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VALIDATING A DAIRY TRAINING PROGRAM

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Early researchers developed techniques and principles of merchandising the dairy case to increase sales and profitability of the total dairy department. (1,2,3) Since that time, processors, wholesalers, commodity groups and others have incorporated these principles into company training programs.

Commonly accepted strategic merchandising principles:

1. Departmentalize - Group logical items together, to enhance sales by facilitating shopping convenience.
2. Disperse Volume Items - By strategically locating high volume items, the customer will shop the full length of the case. In addition, sales of impulse items can be increased if merchandized near high volume items.
3. Display Vertically - Not only is such a display more attractive, but it enhances consumer shopping of each section.
4. Break-up Display Lines - This encourages vertical shopper eye movement and complete shopping of the case.
5. Space Allocation - High volume items are allotted sufficient space to maximize performance while the space allocated to slow moving items is reduced or the items are eliminated. Such a procedure will:
 - reduce inventory investment
 - reduce the amount of labor required to stock case

- reduce out-of-stock
- increase sales
- increase gross margin contribution

These techniques sound logical to top management, but store level personnel, the dairy case manager, believes that his or her case is a little different, and that these principles that were developed in other parts of the country do not apply in my store.

The T. J. Morris Company, an IGA wholesaler in South Georgia, was faced with just such a problem. They requested that the Extension Marketing Department of the University of Georgia participate in their series of training programs and assist in the development of a comprehensive training program for store managers and dairy department managers. They requested the training program be validated in order to prove that the concepts taught would work in their stores. Therefore, with the assistance of T. J. Morris's Training Director, Ken NeSmith, a two store test was designed. One store with 8,000 square feet and a 28 foot air curtain dairy case, was selected because it was typical of the IGA stores in the area. The second store was a 12,000 square foot contract store with a 65 foot air curtain case. A third store was selected as a control store.

During the month of January, a complete computer analysis of the dairy cases in the three stores was conducted. This entailed studying the space

allocation, product movement, and product profitability during a four week period. Following the completion of the "before" study, the following recommendations were made for the two test stores.

Test Store 1, the smaller IGA store, needed improvement in all five areas mentioned above. The primary change was to relocate milk and eggs, the number one and two sellers, on opposite ends of the case. This separation facilitated the vertical merchandising of product groups along with departmentalization and breaking-up the lines between product groups. The second major emphasis was space allocation. From the analysis, it was determined that there were two major problems with space allocation, first there was excessive product duplication and therefore, a notably large investment in inventory of cultured cheeses, and miscellaneous product groups. At the same time, the fast movers, milk, eggs, margarine/butter and biscuits were underspaced and were experiencing numerous stock-outs and resulting in loss of sales. Not all stock-outs due to the products being underspace; ineffective departmentalization and organization within product groups contributed to reordering problems and caused some stock-outs.

Ten unprofitable items were deleted with the facings of most other products adjusted according to the computer analysis. Other unprofitable items were retained in order to assure minimum product variety.

Test Store 2, the 12,000 square foot store, had a full time dairy case manager and was departmentalized with adequate vertical displays and inventory control. In this store, the main problem was that the egg and milk sections were adjacent and resulted in considerable congestion in the traffic flow while leaving a large section of the case without sufficient product impact to encourage customers to shop the full length of the case. As a

result of the study, volume product groups were separated, a number of items were eliminated and space was reallocated to give adequate space to demand items.

After the two test stores were re-merchandized, another analysis of the departments was conducted. The control store validated the experiment by showing no significant change in the overall level of spending for dairy products over the period. Sales in the control store increased by \$4 per week or .1 percent between the two test periods.

Test Store 1 showed a \$444 increase in sales and \$70 increase in Gross Margin Dollars, Table 1. This 16.8 percent increase in sales came from all product groups with the exception of the miscellaneous group. The largest increase in sales was eggs and milk products. In general, sales were increased along the full vertical and horizontal length of the case.

The gross margin dollars increased in spite of a decline in the average gross margin from 20.3 to 19.6 percent. This was partly due to the change in the product mix and partly due to the stores exogenous pricing strategy. Along with his 16.8 percent increase in sales and 13.1 percent increase in gross margin dollars, there was also an increase in weekly inventory turns of 10 percent in spite of a 15 percent increase in inventory investment.

Test Store 2 was a more dramatic test. Because of the overall good condition of the case at the beginning of the test, we were not certain that a significant improvement could be obtained. The results of the test, however, clearly demonstrated a \$658 increase in sales and a \$165 increase in gross margin dollars, Table 2. There was a very significant increase, \$900, in fluid milk sales along with increases in sales of cultured products and eggs. The other

product groups showed a decrease in sales due to discontinuing the special deals offered during the second test period. For example, the sales of biscuits declined by \$94 while the gross margin generated from those reduced sales increased by \$12. Overall, the gross margin increased by .6 percent.

In the first test store, a major improvement was made in the distribution of sales throughout the case both vertically and horizontally. The department was already averaging 57 inventory terms per year and this was not increased. However, the average dollar inventory investment was reduced and gross dollar return on inventory investment was increased by 2.3 percent.

One interesting sidelight to the study was that at times there were mistakes in the price marking of some of the products, for example some cheese loaves were priced 22 percent below cost. The most critical factor was not the pricing mistake but that the stocking and pricing was not done correctly and that the mistakes were perpetuated.

The test was a success. Dairy department sales and profitability can be increased through Strategic Merchandising and the concept works in all stores, new and old, large or small, well managed or not. The major success however, was not the test itself, but the training program that was based on the test.

The training program was centered around the store and dairy department management team. If both the decision maker and the action person do not understand what each other are trying to do and are not supportive, then very little is accomplished. Forty management teams attended the two seminars that were part of the T. J. Morris training program. Follow-up demonstrated that the dairy cases in several stores were completely reset with all stores implementing at least some of the strategies set forth during the seminars.

Bibliography

1. Caldwell, Robert L., An Investigation of the Profitability of Selected Merchandising Methods in the Dairy Department in Retail Food Stores. Purdue University, unpublished Master thesis, 1964.
2. Johnson, Allen Oliver, Evaluation of Milk Merchandising Practices in New York State Grocery Stores. Unpublished Ph.D. thesis, Cornell University, 1962.
3. Kepner, Karl W., Product Differentiation in the Fluid Milk Industry. Ohio State University, unpublished Ph.D. dissertation, 1964.

TABLE 1
DAIRY DEPARTMENT
PRODUCT PERFORMANCE TEST STORE 1

	PCT. DEPT. SALES			PCT. GROSS MARGIN			CHANGE		
	BEFORE	AFTER	CHANGE	BEFORE	AFTER	CHANGE	DOLLAR SALES	GM DOLLARS	
MILK	52.4	50.4	-2.0	39.6	13.6	-7.8	167	31	
MILK	50	47.9	-2.1	19	18.2	-.8	+155		+18
MILK BEVERAGES	1.9	1.8	-.1	19.5	8.0	-11.5	+6		+5
CREAM	.5	.7	+.2	80.2	14.5	-65.7	+6		-8
CULTURE	4.4	2.9	1.5	18.8	18.0	-.8	+10	+3	
COTTAGE CHEESE	.7	.8	-.1	15.5	12.7	-2.8	+7		+6
SOUR CREAM	2.7	1.8	-.9	18.4	27.0	+8.6	+18		1
YOGURT	1.0	.3	-.7	22.4	14.3	-8.1	-15		-4
EGGS	16.3	20.4	+4.1	27.2	26.0	-1.2	+198	+46	
MARGARINE/BUTTER	8.7	8.4	-.3	8.7	10.0	-1.3	+26	+6	
MARGARINE	4.6	6.6	+2	17.3	10.8	-6.5	+81		+1
BUTTER	4.1	1.8	-2.3	-.2	+9.2	+9.0	-55		+5
BISCUITS/ROLLS	2.7	5.3	+2.6	21.0	21.9	-.9	+93	+18	
BISC. DIN. ROLLS	1.8	4.8	+3.0	22.5	20.2	-2.3	+100		+19
COOKIES PASTRY	.9	.5	-.4	19.8	23.6	+3.8	-7		-1
CHEESE	9.6	8.2	-1.4	24.5	25.9	+1.4	+1	-2	
PRE PKG NAT. CH.	3.4	3.4	0	24.6	24.1	+.5	+15		+3
SL. PROC. CH.	3.8	3.6	-.2	24.0	25.1	+1.1	+13		+4
PROC. CH. LOAVES	.3	.4	+.1	19.5	19.7	+.2	+5		+1
CREAM CH.	.3	.4	+.1	50.5	34.5	-16	+4		*
CH-SPD-FOODS	.9	*	-.9	27.7	*	-27.7	-24		-7
GTD-SPEC. CH	.9	.4	-.5	21.6	26.2	+4.6	-12		-3
MISCELLANEOUS	5.8	4.4	-1.4	42.6	16.5	-26.1	-18	-3	
MISCELLANEOUS	.5	0	-.5	74.3	0	-74.3	-14		-10
JUICE	5.3	4.4	-.9	10.9	16.5	+5.6	-4		+7
TOTAL	100	100		20.3	19.6	-.7	+444	+70	

* Deleted during study.

TABLE 2
DAIRY DEPARTMENT
PRODUCT PERFORMANCE TEST STORE 2

	PCT. DEPT. SALES			PCT. GROSS MARGIN			CHANGE		
	BEFORE	AFTER	CHANGE	BEFORE	AFTER	CHANGE	DOLLAR SALES	GM DOLLARS	
MILK	30.8	38.8	+8	16.9	14.5	-2.4	+897	+214	
MILK	28.1	36.1	+8	9.5	14.2	+4.7	+887		+230
MILK BEVERAGES	2.2	2.1	-.1	26.5	16.8	-9.8	+3		-17
CREAM	.5	.6	+.1	14.8	12.6	-2.2	+12		+1
CULTURE	5.8	6.0	+.2	9.3	17.9	+8.6	+58	+55	
COTTAGE CHEESE	2.2	2.3	+.1	12.5	16	+3.5	+26		+10
SOUR CREAM	1.5	2.0	+.5	11.9	20.5	+8.6	+46		+20
YOGURT	2.1	1.7	-.4	3.4	17.3	+13.9	-14		+25
EGGS	16	15.8	-.2	20.0	21.1	+11	+99	+35	
MARGARINE/BUTTER	14.7	12.0	-2.7	17.0	12.0	-5	-145	-86	
MARGARINE	10.3	8.1	-2.2	20.9	14.9	-6	-126		69
BUTTER	4.4	3.9	-.5	13.2	9.0	-4.2	-19		-17
BISCUITS/ROLLS	3.9	2.6	-1.3	11.6	16.0	+4.4	-94	+12	
BISC. DIN. ROLLS	3.3	1.9	-1.4	5.5	15.3	+9.8	-104		+11
COOKIES PASTRY	.6	.7	+.1	17.8	16.8	-1	+10		+1
CHEESE	25.6	21.2	-4.4	18.9	14.6	-4.3	-142	-77	
PRE PKG NAT. CH.	11.9	9.4	-2.5	21	21.1	+.1	-132		-29
SL. PROC. CH.	9.1	7.1	-2.0	17.7	17.3	-.4	-117		24
PROC. CH. LOAVES	.4	.8	+.4	-.8	-22	-21.2	+41		-15
CREAM CH.	1.0	1.3	+.3	22.2	26.3	+4.1	+98		+13
CH-SPD-FOODS	0.7	.2	-.5	23.3	21.6	-1.7	-41		-10
GTD-SPEC. CH.	2.5	2.4	-.1	30.2	23	-7.2	+9		-12
JUICE	3.3	3.6	+.3	12.6	15.2	+2.6	-49	+16	
TOTAL	100	100		15.8	16.4	+.6	+658	165	