrealistic.....to expect new items to produce sales of two or three cases almost immediately. Chances are the item will never reach that figure. Consequently, more than sheer velocity of sales must determine whether a new item is to keep its place on the shelves. Sales velocity in relation to similar items is what matters."4/

Instant Kona coffee, by comparison with well-established current competitors and by comparison with the general sales trend a few years past, appears to have a promising future.

Among the markets included in the Hawaii study, not one store manager was dissatisfied with the sales performance of the new instant Kona coffee. All planned to keep it as a regular item at the time the survey was terminated in March 1965.

Other Work Being Done

Although the encouraging marketing research on instant Kona coffee has been underway for nearly 3 years, it is by no means the only work being conducted on Hawaii's coffee. A program of coffee bean grading and quality control has been instituted during the same period. During 1964 and 1965 this program was the basis for a stepped-up advertising and promotional campaign on ground Kona coffee.

Work also continued in the areas of coffee culture and agricultural engineering. At the Kona Branch of the Hawaii Agricultural Experiment Station, one of the world's finest programs of testing new coffee plant varieties and culture practices continues to expand.

Engineers also continue in their efforts to develop a mechanical coffee harvester, which would greatly reduce the amount of labor necessary during the coffee-picking season. In the Kona region of Hawaii, laborers are becoming both scarce and increasingly expensive.

Conclusions

Those wishing to market instant Kona coffee, or future Kona specialty items, must certainly keep a sharp eye on competing products. The demand for different brands of instant or ground coffee is a clear-cut case of competition among substitute goods, a demand that tends to be highly responsive to price. Price

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4/ Progressive Grocer, June 1960.

reductions and special offers by the competition should induce a seller to follow suit or face the reality of falling sales.

True, the instant Kona coffee reported on here held its own quite well. However, special offers by Brands "A" and "B" probably caused some decline in instant Kona sales when its price was unable to keep apace of its competitors.

One must also interpret with caution the sales record of a new Hawaiian product in Hawaii. Aside from sizeable purchases by visitors to the Islands, recently conducted consumer research indicates a positive bias toward products of Hawaii, particularly coffee, among the State's permanent residents.5/ To a lesser extent mainland consumers also are probably quite favorably disposed toward products of Hawaii although, in the case of instant Kona coffee, no detailed mainland sales records are currently available to support such a trend.

In the case of instant Kona coffee in Honolulu stores, the product appears to have successfully moved into the market. In the relatively short time since it was first test-marketed in 1962, instant Kona has come to be a good seller among the premium-priced instant coffee available in Hawaii. The aggressive promotional and distribution activities which accompanied this success could well be adopted by the ground Kona industry to the advantage of both the packer and the coffee farmer in Hawaii.

5/ Unpublished results of coffee taste preference test conducted during 1965--University of Hawaii and U. S. Department of Agriculture cooperating.

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