ORGANIC
FARMING
RESEARCH
FOUNDATION

P.O. Box 440
Santa Cruz, CA 95061

tel ~(831) 426-6606
fax ~ (831) 426-6670

email ~ research@ofrf.org
web ~ www.ofrf.org

Organic farming research project report submitted to the Organic Farming Research Foundation:

Project Title:

Statistical review of California's organic agriculture 1992-1995

FINAL PROJECT REPORT

Note: This final project report is comprised of the Executive Summary of the full report, which is 98 pages.

Principal investigators:
Karen Klonsky
Department of Agricultural and Resource Economics
University of California- Davis
Davis, CA 95616

Co-investigator
Laura Tourte
Department of Agricultural and Resource Economics
University of California- Davis
Davis, CA 95616

Funding provided by OFRF: $4,600

Awarded: Fall 1995

Project period: 1996-1998

Report submitted: July 1998

STATISTICAL REVIEW OF CALIFORNIA'S ORGANIC AGRICULTURE

1992 - 1995

by

Laura Tourte

and

Karen Klonsky

Prepared in Cooperation with the
California Department of Food and Agriculture
Organic Program

UC Agricultural Issues Center
Davis, California

July 1998

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Statistical Review of California's Organic Agriculture - 1992-95

The size and growth of organic farming has stimulated considerable discussion and speculation. Farmers, agribusinesses, policy-makers, public interest groups, educators, researchers and investors-all need reliable information on organic agriculture to make informed decisions about business strategies, teaching and research agendas, and institutional policies. Statistical analyses of organic farming contribute crucial information for these decisions.

Statistical analyses of California's organic agriculture are possible because of the California Organic Foods Act (COFA), which was signed into law in 1990. COFA's primary goal was to provide protection to producers, processors, handlers and consumers in that foods produced and marketed as organic would indeed be as claimed. Standards and procedures were therefore put into place to regulate the production, processing, handling and labeling of organic products.

As part of these regulations, COFA requires annual registration of all processors, growers and handlers of commodities labeled as organic. Processors register with the Organic Program of the Food and Drug Branch of the state Department of Health Services (DHS). Growers and handlers register annually with the Organic Program administered by the California Department of Food and Agriculture (CDFA). Data from the CDFA registration forms during the first three years of the program (1992-93. 1993-94, and 1994-95) are presented here. This is information *as reported to CDFA* by growers and handlers, and should be viewed as best estimates taking into account possible limitations of the data (see Chapter 3).

Data are reported separately for "registered" organic farms (and handlers) and for "certified" organic farms. Numbers in the registered category include certified farms, but state registration is separate from, and is not a substitute for. organic certification. Registration is regulated by state law and is mandatory. Certification is through private organizations and is currently voluntary. Virtually all large-scale organic farm operations in California are certified as well as registered; many small ones are not.

Certification requirements will change when standards to regulate organic agriculture on a national scale are developed under the federal Organic Foods Production Act of 1990 (OFPA). Federal regulations have been "in process" since 1990 and have not yet been finalized (See executive summary section "Proposed Federal Regulations").

For both registered and certified categories in this report. California is divided into seven geographical regions based on those used by CDFA. Also, the principal commodity groups used by CDFA in reporting annual statistics are used here-with the exception of an added combined fruit, nut and vegetable crop group. This group was necessary because some growers reported their production in a manner that made it impossible to separate their acreage and sales totals into the principal commodity groups.

Industry Trends - 1992-95

Industry Size

During the three years of the study, as shown in Table 1:

The number of registered organic farms increased from 1.157 to 1.372 for a total gain of 19%.

Registered organic crop production acreage increased from 42.302 to 45.070. reflecting a more modest gain of 7%[1].

Value of production for registered growers went up from $75.4 million in the first year to $95.1 million in the third year, posting an overall gain of 26%.

Table 1. Registered Organic Agriculture - 1992-95*

Year	Number of Farms	Total Crop Acres	Total Gross Sales ($)
1992-93	1,157	42,302	75,436.817
1993-94	1,129	40,571	78,331.295
1994-95	1,372	45,070	95,099.386
Growth (%)			
Year 1-2	-2	-4	4
Year 2-3	22	11	21
Year 1-3	19	7	26

* Grower information is as reported to CDFA.

In contrast, during the same three year period, the number of registered growers who were also certified declined 2% from 527 to 517. However, certified crop acreage increased 7% from 34,679 to 37,110, and certified sales increased 30% from $65.9 million to $85.6 million. Some concentration of the certified sector was evident as fewer growers farmed more acres. Although certified farms represented less than half of all registered farms, they accounted for more than 80% of the registered acreage and about 90% of the value of production.

The expanding market for California's organic production suggests considerable gains in production and marketing efficiency, and/or increased consumer demand. Note that gross sales increased at a greater rate than the number of acres farmed organically, indicating that revenue increases were not the outcome of acreage expansion alone. Growers may have become more proficient in organic production methods, and in business and marketing strategies. Also, increased consumer demand undoubtedly explains the considerable improvement in sales value.

[1] These figures exclude land that was double or multiple cropped, fallow land, land utilized for livestock production such as range and pasture, and land utilized for farm buildings, houses and roads (Also see Appendix B methodology)

Table 2. Gross Sales for Registered Organic Growers by Commodity Group - 1992-95†

Year	Field Crops	Fruit & Nut Crops	Live-stock‡	Nursery & Flowers	Vegetable Crops	Combined Fruit, Nut & Veg.§	Total Gross Sales ($)
1992-93	2,937,723	33,454,761	37,057	442,512	37,289,221	1,275,543	75,436,817
1993-94	2,570,137	28,051,041	39,405	846,886	41,993,421	4,830,405	78,331,295
1994-95	3,761,960	30,934,372	144,261	939,373	54,486,449	4,832,971	95,099,386
Growth (%)							
Year 1-2	-13	-16	6	91	13	279	4
Year 2-3	46	10	266	11	30	<1	21
Year 1-3	28	-8	289	112	46	279	26

† Grower information is as reported to CDFA.
‡ Includes poultry and related products.
§ Reported sales are aggregated fruit, nut and vegetable sales.

Organic Commodities

Every major farm commodity group is represented in the analysis-more than 70 individual commodities in each year. Vegetable crops, and fruit and nut crops are the commodity groups of most consequence for organic agriculture in California. These industries have the largest number of farms, the largest acreage, and by far the largest gross revenues. During the three-year period, they generated 95% of the total value of organic production from approximately 80% of the state's registered acreage (Table 2).

Vegetable crops were the single most valuable organic commodity group, accounting for at least half of the state's gross sales from approximately one-third of the registered acreage each year. During 1992-95 vegetable crops posted only a 4% increase in the number of producing acres, but a 46% increase in total sales-suggesting a shift in products grown, gains in production or marketing efficiency and/or increased consumer demand. In comparison, fruit and nut crops received about one-third of the state's total organic sales from almost half of the registered acreage. During 1992-95, fruit and nut crops recorded a 7% increase in acreage. but an 8% decline in overall value of production.

Field crops, though of considerably less value to California's organic industry than vegetables or fruit and nut crops, nonetheless recorded a 28% increase in sales during 1992-95. Meanwhile, there was a 10% decrease in the number of planted acres. again suggesting production improvements and/or marketing gains by this commodity group.

Though both were still very small segments of organic production, nursery and flower crops, as well as livestock, poultry and products, also posted substantial increases in value during 1992-95, as shown on Table 2.

During 1994-95, 1,372 registered organic farms in the state reported 595.1 million in sales from 45.070 crop production acres. This accounted for less than 1 % of the total value of production in the state, excluding livestock, poultry and related products. However, organic production generally has exceeded the state's rate of yearly increase in total agricultural value.

Geographic Distribution of Production

Vegetable crops predominated in the Central Coast-Bay Area, the San Joaquin Valley and the South Coast regions of the state. Fruit and nut crops were particularly important in the San Joaquin Valley and North Coast regions, and field crops in the Sacramento Valley.

During 1992-95, the San Joaquin Valley claimed the largest number of registered organic acres of any region, with about one-third of the state total. The Sacramento Valley was second with approximately one-fourth of the total acreage, followed by the Central Coast-Bay Area with roughly one-sixth of the total.

During the three year period:

> The San Joaquin Valley recorded a 12% decline in revenue from the first to the third year of registration, dropping from $26.7 million in 1992-93 to $23.6 million in 1994-95, with a 3% decline in acreage, but roughly the same number of growers.
>
> The Central Coast-Bay Area showed 69% growth in revenue, moving from 517.8 million in 1992-93 to $30 million in 1994-95. At the same time, total acreage increased 11%, with grower numbers increasing by 5%.
>
> In the Sacramento Valley, the value of production increased by 28%, climbing from $6.8 million in 1992-93 to $8.7 million in 1994-95, while acreage declined by 4%. The total number of growers stayed essentially the same.
>
> In the South Coast, the number of growers and total acreage grew by 43% and 42%, respectively, with a corresponding 29% increase in total revenue. Sales increased from $10.7 million in 1992-93 to $13.8 million in 1994-95.

During the three year analysis, all regions demonstrated considerable growth in gross revenues except the San Joaquin Valley. Nevertheless, that region, with second highest total revenue during 1994-95 and the largest organic acreage, clearly remained a major contributor to the state's total sales and to overall organic agriculture.

Farm Profiles

Distribution by Selected Commodity Group. Most registered organic farms have few acres and small annual sales. In the third year of the program, 50% of all registered farms consisted of less than five acres, and grossed under $6,000. Because the two categories of vegetable crops, and fruit and nuts crops, represented approximately 95% of all farms, their statistics were similar to the overall numbers:

> Half of all vegetable farms had three acres or less, with sales under $8,350.
>
> Half of all fruit and nut farms had five acres or less, and grossed under $5,000.

Not surprisingly, 50% of all field crop farms were larger, at 107 acres, with annual sales of $52,000.

Distribution by Region. California's three coastal regions consistently reported the largest number of registered organic farms during the study period. Approximately onethird of all registered farms

were located in the South Coast, with another one-fifth in the North Coast and roughly one-sixth in the Central Coast-Bay Area region.

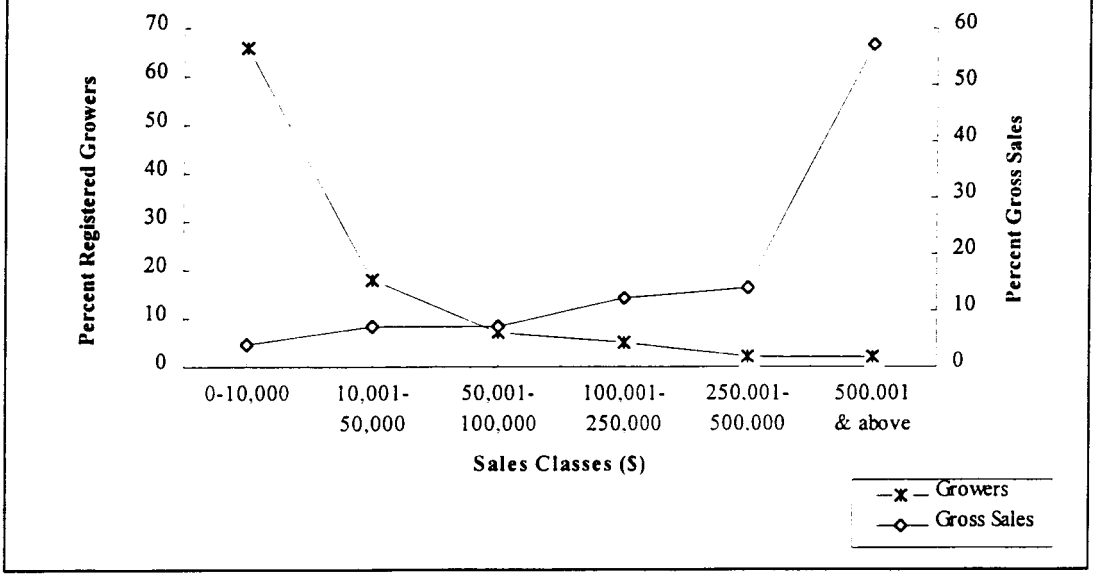
The largest registered farms were typically located in the San Joaquin and Sacramento Valleys, and the South Eastern Interior. These regions also had the highest median annual farm sales during the three years.

Income Concentration. Revenue from organic agriculture is highly concentrated. In1994-95, as indicated by Figure 1, over half of the value of registered organic production was represented by the 2% of growers who grossed over $500,000 each. At the other end of the spectrum, growers grossing $10.000 or less comprised two-thirds of all growers and only 5% of sales.

The top revenue-generators were all certified, while those with the lowest sales were frequently not. This indicates that certification may be an important marketing tool for full-time growers with large sales volumes and little direct contact with consumers. and less important for part-time growers or those selling their product through direct marketing channels. It also may indicate that certification procedures and fees are a barrier for growers with low farm incomes.

These patterns suggest an industry with a predominance of very small part-time farmers but also a substantial number of full-time growers. Organic farming is likely to be a means of supplementing income for small growers. while larger ones have established sizable organic markets and operate on a commercial scale.

Figure 1. Income Concentration for Registered Organic Growers as Reported to CDFA - 1994-95



Patterns of Entry and Exit

Although the total number of registered farms changed very little from the first year of the program to the second (2% decrease), the numbers of new farms entering and leaving the program were significant. Almost one-third of the original growers dropped out of the program in the second year, only to be replaced by almost as many new registrants. However, over 90% of the growers who registered in the second year continued in the third, and an additional 348 growers entered the program-resulting in a total of 1.372 registered growers in 1994-95 and a net increase of 243 growers from the second to third year of registration.

Various factors likely contributed to these entry and exit patterns. First, there was some incentive to register early in the organic program because only a one-year transition period was necessary to change a farming operation from conventional to organic practices; a three-year transition period was planned for a later date. In addition, media attention directed to the perceived positive attributes of organic farming (e.g., pesticide use reduction, enhanced food and farmworker safety, environmental protection) probably influenced both consumer awareness and grower registration. Some growers undoubtedly registered at the program's inception hoping to secure the higher prices organic products often command. These prospective higher prices, combined with potential on and off-farm benefits, provided an attractive farming option.

Although it is true that organically produced crops often command higher market prices, successful organic farming also requires development of new management skills and a significant level of commitment over time. There are a number of acknowledged challenges to farming organically, including lack of available information on organic production methods. This, as well as several other challenges identified in the report, could have contributed to the grower attrition rates shown in the analysis.

Registered Handlers

During 1992-95 the total number of registered handlers of organic products decreased 9%, while handler sales value increased 56%. The Central Coast-Bay Area region had over one-third of the state's handlers, and reported about one-half of the total sales. The South Coast had another one-third of all handlers, and accounted for over one-fourth of all sales. Fruit, nut and vegetable crops generated the highest revenues for handlers in all three years of the analysis, accounting for between 80% and 92% of the totals. Field crops claimed essentially all of the remaining sales.

Interestingly, the total value of handler sales of organic field crops was considerably higher than the value of on-farm organic field crop production in California, indicating that (1) handlers were importing field crops produced out of state or out of the country (e.g., soybeans, quinoa, coffee, and sesame), and/or (2) prices received by handlers were significantly higher than prices received by farmers for field crops. Importation of some fruit crops such as mangoes and bananas also occurred.

The dominance of organic handlers and product sales in proximity to San Francisco and Los Angeles, both high-end markets, is noteworthy. It is not surprising, but nonetheless important, because it implies that consumers elsewhere may be less able to obtain organic products due to geographic location or income level. This is an ongoing discussion within both the organic and sustainable farming communities.

Proposed Federal Regulations

Current production and market indicators suggest that organic agriculture will continue to experience substantial growth. Perhaps more critically important to the organic industry at present, however, is the proposed rule of the USDA's National Organic Program. Developed in response to the requirements of the OFPA, this proposal would set national standards and regulations for organically produced agricultural products-including certification of producers by accredited certification agencies. The proposed rule states that producers with annual sales of $5,000 or more must be certified each year with an accredited certification agency. A small farm exemption exists for producers with sales less than $5,000 annually. For both accreditation of agencies and certification of growers, fees would apply. These fees have important implications with respect to growers with moderate incomes that do not meet the small farm exemption, and for certifiers without a large grower base from which to derive income.

In 1994-95, only about one-fifth of California organic growers with annual sales of $10,000 or less and half of growers with sales of $25,000 or less were certified. In contrast, all organic growers grossing above $500,000 per year were certified. It therefore appears that, under the existing system, small growers either do not see the benefit of certification or cannot afford the expenses associated with the certification process.

Thus, for growers who gross over $5,000 annually but nonetheless operate on modest incomes, the new federal requirement could prove a significant deterrent. These growers may respond to the certification requirement by dropping out of organic production altogether, or by forgoing organic production and certification in a legal sense and instead marketing with another form of labeling related to production methods.

Likewise, some certification agencies may cease to operate. Others may pass most accreditation costs on to their producers. New certification agencies, perhaps catering to very small growers, may emerge. At this time, however, it is not clear how much attrition or entry of either growers or certification agencies might result from the impending federal law because it has not yet been finalized.