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California Farmers' Markets Seller Price Perceptions: The Normative and the Positive

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In the last 20 years farmers' market (FM) have more than doubled in number to more than 2400 locations. By 1993 California had over 170 state-regulated FMs with sales likely in excess of \$15 million annually (Gottlieb). While the FMs' share of farm products is relatively minor, it represents a growth area of opportunity for smaller producers. Wolf's (1997) case study work found that one-third of consumers in a small but burgeoning area of the Central Coast purchased fresh fruit and vegetables and other farm products at FMs and only 5 percent of those used FM as a sole produce source.

FMs provide an alternative market outlet for producers who are willing to deal with consumers directly. In California, which has some 350 FM sites, regulation of these retail venues of food and agriculturally related products requires that sellers be producers, producers' employees, or producers' family members. Essentially, these markets exclude third parties or wholesale operations from participating, thus creating a venue for farmer direct selling to consumers at market destination. Producers receive the entire retail dollar, minus a market-management fee, as opposed to a substantially lower wholesale price from the more common commercial-market channels. In return, consumers receive farmer direct products often within 24 hours of harvest. Consumers perceive these products to be of higher quality and lower price than at local supermarkets (Sommer, Wing, and Aitkens; Sommer and Wing; Wolf; Ahern and Wolf).

Do California FM sellers, providing more desirable consumer products (*i.e.* fresher and riper), believe they should receive a price premium over supermarket (SM) offerings? Eastwood suggested that research on Tennessee FMs revealed an apparent strong sense by FM sellers that they should receive price premiums over SMs for their prod-

ucts' superior ripeness and time proximity to harvest characteristics.

The Problem Issue

Do California FM sellers' perceptions of what they "ought" to receive differ from what they do receive? In other words, does the FM seller's normative price outlook differ from the positive, or market, price-defined FM interaction with consumers? Alternatively, what "should" the prices be at FMs, relative to SMs, from the sellers' viewpoint?

Hypothesis

The initial hypothesis, taken from Eastwood, is that FM sellers will perceive a right to a price equivalent to that of nearby or "paired" supermarkets (SM) in the areas they serve. That is: $H_a: P_{\text{exp-FM}} = P_{\text{sm}}$, where $P_{\text{exp-FM}}$ is the farmers' expected price and P_{sm} is the local supermarket price.¹ The logical bases for retail-price equivalency are enhanced quality from more recent harvest, harvest at greater maturity, and less product time spent in transport and storage. A simple majority of FM anticipated prices found equal to or greater than SM prices would support the hypothesis.

The Sample

This project addresses the issue using data from farmers' markets and paired supermarkets from selected California counties from the San Francisco Bay area in the north, to suburban areas south of Los Angeles. The approach used was a census survey of FM growers or their employee representatives at selected markets in four counties. The questions dealt with their perceptions of value offered to FM consumers (the normative) and actual prices charged (the positive). The external product-qual-

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¹ $H_o: P_{\text{exp-FM}} < P_{\text{sm}}$.

ity characteristics also were monitored for selected commodities at both SMs and FMs.

A total of 160 FM grower/sellers were interviewed on-site at 24 FMs in four California counties. Seventeen percent of FM interviews were conducted in Orange County (just south of Los Angeles), 33 percent in southern Santa Clara County FMs (South Bay-San Francisco area), 19 percent in northern Santa Barbara County FMs, and 31 percent in San Luis Obispo County. The latter two are coastal counties roughly midway between the major Los Angeles and San Francisco metropolitan areas.

The interview process defined a minimum of four FMs targeted in each county, which were clustered to reduce cost. For example, in Santa Barbara County where mountain ranges separate north and south county areas, the markets used were in north county. The objective was to perform a census of all FM grower/sellers present at those markets. In most cases, the sellers often served many market locations within a county.

The Results

Cumulatively, the 160 FM sellers or their employees sold a wide variety of produce items customarily available in California that included over 840 total item facings and traveled an average of 81 miles to the market where they were interviewed. Distances ranged from 1 to 500 miles (Growers reported from traveling from San Diego and Riverside Counties to Bay Area FMs). Twenty-five percent traveled no more than 25 miles, 50 percent traveled 26 to 50 miles, and 75 percent traversed 51 to 104 miles.

The primary question of interest was what "should" the prices be at FMs relative to SMs, from the seller's viewpoint. In the peak-growing season 40 percent of growers expected their FM prices to be "lower" than SM prices, 30 percent thought they deserved higher peak-season prices, and the remaining 30 percent thought their prices "should" be the "same" as at SMs. One could say that 60 percent thought FM prices should be the same as or higher than SM prices. However, looking at off-season (early or late) price expectations, the proportion of FM sellers who thought they should receive prices higher than SMs was 44–45 percent. Only 33 percent thought FM prices should be lower than those in the SM at either end of the season (see Table 1).

In off-peak periods only 21–24 percent thought they should receive the same price as SMs. One caution is that in California, FMs often include a number of "organic" growers. In this sample, 17 of 130 growers were positively identified as organic growers, the highest numbers being in the south Bay Area of Santa Clara County. Fewer than half (47 percent) of organic sellers interviewed charged higher prices than SMs.

The results in Table 1 exceed the hypothesized simple-majority criterion of FM sellers with normative price expectations above SM levels. In both early- and late-season windows more than 76 percent of FM sellers thought they should receive higher prices; however, at peak season that percentage fell. This would seem to support the idea that even in their normative expectations FM sellers recognize the real power of the markets to ultimately determine prices.

FM sellers were also asked whether they varied prices from market to market. A total of 58, or

Table 1. Frequency of FM Grower/Seller Price Normatives by Season.

FM Prices Should Be:	Early Season		Peak Season		Late Season	
	Count	%	Count	%	Count	%
Higher than SM	72	45.6	48	30.4	70	43.8
Same as SM	53	33.5	63	39.9	52	32.5
Lower than SM	33	20.9	47	29.7	38	23.8
Totals	158	100	158	100	160	100

Chi-Sq = 9.491 df = 4 P-Value = 0.050

36 percent, said they did so, while another 21 (13 percent) said they “sometimes” changed prices on a market-to-market basis. Many responded that markets that were predominantly ethnic (presumably non-Caucasian races or groups) would often not pay higher prices or were especially price-conscious shoppers.

Correlation of Price-Comparison Importance to Frequency of Checking

Statistical inference suggests that a significant positive relationship exists between the “frequency of price comparisons” of FMs to SMs and the “importance of knowing prices at SMs.” In this assessment “Daily” and “Weekly” price comparisons were combined (Da-Wkly), as were “Very Seldom” and “Never” (VSEL-NEV), as frequencies of FM-SM price comparisons. Additionally, the rankings

of importance of price comparisons were also combined, since the extreme values contained too few observations (see Table 2). “Extremely” and “Very Important” were combined (Ex-VImp), as were “Not Very” and “Not at All Important” (NV - NotImp). The middle grouping was “Somewhat Important” (SWImp).

A point of interest is that 19 percent of FM sellers found SM-price-level knowledge “Not Very” or “Not at All Important” and also said they seldom if ever checked SM prices. Nearly 46 percent of the entire sample found SM price comparison of little importance. Sellers who regarded the price comparisons as important (“Extremely” or “Very”) were likely to compare prices at least monthly. Twenty percent (16 of 79) of respondents comparing prices at least monthly reported that doing so was not terribly important to them. The response to these consecutive questions of price comparison

Table 2. FM “Price-Compare Importance” vs. “Frequency Price Comparison.”

Rows: Q6PCompImp	Columns: q5PcompFreq*					
	1-2 Da-Wkly	3 Monthly	4 1/Season	5 1-2/Year	6-7 VSEL-NEV	All
1-2	24	11	6	3	1	45
<i>Ex-VImp</i>	53.33	24.44	13.33	6.67	2.22	100.00
	55.81	30.56	17.65	25.00	2.86	28.13
	15.00	6.88	3.75	1.88	0.63	28.13
3	14	14	10	1	3	42
<i>SWImp</i>	33.33	33.33	23.81	2.38	7.14	100.00
	32.56	38.89	29.41	8.33	8.57	26.25
	8.75	8.75	6.25	0.63	1.88	26.25
4-5	5	11	18	8	31	73
<i>NV & NotImp</i>	6.85	15.07	24.66	10.96	42.47	100.00
	11.63	30.56	52.94	66.67	88.57	45.63
	3.13	6.88	11.25	5.00	19.38	45.63
All	43	36	34	12	35	160
	26.88	22.50	21.25	7.50	21.88	100.00
	100.00	100.00	100.00	100.00	100.00	100.00
	26.88	22.50	21.25	7.50	21.88	100.00

Notes: *Recoded eliminating 0 cells.

Chi-Square = 58.115, DF = 8, P-Value = 0.000; 2 cells with expected counts less than 5.0.

Cell Contents — Count, % of Row, % of Column, and % of Table.

and importance of the same was fairly consistent. Further, a common response by FM sellers not apparently concerned with SM price levels was that they often kept an eye on the prices of rival sellers.

Actual Market Pricing

While 54 percent of FM sellers interviewed actually charged lower prices than SMs on a cumulative 345 items, another 41 percent charged more than SMs on a cumulative 228 items. Forty-four percent of FM sellers declared they set prices equivalent to SMs on a cumulative 259 produce items. FM sellers believed that their prices should be higher based on relative quality, but many apparently recognized that in practice they received the same or lower actual market prices for their goods.

Thirty-six percent of sellers said they did change prices from market to market; another 13 percent "sometimes" changed prices by market location. Half the sellers offered products at set prices regardless of location. Many responded that specific markets—especially heavily ethnic markets—commanded lower prices. Other markets like the Berkeley (a major California university town) FM commanded higher prices especially because consumers demanded more organics and were willing to pay for them.

Concurrent Tests of Paired Prices

Actual concurrent price comparisons of the farmers' markets and paired supermarkets supported previous research that farmers' market prices were lower than supermarkets for selected goods, while apparent external quality was perceptibly better.²

In each county area paired FM-SM prices were recorded and evaluated by paired t-tests for significant differences in means between SM and FM prices. The results reflected earlier results by Ahern and Wolf, which found substantial price advantage for consumers at FM.

² This observation is supported by the Santa Barbara County data where a 5 point scale of exterior quality from "unacceptable" to "excellent" was used. No FM or SM product was deemed "unacceptable." A test of frequency by "market type" against "quality rating" found $\chi^2 = 11.154$ at 3df and $P = 0.011$.

In Santa Clara County, an examination of five weekly observations of 20 commodity prices showed 13 of those 20 items had overtly lower average prices at FMs, six items had lower average prices at SMs, and one item had the same price in both markets. Paired t-tests of this data found an insignificant difference with 100 FM and 100 SM paired commodity-price observations, but an analysis of variance, ANOVA, did find a significant price difference explained by the market type. This differential did not remove the effect of 17 organic growers (of 52 total) at Santa Clara FM.

In Santa Barbara County, paired FM-SM price data on five produce items collected for three weeks had mean prices of \$1.22 at FMs and \$1.51 at SMs; that difference was significant by t-test. For the entire set of prices across all commodities FMs had a 24-percent consumer-price advantage, which is consistent with previous results of Ahern and Wolf. However, individual item price differentials were not all significant—tomatoes and broccoli had no significant difference between market types, while leaf lettuce and naval oranges had significant price advantages at FMs, but SM strawberry prices were significantly lower.

Summary and Conclusions

Over half the FM growers-sellers felt they should receive prices higher than or equal to SMs, and over 40 percent said that they charged higher prices than SMs for at least one commodity. These sellers are all aware of the product advantages (*i.e.* price, time since harvest, and ripeness) they offer consumers. Most FM sellers felt that keeping track of SM prices was important and a high proportion of those regularly tracked SM prices of their product offerings.

Many growers felt that SM price levels were unimportant and seldom if ever bothered checking that form of competition. Many of these growers responded that it was important, or more relevant, to keep track of the in-FM price levels. FM sellers could view competitive prices as important but lack the will, time, resources, or patience to collect such market data.

Organic product growers often sold at these higher prices, and organic offerings were apparently more widely available in the San Francisco Bay Area.

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