

A Statistical Picture of California's Organic Agriculture

1995 - 1998

University of California

Division of Agriculture and Natural Resources
Agricultural Issues Center
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EXECUTIVE SUMMARY

Annual statistical analyses of California's organic agriculture identify emerging trends in the organic sector. In addition, organic agriculture's relative importance to the larger agricultural industry can be quantified over time. This information is critical to understanding new directions for agriculture as value-added crops and niche markets gain importance in the state and the nation.

Over 70 individual commodities representing every major commodity group were produced and marketed as organic during the three years covered in this report, 1995-96, 1996-97 and 1997-98. Sales rose an average of 18% per year over this period reaching \$158 million in 1997-98. Produce (vegetables, fruits and nuts) continues to dominate the organic farm sector with over 90% of total sales. This is in striking contrast to California agriculture as a whole, where produce makes up about half of gross sales.

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 requires annual registration of all processors, growers and handlers of commodities labeled as organic. Information provided in the annual registration forms furnishes data for this report. For the purposes of this report, California is divided into eight geographic regions based on those used by California Department of Agriculture (CDFA) in various reports. Also, the principal commodity groups used by CDFA in reporting statistics are used here with the exception of an additional category "unclassified produce" used by the United States Department of Agriculture (USDA) for growers who reported in such a way that it was impossible to separate their sales and acreage into the other two produce commodity groups: vegetables and fruits and nuts.

INDUSTRY SIZE

The number of registered organic farms increased from 1,427 to 1,533 (7%), during the three years of this analysis. The number of organically farmed crop acres increased from 46,258 to 67,826 (47%), during the same period. Total sales increased from \$113 million in the first year of the study to \$158 million in the third, an increase of 40% (Table 1). Growth of both organic crop acreage and gross sales was attributable to many new growers entering the organic program and continuing growers expanding acreage to meet increasing consumer demand.

The number of farmed acres increased by almost half even though the number of growers increased only slightly because established growers increased crop acreage and new growers entered the program with above average farm size. Total organic acreage also grew at a faster rate than gross sales. This is attributable to a relatively greater increase in field crop acreage compared to the increase in vegetable crop acreage with average sales per acre for field crops being substantially lower than for vegetable crops.

The 40% increase in gross sales of organically grown non-livestock commodities was much greater than the 2% increase in overall non-livestock agricultural sales in California for 1995-98. Organic crop acreage increased by almost half, despite no change in total California crop acreage. Organic agriculture nevertheless represented only 0.6% of total farmed acreage and 0.8% of total cash income from marketing of crops in California by 1997-98, excluding livestock. Organic produce (vegetable, fruit, and nut crops) was slightly more prominent, with 1% of statewide produce sales. It should be noted that gross sales for organic products are thought to be artificially low in this analysis because of limitations of the data.

Table 1. California Registered Organic Agriculture by Commodity Group as Reported to CDFA, 1995-98

Year	Produce			Field Crops	Nursery, Forestry & Flowers	Livestock, Poultry & Products	Total
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce				
Number of growers ^a							
95-96	880	382	149	45	24	12	1,427
96-97	908	438	116	70	39	14	1,475
97-98	1,019	479	65	97	68	11	1,533
Acres							
95-96	20,429	15,670	2,393	7,743	24	na	46,258
96-97	20,799	20,023	2,097	11,816	33	na	54,768
97-98	23,126	25,929	1,340	17,309	121	na	67,826
Sales (\$) ^b							
95-96	33,476,616	68,365,325	6,058,906	3,339,036	1,223,797	850,809	113,313,489
96-97	40,170,168	78,287,647	7,269,207	7,217,878	1,904,878	2,223,378	137,083,156
97-98	48,155,704	86,112,550	7,668,107	10,154,452	2,033,551	4,163,516	158,287,880

^a Some growers reported production in more than one commodity group.

^b Some growers reported sales over the \$5 million annual gross sales report ceiling set by CDFA while others reported at the ceiling.

na Acreage for livestock, poultry and products not available.

ORGANIC COMMODITIES

Organic vegetable crops, and fruit and nut crops are the commodity groups of most consequence to registered organic agriculture in California. These crops had the largest number of farms (89% of the total), the most acreage (74%) and by far the largest revenues (90%) in the state in 1997-98.

Further disaggregating organic production, vegetable crops were the most valuable commodity group, accounting for 54% to 60% of the state's gross sales from approximately one third of the acreage. During 1995-98, vegetable crops posted a 65% increase in the number of producing acres and a 26% increase in total sales resulting in a decrease in the average sales per acre, although this varied widely across regions.

In contrast to vegetable crops, organic fruit and nut crops posted a sales increase of 44% during 1995-98, with only a 13% increase in acreage and a 16% increase in grower numbers, suggesting an increase in yield, price premiums, and/or a relative increase in

higher value fruit and nut crops. Organic wine and table grapes were important to the increase in sales, but acreage in these crops changed very little. Berry production increased from less than \$0.5 million to over \$2 million in the three years.

Field crops grew in importance during the study period, with the number of farms and farmed acreage more than doubling and gross sales tripling, suggesting both rapid expansion and increasing crop value. This trend reflects the increase in processed organic foods now available. Organic rice was most important to the increase in sales and acreage, and increases in safflower acreage were also significant. The importance of field crops to organic agriculture remained small, but grew from 3% of sales in 1995-96 to 6% in 1997-98. Sales of nursery and flower crops increased by 66%, and sales of livestock, poultry, and related products increased by 389% (primarily milk and eggs), although they remained very small segments of the industry.

GEOGRAPHIC DISTRIBUTION OF PRODUCTION

The San Joaquin Valley recorded the largest number of organic production acres in all three years, with about one fourth of the state total. The Sacramento Valley region, with its concentration of relatively large field crop operations, was a close second in all three years. The Central Coast increased by over 9,000 acres and by 1997-98 was only a few acres less than the Sacramento Valley. All but the three smallest regions in terms of acreage recorded increases in acreage during the study period. With respect to individual counties, Kern County had the most organic acreage in 1997-98 at 6,690 acres, followed by San Benito County in the Central Coast region with 6,394 acres in 1997-98, a five-fold increase over the study period.

FARM PROFILES

Farm Income Characteristics and Income Concentration. The analysis showed that most registered organic farms were small in acreage with low annual sales per farm. In 1997-98, 50% of all farms consisted of five acres or less and reported gross sales under \$8,000 despite the fact that median sales showed an upward trend from 1995-96 to 1997-98. The top 10% of organic farms grossed roughly \$177,000. These results reflect a large segment of the industry comprising small or part-time growers, who undoubtedly use organic farming as a means of supplementing income. Simultaneously, an increasing number of growers are entering the higher sales classes.

In all three years of the analysis, registered organic agriculture was highly concentrated. Registered farms that grossed over \$1 million annually represented less than 2% of the total number, but captured over half of the state's total sales. At the low end of the scale, over half of all farms grossed less than \$10,000 and realized just over 2% of all sales in the state in all three years.

Distribution by Commodity Group. In all three years of this study, the greatest number of registered organic farms grew fruit and nut crops, followed by vegetable crops, and then field crops. In 1997-98, two thirds of the organic farms grew fruit and nut crops, about

one third included vegetable crops and 6% included field crop enterprises. Many farms reported sales in more than one category, for example, vegetable crops and field crops. Therefore, the percentage of farms by commodity group totals more than 100. Fifty percent of fruit and nut crop farms were smaller than five acres with sales below \$5,000 and returns per acre below \$1,000. Vegetable crop farms tended to be slightly smaller but to have greater gross sales and sales per acre. Not surprisingly, field crop farms tended to be larger than produce farms, with median sales per acre around \$500. The net increase in number of growers was greatest for fruit, nut, and vegetable farms. This, in part, is attributable to improved reporting which moved growers out of the "unclassified produce" category and into vegetable crops and/or fruit and nuts.

Distribution by Region. About two thirds of registered organic growers were located in one of California's three coastal regions throughout 1995 to 1998. The South Coast regularly reported the greatest number of growers, with approximately one third of the state's total. The North Coast was second, accounting for another one fifth, followed by the Central Coast, with roughly one eighth. However, the greatest growth in number of growers was in the Sacramento Valley, which accounted for half of the change in grower numbers.

CERTIFIED ORGANIC FARMS

State registration is not equivalent to third party certification. Registration with the California Department of Food and Agriculture Organic Program is mandated by state law. Certification is through private organizations and is voluntary under California state law. However, certification will become mandatory for growers grossing over \$5,000 per year with the implementation of the federal Organic Foods Production Act of 1990 (OFPA). The new rule took effect April 21, 2001 and marked the beginning of the transition period. Full compliance with the rule will be required by October 20, 2002 at which time products can begin to use the National Organic Program organic seal label.

Certified growers comprised about 40% of all registered organic growers from 1995-98. During this period, the overall number of certified growers rose by 19% while the number of registered growers both rose by only 7%. However, the proportion of organic acres and sales which were certified remained fairly constant. In other words, certified acreage and sales rose at the same rate as registered organic agriculture overall.

Farms with higher gross sales were more likely to be certified, with 100% of the farms grossing over \$1 million certified, but only 20% of farms grossing between \$5,000 and \$10,000 holding some form of third party certification. Therefore, with the implementation of the Federal Rule, many small growers will be seeking certification for the first time, while the larger growers have for the most part already entered the certification process. Certified farms, though representing less than half of registered farms, accounted for more than 80% of the registered acreage and about 90% of the registered sales in the state.

As with registered organic agriculture, vegetable and fruit and nut crops were most important to certified organic agriculture in California. However, field crop farms were

more likely to be certified than vegetable or fruit and nut farms, undoubtedly because they are typically sold to processors who require certification for verification of farming processes. Eighty percent of field crop farms were certified, compared to only 38% of fruit and nut farms and 44% of vegetable farms in 1997-98.

REGISTERED ORGANIC HANDLERS

During the three year period, the number of registered handlers increased from 89 to 111. The reported sales increased from \$80 million in 1995-95 to \$106 million the following year and back down to \$80 million in 1997-98 resulting from decreasing sales through handlers in vegetable crops and field crops. The number of handlers in the Bay Area and the South Coast decreased slightly over the period of analysis while the number of handlers in other regions increased steadily from 36 to 63.

PATTERNS OF ENTRY, EXIT, AND GROWTH

Although there were only 106 more organic growers in 1997-98 than in 1994-95, looking at entry and exit from the organic registration ranks reveals an average of 342 new growers entering and an average of 293 growers leaving the program each year. Likewise, total sales and acreage increases for new and expanding growers were greater than the loss in market share and acreage reduction attributable to farmers leaving the program and continuing farmers experiencing lower sales and reducing their organic acreage. Thus, organic crop production is a more dynamic industry than previously presented data might imply.

CONCLUSION

Statistics contained in this report draw attention to several important questions concerning the future of the organic agricultural industry in California. Perhaps the most obvious question becomes can the organic industry in California sustain the rate of growth realized during this study period and, if so, what will this growth look like? As the industry expands, will new marketing outlets such as expansion of natural food store chains, organic sales in conventional grocery stores and Internet sales augment or replace current venues? Will current consumers of organic commodities change their purchasing patterns to include a more varied organic shopping basket and will new organic consumers emerge to purchase an ever-increasing supply of organic products? As new products using organic ingredients are developed how will the distribution of acreage devoted to the various commodity groups change? Who will supply manufacturers of new organic products?

The impact of the National Organic Standards, now finalized, is still not clear. How will broader legislation concerning food quality protection, water quality, biotechnology, international trade and a host of other issues be felt by the organic subsector? This study, detailing trends in the supply side of the organic industry in California, should serve as a starting point in answering these and other important questions concerning the organic industry.

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Cover artwork: Gabrielle Boisrame

1 INTRODUCTION

Interest in organic agricultural production has never been greater due to the continuous and rapid rate of expansion and the relatively higher prices commanded for organic products. Annual statistical analyses of California's organic agricultural sector quantify overall size and growth of the organic industry with respect to acres, sales and number of growers. Size and growth of commodity groups and subregions of California are also measured. In addition, profiles of organic growers with respect to annual income and acres per farm are presented along with descriptions of income concentration.

State Organic Registration

The California Organic Foods Act (COFA), signed into law in 1990, provides protection to producers, processors, handlers and consumers in that foods produced and marketed as organic meet specified standards. COFA calls on the state of California to develop these standards and regulate the production, processing, handling and labeling of organic products. As part of the regulatory process, COFA requires annual registration of all processors, growers and handlers of commodities labeled as organic. The statistical analysis contained in this report is derived solely from information provided in the annual registration forms of growers and handlers.

For growers and handlers, initial registration is administered through local county agricultural commissioner's offices. Registration information is forwarded to the California Department of Food and Agriculture (CDFA) Organic Program in Sacramento, from which subsequent yearly renewals are generated. For processors, registration is administered by the Organic Program of the Food and Drug Branch of the state Department of Health Services (DHS). Registration fees are assessed in both cases, and are based on the nature of the operation (grower, handler or processor)¹. State registration is separate from, and does not act as a substitute for, organic certification. Registration is regulated by state law and is mandatory while certification is through private organizations and is voluntary under COFA.

Federal Regulation

The Organic Foods Production Act (OFPA) of 1990 requires the United States Department of Agriculture (USDA) to develop national organic standards for organically produced agriculture and to develop an organic certification program. The final regulations for implementation of the OFPA were published in the Federal Register in December, 2000. The new rule took effect April 21, 2001 and marked the beginning of the transition period. Full compliance with the rule will be required by October 20, 2002 at which time products can begin to use the National Organic Program organic seal label.

¹ Growers and handlers pay graduated registration fees based on an operation's total sales. First time registrants must pay one and one half times the scheduled fees.

The final rule includes a list of allowed synthetic and prohibited non-synthetic materials as well as labeling requirements. Unlike COFA, OFPA requires all growers grossing \$5,000 or more obtain certification from a USDA accredited certification organization. It remains to be seen how the additional cost of certification and the accreditation requirements for certifiers will impact California's organic industry.

Content and Organization of the Report

This report is divided into seven chapters including the introduction. The second chapter presents the methodology used for the analysis. Limitations of the data are considered in the third chapter. Results for each of three years, 1995-96, 1996-97, and 1997-98 are presented and discussed in the fourth, fifth and sixth chapters, respectively. Industry trends and patterns of entry and exit for state registrants are examined in the seventh chapter. Appendix A presents detailed information by county and individual commodities. This report follows the *Statistical Review of California's Organic Agriculture 1992-1995* by Laura Tourte and Karen Klonsky, published by the Agricultural Issues Center in July 1998.

Data Interpretation

When interpreting the results, the following points should be considered. First, the results are based on information *as reported to* CDFA by growers and handlers, and should therefore be viewed as best estimates taking into account limitations of the data (Chapter 3). Second, data have been aggregated either to avoid revealing confidential information about individual farming operations or because inconsistent reporting procedures by state registrants made it impossible to present the data in a more disaggregated form. Also, some data could not be reported to protect registrant confidentiality. Third, median statistics are used instead of averages to develop the grower profiles because of the preponderance of small farms. Fourth, the terms "farm" and "grower" are used interchangeably in all analyses. Fifth, only producing crop acreage is reported here. Land that was double or multiple cropped was counted as one crop acre. Land utilized for any other purpose is not included in the acreage figures. Finally, only sales from products marketed as organic are reported to CDFA. This means that income from sales of organically grown products sold in the conventional market are not included. Similarly, income from government payments are also not included. The registration information does not reveal whether or not a farm also has conventional production. Therefore, the size of the farm operation is not known from the registration data; only the size of the organic enterprise is known.

2 METHODOLOGY

Explanations for determining geographic regions, commodity groups, types and individual commodities, and acreage are presented in this chapter. Supplemental methodological information is in Appendix C.

Geographic Regions

The state's counties are divided into eight geographic regions based on similar groupings used in CDFA's *California Agricultural Resource Directory 1999* (Figure 2-1).

Commodity Group, Commodity Type, and Individual Commodities

To ensure that consistency between this statistical analysis and those performed by CDFA was maintained, the same principal commodity group, commodity type and individual commodity classifications that are utilized for the state's overall agricultural production are also used here for its organically grown products. Some modifications were made to the CDFA classification system where necessary and appropriate for this analysis (Table 2-1). The six major commodity group classifications used in the analysis are: field crops; fruit and nut crops; livestock, poultry and products; nursery, forestry and flowers; vegetable crops; and unclassified produce.

The unclassified produce category was necessary because a number of growers reported production under the broad heading "fruits, nuts and vegetables", making it impossible to separate commodity types and individual commodities into the other categories. Some growers also reported production of crops and animal products that fell into more than one principal commodity group category. As a result, the sum of observations in the commodity group categories on some tables is greater than the actual number of growers because some growers are counted in more than one category.

Commodity types are more disaggregated than commodity groups and describe general crop categories. Individual commodities are even more disaggregated. For example, "raspberries" and "strawberries" are individual commodities within commodity type "berries" and commodity group "fruit and nut crops".

Acreage Determination

Acreage was calculated by tallying only crop production acres. Land that was double or multiple cropped was counted as one crop acre. Fallow land, land utilized for livestock production such as range and pasture, and land utilized for roads, houses and farm buildings were excluded from the analysis.

Figure 2-1. Geographic Regions of Organic Production in California

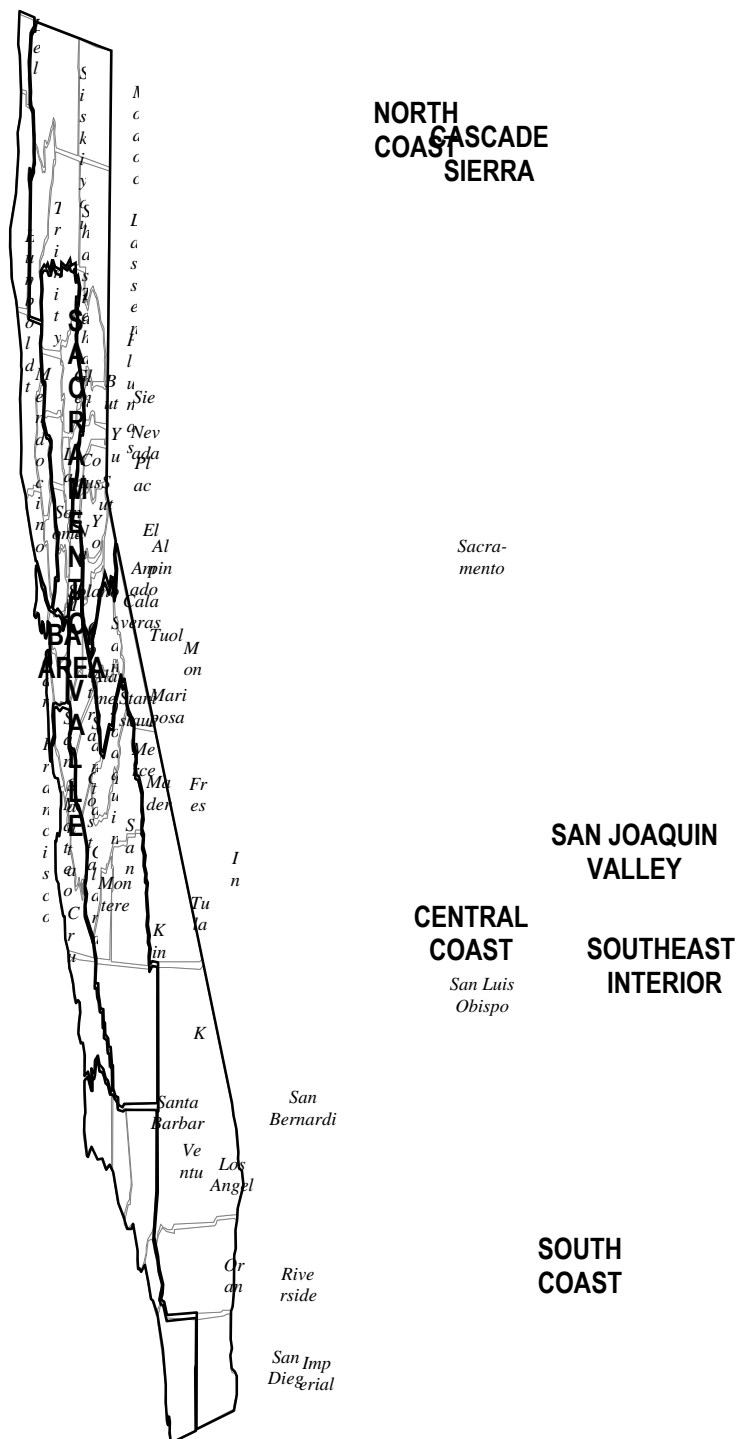


Table 2-1. Commodity Groups, Commodity Types, and Individual Commodities

Commodity group	Commodity type	Individual commodity
Field crops	Alfalfa	
	Barley	
	Clover	
	Coffee	
	Cotton	
	Dry beans & peas	
	Field corn	
	Hay	
	Misc. grains	
	Misc. seed	
	Oats	
	Popcorn	
	Rice	
	Safflower	
	Silage	
	Sudan grass	
	Wheat	
Fruit & nut crops	Berries	Berries, blackberries, blueberries, boysenberries, raspberries, strawberries
	Citrus & subtropicals	Citrus, grapefruit, kumquats, lemons, limes, mandarins, oranges, tangelos, tangerines, avocados, bananas, cherimoya, dates, figs, guavas, kiwifruit, loquats, mangos, olives, persimmons, jujube
	Grapes	Juice, raisin, table, wine
	Nut crops	Almonds, macadamias, pistachios, walnuts
	Pome fruits	Apples, Asian pears, pears
	Stone fruits	Apricots, cherries, nectarines, peaches, plums, prunes
Livestock, poultry & products	Apiary	Honey
	Cattle	Meat products
	Dairy	Dairy products
	Hogs & pigs	Meat products
	Layer hens	Eggs
	Poultry	Meat products
	Sheep & lambs	Meat, wool products
Nursery, forestry & flowers	Aloe vera & cactus	
	Misc. flowers	
	Transplants	
	Firewood, Christmas trees	
Vegetable crops	Alliums	Garlic, leeks, onions, shallots
	Brassicas	Arugula, brassicas, cabbage, cauliflower, broccoli, Brussels sprouts, kale, mustards, radishes, turnips, field greens, watercress
	Chenopods	Beets, chard, spinach
	Composites	Artichokes, chicory, endive (frieze), lettuces, radicchio, salad mix, spring mix
	Cucurbits	Cucumbers, gourds, melons, pumpkins, squash
	Legumes	String beans, peas
	Mixed vegetables	Misc. mixed vegetables
	Solanaceous crops	Eggplant, peppers, tomatillo, tomato
	Succulent vegetables & sweet corn	Asparagus, mushrooms, sweet corn
	Umbells & herbs	Carrots, celery, herbs
Unclassified produce	Mixed fruit, nut & vegetable crops	

3 DATA LIMITATIONS

Several limitations of the data were identified during the course of this analysis. These include inconsistent reporting procedures, a registration fee ceiling, and the disincentive to accurately report gross sales. Limitations involving organic production and product sales are also discussed, as are operations that have both organic and conventional acreage, and the exclusion of some registrants from the analysis.

Inconsistent Reporting Procedures

CDFA's registration process requires that growers and handlers submit information about their farms or businesses on forms developed by the agency. Some registration instructions and procedures were clearly elucidated. Some sections of the registration forms, however, were ambiguous and registrants often reported information in an inconsistent fashion. Specifically, the original CDFA registration forms ask growers and handlers to list the "commodity" and "type of commodity" produced or handled without any sample list and few commodity guidelines. Growers and handlers therefore reported acres and sales with varying levels of detail. Consider, for example, three growers producing Valencia oranges. The first might report the commodity as citrus and leave the type blank. The second might report the commodity as citrus and the type as oranges, while the third reported the commodity as oranges and the type as Valencia. For this analysis, every effort has been made to overcome these inconsistencies. However, inconsistent interpretation of the terms "commodity" and "type" limited the level of detail possible for the analysis. For 1997-98 registrations, CDFA began requiring greater specificity in reporting of sales and acres by commodity type.

After the first year of registration, a number of growers submitted renewal registration forms to CDFA that were marked "no changes" to the operation. However, registration fees and/or gross sales differed from the previous year's information—a clear indication of change. For these files total sales were extrapolated by using the midpoint sales figure of the sales class category associated with the submitted fees, or data were extrapolated using the previous year's crop percentages. For some files, both techniques were used.

In some cases it was impossible to use crop percentages to calculate gross sales for the different commodity types and groups, so the entire farm or portions of the sales and acres were placed in the Unclassified Produce category. Because of the increased accuracy in reporting noted above, this category has decreased over the three years of this analysis.

CDFA Registration Fee Ceiling

Under CDFA regulations, producers and handlers of organic commodities pay graduated registration fees based on an operation's total sales. However, registrants grossing over \$5 million annually are not obligated to report sales above that amount. While most

registrants reported actual amounts over \$5 million, some registrants reported at the ceiling. Therefore, the total value of production in this report is undoubtedly underestimated because income realized by some high-revenue producers and handlers may not have been fully accounted for.

Disincentive to Report Gross Sales Accurately

The CDFA Organic Program was put into place to protect producers, handlers, processors and consumers against fraud through regulation of organic commodities and products. The program is funded by the registration fees that are collected from growers and handlers. These fees are based on total organic sales for the farm or business. Whether or not the program, and its endeavors, sufficiently motivates registrants to report sales accurately is unclear. Inaccurately reported sales data would unquestionably distort analysis results.

Organic Production Versus Organic Sales

There are undoubtedly growers in California who produce crops organically but do not label or market their product as organic. This group could include small to medium-sized growers who have developed a marketing relationship with their clientele that is based on mutual trust, and that does not rely on organic labeling to verify production methods. This group could also include growers using organic methods because of concerns about environmental impacts or farmworker safety, but who do not see a marketing advantage in selling their crops as organic per se. They are therefore not required to participate in CDFA's Organic Program, and are not included in this analysis.

Further, some industry experts believe that only about 30% to 40% of all organic production by growers actively participating in the organic market is actually sold as organic. The remaining portion is thought to be sold through conventional channels. Reporting is currently required only for products sold as organic. Consequently, this analysis cannot effectively capture the breadth of organic production in its entirety. It would be of value to know total production figures for growers using organic practices regardless of market outlet in order to more accurately demonstrate the economic viability of organic farming and better understand the potential environmental and social impacts of organic production.

Farming Operations with Both Organic and Conventional Acreage

There are a number of conventional growers in California who devote only a portion of their total acreage to organic crop production. Therefore, some of the growers that are categorized as "small" or "medium-sized" organic farmers may actually be larger conventional growers experimenting or diversifying with some organic acreage.

Exclusion of Registrants from the Analysis

A number of growers registered each year in the state organic program, but did not report sales of any organic products. Presumably, this tactic enabled them to retain their organic status without having to go through a re-registration process. They were excluded from the analysis, which probably contributed to lower-than-actual numbers of growers and acres in organic production. In addition, several grower files had missing registration forms or data critical for analysis in one or more years. Because it was impossible to evaluate these farming operations, they too, were excluded from the analysis. In addition, several handlers fell into one of the above categories and were also excluded from the analysis.

4 ANNUAL STATISTICS 1995-96

Descriptive statistics for 1995-96 are presented in this chapter. The analysis focuses on industry size, commodities that are produced and sold as organic, geographic distribution of production, and farm profiles. Data relevant to registered organic farms are followed by data for registered handlers.

1995-96 Summary Highlights

THE INDUSTRY

- Total gross sales of organic commodities were \$113.3 million.
- Total organic crop production acres were 46,258.
- A total of 1,427 registered farmers reported sales.

MAJOR COMMODITIES

- Of the major commodity groups, fruit and nut crops accounted for the most acreage and vegetable crops generated the highest sales.
- Specifically, nearly one half of the total organic acreage (44%) was planted to fruit and nut crops, which generated one third of the state's organic sales.
- The San Joaquin Valley was the most important fruit and nut crop region, representing one third of the state's fruit and nut acreage and one third of the gross sales. Fruit and nut production was also prominent in the North and South Coast regions.
- One third of the state's organic acreage (34%) was devoted to vegetable crops, which accounted for nearly two thirds of the state's gross sales (60%).
- The San Joaquin Valley, Central Coast and Southeastern Interior regions reported the highest vegetable crop acreage, jointly accounting for almost three fourths of the total.
- The Central Coast led the state in vegetable crop sales with nearly one third (31%) of the total.
- Field crops represented 17% of the total acreage but only 3% of the total gross revenue. The Sacramento Valley was the main field crop-producing region with 75% of acreage and 84% of sales.

1995-96 Summary Highlights continued**REGIONAL DISTRIBUTION**

- The San Joaquin Valley claimed the most organic acreage, one fourth of the state's total (24%), followed by the Sacramento Valley (21%) and the three coastal regions.
- The Central Coast and the San Joaquin Valley posted the highest gross sales, each with 22% of the total.
- In contrast, regions with the highest concentration of growers were not necessarily the highest in acreage and sales. Over one third of the organic farms were located in the South Coast, where they generated only one sixth of the state's organic acreage and sales. The North Coast region had one fifth of the growers and roughly one sixth of the state's acreage and one tenth of the gross sales.
- Kern, Monterey and Imperial counties were the three highest grossing counties, each with over \$13 million in total revenue.

FARM CHARACTERISTICS

- Fifty percent of all farms were less than five acres, grossed under \$6,000 and earned less than \$1,471 in sales per acre.
- Fruit, nut and vegetable farms had similar median statistics to the total farms. In contrast, field crop farms were much larger, 50% had more than 55 acres, with higher median gross sales, but lower sales per acre.
- The top 10% largest vegetable crop farms were considerably smaller than the largest field crop farms but posted higher income in both gross sales and sales per acre than the top farms in other commodities.
- San Joaquin Valley farms had the largest median acres and gross sales per farm, followed by farms in the Sacramento Valley.

INCOME CONCENTRATION

- Revenue from organic agriculture is highly concentrated; almost 50% of the value of organic production was captured by the 1% of growers who grossed over \$1 million annually.
- Over sixty percent of the growers, those grossing less than \$10,000 annually, accounted for only 3% of the total gross sales.

HANDLERS

- Registered handlers sold \$80 million in organic products, a 10% increase from 1994-95. Produce comprised 90% of the sales, and field crops 10%.
- The South Coast and Bay Area regions each generated 26% and 30% of handler sales respectively. The remaining 43% of sales were from all other regions combined.

Registered Organic Farms

INDUSTRY SIZE

A total of 1,427 registered organic farmers reported gross sales of \$113.3 million for organically grown commodities from 46,258 crop production acres during 1995-96 (Tables 4-1, 4-2, 4-3). There were 106 growers registered with CDFA who reported no sales on 1,442 acres. This group was excluded from the analysis.

Organic agriculture represented approximately 0.7% of the total cash income from marketing for all agriculture in the state in 1995-96, excluding livestock, poultry and dairy products. Organic fruit, nut and vegetable crops represented approximately 0.9% of the state's fruit, nut and vegetable cash income (California Department of Food and Agriculture, 1998).

ORGANIC COMMODITIES

Produce represented 96% of the total sales on 83% of the organic crop acreage in the state (Tables 4-2, 4-3; Figure 4-1). Fruits and nuts comprised the largest share of acreage, but fell well below vegetables in gross sales. In comparison, field crops had only a small percentage of this year's sales, but a substantial portion of the acreage. Specifically, fruit and nut crops accounted for almost one half (44%) of the state's total organic acreage, vegetable crops about one third (34%), and field crops about one sixth (17%). These percentages were similar to the 1994-95 analysis.

All the major commodity groups had similar acreages to 1994-95. Vegetable crops were the highest value commodity group, with \$68.4 million in sales, representing 61% of the state total. Fruit and nut crops generated \$33.5 million, 30% of the state's total organic sales. Field crop sales totaled only \$3.3 million, 3% of total gross sales.

Grapes, predominantly winegrapes, were the leading single crop in total acreage and gross sales, claiming 15% (6,946 acres) of the state's organic acreage and 9% (\$12.2 million) of total revenue (Table A-1). Grapes comprised one third of the total fruit and nut crop acreage and sales. Rice plantings were close to that of grapes in total acreage (5,716) but significantly less in sales (\$2.7 million). Organic rice accounted for three fourths of total field crop acreage and sales.

Citrus and subtropical crops had fewer acres (4,983) than rice but posted more than twice the gross sales (\$7.7 million). Citrus and subtropical crops followed grapes in the fruit and nut commodity group with 17% of the acreage and 17% of gross sales. Nut crops were higher than pome fruits (apples and pears) in acreage and similar in sales. Because most vegetable crop acreage and sales were reported in the "mixed vegetable" category, statistics are not available for individual crops.

Table 4-1. Number of Registered Organic Growers by Region and Commodity Group as Reported to CDFA, 1995-96

Region	Produce			Field Crops	Nursery, Forestry & Flowers	Livestock ^a	Total Growers ^b
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce				
Bay Area	10	31	4				
Cascade-Sierra	35	40	18	3	2	3	93
Central Coast	64	71	24	3	5	0	161
North Coast	137	111	45	—	8	6	288
Sacramento Valley	69	38	21	26	3	—	142
San Joaquin Valley	75	23	6	7	0	0	104
South Coast	433	43	26	3	—	—	506
Southeast Interior	57	25	5	—	—	0	86
Total growers	880	382	149	45	24	12	1,427

^a Includes poultry and related products.^b Row totals do not add because of multiple responses to commodity group category.

— Data not reported to protect grower confidentiality.

Table 4-2. Registered Organic Crop Acreage by Region and Commodity Group as Reported to CDFA, 1995-96

Region	Produce			Field Crops	Nursery, Forestry & Flowers	Livestock ^a	Total Acres
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce				
Bay Area	234	768	19	0	1	—	1,022
Cascade-Sierra	370	106	55	460	2	na	994
Central Coast	1,784	3,534	638	59	4	0	6,019
North Coast	4,942	791	295	—	11	na	6,093
Sacramento Valley	2,238	1,356	438	5,835	1	—	9,868
San Joaquin Valley	6,040	4,007	340	627	0	0	11,013
South Coast	3,356	1,910	457	704	—	—	6,432
Southeast Interior	1,465	3,199	152	—	—	0	4,818
Total acres	20,429	15,670	2,393	7,743	24	na	46,258

^a Includes poultry and related products.

— Data not reported to protect grower confidentiality.

na Acreage figures not available.

Table 4-3. Gross Sales for Registered Organic Growers by Region and Commodity Group as Reported to CDFA, 1995-96

Region	Produce			Field Crops	Nursery, Forestry & Flowers		Livestock ^a	Total Sales
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce					
Bay Area	615,644	6,124,533	131,762	0	153,088	—	—	7,626,027
Cascade-Sierra	379,072	291,246	93,585	85,436	2,900	575	—	852,814
Central Coast	1,548,817	20,852,848	2,203,345	5,000	965,036	0	—	25,575,046
North Coast	8,624,221	2,068,812	773,547	—	78,318	243,534	—	11,789,332
Sacramento Valley	3,285,080	2,615,863	1,007,509	2,798,261	14,319	—	—	9,721,732
San Joaquin Valley	11,616,300	12,300,738	209,048	326,265	0	0	—	24,452,351
South Coast	4,696,741	10,926,131	1,445,410	114,373	—	—	—	17,197,655
Southeast Interior	2,709,741	13,185,154	194,700	—	—	0	—	16,098,532
Total sales	33,475,616	68,365,325	6,058,906	3,339,036	1,223,797	850,809	—	113,313,489

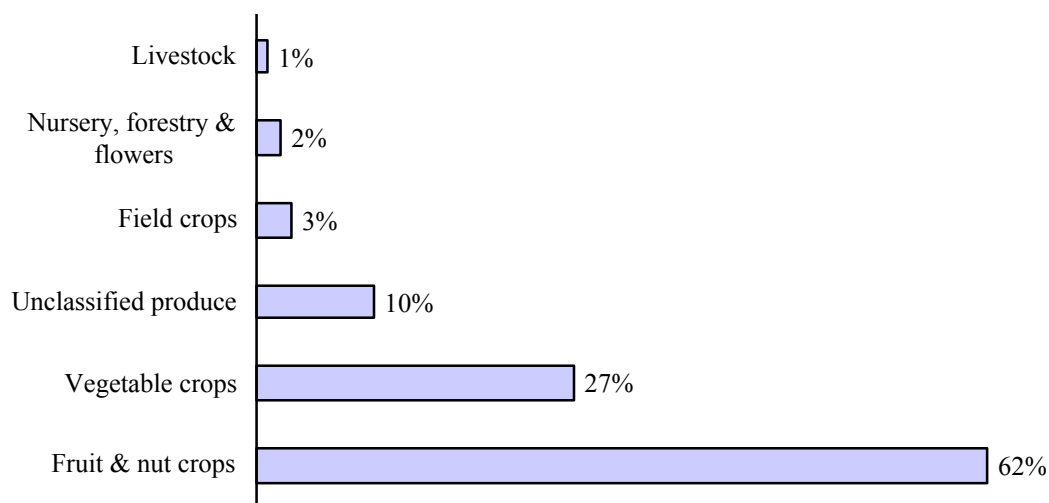
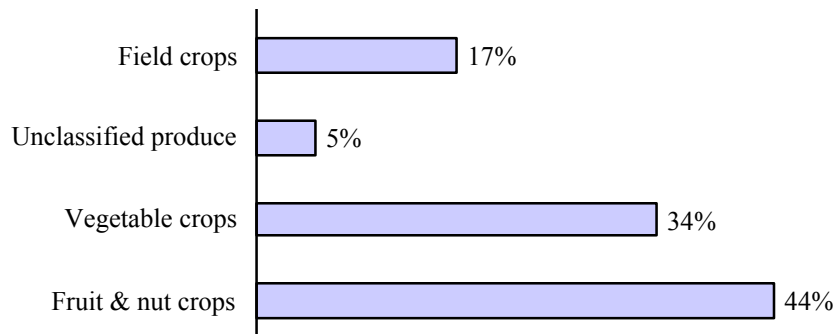
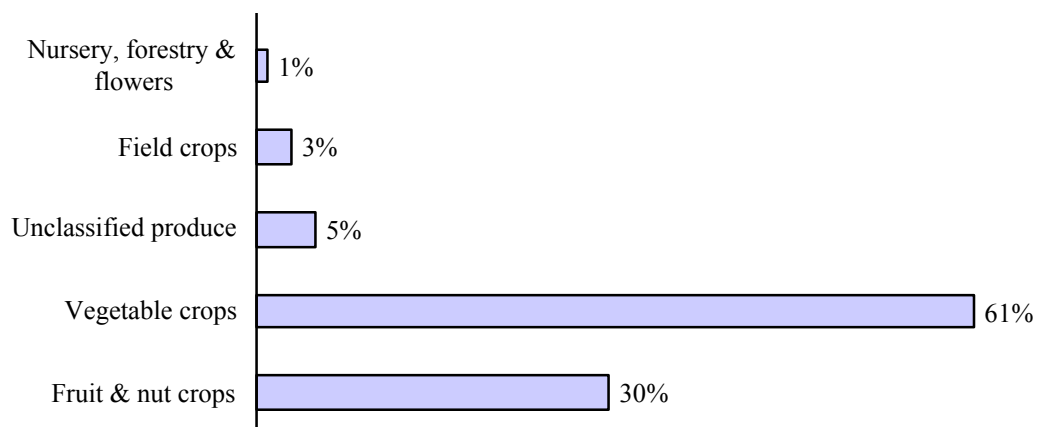
Note:

Most growers reported actual sales over the \$5 million annual gross sales report ceiling set by CDFA while others simply reported at the ceiling.

^a Includes poultry and related products.

— Data not reported to protect grower confidentiality.

Figure 4-1. Registered Organic Agriculture by Commodity Group as Reported to CDFA, 1995-96

GROWER NUMBERS ^a**CROP ACREAGE****GROSS SALES**

Note:

Commodity groups with less than 1% in grower numbers, crop acreage, or gross sales are not shown.

^a Totals more than 100% because of multiple responses to some commodity groups

GEOGRAPHIC DISTRIBUTION OF PRODUCTION

Distribution of Acreage. The San Joaquin Valley had the most organically farmed acreage in the state for 1995-96, with about one fourth of the total (Table 4-2). In this region, fruits and nut crops accounted for over one half of the acreage and vegetable crops claimed another one third. This region's fruit and nut crops had the largest acreage for any regional commodity group—30% of all fruit and nut organic acreage.

The Sacramento Valley had just over one fifth of the state's total organic acreage, 59% of which was planted to field crops. Twenty-three percent of the region's acreage was planted to fruit and nut crops, and 14% to vegetables. Sacramento Valley field crops recorded the second largest acreage amount for any regional commodity group—13% of the state total.

The three coastal regions accounted for 18,544 acres, about 40% roughly of the state's organic acreage (Table 4-2). Fruit and nut crops dominated in the North and South Coast regions, with 82% and 59% respectively of each region's acreage. Vegetable crops accounted for 13% of the acreage in the North Coast and 30% in the South Coast. In contrast, vegetable crop production dominated in the Central Coast representing 59% of the acreage and 82% of sales (Tables 4-2, 4-3).

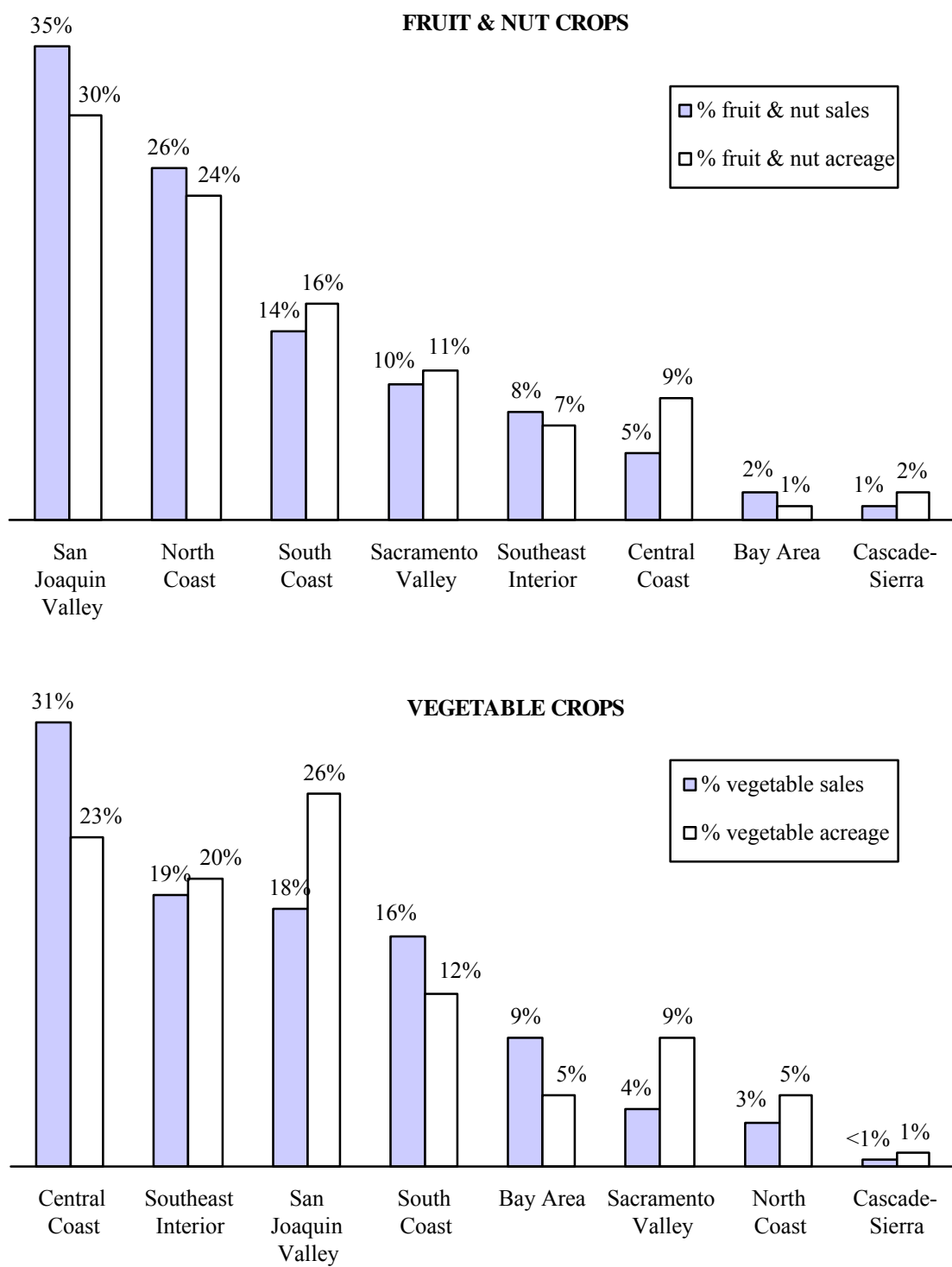
With respect to individual counties, Kern County led the state with nearly 5,000 organic acres, 10% of the state total and over 40% of the San Joaquin Valley region acres (Table A-2). San Diego, Imperial, Butte, Sonoma, and Fresno counties were also high in acreage, each with about 3,000 acres.

Distribution of Gross Sales. The Central Coast led the state in sales of organic commodities with \$26 million of which \$21 million was in vegetable crops. The Central Coast accounted for 23% of all organic sales and Central Coast vegetables represented 19% of all organic sales.

San Joaquin Valley growers generated just over one fifth (22%) of the state's total organic sales with \$25 million, split nearly evenly between fruit and nut and vegetable crops. The South Coast was the third largest region in value of production, recording \$17 million in total sales of which 63% were from vegetable crops.

Kern, Monterey and Imperial counties led the state in gross sales, each with over \$13 million in total revenue (Table A-2). Combined, these three counties generated over one third of the state's total sales. Kern and Monterey were responsible for over one half of their respective region's sales. Imperial County claimed over 80% of the Southeastern Interior region's sales.

Figure 4-2. Regional Distribution of Acreage and Gross Sales for Fruit and Nut Crops and Vegetable Crops, 1995-96



Notes:

Regions with less than 1% in crop acreage or gross sales are not shown.
 Percentages are of statewide totals.

Distribution of Selected Commodities. The San Joaquin Valley reported the highest vegetable crop acreage in the state—one fourth of the total—and claimed 18% of the statewide vegetable crop sales (Tables 4-2, 4-3; Figure 4-2). The Central Coast reported slightly less vegetable crop acreage than the San Joaquin Valley but had a higher percentage of statewide sales (31%) due to its high value crops. In contrast to the regional distribution of the highest acreage and sales, the largest number of vegetable crop growers (29%) were based in the North Coast where they accounted for only 5% of total vegetable crop acres and 3% of sales.

The San Joaquin Valley also claimed the most fruit and nut crop acreage in the state. Nearly one third (30%) of the state's organic fruit and nut crops were grown in this region where they also posted just over one third (35%) of the gross sales. The North Coast region followed the San Joaquin Valley in fruit and nut acreage with one fourth of both the acreage and sales. In contrast, nearly one half of the state's fruit and nut growers (48%) were found on the South Coast where they accounted for 16% of the state's fruit and nut acreage and only 14% of the sales. Three fourths of the state's total field crop acreage and 84% of sales were reported from the Sacramento Valley.

FARM PROFILES

During 1995-96, most registered organic farms were small in acreage, with relatively low annual sales and returns per acre. Fifty percent of all farms consisted of five acres or less, grossed under \$6,000 per farm, and had less than \$1,471 in sales per acre (Table 4-4). Compared to the 1994-95 analysis, median farm size grew slightly, annual sales stayed the same, and sales per acre slightly declined.

Distribution by Selected Commodity Group. Because fruit, nut and vegetable farms represented 95% of all growers, their statistics were similar to the state totals. In contrast, one half of all field crop farms were larger than 55 acres, one half had sales above \$30,000, and one half earned more than \$438 in sales per acre. Median acres for field crops declined by one half from 1994-95 but increased slightly in sales per acre.

Table 4-4. Median, 75th, and 90th Percentiles of Acreage, Gross Sales, and Sales per Acre for All Farms and Farms in Selected Organic Commodity Groups, 1995-96

	Percentile	All Farms ^a	Field Crops	Fruit & Nut Crops	Vegetable Crops
Acres	Median	5	55	5	3
	75th	17	221	17	15
	90th	72	522	55	77
Gross Sales (\$)	Median	6,000	30,000	5,000	8,304
	75th	24,586	75,000	16,000	40,000
	90th	125,000	252,000	86,570	273,000
Sales per Acre (\$)	Median	1,471	438	1,021	3,125
	75th	3,333	881	2,041	7,692
	90th	8,589	1,405	4,000	19,444

^a Includes all commodities—those shown plus livestock, nursery crops, and unclassified produce.

In marked contrast to the median statistics, the largest 10% of farms planted at least 72 acres, the top 10% in sales grossed \$125,000 or more, and the top 10% with respect to sales per acre earned at least \$8,600 per acre.² Although the largest vegetable farms were similar in size to "All Farms" acreage, the top 10% of vegetable farms in sales earned over twice the gross sales of "All Farms" and the top 10% in sales per acre were also higher than those of the "All Farms" category. Gross sales for vegetable farms in this group increased from the previous year although sales per acre declined by 30%. Statistics for the top 10% of field crop and fruit and nut farms show a similar pattern to the 1994-95 analysis.

Distribution by Region. The South Coast region had the highest concentration of growers in the state (Table 4-1), over one third of all farms. However, median farm size in this region was among the smallest in the state, with low median gross sales; 50% of South Coast farms had less than three acres and earned less than \$3,000 annually (Table 4-5). The North Coast had the second highest number of growers, with about one fifth of the total. Farms in this region were also among the smallest in the state.

San Joaquin Valley farms led the state in median farm size, 41 acres, and had the highest median gross sales per farm, \$59,756. Median acres and gross sales for Sacramento Valley farms were a distant second.

The top 10% of farms in acreage and gross sales show a similar ranking to their median statistics. The San Joaquin Valley's largest farms had significantly more acreage than the largest 10% of farms in other regions. The top 10% of Sacramento Valley and Southeastern Interior farms also had more acreage and higher gross sales compared to other regions. The Central Coast's largest farms were fourth in acreage after the above regions, but second in gross sales behind the San Joaquin Valley.

Table 4-5. Median, 75th, and 90th Percentiles of Acreage and Gross Sales by Region, 1995-96

Percentile	Acres			Gross Sales (\$)		
	Median	75th	90th	Median	75th	90th
Region:						
Bay Area	2	14	40	9,500	38,000	165,708
Cascade-Sierra	2	7	14	2,750	8,050	20,000
Central Coast	9	35	89	9,000	75,000	273,000
North Coast	4	12	30	6,000	20,000	72,000
Sacramento Valley	15	54	175	16,500	75,992	200,000
San Joaquin Valley	41	87	220	59,756	193,723	406,799
South Coast	3	7	23	3,000	8,500	30,230
Southeast Interior	8	47	118	9,903	52,016	240,000
All Regions	5	17	72	6,000	24,586	125,000

² The top 10% of farms with respect to acreage are not necessarily the same farms that are in the top 10% in gross sales or sales per acre. For example, a two-acre farm grossing \$24,000 per year and earning \$12,000 per acre and would be below the median in acreage, in the 75th percentile in gross sales, and in the 90th percentile for sales per acre. Another farm, with 100 acres grossing \$24,000, and earning \$240 per acre and would be in the 90th percentile with respect to acres, at the 75th percentile for gross sales and below the median for sales per acre.

Income Concentration. As the distribution figures that follow suggest, revenue from organic agriculture is highly concentrated. Nearly 50% of the value of organic production was captured by the 1% of growers who grossed over \$1 million annually (Table 4-6, Figure 4-3). Another 4% of all growers, those grossing between \$250,000 and \$999,999 annually, claimed an additional 25% of the state's sales. This concentration in revenue is not surprising considering that 62% of all growers gross less than \$10,000 annually and account for only 3% of the state's total gross sales.

Of the farms in the lowest sales class, those grossing less than \$10,000 annually, two thirds grew fruit and nut crops. These growers made up 43% of all growers in the state and 69% of all fruit and nut growers. Although there were only one third as many vegetable farms as fruit and nut farms, vegetable producers also accounted for a significant portion of farms in the lowest sales class (24%). Fifty-five percent of vegetable crop growers earned less than \$10,000. However, vegetable crops also account for the highest earning farms in the state. Of the 21 farms that grossed over \$1 million in 1995-96, three quarters (76%) were vegetable crop farms. In contrast, nearly 50% of field crop growers earn in the middle sales category ranges. This pattern of income distribution among the commodities is similar to the 1994-95 analysis.

Table 4-6. Number of Registered Organic Growers by Sales Class and Commodity Group as Reported to CDFA, 1995-96

Sales Class (\$)	Produce			Field Crops	Nursery, Forestry & Flowers	Livestock ^a	Total Growers ^b
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce				
\$0 - 4,999	438	130	55	7	9	12 ^c	606
\$5,000 - 9,999	170	80	26	4	5	—	281
\$10,000 - 49,999	152	85	39	15	5 ^d	0	284
\$50,000 - 99,999	40	19	16	14 ^e	—	0	79
\$100,000 - 249,999	50	27	7	—	5 ^f	—	93
\$250,000 - 499,999	19	15	3	5 ^g	—	0	42
\$500,000 - 999,999	7	10	3	—	0	—	21
\$1,000,000 and above	4	16	0	0	0	0	21
Total Growers	880	382	149	45	24	12	1,427

^a Includes poultry and related products.

^b Row totals do not add because of multiple responses to commodity group category and unreported data.

^c Includes growers from the \$0 - 4,999 through \$500,000 - 999,999 sales classes.

^d Includes growers from the \$10,000 - 49,999 through \$50,000 - 99,999 sales classes.

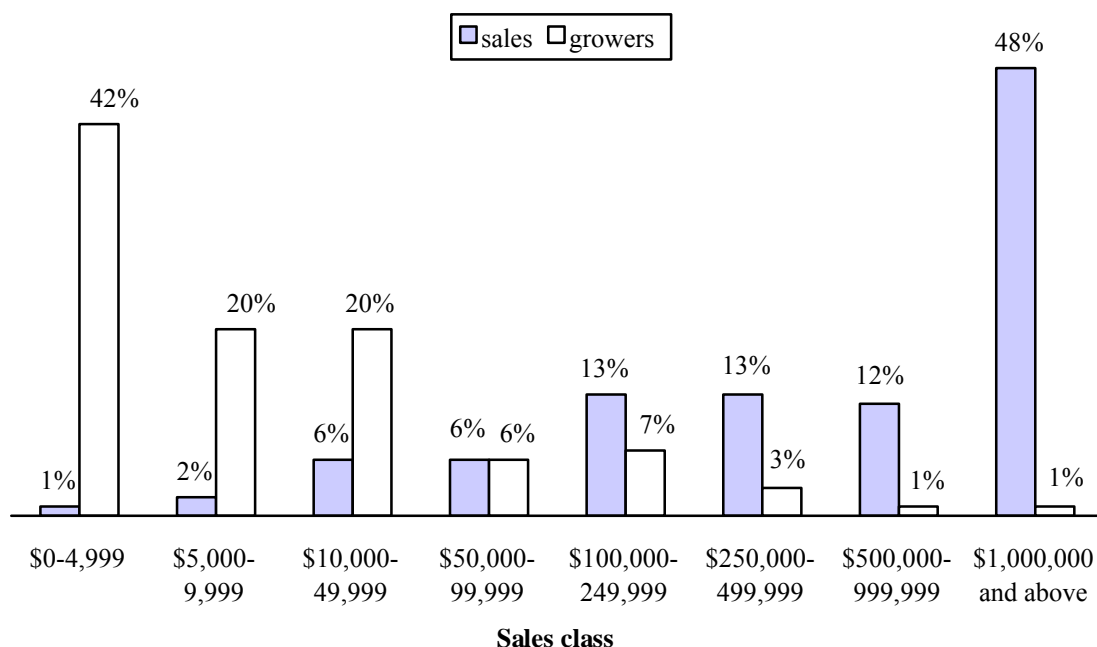
^e Includes growers from the \$50,000 - 99,999 through \$100,000 - 249,999 sales classes.

^f Includes growers from the \$100,000 - 249,999 through \$250,000 - 499,999 sales classes.

^g Includes growers from the \$250,000 - 499,999 through \$500,000 - 999,999 sales classes.

— Data not reported to protect grower confidentiality.

Figure 4-3. Income Concentration for Registered Organic Growers as Reported to CDFA, 1995-96



Registered Organic Handlers

During 1995-96, a total of 89 registered handlers sold \$80 million in organic products (Tables 4-7, 4-8). The South Coast region had the largest number of handlers, with revenue totaling \$21.2 million, thus representing 26% of the sales total. The Bay Area region had the second largest number of handlers but claimed higher sales, \$24.5 million, accounting for 30% of the state total. Fifty-three percent of fruit, nut and vegetable crop sales were not distinguished by specific commodity and therefore were combined in the Unclassified Produce category. This category was the largest contributor to organic sales, with \$37.5 million—47% of the state total. Fruit and nut crops accounted for another \$26.4 million, 30% of the state total. Fruit and nut crop sales show a dramatic increase from 1994-95 when they accounted for only 14% of total sales.

Table 4-7. Registered Handlers of Organic Commodities by Region and Commodity Group as Reported to CDFA, 1995-96

Region	Produce				Total Handlers ^a
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce	Field Crops	
Bay Area	4	8	6	3	20
South Coast	17	5	13	3	33
Other Regions	13	10	9	5	36
Total Handlers	34	23	28	11	89

^a Row totals do not add because of multiple responses to commodity group category and inclusion of nursery crops and livestock products handlers in total.

Table 4-8. Gross Sales for Registered Handlers of Organic Commodities by Region and Commodity Group as Reported to CDFA, 1995-96

Region	Produce				Total Gross Sales (\$) ^a
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce	Field Crops	
Bay Area	3,022,280	1,262,777	13,194,228	7,012,358	24,497,008
South Coast	10,055,991	458,423	9,807,130	870,165	21,191,709
Other Regions	13,328,183	5,149,672	14,537,707	1,301,047	34,316,609
Total Gross Sales (\$)	26,406,454	6,870,872	37,539,065	9,183,570	80,005,326

Notes:

Most handlers reported actual sales over the \$5 million annual gross sales report ceiling set by CDFA while others simply reported at the ceiling.

Gross sales include products from out of state and out of the country.

^a Total includes poultry and related products, and nursery crops.

5 ANNUAL STATISTICS 1996-97

Descriptive statistics for 1996-97 are presented in this chapter. The analysis focuses on industry size, commodities that are produced and sold as organic, geographic distribution of production, and farm profiles. Data relevant to registered organic are followed by data for registered handlers.

1996-97 Summary Highlights

THE INDUSTRY

- Total gross sales of organic commodities were \$137 million, a 21% increase from 1995-96.
- Organic acreage expanded by 18% to a total of 54,768 acres, largely due to increases in vegetable crop acreage in the Central Coast and increases in field crop acreage in the Sacramento Valley.
- The number of registered growers reporting sales increased by 3% to 1,475.

MAJOR COMMODITIES

- Fruit and nut crops accounted for the most organic acreage in the state and vegetable crops generated the highest sales.
- Over half the state's organic growers (62%) farmed fruit and nut crops, accounting for over one third of the total organic acreage and almost one third of the total value of production. The San Joaquin Valley continued as the most important fruit and nut crop region, representing over one third of the fruit and nut crop acreage and sales. The North Coast followed with roughly one fifth of the acreage and one fourth of the sales.
- Almost one third of the state's organic growers farmed vegetable crops, accounting for another one third of the state's organic acreage and over half the total gross income. The Central Coast overtook the San Joaquin Valley in vegetable crop acreage, reporting 38% of the total vegetable crop acreage in the state, a 113% regional increase from 1995-96. This region also led the state in vegetable crop sales with one third of the total.
- Field crops represented one fifth of the state's total acreage but only 5% of the total gross sales. The Sacramento Valley remained the dominant field crop producing region.

1996-97 Summary Highlights continued**REGIONAL DISTRIBUTION**

- The San Joaquin Valley led the state in organic acreage with nearly one fourth of the total (22%), followed closely by the Sacramento Valley and the Central Coast. Sacramento Valley acreage increased by 19% and the Central Coast by 70% from the previous year.
- The Central Coast remained highest in gross sales (24%) with a 31% increase from 1995-96. The San Joaquin Valley was a close second in revenue, increasing by 31% from the previous year.
- Over one third (35%) of organic growers were located in the South Coast region where they farmed one tenth of the state's organic acres and generated roughly one eighth of the state's gross sales. The North Coast region reported one fifth of the growers but only about one tenth of the state's acreage and sales.
- Kern and San Benito counties led the state in organic acreage. Kern, Monterey, and Imperial counties had the greatest share of the sales.

FARM CHARACTERISTICS

- Most organic farms were small in size and earned low gross sales and sales per acre. In 1996-97, 50% of all farms were less than five acres, grossed under \$7,000 and earned less than \$1,400 in sales per acre.
- Median statistics for fruit, nut and vegetable farms were similar to the above medians for total farms. In contrast, median field crop farms were much larger, 49 acres, with significantly higher median gross annual sales, and lower sales per acre.
- San Joaquin Valley farmers posted the highest median acres (39 acres) and gross sales per farm (\$45,000), followed by growers in the Sacramento Valley.

INCOME CONCENTRATION

- Revenue from organic agriculture was highly concentrated; 53% of the value of organic production was captured by the 2% of growers who grossed over \$1 million annually.
- Roughly two thirds of all farms grossed less than \$10,000 and captured only 2% of gross revenue for the state.

HANDLERS

- Registered handlers sold \$106 million in organic products, a 32% increase in sales from 1995-96.
- The South Coast region handlers generated one third of the total state revenue, representing a 57% increase in sales for the region. The Central Coast, although still below the South Coast and Bay Area in total sales, also increased significantly in sales from previous years.
- Organic produce comprised 91% of handler sales with field crops a secondary market.

Registered Organic Farms

INDUSTRY SIZE

A total of 1,475 registered organic farmers reported gross sales of \$137 million for organically grown commodities from 54,768 crop production acres in 1996-97 (Tables 5-1, 5-2, 5-3). Total organic acreage increased by 18% from 1995-96, and gross sales grew by 21%. In addition, 106 growers were registered in the California organic program but did not report sales of any organic products on 4,132 acres during 1996-97. This group was excluded from the analysis.

Organic agriculture represented approximately 0.8% of the total cash income from marketing for all agriculture in the state in 1996-97, excluding livestock, poultry and products. Organic fruit, nut and vegetable crops represented approximately 1% of the state's fruit, nut and vegetable crop income (CDFA, 1998).

ORGANIC COMMODITIES

Produce accounted for 92% of total sales on 78% of all organic crop acreage in the state (Tables 5-2, 5-3, Figure 5-1). Fruit and nut crops were nearly equal to vegetable crops in total acreage, but fell well below vegetables in gross sales.

Specifically, the fruit and nut crop commodity group and vegetable crop group each accounted for over one third of the state's total organic acreage (38% and 37% respectively). Vegetable crops were the highest value commodity group with \$78.3 million in sales—over half of the state's total gross sales (57%). This represents a 28% increase in vegetable crop acreage and a 15% increase in sales from 1995-96. Fruit and nut crops accounted for \$40.2 million, 29% of the state's total sales. Fruit and nut crop acreage was similar to the 1995-96 analysis but income from this commodity group increased by 20%.

By comparison, field crops had only a small percentage (5%) of total sales, but a larger share of the acreage, just over one fifth (22%). Field crops posted a dramatic increase in sales, more than doubling their income from the previous year. Nursery and flowers contributed 1% of gross sales and livestock 2%.

As in 1995-96, rice and grapes (wine, table, and raisin) shared the top spot in acreage for the state (Table A-1). Only rice expanded in acreage. Just under 7,000 acres were in grape production, accounting for 12% of the state's total acreage and one third of the fruit and nut acres. Grapes also had the highest share of sales of any single commodity (\$17 million)—12% of the state's total income, representing 42% of fruit and nut crop sales.

Rice represented the highest acres for any individual commodity (8,084)—15% of total organic acreage for the state, and 68% of field crops. Rice was fourth highest in sales with over \$6.3 million in gross income, substantially lower than grapes.

Table 5-1. Number of Registered Organic Growers by Region and Commodity Group as Reported to CDFA, 1996-97

Region	Produce			Field Crops	Nursery, Forestry & Flowers	Livestock ^a	Total Growers ^b
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce				
Bay Area	8	39	5	—	5	3	57
Cascade-Sierra	35	39	15	5	—	—	91
Central Coast	63	86	17	4	10	0	168
North Coast	139	131	34	6	11	6	296
Sacramento Valley	80	40	15	44	3	0	162
San Joaquin Valley	82	27	5	5	—	—	109
South Coast	430	49	21	—	6	—	489
Southeast Interior	71	27	4	3	—	0	103
Total growers	908	438	116	70	39	14	1,475

^a Includes poultry and related products.

^b Row totals do not add because of multiple responses to commodity group category.

— Data not reported to protect grower confidentiality.

Table 5-2. Registered Organic Crop Acreage by Region and Commodity Group as Reported to CDFA, 1996-97

Region	Produce			Field Crops	Nursery, Forestry & Flowers	Livestock ^a	Total Acres
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce				
Bay Area	168	841	18	—	2	na	1,660
Cascade-Sierra	348	187	85	1,926	—	—	2,546
Central Coast	1,866	7,544	758	61	4	na	10,233
North Coast	4,466	1,274	217	396	12	na	6,364
Sacramento Valley	2,335	947	152	8,324	2	na	11,759
San Joaquin Valley	7,070	4,593	63	292	—	—	12,017
South Coast	3,048	2,077	655	—	13	—	5,928
Southeast Interior	1,498	2,561	150	53	—	na	4,261
Total acres	20,799	20,023	2,097	11,816	33	na	54,768

^a Includes poultry and related products.

— Data not reported to protect grower confidentiality.

na Acreage figures not available.

Table 5-3. Gross Sales for Registered Organic Growers by Region and Commodity Group as Reported to CDFA, 1996-97

Region	Produce			Nursery,			Total Sales
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce	Field Crops	Forestry & Flowers	Livestock ^a	
Bay Area	1,128,740	6,687,367	172,601	—	176,750	1,082,229	9,325,687
Cascade-Sierra	496,235	222,669	92,991	173,575	—	—	1,025,870
Central Coast	1,987,960	26,691,334	3,397,220	11,646	1,367,851	0	33,456,011
North Coast	9,875,450	2,113,545	596,227	26,330	235,651	1,070,989	13,918,192
Sacramento Valley	3,848,479	2,836,689	528,010	6,600,350	11,634	0	13,825,162
San Joaquin Valley	15,282,337	16,826,452	233,704	198,644	—	—	32,551,637
South Coast	5,189,461	10,509,312	2,100,721	—	110,620	—	18,025,274
Southeast Interior	2,361,506	12,400,279	147,733	44,333	—	0	14,955,323
Total sales	40,170,168	78,287,647	7,269,207	7,217,878	1,904,878	2,233,378	137,083,156

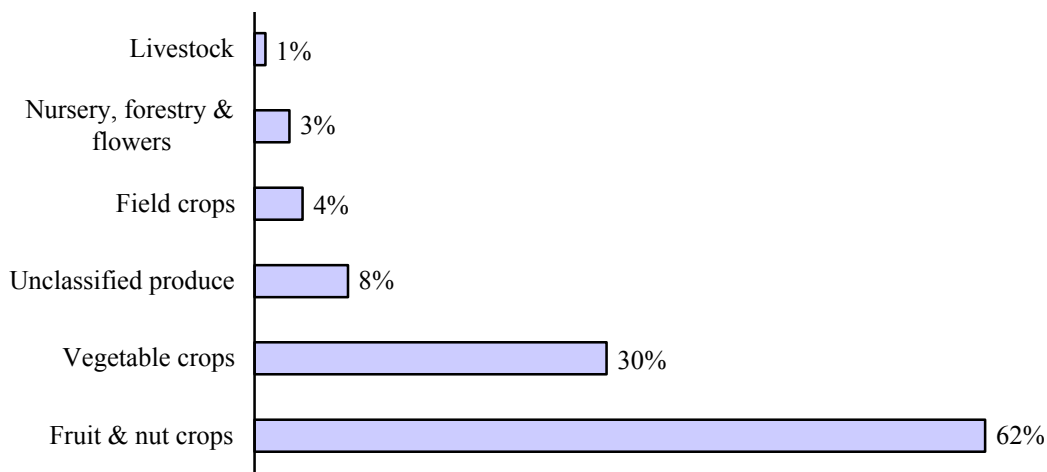
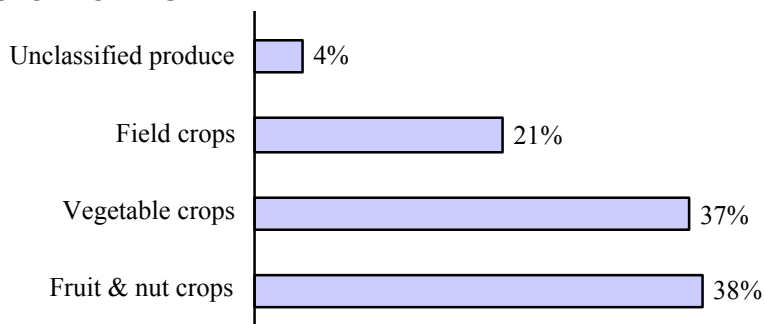
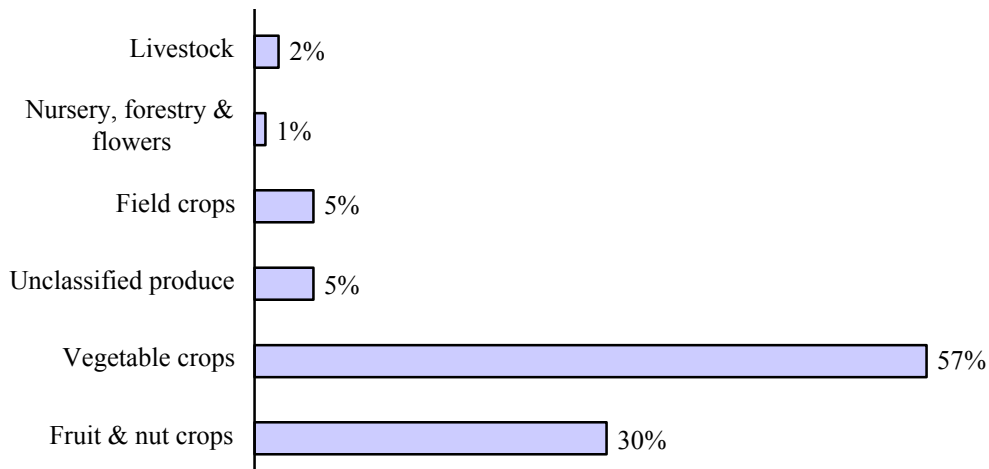
Note

Most growers reported actual sales over the \$5 million annual gross sales report ceiling set by CDFA while others simply reported at the ceiling.

^a Includes poultry and related products.

— Data not reported to protect grower confidentiality.

Figure 5-1. Registered Organic Agriculture by Commodity Group as Reported to CDFA, 1996-97

GROWER NUMBERS ^a**CROP ACREAGE****GROSS SALES**

Note:

Commodity groups with less than 1% in grower numbers, crop acreage, or gross sales are not shown.

^a Totals more than 100% because of multiple responses to some commodity groups.

Citrus and subtropical crops, with close to 6,000 acres, were next highest in acreage. Citrus and subtropicals, with \$8.4 million, followed grapes in gross sales.

Although most vegetable crop acres and sales were reported in the “mixed vegetable” category, sprouts, cucurbits and composites (mostly lettuces) emerged as the top vegetable crop in acreage and sales for farms that reported in greater detail (Table A-1).

GEOGRAPHIC DISTRIBUTION OF PRODUCTION

Distribution of Acreage. In 1996-97, the San Joaquin and the Sacramento Valley regions had the most organically farmed acres in the state, each with just over one fifth of the total acreage (Table 5-2). In the San Joaquin Valley, 58% of the acres were planted to fruit and nut crops, and 38% to vegetable crops. In contrast, field crops dominated in the Sacramento Valley with nearly three quarters of the state’s and region’s total field crop acreage (70%), a regional increase of 43%. Sacramento Valley field crops also posted the largest acreage figure of any regional commodity group—16% of the state total.

The Central Coast rounded out the top three regions for largest acreage amounts, with just less than one fifth of the state total (19%). Three fourths of the acreage was planted to vegetable crops and roughly one sixth to fruit and nut crops. This region farmed more vegetable crop acres than any other region, and had the second largest acreage of any regional commodity group—14% of the state total. Organic acreage in this region expanded by 70%, contributing a major percentage of the total increase in acreage for the state.

Kern County continued to lead the state in organic acres (5,619) with 10% of the state total and 46% of the San Joaquin Valley region (Table A-2). This county gained over 1,000 acres from the previous year. San Benito County, second only to Kern with over 4,000 acres, almost quadrupled in acreage from 1995-96 representing 40% of the Central Coast regional acreage. Sonoma, San Diego, Fresno and Monterey counties remained high in acreage, each with just over 3,000 acres.

Distribution of Gross Sales. Central Coast growers led the state in sales of organic commodities with over \$33.5 million, claiming one fourth of the state’s organic revenue (Table 5-3). Vegetable crops accounted for 81% of the region’s value of production, recording the highest sales for any regional commodity group—20% of the state total.

The San Joaquin Valley closely followed the Central Coast with \$32.6 million in sales, 51% from vegetable crops and 47% from fruit and nut crops. Gross sales in this region increased by 33%—accounting for 34% of the total growth in income for the state. The South Coast region had the third highest sales with \$18 million, or about one sixth of the total. Vegetable crops, with 59% of the region’s sales, also figured prominently. Fruit and nut crops generated an additional 29% of South Coast region sales.

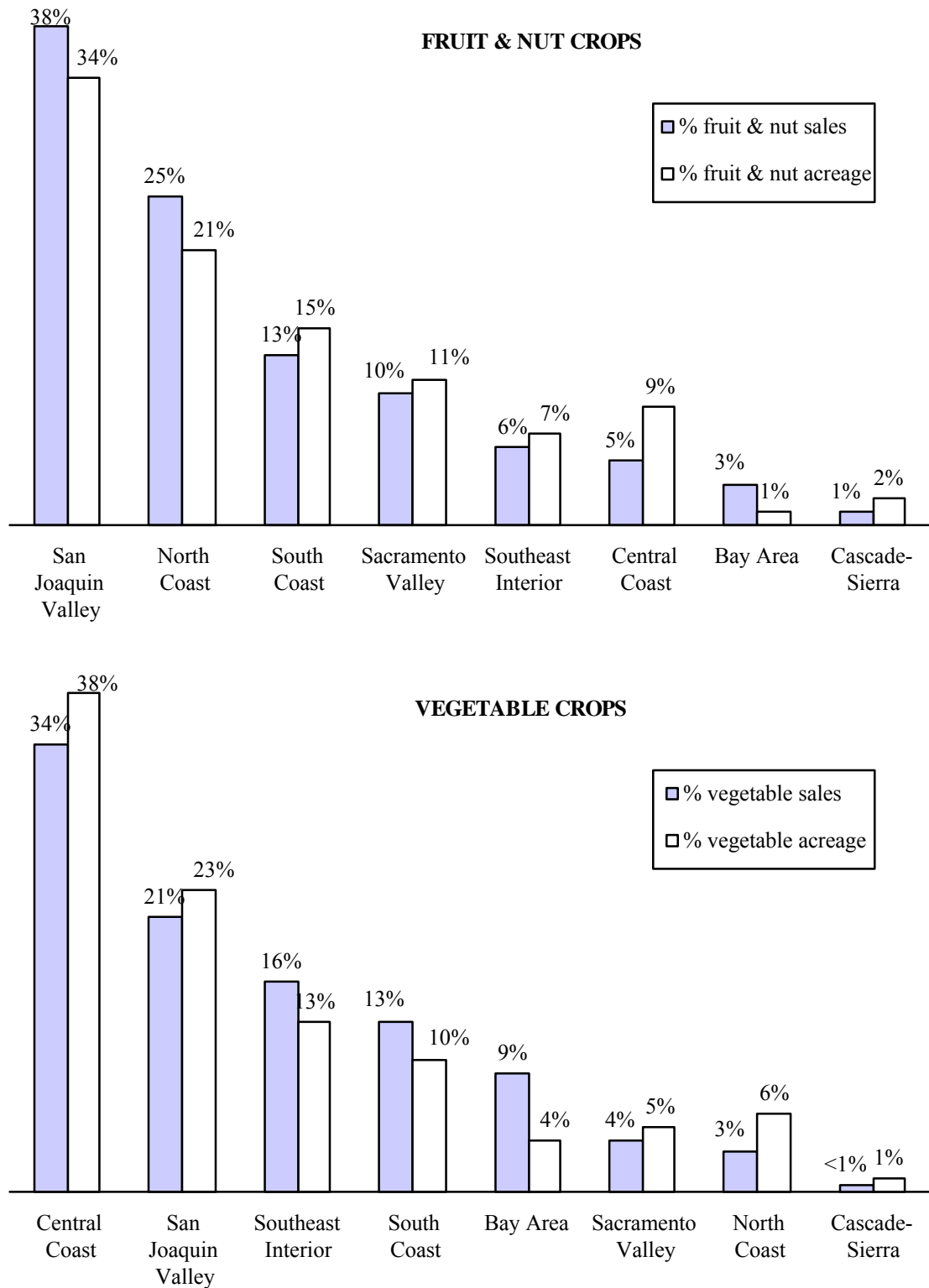
Kern, Monterey and Imperial remained the top three counties in terms of gross sales (Appendix A-2). Kern County claimed the greatest share (\$21.2 million) and the largest increase in gross sales from the previous year—at 59% (Table A-2). Kern County also accounted for 15% of the total value of production for the state and two thirds of San Joaquin Valley regional sales. Monterey County, with \$15.4 million, had a more modest gain of 16% from the previous year while Imperial County sales declined slightly to \$12.7 million. These three counties combined comprised over one third of the state's total sales.

Although San Benito County jumped to second place in acreage this year, it was fourth in sales with \$10.5 million. Mendocino, Ventura, San Diego, Fresno, Sonoma, and Santa Cruz counties all had high sales, in the \$5 to 7 million range.

Distribution of Selected Commodities. The Central Coast posted the highest vegetable crop acreage and gross sales in the state—over one third of the state totals (Figure 5-2). Vegetable crop acreage in this region doubled from 1995-96 but increased sales by 28%. The San Joaquin Valley ranked second in vegetable crop acreage and sales with nearly one fourth each of the total. Vegetable crop acreage in this region increased by 15% while vegetable crop sales increased by 37% from the 1995-96 year. The Southeastern Interior also remained a strong vegetable crop-producing region with 16% of the sales and 13% of the state's vegetable crop acreage. In contrast to the regional distribution of the highest acreage and sales, the largest number of vegetable crop growers (30%) were based in the North Coast where they accounted for only 6% of total vegetable crop acreage and 3% of sales.

The San Joaquin Valley led the state in fruit and nut crop acreage and sales. Farms in this region accounted for over one third (34%) of the state's organic fruit and nut crops acreage and 38% of sales. The North Coast region followed the San Joaquin Valley in fruit and nut acreage with one fifth of acreage and one fourth of sales. In contrast, nearly half of the state's fruit and nut growers (47%) are found in the South Coast where they farm 15% of the state's fruit and nut acreage and generate only 13% of the sales. The Sacramento Valley claimed 70% of the state's total field crop acreage and 91% of sales.

Figure 5-2. Regional Acreage and Gross Sales for Fruit and Nut Crops and Vegetable Crops, 1996-97



Notes:

Regions with less than 1% in crop acreage or gross sales are not shown.
 Percentages are of statewide totals.

FARM PROFILES

During 1996-97, most registered organic farms were small in acreage, with low annual sales and returns per acre. Fifty percent of all farms consisted of five acres or less, grossed under \$7,000, and had sales per acre below \$1,400 (Table 5-4). Median gross sales rose from 1995-96 while sales per acre slightly declined.

Distribution by Selected Commodity Group. Because fruit, nut and vegetable crops represented 92% of all farms, their statistics were similar to the state total. In contrast, 50% of all field crop farms were larger than 49 acres, and had sales above \$25,940. Median sales per acre ranged from a low of \$525 for field crops to high of \$3,120 for vegetable crops. These results follow a pattern similar to those for 1995-96.

Table 5-4. Median, 75th, and 90th Percentiles of Acreage, Gross Sales, and Sales per Acre for All Farms and Farms in Selected Organic Commodity Groups, 1996-97

	Percentile	All Farms ^a	Field Crops	Fruit & Nut Crops	Vegetable Crops
Acres	Median	5	49	5	3
	75th	18	190	16	12
	90th	73	476	52	79
Gross Sales (\$)	Median	7,000	25,940	5,000	8,500
	75th	29,450	84,363	1,800	37,214
	90th	139,500	135,000	81,568	240,664
Sales per Acre (\$)	Median	1,400	525	1,000	3,120
	75th	3,600	811	2,162	8,059
	90th	10,000	3,250	4,750	16,667

^a Includes all commodities—those shown plus livestock, nursery crops, and unclassified produce.

In marked contrast to the median statistics, the top 10% largest farms had at least 73 acres, the top 10% in sales grossed more than \$139,500, and the top 10% in sales per acre earned over \$10,000 per acre. These statistics reflect a modest increase in gross sales and sales per acre from 1995-96. The largest 10% of vegetable farms were similar in size to the largest farms for other commodities. However, the top grossing vegetable farms earned significantly more than the top fruit and nut or field crop farms. Gross sales of the top field crop farms fell by almost half from the previous year but sales per acre more than doubled due to a dramatic increase in hay and rice acreage (Table A-1).

Distribution by Region. Two thirds of all registered organic farms were located in one of the state's three coastal regions (Table 5-1). The South Coast claimed about one third of all farms, the North Coast another one fifth, and the Central Coast approximately one tenth.

The regions with the largest median farms also had the highest median gross sales per farm (Table 5-5). The San Joaquin Valley was first in median farm size (39 acres) and gross sales (\$45,000). The median farm size in the Sacramento Valley was 16 acres, a distant second to San Joaquin Valley median farms, and had median sales per farm of

\$18,650—far below the San Joaquin Valley but much higher than farms in most other regions. The Central Coast also reported high median acres and gross sales compared to other regions.

The largest 10% of all farms were located in the San Joaquin Valley, where producers farmed at least 208 acres and earned above \$545,892. The largest 10% of Sacramento Valley farms had at least 183 acres, with gross sales greater than \$179,031. In comparison, the largest 10% of all Central Coast farms were significantly smaller, with at least 113 acres, but grossed above \$371,584—not as much as San Joaquin Valley farms but substantially more than farms in the Sacramento Valley. Sales by Central Coast and San Joaquin Valley farms increased substantially from 1995-96.

Table 5-5. Median, 75th, and 90th Percentiles of Acreage and Gross Sales by Region, 1996-97

Percentile	Acres			Gross Sales (\$)		
	Median	75th	90th	Median	75th	90th
Region:						
Bay Area	1	7	50	8,693	28,000	120,000
Cascade-Sierra	2	7	13	4,730	10,000	250,000
Central Coast	10	40	113	12,370	100,431	371,584
North Coast	4	12	34	6,480	23,050	75,000
Sacramento Valley	16	49	183	18,650	77,405	179,031
San Joaquin Valley	39	82	208	45,000	200,000	545,892
South Coast	3	8	22	3,150	9,500	40,000
Southeast Interior	6	18	83	9,032	44,449	134,600
All Regions	5	18	73	7,000	29,450	139,500

Income Concentration. As the distribution figures that follow indicate, revenue from organic agriculture is highly concentrated. Over half of the value of production was captured by the 2% of growers who grossed over \$1 million annually (Table 5-6; Figure 5-3). Another 4% of all growers, those who grossed between \$250,000 and \$999,999 annually, captured an additional 22% of the state's sales. Farms with the lowest incomes—those grossing \$10,000 or less—comprised nearly two thirds of all growers, but captured only 2% of total sales.

As in the previous year, fruit and nut crop farms claimed the highest total number of growers but had the highest percentage of growers in the lowest sales class, those earning less than \$10,000 annually. These fruit and nut crop farms accounted for two thirds (68%) of all the farms in that sales class, 42% of all farms, and 67% of all fruit and nut farms. Vegetable crops also had a high preponderance of small growers, but also some of the highest grossing farms. Sixty percent of vegetable crop growers were in the lowest sales category but three fourths of the 24 total farms with gross sales of over \$1 million were vegetable farms.

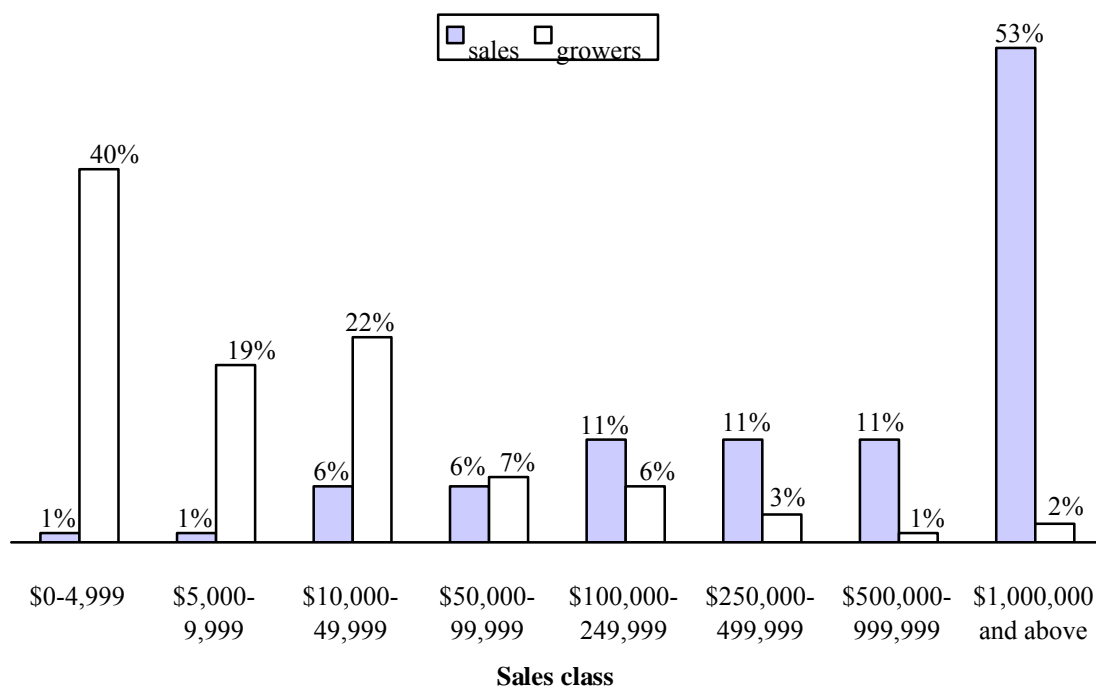
Table 5-6. Number of Registered Organic Growers by Sales Class and Commodity Group as Reported to CDFA, 1996-97

Sales Class (\$)	Produce			Field Crops	Nursery, Forestry & Flowers	Livestock ^a	Total Growers ^b
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce				
\$0 - 4,999	451	146	39	10	19	7 ^c	595
\$5,000 - 9,999	161	89	18	7	5	—	273
\$10,000 - 49,999	166	106	34	29	5	4	327
\$50,000 - 99,999	54	25	6	12	7 ^d	0	98
\$100,000 - 249,999	47	29	10	12 ^e	—	3 ^f	93
\$250,000 - 499,999	13	19	6	—	3	0	43
\$500,000 - 999,999	12	7	3 ^g	—	0	—	22
\$1,000,000 and above	4	17	—	—	0	—	24
Total Growers	908	438	116	70	39	14	1,475

^a Includes poultry and related products.^b Row totals do not add because of multiple responses to commodity group category and unreported data.^c Includes growers from the \$0 - 4,999 through \$5,000 - 9,999 sales classes.^d Includes growers from the \$50,000 - 99,999 through \$100,000 - 249,999 sales classes.^e Includes growers through \$100,000 - 249,999 and above sales classes.^f Includes growers from the \$100,000 - 249,999 through 1,000,000 & above sales classes.^g Includes growers from the \$500,000 - 999,999 through \$1,000,000 & above sales classes.

— Data not reported to protect grower confidentiality.

Figure 5-3. Income Concentration for Registered Organic Growers as Reported to CDFA, 1996-97



Registered Organic Handlers

During 1996-97, a total of 92 registered handlers sold \$106.1 million in organic products (Tables 5-7, 5-8). The South Coast region had the largest number of handlers, with revenue totaling \$33.5 million, thus representing 31% of the sales total. Revenue in this region increased by 58% from 1995-96, while the number of handlers somewhat declined. The Bay Area had a similar number of handlers to the South Coast, but only two thirds the sales (\$23 million), representing 22% of all organic sales. For the first time, vegetable crops, with \$38 million in sales, led the unclassified produce category in sales with 36% of the state total, a major increase from previous years. This is due to an improvement in reporting by growers and handlers. Fruit and nut crops claimed another \$21.6 million, or 20% of the state total, followed by field crops, with \$9 million, or 9% of the state total.

Table 5-7. Registered Handlers of Organic Commodities by Region and Commodity Group as Reported to CDFA, 1996-97

Region	Produce			Field Crops	Total Handlers ^a
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce		
Bay Area	4	8	6	—	23
South Coast	14	6	9	3	26
Other Regions	18	13	6	6	43
Total Handlers	36	27	21	14	92

^a Row totals do not add because of multiple responses to commodity group category and inclusion of nursery crops and livestock products in total.

— Data not reported to protect grower confidentiality.

Table 5-8. Gross Sales for Registered Handlers of Organic Commodities by Region and Commodity Group as Reported to CDFA, 1996-97

Region	Produce			Field Crops	Total Gross Sales (\$) ^a
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce		
Bay Area	4,513,895	1,905,341	9,960,341	—	22,978,582
South Coast	11,854,876	594,172	19,877,420	1,142,069	33,468,537
Other Regions	5,254,251	35,571,716	7,265,878	1,556,250	49,648,095
Total Gross Sales (\$)	21,623,022	38,071,375	37,103,639	9,297,178	106,132,943

Notes:

Most handlers reported actual sales over the \$5 million annual gross sales report ceiling set by CDFA while others simply reported at the ceiling.

Gross sales include products from out of state and out of the country.

^a Total includes poultry & related products & nursery crops.

— Data not reported to protect handler confidentiality.

6 ANNUAL STATISTICS 1997-98

Descriptive statistics for 1997-98 are presented in this chapter. The analysis focuses on industry size, commodities that are produced and sold as organic, geographic distribution of production, and farm profiles. Data relevant to registered organic farms are followed by data for registered handlers.

1997-98 Summary Highlights

THE INDUSTRY

- Total income from organic commodities was \$158.3 million, a 15% increase from 1996-97.
- Acreage for 1997-98 also exceeded the previous year's total at 67,826—a 24% increase largely attributable to expanded vegetable crop acreage in the Central Coast and in San Joaquin Valley, and increased field crop acreage statewide.
- The number of registered growers reporting sales increased by 7% to 1,533.

MAJOR COMMODITIES

- For the first time vegetable crops overtook fruit and nut crops in acreage while also continuing to generate the highest sales.
- Two thirds of the state's organic farms (66%) were planted to fruit and nut crops which accounted for just over one third of the state's organic acreage and under one third of the gross sales. The San Joaquin Valley continued as the most important fruit and nut crop region, representing just over one third of the fruit and nut crop acreage and sales. The North Coast region followed with one fourth of both the acreage and gross income.
- Vegetable growers comprised one third of the state's organic producers who farmed over one third of the state's organic acreage and generated over half of the total gross sales (54%). Most vegetable crops were planted in the Central Coast, where vegetable crop acreage expanded by 36%, accounting for 40% of the state total. The Central Coast also led the state in vegetable crop sales with 32% of the total value of organic vegetable crop production.
- Field crop acreage expanded this year, capturing for the first time over one fourth of the state's total acreage (26%) and 6% of the total gross sales. The Sacramento Valley remained the dominant field crop region.

1997-98 Summary Highlights continued**REGIONAL DISTRIBUTION**

- In 1997-98, the top three regions in organic acres, the Central Coast, the San Joaquin Valley and the Sacramento Valley, all substantially increased their acreages from the previous year, jointly accounting for three fourths of the state's acreage. All three regions had over 15,000 acres.
- The San Joaquin Valley was first in gross sales (\$40 million) with the Central Coast a close second (\$34 million).
- About one third (32%) of organic farms were located in the South Coast, where they farmed one tenth of the state's organic acreage and generated one sixth of the sales—a 37% increase in gross income from 1996-97.
- Kern and San Benito counties maintained the highest acreages in the state. Kern, San Benito, Monterey, Ventura and Imperial counties were prominent in sales with gross revenues ranging from a high of \$22.2 million (Kern) to a low of \$10.7 million (Imperial).

FARM CHARACTERISTICS

- Fifty percent of all farms were less than five acres, grossed under \$8,000 and earned less than \$1,286 in sales per acre. Median gross sales increased by \$1,000 from 1996-97 but sales per acre slightly declined.
- Fruit, nut and vegetable farms median statistics were similar to the total farms for acres and gross sales. Median field crop farms were much larger, 55 acres, with significantly higher median gross sales (\$28,900).
- San Joaquin Valley farms reported the highest median acres and gross sales per farm, followed by farms in the Sacramento Valley and Central Coast.

INCOME CONCENTRATION

- Revenue from organic agriculture is highly concentrated. Fifty-two percent of the value of organic production was captured by the 2% of growers who grossed over \$1 million annually.
- Almost 60% of farms grossing less than \$10,000 captured only 2% of gross revenue for the state.

HANDLERS

- Registered handlers sold \$79.5 million in organic products, a 25% decrease from 1996-97 due to a large handler leaving the market.
- Sales remained steady in the South Coast where handlers generated 40% of the total state revenue.
- Produce sales comprised 96% of the total and field crops, 4%.

Registered Organic Farms

INDUSTRY SIZE

A total of 1,533 registered organic farmers reported gross sales of \$158.3 million for organically grown commodities from 67,826 crop production acres during 1997-98 (Tables 6-1, 6-2, 6-3). Total organic acreage increased by 24% from 1996-97 and gross sales grew by 15%.

Organic agriculture represented approximately 0.8% of the total cash income from marketings for all agriculture in the state in 1997-98, excluding livestock, poultry and products. Organic fruit, nut and vegetable crops represented approximately 1% of the state's fruit, nut and vegetable crop income (CDFA, 1998). Seventy-eight growers were registered in the California organic program but did not report sales of organic products from 12,335 acres during 1997-98. This group was excluded from the analysis.

ORGANIC COMMODITIES

Produce accounted for 89% of total sales on 74% of all organic crop acreage in the state (Tables 6-2, 6-3; Figure 6-1). Vegetable crops slightly exceeded fruit and nut crops in total acreage, and were substantially higher in terms of revenue. Field crops made only a small contribution to the state's total sales (6%), but had a larger share of the acreage (26%).

Vegetable crop acreage increased by 29% from the previous year, contributing almost half of the state's total increase in organic acreage. Growth in field crop acreage accounted for another 42% of the state's total growth.

Specifically, vegetable crops claimed over one third (38%) of the state's total organic acreage, fruit and nut crops another one third (34%), and field crops one fourth. These percentages are similar to the 1996-97 analysis. Vegetable crops were the highest value commodity group with \$86.1 million in sales, accounting for over half of the state total value of production. Fruit and nut crops generated another \$48.2 million in sales, one third of the state total, and unclassified produce accounted for \$7.7 million (5%). Sales of fruit and nut crops increased by 20%—representing 38% of the state's total growth in sales.

As in the previous two years, more acreage was planted to rice (9,385) than to any other single crop—a 1,300 acre increase from 1996-97, and representing 14% of all organic acreage and over half of field crop acres (Table A-1). Rice sales generated over \$8 million, 5% of total organic marketings for the state. Grapes were second in acreage (7,374), the majority planted to winegrapes. Total grape sales equaled \$19.4 million, split nearly evenly between wine and table grapes. Grapes contributed 12% of total organic

marketings for the state and 40% of fruit and nut crop sales. Grape acreage increased by 562 acres from the previous year and sales increased by \$2.4 million. Hay acreage all but disappeared, dropping from 1,788 acres to 61 acres.

Table 6-1. Number of Registered Organic Growers by Region and Commodity Group as Reported to CDFA, 1997-98

Region	Produce			Field Crops	Nursery, Forestry & Flowers	Livestock ^a	Total Growers ^b
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce				
Bay Area	11	30	4	—	7	—	46
Cascade-Sierra	45	33	11	3	6	0	85
Central Coast	91	97	9	16	20	0	197
North Coast	163	143	13	6	20	4	293
Sacramento Valley	104	56	11	53	7	—	194
San Joaquin Valley	100	38	—	10	—	0	136
South Coast	432	57	14	4	6	3	485
Southeast Interior	73	25	—	4	0	0	97
Total growers	1,019	479	65	97	68	11	1,533

^a Includes poultry and related products.

^b Row totals do not add because of multiple responses to commodity group category.

— Data not reported to protect grower confidentiality.

Table 6-2. Registered Organic Crop Acreage by Region and Commodity Group as Reported to CDFA, 1997-98

Region	Produce			Field Crops	Nursery, Forestry & Flowers	Livestock ^a	Total Acres
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce				
Bay Area	189	202	514	—	4	na	1,489
Cascade-Sierra	390	82	87	268	68	na	894
Central Coast	1,749	10,251	288	3,060	16	na	15,364
North Coast	5,474	1,419	59	62	20	na	7,033
Sacramento Valley	2,311	1,060	108	11,949	4	na	15,432
San Joaquin Valley	7,798	6,909	—	1,013	—	na	15,751
South Coast	3,653	2,963	249	146	8	na	7,019
Southeast Interior	1,563	3,043	—	230	0	na	4,844
Total acres	23,126	25,929	1,340	17,309	121	na	67,826

^a Includes poultry and related products.

— Data not reported to protect grower confidentiality.

na Acreage figures not available.

Table 6-3. Gross Sales for Registered Organic Growers by Region and Commodity Group as Reported to CDFA, 1997-98

Region	Produce			Field Crops	Nursery, Forestry & Flowers		Livestock ^a	Total Sales
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce					
Bay Area	1,215,622	1,998,098	5,078,935	—	128,510	—	—	10,770,557
Cascade-Sierra	504,428	208,852	78,352	94,824	11,635	0	0	898,091
Central Coast	2,891,326	27,333,221	1,431,489	336,337	1,545,919	0	0	33,538,292
North Coast	11,553,815	2,929,524	251,771	18,980	212,992	1,684,016	—	16,651,098
Sacramento Valley	5,015,211	4,273,918	144,286	9,121,943	24,395	—	—	18,592,153
San Joaquin Valley	17,382,132	21,869,417	—	346,520	—	0	0	39,718,873
South Coast	6,489,353	17,219,886	625,220	120,700	40,100	120,050	—	24,615,309
Southeast Interior	3,103,817	10,279,634	—	112,806	0	0	0	13,503,507
Total sales	48,155,704	86,112,550	7,668,107	10,154,452	2,033,551	4,163,516	—	158,287,880

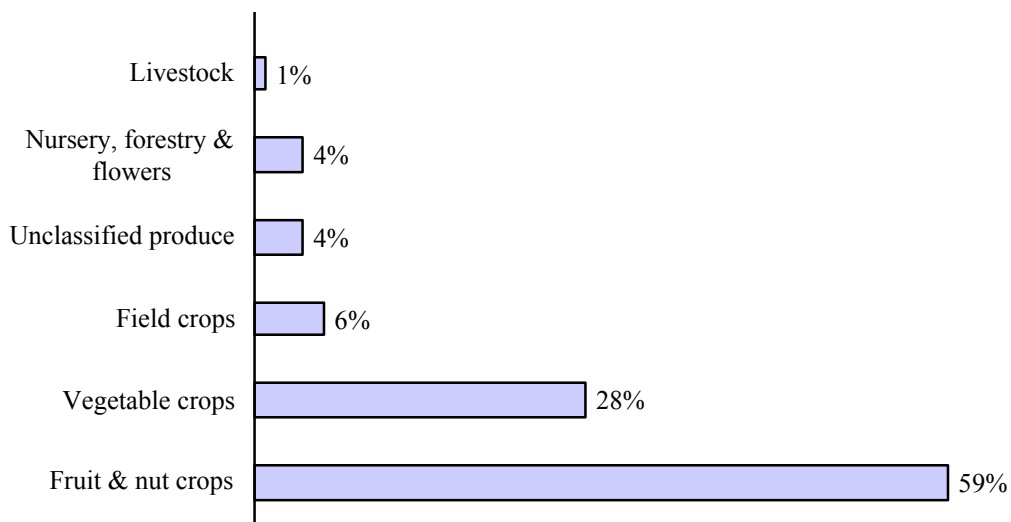
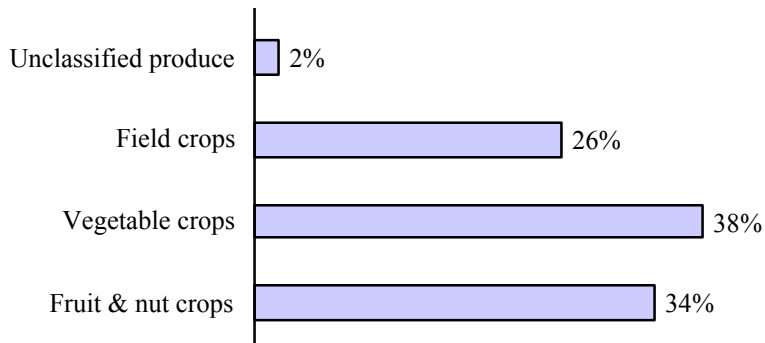
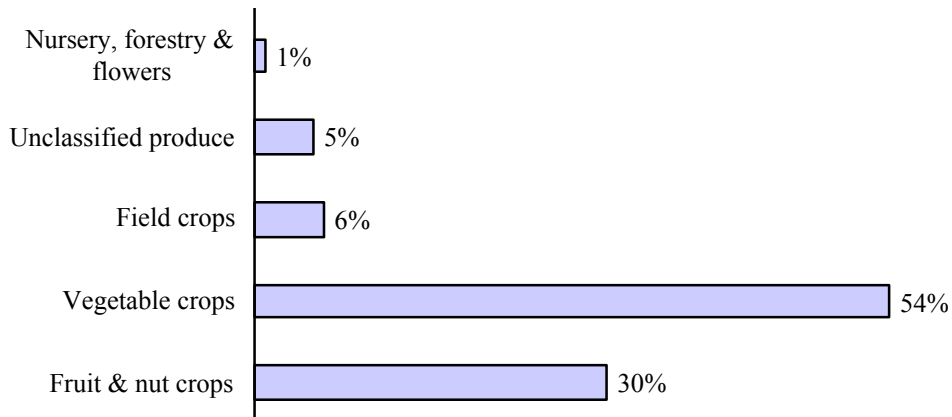
Note:

Most growers reported actual sales over the \$5 million annual gross sales report ceiling set by CDFA while others simply reported at the ceiling.

^a Includes poultry and related products.

— Data not reported to protect grower confidentiality.

Figure 6-1. Registered Organic Agriculture by Commodity Group as Reported to CDFA, 1997-98

GROWER NUMBERS ^a**CROP ACREAGE****GROSS SALES**

Note:

Commodity groups with less than 1% in grower numbers, crop acreage, or gross sales are not shown

^a Totals more than 100% because of multiple responses to some commodity groups

Citrus and other subtropical crops followed rice and grapes in both acreage (5,763) and sales (\$9.3 million), accounting for one fourth of fruit and nut crop commodity group acreage and one fifth of sales. Pome fruits had 3,341 acres and \$4.4 million in sales. Nut crops had slightly more acreage as than pome fruit and higher sales (\$5.3 million).

Most vegetable crop acreage and sales were reported in the “mixed vegetable” category. Sprouts were the highest grossing individual vegetable category at \$9.5 million, followed by cucurbits (mostly melons and squash) grossing \$9.3 million, and composites (mostly lettuces) at \$6.2 million for farms that reported in detail.

GEOGRAPHIC DISTRIBUTION OF PRODUCTION

Distribution of Acreage. The San Joaquin Valley had the largest number of organic acreage, reporting almost one fourth of the state’s total acreage. Fruit and nut crops accounted for 50% of that acreage and vegetable crops 44%. The Sacramento Valley recorded almost one fourth of the state’s organic acreage, with three fourths of the region’s acreage planted to field crops and roughly one seventh to fruit and nut crops. Sacramento Valley field crops recorded the second largest acreage for all regional commodity groups-15% of the state total.

The Central Coast, a close third, with just under one fourth of the total (Table 6-2). Two thirds of that acreage was planted to vegetable crops. Field crops were also prominent in the region, accounting for over one fifth of the acreage, with fruit and nut crops planted on one tenth of the region’s total acres. Central Coast vegetable crops posted the largest acreage amount for all regional commodity groups-15% of the state total.

These three regions, which account for almost three fourths of the total acreage, also accounted for 96% of the acreage growth. The most notable growth was in the Central Coast, which expanded in acreage by 50% from 1996-97 and accounted for 40% of the total acreage growth for the state.

Kern, San Benito, and Fresno counties claimed the top acreage of individual counties, all with over 5,000 acres. San Luis Obispo, Sonoma, San Diego, Imperial, and Glenn counties were in the second tier, all within the 3,000 to 4,000 acre range (Table A-2).

Distribution of Gross Sales. The San Joaquin Valley led the state in sales of organic commodities with \$39.7 million, representing one fourth of the total value of production (Table 6-3). Fruit and nut crops and vegetable crops dominated sales in this region, 44% and 55% respectively.

The Central Coast, second in sales after the San Joaquin Valley, generated another \$33.5 million, accounting for one fifth of state total. Vegetable crops dominated with 81% of the region’s value of production. Central Coast vegetables posted the highest revenue for any regional commodity group, 17% of the state total. The South Coast, with \$24.6

million, generated one sixth of the state's sales. Vegetable crops represented 70% of this region's revenues, and fruit and nut crops 26%.

The largest absolute increase in gross sales occurred in the San Joaquin Valley, which gained \$7.2 million in income over the last year mostly due to vegetable crop sales increases. The South Coast increased sales by \$6.6 million to \$24.6 million, a 37% increase, also largely due to vegetable crop sales. The Sacramento Valley, although lower in total sales compared to the above two regions, experienced a \$4.8 million (34%) increase in sales from 1996-97.

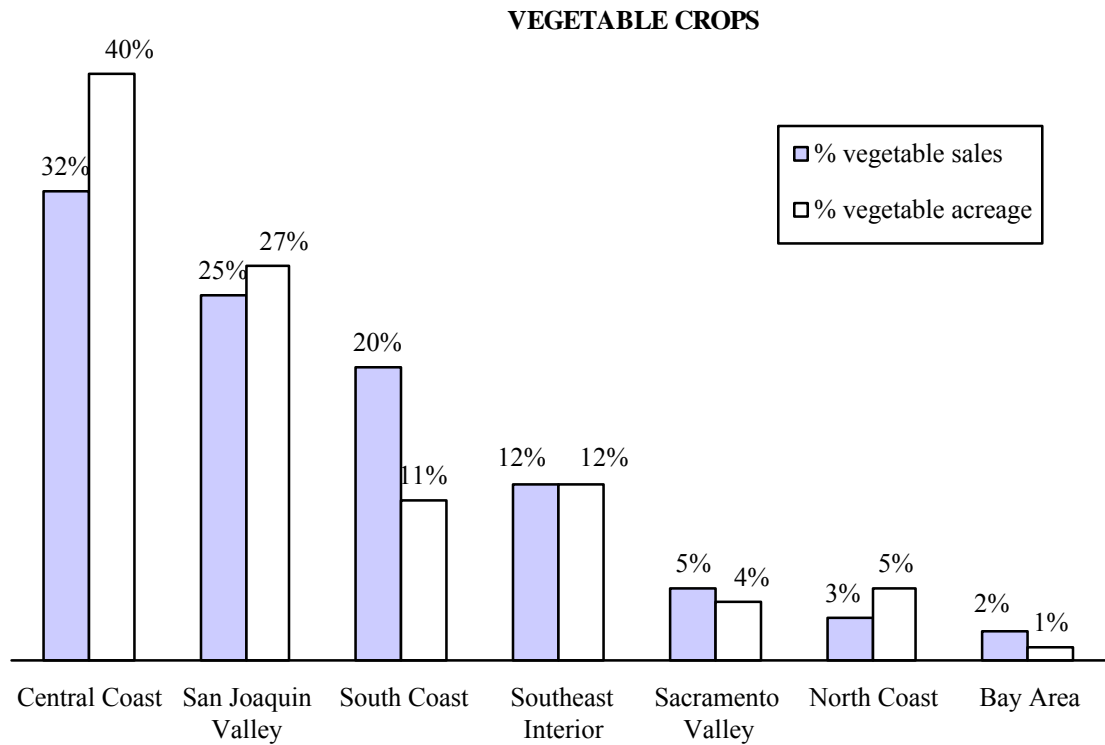
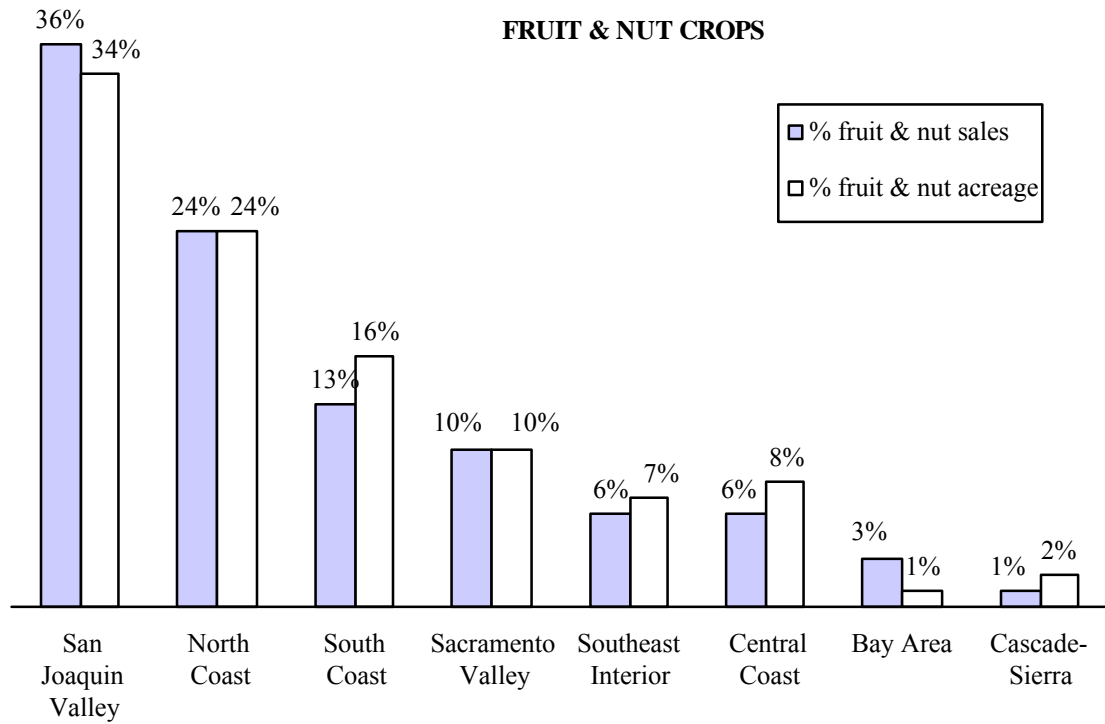
Kern County continued as the top producer in sales with \$22.2 million, contributing 14% to the statewide total (Table A-2). San Benito County followed with \$14.3 million. Monterey, Ventura and Imperial Counties also had over \$10 million in sales.

Distribution of Selected Commodities. For the second consecutive year, the Central Coast posted the highest vegetable crop acreage and gross income in the state—40% of the total vegetable acreage, representing a 36% percent increase in acreage while sales increased slightly (Tables 6-2, 6-3; Figure 6-2). The San Joaquin Valley ranked second in vegetable sales with one fourth of the total. Vegetable crop acreage and sales in this region increased by 50% and 30% respectively from 1996-97. The South Coast region gained prominence in vegetable crop sales and acreage with 11% of the state's vegetable crop acreage and 20% of sales.

The San Joaquin Valley led fruit and nut production with over one third of the state's fruit and nut crop acres and sales (34% and 36% respectively). The North Coast region followed with one fourth of both the acreage and sales. In contrast, well over one third of the state's fruit and nut growers (42%) are found in the South Coast where they generate only 16% of the state's fruit and nut acreage and only 13% of the sales.

The Sacramento Valley remained the most important field crop region with 69% of the state's total field crop acreage and 90% of sales. Another 18% of field crop acreage was farmed in the Central Coast contributing 3% of field crop sales.

Figure 6-2. Regional Acreage and Gross Sales for Fruit and Nut Crops and Vegetable Crops, 1997-98

**Notes:**

Regions with less than 1% in crop acreage or gross sales are not shown.
 Percentages are of statewide totals.

FARM PROFILES

During 1997-98, most registered organic farms were small in size, with relatively low annual sales and returns per acre. Fifty percent of all farms consisted of 5 acres or less, grossed under \$8,000 and had sales per acre below \$1,286 (Table 6-4). These results show a slight increase in sales per farm from 1996-97 but a decrease in sales per acre.

Distribution by Selected Commodity Group. Because fruit and nut and vegetable crops represented 91% of all farms, their statistics were similar to the state totals. Half of all fruit and nut farms had five acres or less and grossed under \$5,000. Half of all vegetable farms had 3 acres or less, with sales under \$10,000. In comparison, 50% of all field crop farms were larger than 55 acres, with sales above \$28,900. Median sales per acre ranged from a low of \$494 for field crops to a high of \$3,278 for vegetable crops. These figures are similar to those of the previous two years of the analysis.

Table 6-4. Median, 75th Percentile, and 90th Percentile of Sales, Acreage, and Sales per Acre for All Farms and for Farms in Selected Organic Commodities Groups, 1997-98

	Percentile	All Farms ^a	Field Crops	Fruit & Nut Crops	Vegetable Crops
Acres	Median	5	55	5	3
	75th	20	200	16	14
	90th	75	500	50	83
Gross Sales (\$)	Median	8,000	28,900	5,000	10,000
	75th	40,000	69,585	20,000	51,330
	90th	176,933	188,300	89,551	270,500
Sales per Acre (\$)	Median	1,286	494	1,000	3,278
	75th	3,571	898	2,186	7,694
	90th	8,824	1,200	5,000	18,653

^a Includes all commodities—those shown plus livestock, nursery crops, and unclassified produce.

In marked contrast to the above median statistics, the largest 10% of all farms were at least 75 acres. Farms within the top 10% in sales grossed more than \$176,933. The farms with the highest sales per acre earned more than \$8,824 per acre. The largest 10% of fruit and nut farms had at least 50 acres and sales above \$89,551, while the largest vegetable farms had at least 83 acres and grossed more than \$270,500. The top 10% of all field crop farms had at least 500 acres, with sales above \$188,300. Sales per acre for the top 10% of farms ranged from a low of \$1,200 for field crops to a high of \$18,653 for vegetable crops. Gross sales of the top 10% of farms increased from 1996-97, while sales per acre for the top 10% of field crops decreased.

Distribution by Region. Two thirds of all registered organic farms were located in one of California's three coastal regions (Table 6-1). The South Coast had about one third of all farms, the North Coast one fifth, and the Central Coast roughly one eighth.

The San Joaquin Valley had the largest median farm size at 40 acres, with sales per farm of \$50,000 (Table 6-5). Second largest was the Sacramento Valley at 13 acres, with sales

per farm of \$15,300, followed by the Central Coast at 12 acres, and sales per farm of \$13,345. Median farm size for all other regions was seven acres or less. As was true for the previous two years of the analysis, the regions with the largest farms also had the highest sales per farm.

The largest 10% of farms in the San Joaquin Valley planted at least 280 acres. The highest-grossing farms in this region earned over \$415,000. The largest 10% of Sacramento Valley farms were at least 165 acres. Top grossing farms in this region earned at least \$232,000, less than the top grossing farms in both the San Joaquin Valley and the Central Coast. The largest 10% of all Central Coast farms had at least 145 acres. The top 10% grossing farms in this region earned over \$376,726.

Table 6-5. Median, 75th, and 90th Percentiles of Acreage and Gross Sales by Region, 1997-98

Percentile	Acres			Gross Sales (\$)		
	Median	75th	90th	Median	75th	90th
Region:						
Bay Area	2	6	41	7,527	12,021	40,337
Cascade-Sierra	3	7	16	3,809	10,000	26,700
Central Coast	12	50	145	13,345	65,500	376,726
North Coast	4	11	32	8,000	24,395	81,262
Sacramento Valley	13	45	165	15,300	64,000	232,100
San Joaquin Valley	40	81	280	50,000	209,000	415,000
South Coast	4	9	27	3,343	9,950	49,000
Southeast Interior	7	19	117	10,000	52,843	22,991
All Regions	5	20	75	8,000	40,000	176,933

Income Concentration. As the above distribution figures again indicate, revenue from organic agriculture is highly concentrated. Over half of the value of production was captured by the 2% of growers who grossed over \$1,000,000 annually (Table 6-6; Figure 6-3). Another 6% of all growers, those who grossed between \$250,000 and \$999,999 annually, claimed an additional 23% of the state's sales. At the other end of the scale, growers grossing \$10,000 or less comprised nearly 60% of all growers but contributed only 2% of total sales. These results are essentially the same as in the previous two years of the analysis.

Over 75% of all farms in the lowest sales class, those earning \$10,000 or less, grew fruit and nut crops, representing 45% of all growers and two thirds of all fruit and nut growers. Although there were only half as many vegetable crop growers as fruit and nut crop growers, they also accounted for a significant portion of the lowest sales class (28%). Forty-eight percent of vegetable crop growers earned less than \$10,000 annually. However, of the 27 growers who grossed over \$1 million, over three quarters were vegetable crop growers. In contrast, only 26% of field crop farms grossed under \$10,000 and only four grossed over \$250,000.

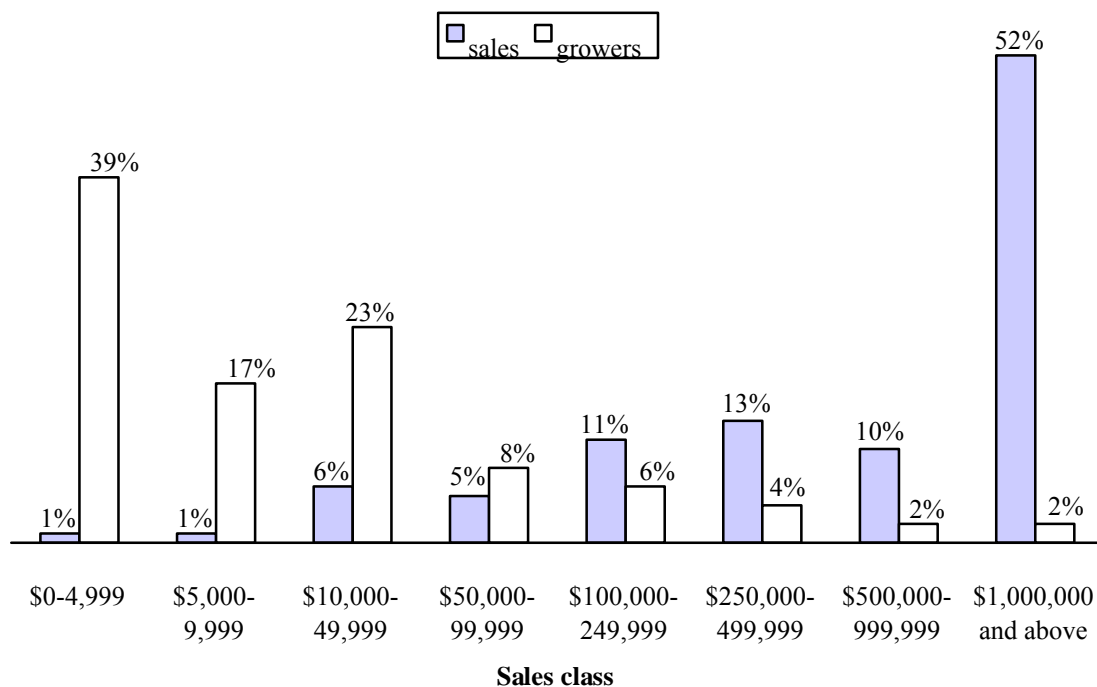
Table 6-6. Number of Registered Organic Growers by Sales Class and Commodity Group as Reported to CDFA, 1997-98

Sales Class (\$)	Produce			Field Crops	Nursery, Forestry & Flowers	Livestock ^a	Total Growers ^b
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce				
\$0 - 4,999	505	152	30	21	35	6 ^c	601
\$5,000 - 9,999	171	80	13	4	11	0	259
\$10,000 - 49,999	190	121	10	38	14	—	347
\$50,000 - 99,999	61	33	4	19	4	5 ^d	116
\$100,000 - 249,999	50	41	4	15 ^e	0	0	99
\$250,000 - 499,999	27	22	4 ^f	—	4	—	59
\$500,000 - 999,999	11	11	—	—	0	0	25
\$1,000,000 and above	4	19	—	—	0	—	27
Total Growers	1,019	479	65	97	68	11	1,533

^a Includes poultry and related products.^b Row totals do not add because of multiple responses to commodity group category and unreported data.^c Includes growers from the \$0-4,999 and \$10,000-49,999 sales classes.^d Includes growers from the \$50,000-49,999 through \$1,000,000 & above sales classes.^e Includes growers from the \$100,000-249,999 through over \$1,000,000 sales classes.^f Includes growers from the \$250,000-499,999 through over \$1,000,000 sales classes.

— Data not reported to protect grower confidentiality.

Figure 6-3. Income Concentration for Registered Organic Growers as Reported to CDFA, 1997-98



Registered Organic Handlers

During 1997-98 a total of 111 registered handlers sold \$79.5 million in organic products (Tables 6-7, 6-8). The South Coast had the largest number of handlers, with revenue totaling \$32 million, thus representing 40% of the total revenue. The number of Bay Area handlers dropped from 1996-97 but sales remained steady. The Unclassified Produce category accounted for the largest share of product sales, with \$36.7 million—46% of the state total. Fruit and nut crops were next, with \$23.1 million, or 29% of the state total, followed by vegetable crops with \$16.5 million, 21% of the total, and field crops, with only \$3 million, or 3% of the state total. These figures represent a substantial decrease from 1996-97 in both vegetable crop and field crop sales due to one large handler in each category leaving the market.

Table 6-7. Registered Handlers of Organic Commodities by Region and Commodity Group as Reported to CDFA, 1997-98

Region	Produce			Field Crops	Total Handlers ^a
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce		
Bay Area	3	9	5	—	18
South Coast	17	8	7	3	30
Other Regions	32	21	3	10	63
Total Handlers	52	39	15	14	111

^a Row totals do not add because of multiple responses to commodity group categories and inclusion of nursery crops and livestock products handlers in totals.

— Data not reported to protect grower confidentiality.

Table 6-8. Gross Sales for Registered Handlers of Organic Commodities by Region and Commodity Group as Reported to CDFA, 1997-98

Region	Produce			Field Crops	Total Gross Sales (\$) ^a
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce		
Bay Area	6,437,091	1,263,209	11,233,512	—	19,033,812
South Coast	8,830,185	777,343	21,221,341	1,276,255	32,105,124
Other Regions	7,897,497	14,499,812	4,266,319	1,678,026	28,341,654
Total Gross Sales (\$)	23,164,773	16,540,364	36,721,172	3,034,281	79,486,080

Notes:

Most handlers reported actual sales over the \$5 million annual gross sales report ceiling set by CDFA while others simply reported at the ceiling.

Gross sales include products from out of state and out of the country.

^a Total includes poultry and related products and nursery crops.

7 INDUSTRY TRENDS 1995-98

This chapter illustrates industry trends and economic viability of California's organic agriculture by summarizing the descriptive statistics for three years, 1995-96, 1996-97 and 1997-98. It identifies commodity groups and regions that emerge as particularly important or valuable to the state, compares certified growers to the total registered population, and analyzes patterns of entry and exit for state registrants. Finally, information relevant to registered handlers is briefly considered.

1995-98 Summary Highlights

THE INDUSTRY

- Within the three-year study period, organic acreage increased by 47%, from 46,258 to 67,826. Gross sales increased by 40%, from \$113.3 million to \$158.3 million. The number of growers increased by only 7%, from 1,427 to 1,533.

MAJOR COMMODITIES

- Produce crops represented 74% of acres and 90% of sales in 1997-98. Sales of these commodities contributed 76% of the total increase in sales over the study period.
- Gross sales of vegetable crops, \$86.1 million in 1997-98, grew by \$17.7 million, 26%.
- Gross sales of fruit and nut crops, \$48.2 million in 1997-98, grew by \$14.7 million, 44%.
- Field crops gained in importance, doubling acreage and tripling sales, contributing 15% of the total growth in revenue.

GEOGRAPHIC DISTRIBUTION

- The Central Coast, San Joaquin Valley and Sacramento Valley regions posted the most organic acreage in 1997-98 and combined claimed over two thirds the state's acreage. These regions also represented almost 90% of the total increase in acreage over the study period.
- The San Joaquin Valley, Central Coast and South Coast regions posted the highest sales in 1995-98.
- The San Joaquin Valley, Sacramento Valley, Central Coast, and South Coast accounted for almost 90% of the total growth in sales over the study period.
- Central Coast vegetable crops claimed the highest commodity value for all three years, accounting for about 20% of organic commodity sales in the state.

1995-98 Summary Highlights continued**FARM CHARACTERISTICS**

- Most organic farms remained small in size with less than 5 acres and less than \$8,000 in gross sales. At the 90th percentile, farms reached 75 acres and \$176,933 in gross sales in 1997-98.
- The San Joaquin Valley had the largest median size farm and highest median sales per farm. At the 90th percentile, the largest farms were also found in this region.
- The greatest number of farms grew fruit and nut crops (63%) followed by vegetable crops (29%) and then field crops (5%). Over the three years, the South Coast regularly reported the greatest number of growers, with approximately one third of the state total.

INCOME CONCENTRATION

- Registered farms that grossed over \$1 million annually captured over half of the state's total sales but represented only 2% of the total growers in 1997-98.

CERTIFIED ORGANIC FARMS

- Certified growers represented about 40% of all registered growers in 1995-98 and the total number certified increased by 19%. The proportion of certified growers to registered growers remained fairly constant.
- Certified farms, representing less than half of registered farms, accounted for more than 80% of the registered acreage and about 90% of the registered sales in the state.

PATTERNS OF ENTRY, EXIT, AND EXPANSION

- The number of new growers and exiting growers stayed constant, resulting in a slight increase in total numbers.
- The net increase in sales from the change in growers (new growers minus exiting growers) accounted for 26% of the growth in revenue.
- Fifty-four percent of the increase in gross sales was accounted for by growers grossing over \$1 million per year.

REGISTERED ORGANIC HANDLERS

- The overall number of handlers increased in 1995-98, from 89 to 101.
- Handler sales rose in 1996-97 then dropped to \$79 million in 1997-98.
- The South Coast and Bay Area regions combined accounted for over 50% of all handler sales in 1995-98.

Registered Organic Farms

INDUSTRY SIZE

The number of registered organic farms in California increased only slightly, from 1,427 to 1,533 (7%) during the three years of this analysis (Tables 7-1, 7-2). The number of organically farmed crop acres increased much more rapidly, by 47%, during the same period—from 46,259 to 67,826, (at an average annual rate of 22%). Total sales increased by 40%, (an average annual rate of 18%), from \$113.3 million in the first year of the study to \$158.3 million in the third.

The number of growers increased by a much smaller percentage than the number of farmed acres, suggesting that established growers increased crop acreage and/or that some new growers entered the program with above average farm size. Acreage also grew at a faster rate than gross sales (47% and 40% respectively). This is attributable to an increase in importance of field crops (17% of crop in 1995-96 to 26% of crop acreage in 1997-98) which have lower sales per acre than any of the other commodity groups.

Comparing the organic subsector to the whole of California agriculture, the 40% increase in gross sales of organically grown non-livestock commodities was much greater than the 13% increase for all non-livestock agricultural sales in California for 1995-98. Organic crop acreage increased by nearly 50%, despite no change in overall state crop acreage. Organic agriculture nevertheless represented only 0.6% of total farmed acreage and 0.8% of total cash income from marketing of crops, excluding livestock, in California by 1997-98. Organic produce (vegetable, fruit, and nut crops) was slightly more prominent, with 1% of statewide produce sales. It should be noted that gross sales for organic products are thought to be artificially low in this analysis because of limitations of the data (see Chapter 3).

ORGANIC COMMODITIES

Vegetable crops, and fruit and nut crops are the commodity groups of most consequence to registered organic agriculture in California. In 1997-98, these crops had the largest number of farms (90% of the total), the most acreage (74% of the total) and by far the largest revenues (89% of the total) in the state (Table 7-1). This is in striking contrast to California agriculture as a whole, where livestock and field crops constitute one third of gross sales. Half of all crop-producing acres in the state were planted to field crops in 1997, but only 13% to vegetables.

Table 7-1. Registered Organic Agriculture by Commodity Group as Reported to CDFA-Summary, 1995-1998

Commodity Group	Number of Growers ^a			Total Crop Acreage ^b			Total Gross Sales (\$) ^c		
	95-96	96-97	97-98	95-96	96-97	97-98	95-96	96-97	97-98
Produce									
Fruit & Nut Crops	880	908	1,019	20,429	20,799	23,126	33,475,616	40,170,168	48,155,704
Vegetable Crops	382	438	479	15,670	20,023	25,929	68,365,325	78,287,647	86,112,550
Unclassified Produce	149	116	65	2,393	2,097	1,340	6,058,906	7,269,207	7,668,107
Field Crops	45	70	97	7,743	11,816	17,309	3,339,036	7,217,878	10,154,452
Nursery, Forestry & Flowers	24	39	68	24	33	121	1,223,797	1,904,878	2,033,551
Livestock, Poultry & Products	12	14	11	0	na	na	850,809	2,233,378	4,163,516
Total	1,427	1,475	1,533	46,258	54,768	67,826	113,313,489	137,083,156	158,287,880

^a Some growers reported production in more than one commodity group category.

^b Acreage for livestock, poultry & products not available.

^c Most growers reported actual sales over the \$5 million annual gross sales report ceiling set by CDFA, while others simply reported at the ceiling.

Table 7-2. Registered Organic Agriculture by Region as Reported to CDFA-Summary, 1995-1998

Region	Number of Growers			Total Crop Acreage ^a			Total Gross Sales (\$) ^b		
	95-96	96-97	97-98	95-96	96-97	97-98	95-96	96-97	97-98
Bay Area	47	57	46	1,022	1,660	1,489	7,626,027	9,325,687	10,770,557
Cascade-Sierra	93	91	85	994	2,546	894	852,814	1,025,870	898,091
Central Coast	161	168	197	6,019	10,233	15,364	25,575,046	33,456,011	33,538,292
North Coast	288	296	293	6,093	6,364	7,033	11,789,332	13,918,192	16,651,098
Sacramento Valley	142	162	194	9,868	11,759	15,432	9,721,732	13,825,162	18,592,153
San Joaquin Valley	104	109	136	11,013	12,017	15,751	24,452,351	32,551,637	39,718,873
South Coast	506	489	485	6,432	5,928	7,019	17,197,655	18,025,274	24,615,309
Southeast Interior	86	103	97	4,818	4,261	4,844	16,098,532	14,955,323	13,503,507
Total	1,427	1,475	1,533	46,258	54,768	67,826	113,313,489	137,083,156	158,287,880

^a Does not include acreage for livestock, poultry and related products.

^b Most growers reported actual sales over the \$5 million annual gross sales report ceiling set by CDFA, while others simply reported at the ceiling.

Further disaggregating organic production, vegetable crops were the most valuable commodity group, accounting for 54% to 60% of the state's gross sales from just over one third of the acreage. During 1995-98, vegetable crops posted a 65% increase in the number of producing acres but only a 26% increase in total sales, although this varied widely across regions (Table 7-3). This disproportionate increase in acreage compared to sales is largely attributable to the Central Coast where vegetable crop acreage grew by 190% and sales only grew by 31%. The difference may be explained by increases in acreage by large growers without a relative increase in sales, price competition among growers, an overall decrease in prices received, production of lower value vegetable crops, and increased discrepancies in reporting of acreage and sales data. Furthermore, the percentage increase in gross sales is reduced when growers with sales above the \$5 million reporting ceiling accurately report increased acreage but do not report the corresponding increase in gross sales, only the requisite \$5 million (see Chapter 3).

Table 7-3. Change in Vegetable Crop Acreage and Sales by Region, 1995-98

Region	Vegetable Crop Acreage				Vegetable Crop Sales (\$ million)			
	95-96	96-97	97-98	% Change in 3 yrs.	95-96	96-97	97-98	% Change in 3 yrs.
Bay Area	768	841	202	-74	6.1	6.7	2.0	-67
Cascade-Sierra	106	187	82	-23	.3	.2	.2	-28
Central Coast	3,534	7,544	10,251	190	20.9	26.7	27.3	31
North Coast	791	1,274	1,419	79	2.1	2.1	2.9	42
Sacramento Valley	1,356	947	1,060	-22	2.6	2.8	4.3	63
San Joaquin Valley	4,007	4,593	6,909	72	12.3	16.9	21.9	78
South Coast	1,910	2,077	2,963	55	10.9	10.5	17.2	58
Southeast Interior	3,199	2,561	3,043	-5	13.2	12.4	10.3	-22
All Farms	15,670	20,023	25,929	65	68.4	78.3	86.1	26

In contrast to vegetable crops, organic fruit and nut crops posted a sales increase of 44% during 1995-98, with only a 13% increase in acreage and a 16% increase in grower numbers, suggesting an increase in yield, price premiums, or a shift to higher value tree and vine crops. Organic wine and table grapes were important to the increase in sales, but acreage in these crops changed very little (Table A.1).

Field crops grew in importance during this study period, with the number of farms and farmed acreage more than doubling and gross sales more than tripling (Table 7-1), suggesting both rapid expansion and increasing crop value. The importance of field crops to organic agriculture remained small, but grew from 3% of sales in 1995-96 to 6% in 1997-98. Organic rice was most important to the increase in sales and acreage, and increases in safflower acreage were also significant (Table A-1). Sales of nursery and flower crops increased by 66%, and sales of livestock, poultry, and related products increased by 389% (primarily because of increases in dairy products and eggs) within the study period, although they remained less than 3% of the industry.

GEOGRAPHIC DISTRIBUTION OF PRODUCTION

Vegetable production predominated in the Central Coast, South Coast, and Southeast Interior regions of the state. Fruit and nut crops were particularly important in the San Joaquin Valley and North Coast regions, and field crop production was prominent in the Sacramento Valley.

The San Joaquin Valley recorded the largest number of organic production acres in all three years, with about one fourth of the state total. (Table 7-2; Figure 7-1). The Sacramento Valley region, with its concentration of large field crop operations, was a close second in all three years. The Central Coast increased by over 9,000 acres and by 1997-98 was only a few acres less than the Sacramento Valley. All regions except the smallest region, Cascade Sierra, recorded increases in acreage during this study period. With respect to individual counties, Kern County had the most organic acreage in 1997-98, followed by San Benito County which increased from 1,035 acres in 1995-96 to 6,394 acres in 1997-98 (Table A-2).

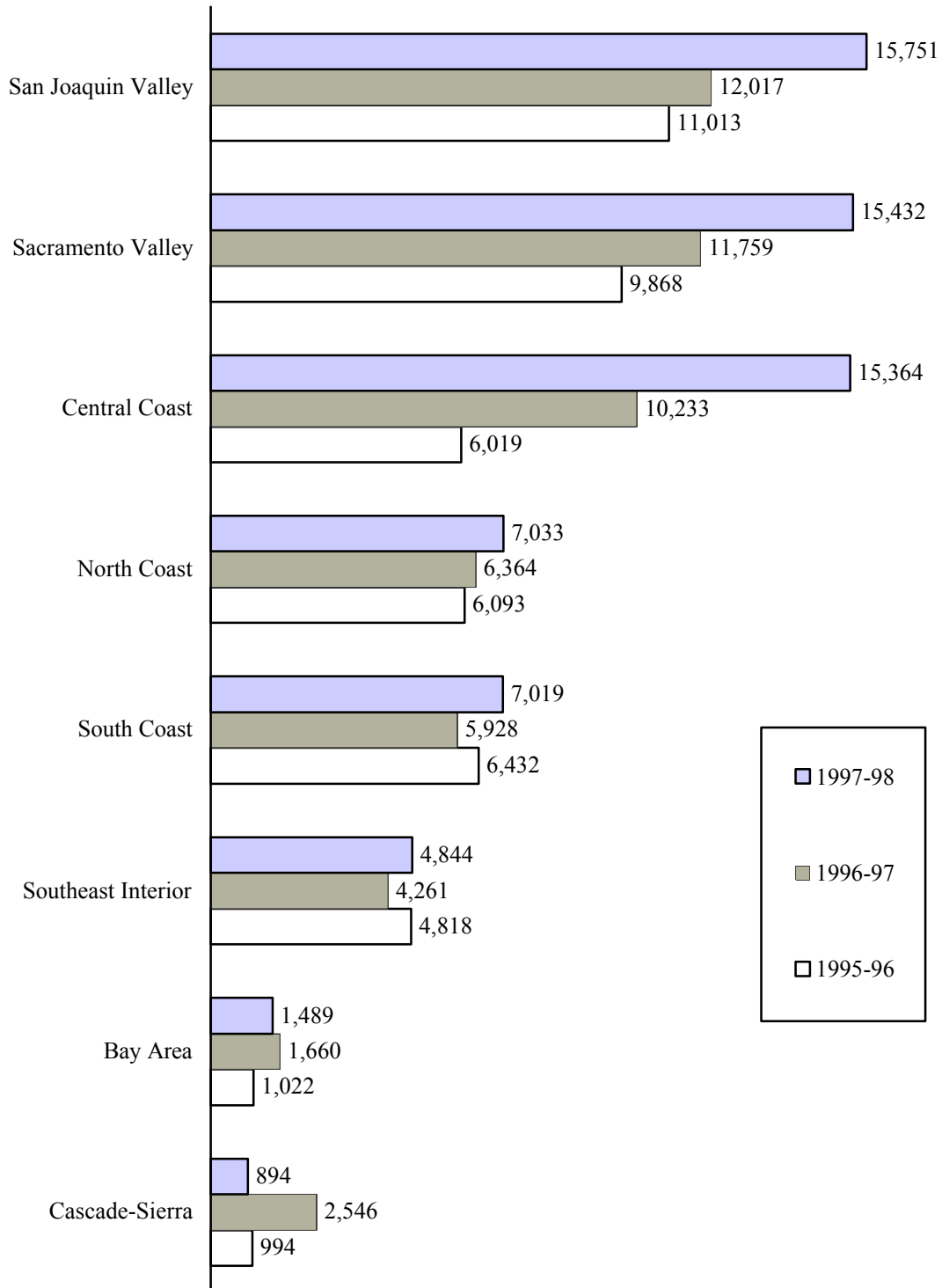
In 1995-96, San Joaquin Valley fruit and nut crop production accounted for the most acreage of any regional commodity group. The top spot was taken over by Sacramento Valley field crops in 1996-97, and retained in 1997-98 (Tables 4-2, 5-2, 6-2).

Central Coast vegetable crops accounted for almost 7,000 acres of the more than 10,000-acre increase in vegetable crops in the state over the study period, 31% of the total acreage increase for all crops (Tables 7-1, 7-3, 7-4). In 1997-98, Sacramento Valley field crops accounted for 64% of the statewide increase in field crop acreage and 28% of the crop acreage increase overall for the study period. San Joaquin Valley fruit and nut crops were third in acreage in 1997-98 (Tables 4-2, 5-2, 6-2) and posted about one fourth of the state increase in fruit and nut crop acreage.

In regional value of production, the Central Coast generated the top revenue in the state during the first two years of the analysis, but was overtaken by the San Joaquin Valley in 1997-98 (Table 7-2; Figure 7-2). The South Coast posted the third largest production values in all three years.

All regions demonstrated sizeable sales growth with the exception of the Southeast Interior, which slightly decreased in sales over the study period, and Cascade Sierra, which remained essentially the same. Four regions, the San Joaquin Valley, Sacramento Valley, the Central Coast, and the South Coast accounted for almost 90% of the total growth in sales (Tables 7-2, 7-5). The San Joaquin Valley alone made up 34% of the total sales growth with a 62% increase in sales for the region. The Sacramento Valley contributed 20% of the state's sales growth by almost doubling its sales. Central Coast sales increased by one third, representing 18% of the total increase. The South Coast represented 17%.

Figure 7-1. Registered Organic Acreage by Region as Reported to CDFA, 1995-98



Kern County had the state's highest farmgate sales of organic commodities with San Benito County a close second in 1997-98 (Table A-2). Both these counties gained almost \$9 million in sales over the study period. Other counties—most notably Calaveras, San Luis Obispo, Mendocino, Glenn, Tehama, Merced, and Ventura—doubled or even tripled sales within the study period but their contributions to the total increase in sales for the state were much less significant.

Produce sales contributed 76% of the total growth in sales (Table 7-5). Almost all of the increase in vegetable sales came from the Central Coast, South Coast and San Joaquin Valley. Central Coast vegetable crops claimed the highest value for all three years, accounting for one fifth of organic commodity sales in the state and about \$6.5 million, or 37%, of the \$17.7 million statewide increase in vegetable crop sales for the three year study period (Tables 4-3, 5-3, 6-3). San Joaquin Valley vegetable crops posted the biggest sales gain for the study period, \$9.6 million, accounting for 21% of state sales increase for all organic commodities (Table 7-5). About 40% of the growth in fruit and nut crop sales was from the San Joaquin Valley. Field crops contributed 15% of overall growth, virtually all in the Sacramento Valley.

While overall sales gains paralleled the acreage increase (40% increase in sales compared to 47% increase in acreage, Table 7-1), this was primarily due to changes in the Central Coast. In the Sacramento Valley, North Coast and South Coast gross sales increased by more than twice the rate of the acreage increase.

The most marked difference in the rates of growth in crop acreage and gross sales was on the Central Coast where acreage nearly tripled during 1995-98 while sales increased by only one third. As a result of this expansion pattern, the Central Coast came within 400 acres of the San Joaquin Valley in 1997-98 and fell to the number two position behind the San Joaquin Valley in terms of total gross sales (Table 7-2). In fact, the Central Coast accounted for almost half of the total acreage expansion in the state but only one fifth of the total sales growth (Tables 7-4 and 7-5).

Table 7-4. Percent Change in Acreage of All Crops Accounted for by Region and Selected Commodity Group from 1995-96 to 1997-98

Region	Produce			Field Crops	Total Acres ^a
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce		
	Percent Change in Acreage of All Crops				
Bay Area	<1	-3	—	—	2
Cascade-Sierra	<1	<1	<1	-1	<1
Central Coast	<1	31	-2	14	43
North Coast	2	3	-1	<1	4
Sacramento Valley	<1	-1	-2	28	26
San Joaquin Valley	8	13	-1	2	22
South Coast	2	5	-1	—	3
Southeast Interior	1	-1	-1	—	<1
Total Acreage	13	48	-5	44	100

^a Column totals may not add due to rounding error.

— Data not reported to protect grower confidentiality.

Figure 7-2. Gross Sales of Registered Organic Farms by Region as Reported to CDFA, 1995-98

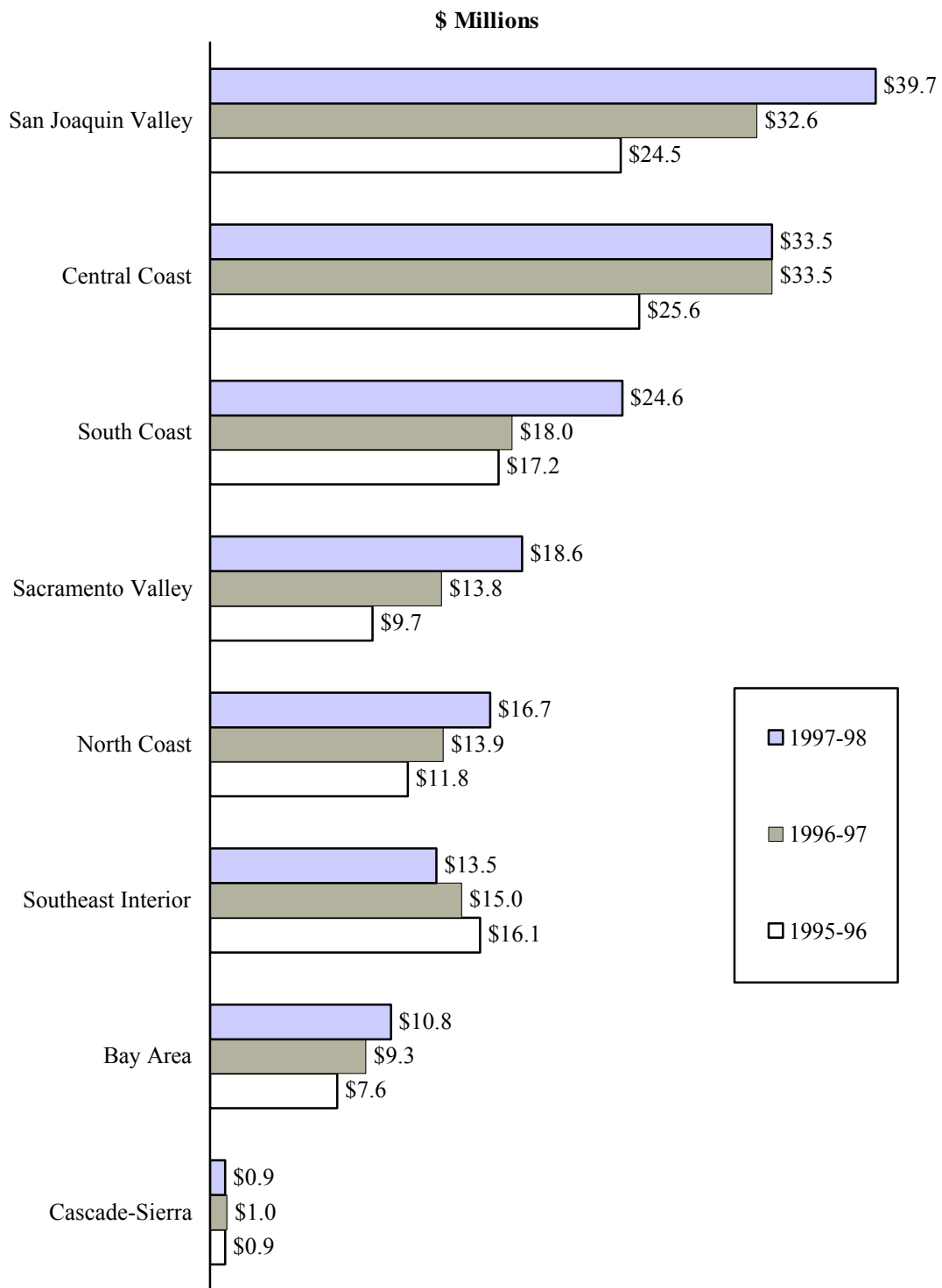


Table 7-5. Percent Overall Change in Gross Sales Accounted for by Regional Commodity Groups from 1995-96 to 1997-98

Region	Produce			Field Crops	Nursery, Forestry & Flowers		Livestock	Total Gross Sales (\$) ^a
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce					
Percent Change in Total Sales of All Crops								
Bay Area	1	-9	11	0	<1	—	7	
Cascade-Sierra	<1	<1	0	0	—	—	<1	
Central Coast	3	14	-2	1	1	0	18	
North Coast	7	2	-1	0	—	—	11	
Sacramento Valley	4	4	-2	14	—	—	20	
San Joaquin Valley	13	21	<1	0	—	0	34	
South Coast	4	14	-2	0	—	—	17	
Southeast Interior	1	-7	<1	0	—	0	-6	
Total Gross Sales	33	39	4	15	2	7	100	

^a Column totals may not add due to rounding error.

— Data not reported to protect grower confidentiality.

The Central Coast phenomenon is attributable to expansion in field crops and vegetable crops. Field crop acreage increased from less than 100 acres in 1995-96 to over 3,000 acres in 1997-98, going from less than one percent of the Central Coast acreage to 20%. The increased importance of field crops decreased the average sales per acre in the region and contributed to the slower growth in sales than in acreage. Turning to vegetable crops, several large growers reported near doubling of their acreage with essentially no increase in sales. At the same time at least one large grower with high sales per acre dropped out of the organic program lowering the average sales per acre for vegetable crops, the Central Coast, and the state. Thus the activities of just a few large growers were able to impact the relationship between acreage growth and sales growth for organic agriculture in California.

FARM PROFILES

Farm Income Characteristics. The analysis showed that most registered organic farms were small in acreage, with low annual sales per farm (Tables 7-6, 7-7). Median gross sales showed an upward trend from 1995-96 to 1997-98, but median sales per acre declined due to a relative increase in acres planted to field crops (Table 7-1). In 1997-98, 50% of all farms consisted of five acres or less and reported gross sales under \$8,000. These results reflect a large segment of the industry comprising small or part-time growers, who undoubtedly use organic farming as a means of supplementing income. However, the number of growers in the \$10,000 and under sales class declined during the study period, while the number of growers in all other sales classes increased (Tables 4-6, 5-6, 6-6).

Overall, there was an upward trend in gross sales at the farm level. Sales at the 50th percentile increased from \$6,000 in 1995-96 to \$8,000 in 1997-98. The increase was even

greater at the 75th percentile, increasing from \$25,000 to \$40,000 (Table 7-6). The lower boundary for sales realized by the top 10% of farms increased from \$125,000 to \$177,000. Put another way, in 1995-96 there were 142 growers who grossed \$125,000 or more and in 1997-98 there were 152 growers who grossed \$177,000 or more.

The size of farms for the 50th percentile remained at five acres, and at the 75th and 90th percentile increased only slightly over the three-year period (Table 7-6). By 1997-98 only 10% of farms had more than 75 acres compared to 72 acres in 1995-96 despite the fact that acreage overall increased by 48%. This means that the increase of 22,000 acres is accounted for by the largest 10%, or 152 growers.

Table 7-6. Median, 75th Percentile, and 90th Percentile of Sales, Acreage, and Sales per Acre for All Farms, 1995-96 to 1997-98

	Percentile	1995-96	1996-97	1997-98	% Change 3 yrs.
Acres ^a	Median	5	5	5	0
	75th	17	18	20	18
	90th	72	73	75	4
Gross Sales	Median	6,000	7,000	8,000	33
	75th	24,586	29,450	40,000	63
	90th	125,000	139,500	176,933	42
Sales per Acre ^a	Median	1,471	1,400	1,286	-13
	75th	3,333	3,600	3,571	7
	90th	8,589	10,000	8,824	3

^a Does not include livestock, poultry and related products.

Table 7-7. Description of Registered Organic Farms by Selected Commodity Group as Reported to CDFA, Summary, 1995-98

Farm Type ^a	Median Acres			Median Gross Sales (\$1,000)			Median Sales per Acre (\$1,000)		
	95-96	96-97	97-98	95-96	96-97	97-98	95-96	96-97	97-98
Produce Crops:									
Fruit & Nut	5	5	5	5.0	5.0	5.0	1.0	1.0	1.0
Vegetable	3	3	3	8.3	8.5	10.0	3.1	3.1	3.3
Unclassified	5	5	5	9.0	10.0	5.8	2.2	2.3	1.9
Field Crops	55	49	55	30.0	25.0	28.9	0.4	0.5	0.5
All Farms	5	5	5	6.0	7.0	8.0	1.5	1.4	1.3

^a Commodity groups do not include farms with production in more than one category.

Distribution by Commodity Group. In all three years of this study, the greatest number of registered organic farms grew fruit and nut crops, followed by vegetable crops, and then field crops (Table 7-1). Over the three years, 63% of the organic farms grew fruit and nut crops, 29% included vegetable crops and about 5% included field crop enterprises. Many farms reported sales in more than one category, for example, vegetable crops and field crops. (Therefore, the percentage of farms by commodity group totals more than 100%.) Fifty percent of fruit and nut crop farms were smaller than five acres with sales below \$5,000 and returns per acre below \$1,000. Vegetable crop farms tended to be slightly

smaller but to have greater gross sales per farm and per acre (Table 7-7). Not surprisingly, field crop farms tended to be larger than produce farms, with considerably higher sales per farm and median sales per acre around \$500. The net increase in number of growers was greatest for fruit, nut, and vegetable farms (Table 7-8). This is in part attributable to improved reporting which moved growers out of the “unclassified produce” category and into vegetable crops and/or fruit and nuts.

Table 7-8. Net Change in Number of Growers by Region and Selected Commodity Group from 1995-96 to 1997-98

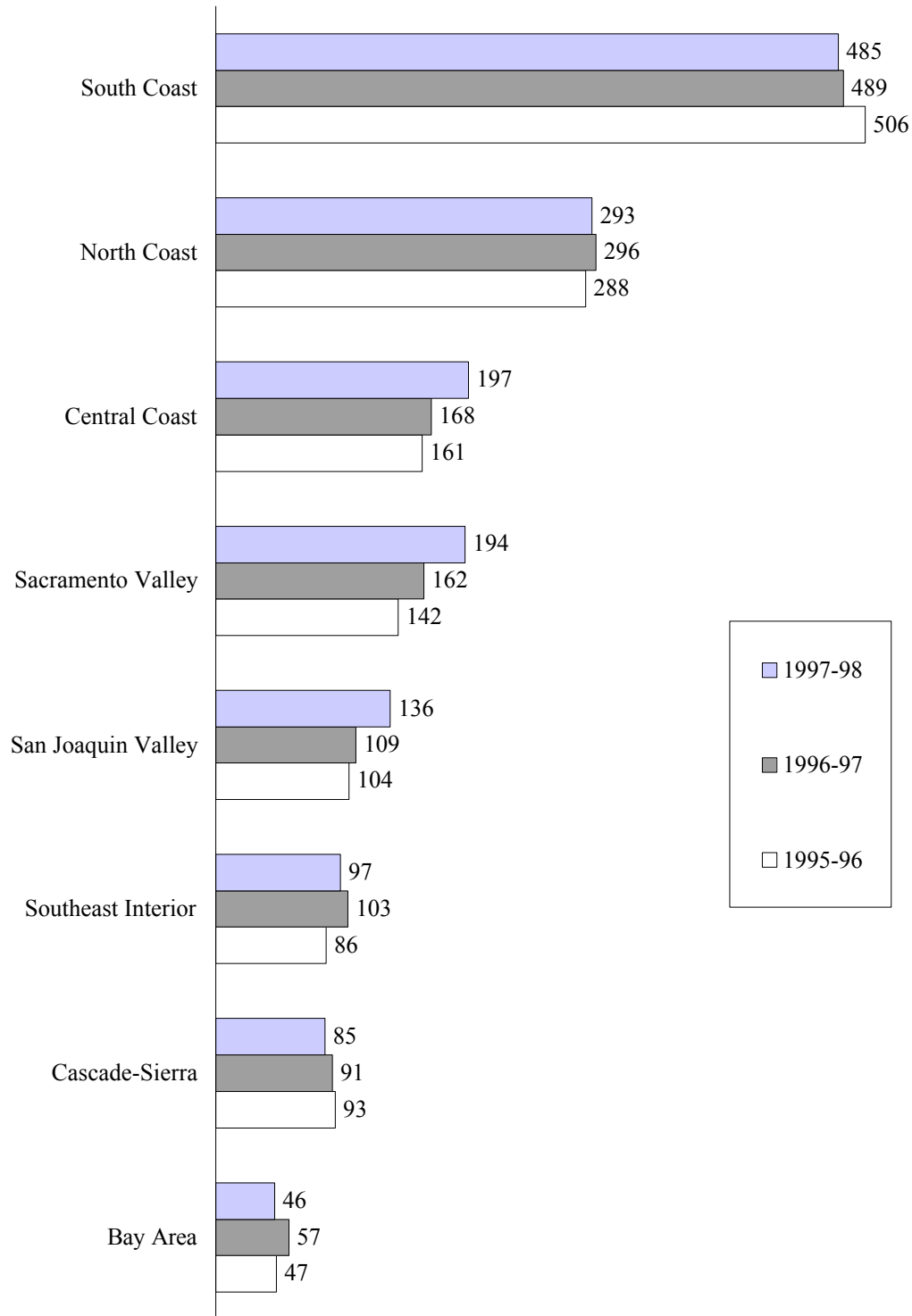
Region	Produce			Field Crops	Total Gross Sales (\$) ^a
	Fruit & Nut Crops	Vegetable Crops	Unclassified Produce		
Bay Area	1	-1	0	1	-1
Cascade-Sierra	11	-7	-7	0	-8
Central Coast	26	27	-15	14	36
North Coast	26	34	-32	4	5
Sacramento Valley	34	17	-10	26	52
San Joaquin Valley	23	15	-4	3	32
South Coast	-4	14	-12	2	-21
Southeast Interior	16	0	-4	2	11
Total Acreage	133	99	-84	52	106

^a Row totals do not add because of multiple responses to commodity group category.

Distribution by Region. California's three coastal regions reported the largest numbers of registered organic growers throughout 1995 to 1998 (Table 7-2; Figure 7-3). The South Coast regularly reported the greatest number of growers, with approximately one third of the state's total. The South Coast, however, posted a net decline in grower numbers (Tables 7-2, 7-8; Figure 7-3). The North Coast was second, accounting for another one fifth of growers, followed by the Central Coast, with roughly one eighth. However, the greatest growth in number of growers was in the Sacramento Valley, which accounted for 49% of the change in grower numbers (Table 7-8).

Median farm characteristics by region show the largest median size and sales per farm were located in the San Joaquin and Sacramento Valleys (Table 7-9), although these measures decreased slightly over the three-year study period. The three coastal regions showed modest increases in median sales per farm, while other regions were less consistent. At the 90th percentile, the largest farms with respect to acreage were also located in the San Joaquin and Sacramento Valleys. With respect to sales per farm, the highest grossing farms were located in the San Joaquin Valley followed by farms in the Central Coast. (Tables 4-5, 5-5, 6-5).

Figure 7-3. Number of Registered Organic Farms by Region as Reported to CDFA, Summary 1995-98



Sales per acre for the median farm decreased by 13% from \$1,471 per acre to \$1,286 per acre. At the same time the sales per acre by commodity group also decreased but by a much smaller amount in all cases. Therefore, the change in median sales per acre can be attributed to the relative gain in importance of field crops for which the median sales per acre is less than half that of any of the produce commodity groups. In interpreting these numbers it should be kept in mind that the median sales per acre does not reflect the size of the operation. For example, a field crop operation above the 75th percentile in acreage would probably be below the median sales per acre for all farms and a vegetable crops operation of three acres could have sales per acre well above the median.

Table 7-9. Description of Registered Organic Farms by Region as Reported to CDFA-Summary, 1995-98

Region	Median Acres ^a			Median Sales Per Farm (\$)		
	95-96	96-97	97-98	95-96	96-97	97-98
Bay Area	2	1	2	9,500	8,693	7,527
Cascade-Sierra	2	2	3	2,750	4,730	3,809
Central Coast	9	10	12	9,000	12,370	13,345
North Coast	4	4	4	6,000	6,480	8,000
Sacramento Valley	15	16	13	16,500	18,650	15,300
San Joaquin Valley	41	39	40	59,756	45,000	50,000
South Coast	3	3	4	3,000	3,150	3,343
Southeast Interior	8	6	7	9,903	9,032	10,000
All Farms	5	5	5	6,000	7,000	8,000

^a Does not include acreage for livestock, poultry and related products.

Income Concentration. In all three years of the analysis, registered organic agriculture was highly concentrated (Table 7-10; Figures 4-3, 5-3, 6-3). Registered farms that grossed over \$1 million annually represented only one to two percent of the total number, but captured over half of the state's total sales. At the low end of the scale, over half of all farms—those that grossed \$10,000 or under per year—realized just over 2% of all sales in the state in all three years (Table 7-10).

Table 7-10. Income Concentration for Registered Organic Growers 1995-96 to 1997-98, as Reported to CDFA

Sales Class		% of Growers			% of Gross Sales		
		95-96	96-97	97-98	95-96	96-97	97-98
\$0 -	4,999	42	40	39	1	1	1
\$5,000 -	9,999	20	19	17	2	1	1
\$10,000 -	49,999	20	22	23	6	6	6
\$50,000 -	99,999	6	7	8	6	6	5
\$100,000 -	249,999	7	6	6	13	11	11
\$250,000 -	499,999	3	3	4	13	11	13
\$500,000 -	999,999	1	1	2	11	11	10
\$1,000,000 & above		1	2	2	49	53	52
Total		100	100	100	100	100	100

Note:

Column totals may not add due to rounding errors.

Certified Organic Farms

SECTOR SIZE

Certified growers comprised about 40% of all registered organic growers in 1995-98. During this period, the total number of certified growers grew by 99 (19%) while total registered growers grew by 106 (7%) (Table 7-11). However, the proportion of registered acres and sales that were certified remained fairly constant (Table 7-12). In other words, certified acres and sales increased at the same rate as the entirety of registered organic agriculture. Farms with higher gross sales were more likely to be certified, with 100% of the farms grossing over \$1 million certified, but only 30% of farms grossing between \$5,000 and \$10,000 holding some form of third party certification (Table 7-11). Certified farms, though representing less than half of registered farms, accounted for more than 80% of the registered acreage and about 90% of the registered sales in the state (Table 7-12).

Table 7-11. Number of Registered and Certified Organic Growers by Sales Class as Reported to CDFA-Summary, 1995-98

Sales Class (\$)	Registered Organic			Certified Organic			Certified/Registered Organic (%)		
	95-96	96-97	97-98	95-96	96-97	97-98	95-96	96-97	97-98
\$0 - 4,999	606	595	601	93	105	103	15	18	17
\$5,000 - 9,999	281	273	259	70	70	78	25	26	30
\$10,000 - 49,999	284	327	347	153	171	179	54	52	52
\$50,000 - 99,999	79	98	116	60	73	90	76	74	78
\$100,000 - 249,999	93	93	99	80	73	81	86	78	82
\$250,000 - 499,999	42	43	59	38	38	51	90	88	86
\$500,000 - 999,999	21	22	25	19	20	24	90	91	96
\$1,000,000 & above	21	24	27	21	24	27	100	100	100
All Growers	1,427	1,475	1,533	534	574	633	37	39	41

Table 7-12. Certified Organic Agriculture as a Percentage of Registered Organic Agriculture by Commodity Group as Reported to CDFA-Summary, 1995-98

Commodity Group	% of Growers ^a			% of Total Crop Acreage			% of Total Gross Sales ^b		
	95-96	96-97	97-98	95-96	96-97	97-98	95-96	96-97	97-98
Produce									
Fruit & Nut Crops	33	36	38	72	72	76	85	89	88
Vegetable Crops	42	40	44	93	89	95	94	91	92
Unclassified Produce	39	35	35	62	68	65	77	80	87
Field Crops	88	80	80	98	76	95	97	97	99
Nursery, Forestry & Flowers	50	47	37	31	66	26	93	92	86
Livestock, Poultry & Products	30	42	38	na	na	na	37	96	99
Total Percentage Certified	37	39	41	83	79	88	91	90	91

^a Some growers reported production in more than one commodity group category.

^b Some growers reported sales over the \$5 million annual gross sales report ceiling set by CDFA while others reported at the ceiling.

na Acreage for livestock, poultry & products not available.

Several explanations are possible for this difference in certified farms and registered organic agriculture as a whole. First, small farmers may consider the increase in sales gained from certification, if any, insufficient to justify the cost to certify. Second, incentives for certification may be greater for larger scale operators who are less likely to direct-market their products and more likely to sell to processors or wholesalers who usually require certification. Finally, certification itself may improve the prospects of a farm through greater market recognition, greater access to markets or enhancement of production and marketing skills through information exchange among farmers, agencies and other partnerships. It should be pointed out that, when implemented, the federal Organic Foods Protection Act will require growers grossing over \$5,000 per year to be certified. In 1997-98, there were about 400 uncertified growers who would have required certification under the new rules.

CERTIFIERS ACTIVE IN CALIFORNIA

There were seven third party certification organizations reported by registered organic growers in California in 1998. Three of these each certified 1% or less of the certified organic growers. California Certified Organic Farmers (CCOF) was by far the most active certifier representing 73% of the certified growers in California who accounted for 74% of the acreage and 72% of the certified organic sales in 1997-98. Despite this important presence, these percentages are down from 1995-96 when CCOF represented 82% of the certified growers who accounted for 77% of the acreage and 80% of the sales. The second most active certifier in California is QAI, which represented 18% of certified growers in 1997-98, up from 12% in 1995-96.

CERTIFIED COMMODITIES

Within commodity groups, field crop farms were more likely to be certified than vegetable or fruit and nut farms, undoubtedly because they are rarely direct-marketed. Eighty percent of field crop farms were certified, compared to only 38% of fruit and nut farms and 44% of vegetable farms in 1997-98. This difference also holds for acreage and sales figures, but because uncertified growers tend to be small fruit, nut and vegetable growers who represent a small proportion of acreage and sales, the contrast is not as great.

GEOGRAPHIC DISTRIBUTION OF CERTIFICATION

In all regions the percentage of certified growers was lower than the percentage of certified acreage and certified sales, reaffirming that larger growers are more likely to be certified than smaller growers (Table 7-13). The difference was most dramatic in the South Coast where in 1997-98 less than one quarter of the organic growers were certified but two thirds of the acreage and 80% of the sales were certified.

Table 7-13. Certified Organic Agriculture as a Percentage of Registered Organic Agriculture by Region as Reported to CDFA-Summary, 1995-98

Region	% of Growers			% of Total Crop Acreage ^a			% of Total Gross Sales ^b		
	95-96	96-97	97-98	95-96	96-97	97-98	95-96	96-97	97-98
Bay Area	51	35	37	96	54	55	97	95	96
Cascade-Sierra	28	33	32	68	23	64	48	46	59
Central Coast	53	57	62	75	82	91	93	93	96
North Coast	40	37	32	76	76	81	79	83	79
Sacramento Valley	61	66	62	92	87	95	92	91	95
San Joaquin Valley	72	72	71	92	92	94	97	96	96
South Coast	16	19	23	64	63	66	82	79	80
Southeast Interior	47	38	45	88	82	88	94	93	93
All Regions	37	39	41	83	79	88	90	90	91

^a Does not include acreage for livestock, poultry and related products.

^b Most growers reported actual sales over the \$5 million annual gross sales report ceiling set by CDFA while others simply reported at the ceiling.

The highest rate of certified growers was in the San Joaquin Valley with nearly three quarters of the organic growers certified in all three years, representing more than 90% of the acreage and 96% of the sales in the region. The Sacramento Valley had the next highest rate of grower certification reaching almost two thirds of growers, 95% of acreage and 95% of sales in 1997-98. Interestingly, the percentage of growers certified in the Sacramento Valley actually decreased from 1996-97 to 1997-98 while the percentage of certified acreage and sales increased.

In absolute numbers, the San Joaquin Valley, Sacramento Valley and Central Coast each reached over 14,000 acres by 1997-98 and together represented almost three fourths of the certified acreage. The Central Coast had the highest sales from certified land in the first two years but fell behind the San Joaquin Valley in 1997-98 (Table 7-14). The South Coast had roughly one third the certified acreage, but roughly the same number of certified growers as the Sacramento Valley. However, the South Coast actually had higher certified gross sales than the Sacramento Valley in all three years. This is explained by the predominance of field crops in the Sacramento Valley and vegetable crops in the South Coast.

Table 7-14. Certified Organic Agriculture by Region as Reported to CDFA-Summary, 1995-98

Region	Number of Growers			Crop Acreage ^a			Gross Sales ^b		
	95-96	96-97	97-98	95-96	96-97	97-98	95-96	96-97	97-98
Bay Area	24	20	17	978	903	825	7,401,900	8,863,508	10,367,393
Cascade-Sierra	26	30	27	680	588	574	413,195	470,315	533,204
Central Coast	86	95	123	4,536	8,390	14,003	23,678,521	31,211,995	32,112,865
North Coast	116	110	95	4,651	4,808	5,674	9,302,184	11,510,192	13,217,549
Sacramento Valley	86	107	120	9,059	10,218	14,638	8,945,344	12,521,190	17,642,848
San Joaquin Valley	75	79	96	10,156	11,075	14,832	23,609,520	31,157,832	38,000,617
South Coast	81	94	111	4,089	3,710	4,635	14,068,414	14,222,820	19,633,528
Southeast Interior	40	39	44	4,254	3,494	4,267	15,103,286	13,885,232	12,577,580
All Regions	534	574	633	38,402	43,185	59,448	102,522,364	123,843,084	144,085,584

^a Does not include acreage for livestock, poultry and related products.

^b Most growers reported actual sales over the \$5 million annual gross sales report ceiling set by CDFA while others simply reported at the ceiling.

The greatest change in rate of certification was in the Bay Area where the number of certified organic growers fell from 24 to 17 (from 51% to 37% of registered organic growers) and certified crop acreage also decreased by 16%, from 978 to 825 acres (from 95% to 55% of registered organic acreage) from 1995-96 to 1997-98. The increasing certified gross sales in the region suggests that it was primarily smaller growers that left the program. The 50% increase in registered growers within the study period indicates that the new organic growers coming into production in this region tended not to be certified.

Patterns of Entry, Exit, and Expansion

Although there were only 106 more organic growers in 1997-98 than in 1995-96, looking at entry and exit from the ranks of the registered organic growers reveals that almost one fourth of the growers were new in any given year and that about one fifth of registered growers did not renew their registration the following year (Table 7-15). Interestingly, the number of new growers and exiting growers was constant every year averaging 342 new growers and 293 exiting growers each year resulting in the slight increase in total numbers.

Table 7-15. Entry and Exit Patterns for Registered Organic Growers, 1995-96 to 1997-98

	1995-96		1996-97		1997-98	
	Number	%	Number	%	Number	%
Registered organic growers:						
Continuing from previous year	1,092	77	1,126	76	1,190	78
Entering	335	23	349	24	343	22
Total number of organic growers:	1,427	100	1,475	100	1,533	100
Exiting at the end of the year	301	21	285	20	na	na
Continuing into the next year	1,126	79	1,190	81	na	na

Looking at acreage over the three years, total expansion from 1995-96 to 1997-98 was about evenly split between continuing and new growers. Continuing growers who expanded increased their operations by about 23,000 acres while other continuing growers downsized by a total decrease of 8,000 acres for a net expansion of about 15,000 acres attributable to continuing growers. At the same time, new growers brought about 28,000 organic acres into production while exiting growers represented 13,000 acres (Table 7-16). Therefore, while acreage was more likely to leave the program due to a grower exiting the program than from a continuing grower downsizing, it is likely that much of the acreage formerly under the management of downsizing or exiting growers continues in organic production under new management (i.e., expanding growers and entering growers). The net increase in sales from the change in growers (new growers minus existing growers) accounted for 26% of the growth in revenue.

Table 7-16. Entry and Exit Patterns for Registered Organic Acreage, 1995-96 to 1997-98

	1995-96		1996-97		1997-98	
	Number	%	Number	%	Number	%
Registered organic acreage:						
Continuing from previous year	37,901	82	41,654	76	46,508	69
Net expansion - continuing growers	2,522	5	2,449	4	10,105	15
Expansion-new growers	5,836	13	10,665	19	11,213	17
Total organic acreage:	46,259	100	54,768	100	67,826	100
Exiting growers-end of the year	4,605	10	8,255	18	na	na
Continuing into the next year	41,654	90	46,508	85	na	na

In any given year the percentage of new growers was higher than the percentage of acreage represented by these new growers. Also, the percentage of growers leaving the program was higher than the percentage of acreage represented by these exiting growers. Therefore, exit and entry must be more common among smaller growers than larger growers. At the same time continuing growers expanded their acreage and many new growers entered the program with sizable acreage. As a result, the number of organic growers increased by only 7% over the three years and the number of organic acres increased by 47%.

Registered Organic Handlers

During the three-year period, the number of registered handlers increased from 89 to 111. Their reported sales increased from \$80 million in 1995-98 to \$106 million the following year and back down to about \$80 million in 1997-98-a result of at least one handler leaving the industry, and increasing direct sales to consumers, processors and grocery stores instead of through handlers. The number of handlers in the Bay Area and the South Coast decreased slightly over the period of analysis while the number in other regions increased steadily from 36 to 63 (Table 7-17).

Table 7-17. Description of Registered Organic Handlers by Region as Reported to CDFA, 1995-98

Region	Registered Organic			Total Gross Sales (\$) ^{a,b}		
	95-96	96-97	97-98	95-96	96-97	97-98
Bay Area	20	23	18	24,497,008	22,978,582	19,033,812
South Coast	33	26	30	21,191,709	33,468,537	32,105,124
Other Regions	36	43	63	34,316,609	49,648,095	28,341,654
Total	89	92	111	80,005,326	106,132,943	79,486,080

^a Some handlers reported sales over the \$5 million annual gross sales report ceiling set by CDFA while others reported at the ceiling.

^b Gross sales may include products from out of state and out of the country.

Conclusion

California organic agriculture expanded rapidly from 1995-96 to 1997-98, with double-digit growth in registered acreage and sales. Growth of organic agriculture using these measures was considerably faster than in California agriculture as a whole. However, organic agriculture accounted for only 0.8% of all crop sales and a much smaller percentage of livestock and livestock product sales. Organic commodities were most important in produce (fruits, nuts and vegetables accounting for over 1% of total value of all produce in California in 1997-98).

The previous chapters have devoted much attention to the distribution of acreage and sales by commodity type, region and sales class and the changes over the three-year study period. Production remains concentrated in the Central Coast, San Joaquin Valley and the Sacramento Valley with all three regions showing impressive increases in sales and acres. Field crops and vegetable crops accounted for most of the increase in acreage while fruits, nuts and vegetables comprised three fourths of the growth in sales. A picture of California organic agriculture emerges that shows a majority of small growers producing fruits, nuts and vegetables on few acres in various regions of the state. About half of all organic produce growers gross under \$10,000 per year in sales. Another one fifth of the growers gross between \$10,000 and \$50,000. The remaining growers are spread out somewhat evenly from \$50,000 to several million dollars in sales. New growers are entering in every sales class while already established growers of all sizes are also

expanding. In particular, several growers entered the market with sales over \$1 million and another significant existing group of growers expanded from income categories less than \$1 million into the greater than \$1 million in sales group.

It is generally assumed that marketing outlets are different for different sales classes of growers. Small growers most likely rely on direct sales (e.g., farmers' markets, roadside stands and CSAs [Community Supported Agriculture]) while larger growers sell through wholesalers and distributors as well as directly to retailers. Market saturation is a concern that is often expressed by those within the organic industry at all levels of production. Anecdotal evidence suggests that some sell in the conventional market when they are unable to find a substitute venue for their products in the organic market or when conventional prices are as high as organic. The value of commodities produced in accordance with organic standards but sold on the conventional market do not show up as sales in the statistics presented in this report.

Statistics contained in this report draw attention to several important questions concerning the future of the organic agricultural industry in California. Perhaps the most obvious question becomes can the organic industry in California sustain the rate of growth realized during this study period and, if so, what will this growth look like? As the industry expands, will new marketing outlets such as expansion of natural food store chains, organic sales in conventional grocery stores and Internet sales augment or replace current venues? Will current consumers of organic commodities change their purchasing patterns to include a more varied organic shopping basket and will new organic consumers emerge to purchase an ever-increasing supply of organic products? As new products using organic ingredients are developed how will the distribution of acreage devoted to the various commodity groups change? Who will supply manufacturers of new organic products?

In addition, the impact of the National Organic Standards, now finalized, is still not clear. Also not clear is how broader legislation concerning food quality protection, water quality, biotechnology, international trade and a host of other issues will be felt by the organic subsector. This study, detailing trends in the supply side of the organic industry in California, should serve as a starting point in answering these and other important questions concerning the organic industry.

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APPENDIX A

Individual County and Commodity Statistics

Table A-1. Number of Growers, Acres and Gross Sales for California Organically Grown Commodities, as Reported to CDFA 1995-98

Table A-2. Number of Growers, Acres and Gross Sales by County for California Registered Organic Agriculture, as Reported to CDFA 1995-98

Table A-1. Number of Growers, Acres and Gross Sales for California Organically Grown Commodities, as Reported to CDFA, 1995-98

Commodity Type ^{a,b,c}	Number of Growers			Acres			Gross Sales (\$)		
	1995-96	1996-97	1997-98	1995-96	1996-97	1997-98	1995-96	1996-97	1997-98
FIELD CROPS	45	70	97	7,743	11,816	17,309	3,339,036	7,217,878	10,154,452
Safflower	0	0	12			2,908			298,540
Dry Beans/Peas	6	4	8	347	289	2,617	167,461	286,000	849,813
Wheat	—	3	6	—	193	611	—	119,029	246,386
Alfalfa	—	—	3	—	—	224	—	—	35,300
Grain	—	5	3	—	228	171	—	126,013	7,171
Cotton	4	—	—	483	—	—	227,000	—	—
Hay	4	5	3	183	1,788	61	15,173	56,911	6,200
Seed	—	6	6	—	101	312	—	67,200	245,318
Rice	20	37	43	5,716	8,084	9,385	2,746,026	6,256,736	8,282,068
FRUIT & NUT CROPS	880	908	1,019	20,429	20,799	23,126	33,475,616	40,170,168	48,155,704
Miscellaneous Fruit	62	58	61	857	845	862	2,571,437	1,680,718	1,361,775
Berry	14	23	37	103	117	143	489,272	1,321,918	2,159,275
Citrus & Subtrop. Fruit	477	498	505	4,983	5,148	5,763	7,681,072	8,432,095	9,270,875
Grapes	108	103	111	6,946	6,812	7,374	12,248,934	17,016,802	19,417,673
Nut Crops	87	81	112	3,507	3,248	3,750	3,493,666	3,219,277	5,319,285
Pome Fruit	82	81	110	2,606	2,813	3,341	3,265,873	3,405,285	4,351,211
Stone Fruit	28	34	59	886	1,156	1,645	2,975,177	3,784,188	5,712,182
Misc. Fruit & Nut	22	30	24	541	660	249	750,185	1,309,885	563,428
LIVESTOCK & POULTRY PRODUCTS	12	14	11	0	0	0	850,809	2,233,378	4,163,516
Egg	4	8	6	0	0	0	5,475	232,635	331,756
Milk	—	—	3	—	—	0	—	—	3,818,000
NURSERY & FLOWERS	24	39	68	24	33	121	1,223,797	1,904,878	2,033,551
Transplants	18	18	23	10	9	22	1,201,639	1,818,502	1,863,092
Flowers	5	20	42	8	18	22	19,658	84,834	163,593

Table A-1. Continued

Commodity Type ^{a,b,c}	Number of Growers			Acres			Gross Sales (\$)		
	1995-96	1996-97	1997-98	1995-96	1996-97	1997-98	1995-96	1996-97	1997-98
VEGETABLE CROPS	382	438	479	15,670	20,023	25,929	68,365,325	78,287,647	86,112,550
Mixed Herbs	25	25	30	76	108	184	552,630	692,620	1,351,146
Mixed Vegetables	266	295	279	12,863	14,815	17,509	57,737,511	57,115,628	47,212,120
Allium	6	9	6	43	15	139	114,561	15,376	362,148
Brassica	3	4	5	18	70	77	74,000	309,000	659,963
Composite	11	12	22	313	897	1,478	2,382,734	2,715,620	6,177,825
Cucurbit	5	15	17	35	1,314	1,667	41,515	5,705,065	9,305,666
Legume	3	3	11	60	39	289	55,000	91,500	1,826,200
Solanaceous Crop	24	37	62	812	799	1,971	1,537,232	2,136,144	5,977,984
Succulent Veg./Sweet Corn	27	25	32	792	734	973	1,380,037	1,411,245	3,739,660
Sprouts	12	13	14	659	1,233	1,633	4,490,105	8,095,449	9,481,338
MISC. FRUIT, NUT, & VEGETABLES	149	116	65	2,393	2,097	1,341	6,058,906	7,269,207	7,668,107

^a For description of commodity type, see Table 2-1.

^b Grower category totals do not add because some growers reported more than one commodity type.

^c Organic commodities that could not be displayed due to grower confidentiality were: pasture, sunflower, yellow corn, barley, oats, sudan grass, popcorn, miscellaneous field crops, beef, honey, chicken, miscellaneous livestock, aloe vera, Christmas trees, firewood, and chenopod.

— Data not reported to protect grower confidentiality.

Table A-2. Number of Growers, Acres and Gross Sales by County for California Registered Organic Agriculture, as Reported to CDFA, 1995-98

County	Number of Growers			Acres			Gross Sales (\$)		
	1995-96	1996-97	1997-98	1995-96	1996-97	1997-98	1995-96	1996-97	1997-98
BAY AREA	47	57	46	1,022	1,660	1,489	7,626,027	9,325,687	10,770,557
Alameda	5	8	5	120	131	6	575,489	554,129	167,622
Contra Costa	13	12	13	194	202	230	739,221	1,381,891	1,452,184
Marin	20	30	22	167	810	736	2,146,091	2,849,782	4,064,777
San Francisco	—	0	0	—	0	0	—	0	0
San Mateo	7	7	6	540	518	517	4,139,475	4,539,885	5,085,974
CASCADE-SIERRA	93	91	85	994	2,546	894	852,814	1,025,870	898,091
Amador	6	5	4	172	174	72	156,867	277,055	114,857
Calaveras	—	4	3	—	5	157	—	35,765	127,455
El Dorado	6	10	8	36	54	40	54,495	77,643	83,849
Lassen	—	—	0	—	—	0	—	—	0
Modoc	0	—	0	0	—	0	0	—	0
Nevada	26	23	23	110	128	104	176,624	173,778	222,930
Placer	11	14	15	244	257	132	109,406	150,662	149,464
Plumas	—	—	—	—	—	—	—	—	—
Shasta	6	6	6	18	26	16	6,306	44,645	11,830
Sierra	—	—	—	—	—	—	—	—	—
Siskiyou	18	15	11	344	108	316	191,276	103,573	119,563
Trinity	14	9	12	31	23	54	36,990	57,050	57,075
CENTRAL COAST	161	168	197	6,019	10,233	15,364	25,575,046	33,456,011	33,538,292
Monterey	21	33	35	2,174	3,103	2,949	13,271,675	15,418,886	11,542,979
San Benito	17	22	24	1,035	4,098	6,394	5,537,848	10,474,533	14,270,370
San Luis Obispo	43	35	55	1,394	1,362	4,120	492,941	817,357	1,113,526
Santa Clara	15	15	17	357	338	401	1,058,772	1,220,570	1,239,170
Santa Cruz	65	63	66	1,060	1,332	1,500	5,213,810	5,524,665	5,372,247

Table A-2. Continued

County	Number of Growers			Acres			Gross Sales (\$)		
	1995-96	1996-97	1997-98	1995-96	1996-97	1997-98	1995-96	1996-97	1997-98
NORTH COAST	288	296	293	6,093	6,364	7,033	11,789,332	13,918,192	16,651,098
Del Norte	—	—	—	—	—	—	—	—	—
Humboldt	53	50	39	281	244	235	569,090	582,774	455,125
Lake	22	13	19	403	328	326	256,391	278,304	414,876
Mendocino	83	84	83	1,566	1,912	2,485	3,039,790	6,540,600	7,808,759
Napa	12	12	9	1,015	291	197	2,009,986	392,383	151,427
Sonoma	116	135	141	2,823	3,583	3,786	5,886,575	6,105,826	7,798,576
SACRAMENTO VALLEY	142	162	194	9,868	11,759	15,432	9,721,732	13,825,162	18,592,153
Butte	39	46	54	2,903	2,474	2,263	1,230,149	1,826,873	2,147,232
Colusa	8	19	20	588	1,214	1,133	843,781	1,213,461	1,282,155
Glenn	17	13	19	1,594	2,376	3,026	1,489,232	3,980,992	5,226,955
Sacramento	3	4	5	16	256	267	120,734	156,522	138,762
Solano	12	13	13	270	293	2,037	378,448	465,667	1,017,117
Sutter	9	10	18	1,610	2,271	2,841	1,720,732	1,606,361	2,203,345
Tehama	13	12	19	899	1,119	1,579	487,794	538,298	1,183,736
Yolo	35	37	36	1,854	1,475	1,952	3,060,147	3,553,161	4,595,934
Yuba	6	8	10	135	282	335	390,715	483,827	796,917
SAN JOAQUIN VALLEY	104	109	136	11,013	12,017	15,751	24,452,351	32,551,637	39,718,873
Fresno	31	33	42	2,745	3,264	5,063	5,402,476	5,786,642	8,947,275
Kern	14	15	17	4,728	5,619	6,690	13,400,509	21,247,360	22,220,094
Kings	—	0	—	—	0	—	—	0	—
Madera	12	11	15	1,108	713	1,249	1,027,798	690,227	1,471,784
Merced	17	17	25	1,126	1,145	1,342	1,549,536	1,635,604	3,427,622
San Joaquin	5	7	7	429	443	269	882,065	1,115,677	1,033,244
Stanislaus	11	12	12	171	244	235	320,860	366,294	273,820
Tulare	13	14	17	628	589	605	1,807,107	1,709,833	1,745,034

Table A-2. Continued

County	Number of Growers			Acres			Gross Sales (\$)		
	1995-96	1996-97	1997-98	1995-96	1996-97	1997-98	1995-96	1996-97	1997-98
SOUTH COAST	506	489	485	6,432	5,928	7,019	17,197,655	18,025,274	24,615,309
Los Angeles	25	24	20	121	135	114	911,004	1,008,747	1,394,573
Orange	—	0	—	—	0	—	—	0	—
San Diego	417	401	390	3,179	3,059	3,333	5,771,939	5,948,735	6,364,657
Santa Barbara	37	37	39	1,664	962	1,124	4,409,121	4,973,979	5,654,301
Ventura	26	27	34	1,348	1,772	2,361	5,855,591	6,093,813	11,170,888
SOUTHEASTERN INTERIOR	86	103	97	4,818	4,261	4,844	16,098,532	14,955,323	13,503,507
Imperial	12	14	15	2,993	2,648	3,279	13,043,922	12,679,079	10,707,477
Inyo	—	—	0	—	—	0	—	—	0
Mono	—	—	—	—	—	—	—	—	—
Riverside	64	79	73	1,482	1,455	1,423	2,683,225	1,966,189	2,315,029
San Bernardino	6	6	6	173	147	135	311,500	292,100	461,389
Tuolumne	—	—	—	—	—	—	—	—	—

— Data not reported to protect grower confidentiality.

APPENDIX B

State and Federal Agency Contacts

California Department of Food and Agriculture

California Organic Program
1220 N Street
Sacramento, CA 95814
Telephone: (916) 654-0919
Fax: (916) 654-0666
Contact: H.R. (Ray) Green, Supervisor
E-mail: rgreen@cdfa.ca.gov

United States Department of Agriculture

National Organic Program
USDA AMS TMD
Room 4008, South Building
1400 and Independence Avenue SW
Washington, DC 20250-0020
Telephone: (202) 720-3252
Fax: (202) 205-7808
Contact: Richard Mathews, Program Manager
E-mail: NOPWebmaster@usda.gov

APPENDIX C

Supplemental Methodological Information

REGISTRATION FORMS AND REPORTING

Growers and handlers who choose to produce, handle and market commodities as organic are required to register with the state on an annual basis to comply with the COFA. Initial registration information is submitted to county agricultural commissioners on forms developed by CDFA. Application forms require that general information such as name, address, telephone number and certification information (if applicable) for a farm or business be reported. Also required is more detailed information about the farm or business including total yearly gross sales, and farm location and dimension. Data are centralized at the CDFA Organic Program offices in Sacramento after initial registrations are completed at the county level. The date for registration renewal depends on the first date of application. For example, growers or handlers who first registered in March of 1995 were required to renew their organic status by also registering in March of 1996, 1997 and 1998, provided commodities were produced and sold as organic during this time.

COMPUTER RECORDS FOR STATE REGISTRANTS

In order to analyze the centralized information maintained by CDFA, computer records for each producer and handler were created. Each record contains general grower or handler information, and farm or business data. General information includes registrant name, address, telephone number, region and county of operation and certification affiliation (if applicable). Farm or business data include commodities grown or handled, number of acres farmed and actual or expected gross sales.

DATA ORGANIZATION AND ENTRY

Each registrant's CDFA record was evaluated for completeness with respect to grower information and farm or business data. Of primary importance for the analysis were gross sales and acreage figures. However, these figures were not always explicitly stated on each grower's yearly registration forms. All growers reported gross sales figures during the first year of his or her registration (this being the basis for determining the registration fee). For the subsequent years, however, some registrants ambiguously reported sales by indicating that they fell within one of ten CDFA sales class categories, but without including an actual dollar amount. Also, detailed commodity information and crop acreage figures were sometimes missing or aggregated. In some cases, files had farm maps describing discrete farm boundaries, but no acreage determination. For these

records, crop acreage was calculated and noted for subsequent data entry. To estimate figures for more ambiguous, missing or aggregated data, some farm or business information was extrapolated using data from other similar operations. The procedures used for extrapolation were as follows.

AMBIGUOUS REPORTING OF GROSS SALES BY SALES CLASS

CDFA registration fees are based on ten graduated sales class categories ranging from \$0 to \$10,000 for the first sales class, to over \$5 million for the tenth class, with annual registration fees ranging from \$25 to \$2,000. In cases where organic program registrants reported annual gross sales by specifying only a sales class category, and no dollar amount, sales at the midpoint of the sales class category were assumed as the registrant's annual gross sales amount. For example, Farm A submitted a \$25 registration fee indicating that gross sales fell within the first sales class category, \$0 to \$10,000. However, no corresponding dollar amount was included on the registration form. Farm A's total gross sales were therefore assumed to be \$5,000 in the analysis. Farms reporting gross sales in the \$5,000,000 and above category who did not give a gross sales figure were assumed to have grossed \$5 million.

MISSING OR AGGREGATED INFORMATION FOR GROSS SALES BY COMMODITY

Some records reported disaggregated acreage by crop, but aggregated gross sales over several commodity types. In other words, gross sales by individual commodities were omitted. Whenever possible, information for gross sales by individual commodity was extrapolated by using data gleaned from farms of similar size and character. For example, assume Farm A reported \$100,000 and Farm B reported \$95,000 in total gross sales for 1992-93. Both farms produced the commodity types "mixed vegetables" and "stone fruits". Farm A further reported individual commodity sales of \$75,000 in "miscellaneous mixed vegetables" from 20 acres and \$25,000 in "stone fruits" from 20 acres. Farm B did not report sales for individual commodities but indicated that 19 acres were in miscellaneous mixed vegetable production and 19 acres were in stone fruit production. Extrapolating from this information, miscellaneous mixed vegetable sales for Farm B were therefore calculated to be \$71,250 and stone fruit sales were calculated to be \$23,750, totaling \$95,000.

MISSING CROP PRODUCTION ACREAGE FIGURES

When acreage figures were missing (e.g., farm maps and dimensions were unclear or inconclusive), one of two methods was employed to remedy the omission: 1) whenever possible, acreage figures from CCOF were utilized and, 2) when CCOF figures were unavailable, crop acres were assigned to an operation based on information reported by comparable farms for the same commodity and similar total gross sales. For example, if a farm reported \$10,000 in total gross sales for miscellaneous mixed vegetables but did not

include a farm map with sufficient information, and was not certified by CCOF, then an acreage figure was assigned to this farm based on acreage numbers from operations with similar gross sales and commodity type.

DATA EVALUATION AND ANALYSIS

All records were organized alphabetically according to CDFA's listing, with grower and farm business data entered into the database management program dBase, and then imported into the statistical software program SAS for analysis.

Upon completing data entry for grower and handler records, the information was evaluated to expose discrepancies, inconsistencies and incomplete data sets. Wherever necessary, records were modified to assure consistency and completeness for all three years. SAS was used to perform the different analyses, which included the TABULATE and FREQ procedures to tabulate data on the number of growers, sales classes, acres and gross sales of organic production for both region and commodity group category. Similar analyses were performed for handlers. In addition, the UNIVARIATE procedure was used to analyze farms with respect to median acres, median sales and median sales per acre (SAS Institute Inc. 1990). The median was used instead of the average because of the high concentration of small farms.