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THE POTENTIAL IMPACT OF DIRECT-MARKETING POLICIES ON THE ECONOMIC VIABILITY OF SMALL FRUIT AND VEGETABLE FARMS IN CALIFORNIA

By

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INTRODUCTION

This paper evaluates the probable consequences of public policies intended to improve the economic welfare and viability of small fruit and vegetable farmers by stimulating the development of alternative marketing arrangements, based on direct farm–to–consumer exchange of fresh produce. By combining the limited available data with a set of reasonable assumptions, deliberately chosen to portray such "direct marketing" policies in their most favorable light, it will be shown that even the most successful direct–marketing program will bring only marginal economic improvement to the majority of existing small farmers and will, therefore, not seriously challenge those forces which continue to drive such small producers out of business. On the other hand, these policies could provide considerable benefit to a relatively few small farmers who could orient their production entirely toward such markets. Moreover, they could provide substantial benefit to consumers who want higher quality and, perhaps, cheaper produce than is available in the traditional retail outlets.

This finding suggests two conclusions. First, direct–marketing policies cannot provide a general panacea for the problems of small farms. Indeed, insofar as such policies divert attention away from the real problem of finding ways of integrating the small farm into the conventional marketing system, they may actually hurt the prospects for small farm viability. Second, the magnitude of the impact of direct–marketing policies is so slight that opposition to the development of direct–marketing policies from established farm interests is unwarranted.

DIRECT MARKETING AND THE SMALL FARM

Interest in the viability of small fruit and vegetable farms stems from the fact that the production of fresh fruit and vegetable crops is relatively less mechanized and more

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labor–intensive than most other forms of agricultural production; therefore, such production is apparently less subject to technical economies of size which account for much of the increasing growth of farm size in other crops. Furthermore, because the value of output per acre in fresh fruit and vegetable crops is much higher than in other crops, the number of acres required to support a family is small (Appendix Tables 3 and 4).[1] This means that the small fruit and vegetable farm should be relatively accessible to the family farmer and should offer a substantial source of economic opportunity to a large number of families in California given the importance of these crops.

However, in spite of such favorable attributes, most of the production in these crops takes place on large farms. Table 1 illustrates this point. Moreover, an analysis of the trends in size and concentration for the 10 years, 1964–1974, shows that virtually all growth in vegetable production was captured by the largest farms (Class 1a). Small–size classes are declining in terms of the numbers of farms and in terms of their share of total output. Similar, but somewhat more moderate, trends are found in fruit production.[2]

The reasons underlying this tendency toward concentration of production on large farms appear less related to technical conditions in farm production than to the effects of markets. During the past 20 years, the marketing of fruits and vegetables has changed.[3] There are fewer and larger buyers, and there has been considerable integration of retailing and wholesaling activities. The new marketing system demands large–volume production of the farmer because of increasing economies of size in the handling, shipping, and distribution of fresh produce. The small producer, who cannot meet the volume demands or who cannot tailor his production to meet the timing or quality requirements of the market, finds he can sell his crops in a limited number of markets in which prices are low and demand is unstable.[4] Table 2 illustrates the fact that small farms have lower sales per acre after adjusting for crop mix and resource quality factors. Some of the reported differences between large– and small–farm sales derive from the likely superior productive efficiency of the large units, but a major portion of the sales differential appears related to market access.[5]

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[1] *Infra,* pp. 24 and 25.

[2] E. Phillip LeVeen, "The Advantages of Large Crop Farms in California," University of California, Department of Agricultural and Resource Economics, Working Paper No. 54 (Berkeley, 1977), pp. 2-7.

[3] The most comprehensive analysis of the marketing sector is contained in National Commission on Food Marketing, *Organization and Competition in Food Retailing,* Technical Study No. 7 (Washington, D. C.: U. S. Government Printing Office, 1966).

[4] For a more detailed analysis of the problems of the small farmer in the conventional marketing system, see Mark R. Gustafson and Curtis Moulton, *The Marketing Situation and Opportunities of Low–Income Growers of Fresh Produce in California,* University of California, Community Development Research Series, Special Publication No. 3237 (Davis, 1977), pp. 6–15.

[5] For a more detailed discussion, see LeVeen, *op. cit.,* pp. 15–18.

TABLE 1

Vegetables[a] and Fruits:[b] Distribution of Crop Sales and Harvested Cropland by Economic Class of Farm, California, 1974

Distribution	Total crop farms	Total crop sales	Total harvested cropland	Economic class of farm								Total[c]
				Ia			Ib	II	III	IV	V	
				$500,000 and over	$200,000-$499,999	$100,000-$199,999	$40,000-$99,999	$20,000-$39,999	$10,000-$19,999	$5,000-$9,999	$2,500-$4,999	
		million dollars	acres	percent								
Crop farms												
All farms	36,250			5.2	7.4	9.4	18.8	17.7	17.0	14.2	10.0	100.0
Vegetables	2,047			23.7	20.2	13.1	14.3	10.1	8.2	6.2	4.2	100.0
Fruits	22,286			1.7	3.7	7.0	18.8	19.7	19.9	16.0	13.4	100.0
Crop sales												
All farms		4,721		57.2	17.4	9.8	9.0	3.7	1.8	0.8	0.3	100.0
Vegetables		1,034		79.3	14.0	3.9	1.9	0.6	0.3	0.1	*d*	100.0
Fruits		1,397		28.1	20.4	16.6	18.9	8.9	4.5	1.9	0.7	100.0
Harvested cropland[e]												
All farms			7,376,000		77.6		11.2	5.2	3.0	1.6	1.4	100.0
Vegetables			961,987		96.5		2.1	0.9	0.3	0.1	*d*	100.0
Fruits			1,611,142		54.8		20.7	11.3	6.9	3.7	2.6	100.0

[a] Includes melons.

[b] Includes nuts and berries.

[c] Totals are rounded.

[d] Less than .05 percent.

[e] Refers to cropland on crop farms only.

Source: U. S. Bureau of the Census, *Census of Agriculture, 1974. Volume 1, California, State and County Data*, Part 5, 1977.

TABLE 2

Crop Sales According to Economic Class of Vegetable[a] and Fruit[b] Farms, California, 1974

Crop farm	Economic class of farm					
	Ia	Ib	II	III	IV	V
	$100,000 and over	$40,000-$99,999	$20,000-$39,999	$10,000 $19,999	$5,000-$9,999	$2,500-$4,999
	dollars					
Vegetables						
Sales of all crops per harvested acre[c]	1,141	1,011	782	806	758	583
Sales of vegetables per harvested acre[d]	1,583	1,250	1,290	1,076	929	715
Fruits						
Sales of all crops per harvested acre[c]	1,030	789	680	568	440	244
Sales of fruit and nuts per harvested acre[d]	1,198	934	853	717	614	340

[a] Includes melons.

[b] Includes nuts and berries.

[c] Sales of all crops grown on the farm including crops outside of designated crop category.

[d] Sales of vegetables or fruits only, divided by acreage in vegetables or fruits.

Source: U. S. Bureau of the Census, *Census of Agriculture, 1974. Volume 1, California, State and County Data*, Part 5, 1977, Table 33.

Because the small fruit and vegetable farms' future success apparently depends upon their ability to overcome market barriers, many have advocated direct–market arrangements as important mechanisms by which the small producer can gain entry into the high–priced fresh produce markets without having to contend with the conventional market system.[1] It is argued that direct marketing has the additional advantage that it has no built–in biases favoring the large producer. In fact, some contend that the large producer will have little incentive to compete in these market outlets given their preferred position in the conventional market system and given the additional costs of tailoring their production for two different kinds of markets.[2] Of course, there is nothing to stop the large producer from specializing in production for direct markets; but if he does, he will not have substantially greater market power than the small producer.

This analysis is not concerned with any particular form of direct marketing; there are several possible arrangements which would allow the small farmer to escape the conventional system including farmer to retail outlet, farmer to government institution, farmer to restaurant, farmer to farmers' market, farmer to consumer food buying group, farmer to neighborhood produce peddler, farmer to roadside stand, and consumer to farm "pick your own" and "rent a tree" operations. Each of these options has advantages and disadvantages to the individual farmer,[3] and all allow him to increase the value of his production by receiving a higher price for a larger portion of his crop than would be offered in the conventional system. Moreover, if the farmer has unemployed family labor, he may also increase his income by undertaking some of the marketing functions himself.

PUBLIC POLICIES AND DIRECT–MARKETING SALES

Even though farmers are now free to sell their crops in direct markets, it is likely that public policies could further stimulate the sales through such outlets by changing the incentives affecting the behavior of both farmers and consumers. Farmer incentives could be changed in two ways: (1) deregulation of grading standards[4] to permit the farmer to offer on the fresh market grades which now must go to the lower priced processing

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[1]Refugio Rochin and Ann Hoyt, *Consumer Cooperatives and Direct Marketing Opportunities for Small Farmers in Northern California,* University of California, Community Development Research Series, Special Publication No. 3238 (Davis, 1977), pp. 4–9; also, see Small Farm Viability Project, "Marketing Task Force: Final Report," *The Family Farm in California: Report of the Small Farm Viability Project* (Sacramento, 1977), pp. 1–6.

[2]For example, in *ibid.* it is argued that the development of a "supergrade" for fresh produce would benefit the small and not the large farmer because of the costs of having two kinds of harvest; one for the specialty market and one for the conventional market would be too expensive.

[3]For an analysis of the particular strengths and weaknesses of different kinds of direct–market arrangements, see Gustafson and Moulton, *op. cit.,* pp. 19–43.

[4]There have already been substantial modifications in the regulations affecting the size and quality standards of direct–marketed produce, although there remain some restrictions; see Rochin and Hoyt, *op. cit.,* p. 11.

market or which are left unharvested[1] and (2) deregulation of transportation and packaging requirements to allow farmers to bring produce to market for lower costs which should increase their return in direct markets. The extent to which these changes would increase the farmer's willingness to seek out direct markets and their impact on the prices of produce sold in these markets is unknown.

Public policies, which actively promote direct marketing by subsidizing the development of farmers' markets or by facilitating the exchange of information between farmers and consumers regarding the location, availability, and price of crops for sale will affect consumer willingness to frequent direct markets. Locating farmers' markets near large population centers reduces the amount of time consumers would need to spend in traveling to the market and this, in turn, lowers the effective costs of produce in direct markets. Of course, the private sector will undertake the development of such markets if indeed they are profitable. However, public subsidization lowers the costs of starting such markets and thereby stimulates their development which may otherwise be very slow. Information–exchange policies stimulate consumer interest by reducing the uncertainty associated with searching for fresh produce, and thus these will increase consumer demand for direct–marketed produce.

To measure the potential economic gain for small fruit and vegetable farms, it is first necessary to estimate the additional volume of fresh produce sales through direct–market outlets resulting from such policies. A precise estimate of this added volume is not possible without much more data than are currently available; however, the following discussion suggests that, even with active public intervention, the increase in sales of direct markets is likely to be modest.

The consumer's decision to shop at the direct–market outlet or to drive to a roadside stand, *etc.*, is based on several factors, the two most important of which are price and

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[1]The differences between fresh and processing prices are very large as the following examples illustrate:

	1974 Prices	
	Fresh	Processing
Crops	dollars	
Strawberries (cwt.)	30.70	18.30
Carrots (cwt.)	7.17	1.77
Cauliflower (cwt.)	18.10	8.10
Tomatoes (cwt.)	16.80	2.85
Oranges (box)	5.04	0.89
Grapes (ton)	250.00	122.00
Apricots (ton	468.00	241.00
Apples (ton)	192.00	103.00

Sources: California Crop and Livestock Reporting Service, *Fruit and Nut Statistics, 1973–74* (Sacramento, 1975); also, *idem, Vegetable Statistics, 1973–74* (Sacramento, 1975).