



# SOUTHERN CALIFORNIA ECONOMY

## Contributions from the Strawberry Supply Chain



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CALIFORNIA  
**STRAWBERRY**  
COMMISSION

## KEY FINDINGS

Nonfarm urban strawberry value-chain businesses generate nearly \$3 billion in economic returns in Southern California. Growers in the region contribute another \$1 billion of economic activity in the Southern California counties, for a total of nearly \$4 billion in economic returns.

The supply chain in the Southern California urban centers has a diversity of companies providing products and services for the strawberry industry, including packaging, precooling, shipping, processing, retailing and more.

A number of businesses often boast of a diverse workforce that includes an equal number of women and men — many of whom are Latinos and Asians — with a wide range of educational backgrounds.

# \$3 BILLION

The amount of revenue generated by urban Southern California businesses to support CA strawberry farming.

## ECONOMIC VALUE ANALYSIS FOR SOUTHERN CALIFORNIA STRAWBERRY INDUSTRY

### RETAIL:

Southern California strawberry industry adds about \$1.7 billion revenue to retail sector.

### DOMESTIC, EXPORT & PROCESS MARKETS:

Strawberry fruit sales contribute another \$1 billion revenue to Southern California.

### GROWER, SHIPPER & PRECOOLING:

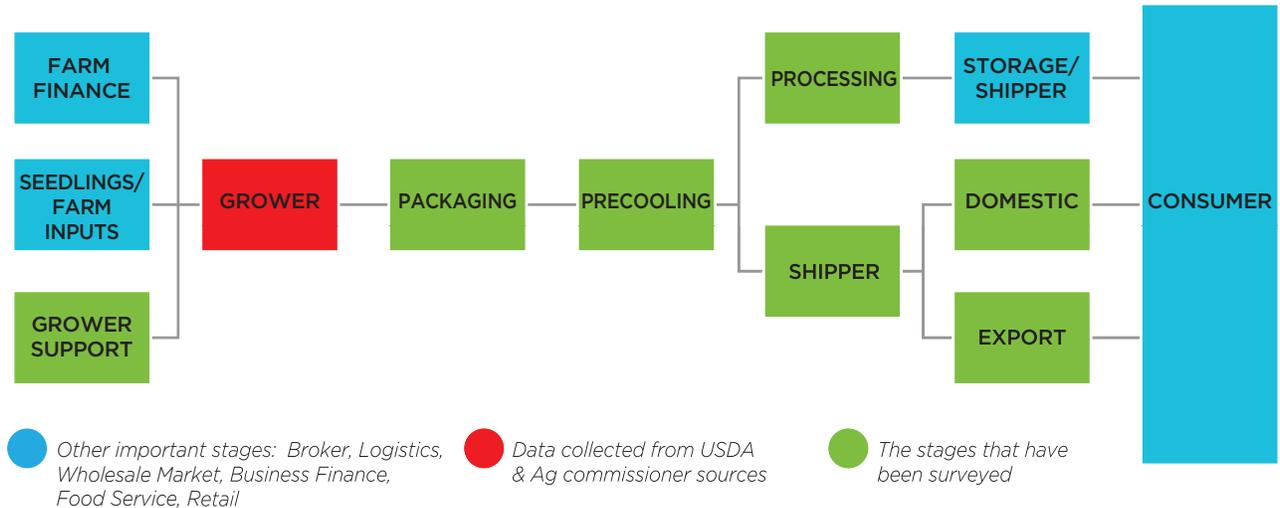
Creates approximately \$1 billion revenue in Southern California.\*

### EXPORT:

California strawberry exports were valued at \$464 million in 2014 and \$446 million in 2015. An estimated \$40 million of those exports leave the state by air through LAX annually.<sup>1</sup>

\* Grower receipts were collected from Ag. Commissioner's Data. Revenue for other supply chain industries were interpolated by the authors based on interviews and literature review. Some values were confirmed by University of California Agricultural Issues Center Cost Study. Note: Some companies are vertically integrated within the value chain and impact multiple sectors. Their effect on each sector is difficult to separate.

# Value Addition of the Supply Chain for Southern California

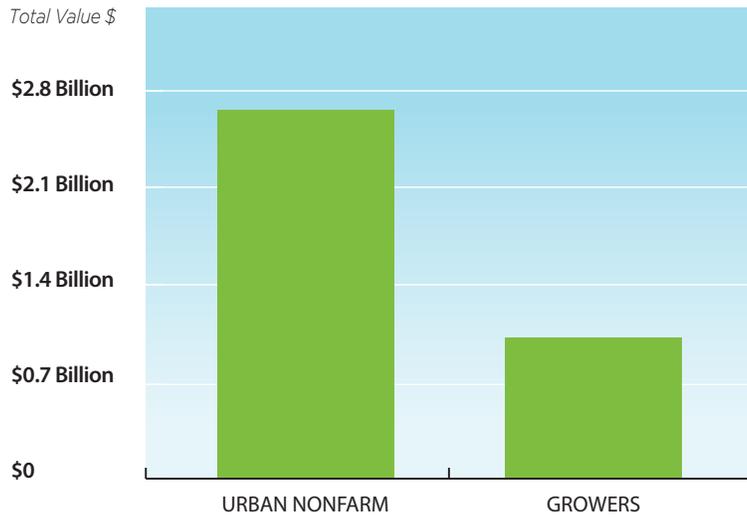


## Information Collected from Supply Chain Stages for Southern California

SUPPLY CHAIN STAGE	THE IMPORTANCE IN THE STRAWBERRY INDUSTRY
<b>Grower Support</b>	Research firms and service providers that give growers assistance throughout the year.
<b>Grower</b>	Data collected from “Annual Crop Reports” from 2000 to 2015 for Los Angeles, Orange, Riverside, San Diego and Ventura counties; the publications can be found in the agricultural commissioners’ websites.
<b>Packaging</b>	Several firms produce corrugated supplies and plastic clamshells and other products for strawberry packaging in Southern California counties.
<b>Precooling</b>	Rapid removal of field heat is crucial for the shelf life of strawberries. Several commercial precooling facilities operate close to the growers who need precooling assistance in Southern California counties.
<b>Processing</b>	Large processing facilities, like packaging facilities, have large numbers of permanent employees, who are mostly Latino, in addition to seasonal workers.
<b>Storage/Shipper</b>	About 20% of strawberries produced in Southern California counties are processed frozen. Frozen products are kept in company-owned or commercial cold storages for distribution throughout the year.
<b>Shipper</b>	In 2015, Southern California accounted for 37% of the US strawberry supply in value (California accounts for 84% of the US supply). <sup>2</sup>
<b>Shipper (exports)</b>	California fresh and frozen strawberry exports were valued at \$464 million and \$446 million in 2014 and 2015, respectively. <sup>1</sup> About \$40 million of these exports (excluding Mexico and Canada) use airfreight through Los Angeles International Airport (LAX).



## STRAWBERRY STUDIES



### Economic Returns from Strawberries: Nonfarm Urban Sector vs. Growers in Southern California

This study focuses on the impact of the strawberry value chain in generating urban nonfarm jobs and revenue in Southern California. None of this would be possible without the strawberry growers production.\*

## Strawberry Production and Value in California

(BASED ON 2015 DATA)



\* Strawberries are grown in all Southern California counties in this study.



**The industry hires as many female workers as male workers**

**LABOR ANALYSIS OF THE SUPPLY CHAIN IN THE STRAWBERRY INDUSTRY**

Packaging and processing companies in Southern California have large numbers of permanent employees, mainly Latino or Asian,\* in addition to seasonal workers.

Based on the stage, the industry needs all educational levels from high school graduates (70 to 80%) to university graduates. Many employers are concerned about availability of future skilled labor force.

**GROWING & HARVESTING ACTIVITIES:**

Growers, Seasonal & Permanent Employees, Pest Control Advisors, Other Service Providers



**SUPPLY CHAIN BUSINESSES:**

Packaging (boxes, clamshell & labeling) Manufacturing, Precooling, Brokers, Distributors, Freight Providers, Customs Officials, Third-Party Auditors, Processing



**RETAIL:**

Farmers Markets, Terminal Markets, Food Service, Retail



\* Nationality is dependent on location.

## BUSINESS PROFILE

### R&K Trucking

Randy Avilles

Vista, San Diego County

In the northwest corner of San Diego County, a small family business thrives in the produce delivery industry, R&K Trucking. Established nearly four decades ago, Randy Avilles, the founder and CEO, continues to manage his business in urban Southern California, a challenging environment for fresh produce firms.

Randy's background in the agricultural industry prepared him well for such an undertaking. Working with his father in the 1970s, Randy directed the business on meeting customer needs by focusing on superior service, dependability, and loyalty. The company's reputation as a reliable transportation firm paved the way for continued success as a part of the strawberry supply chain. With clients from Baja to Monterey County, the next generation of the family is poised to take the business to new heights.



### WHAT FUELS R&K TRUCKING

California-grown strawberries make up 60%-70% of R&K's business. Randy, who has over 40 years experience in the produce transportation industry, considers strawberries one of the toughest commodities to manage because of perishability attributes such as sensitivity to temperature, contact, and disease. Shippers take extra care when handling this fragile commodity.

Offering the best possible delivery service of perishable products to strawberry value-chain members, R&K supports Southern Californian growers, packinghouses, and processors. The firm works with state auditors to ensure that perishable products meet USDA and state standards during the transportation process. R&K informs supply chain procurement clients and produce customers that they provide the highest quality handling and timely service available in the industry.

*"...[We] exist to provide the highest quality handling and timely service available in the industry."*

## BUSINESS PROFILE

### FDS Manufacturing

Robert & Kevin Stevenson  
Pomona, Los Angeles County

FDS Manufacturing provides innovative packing supplies to agricultural businesses. The company first formed in 1950 when business partners Fritz Firnstrom and Dan Dayton (the F and D of FDS Manufacturing) started by supplying paper wraps to growers in Southern California from Firnstrom Paper in Pomona, CA. In 1948, Sam Stevenson entered the business and came up with the idea of what he first called the “lug liner,” the heavy paper that surrounds a box’s interior and keeps the packed fruit protected. FDS has never looked back.

FDS expanded their company by making custom design protective packaging for produce and other products inside a box or pallet. They also produce over 75 million thermoformed containers (clamshells) annually. The strawberry industry makes up 60% of their business; they are split evenly between northern and southern California strawberry buyers of their products. FDS has diversified into providing packaging for other fresh fruits, and their designs are customized to meet the needs of other industries. For example, FDS is one of two companies that still make the green mesh baskets for the berry industry. Vendors at farmers’ and wholesale markets continue to use these baskets because of their extra volume, and FDS gladly supplies them.

FDS has 130 to 150 employees during high season, which typically runs from Mother’s Day to the end of August. Their employees are approximately 60% female, 80% Latino, and 50% over 40 years old. Seventy to eighty percent of their labor force are permanent employees and have been with FDS for 20 plus years.

FDS is a medium size family run business where everyone knows each other; this gives it an advantage over larger firms. When they receive new custom orders, FDS responds quickly and nimbly to satisfy customer needs with minimal red tape. In previous years, businesses normally requested a unique clamshell to set themselves apart from one another. Now concerns are focused on lowering each company’s carbon footprint per pallet. Whatever the customer wants, FDS Manufacturing is there to serve.



*“FDS is constantly evolving and ever changing, we no longer make what we did 65 years ago... We are ready to meet our customers’ needs.”*

## STUDY GOAL

This study estimates the economic contributions of Southern California businesses that handle the California strawberry crop in a variety of sectors. Counties researched include Los Angeles, Orange, San Diego, Riverside, and Ventura.

## METHODOLOGY

Researchers employed a supply-chain scheme to analyze the strawberry industry. Each stage of the supply chain contains information about its economic size, labor force, and business locations.

Researchers sent interview requests to 57 firms that handle strawberries in Southern California; 35% of these firms responded. Researchers profiled two firms to highlight the impact strawberries have on Southern California agricultural businesses.



1. California Department of Food and Agriculture (2016) California Agricultural Statistics Review, 2015-2016  
<https://www.cdfa.ca.gov/Statistics/PDFs/2016Report.pdf>
2. National Agricultural Statistics Service (2017) United States Department of Agriculture—Quick stats tools  
[http://www.nass.usda.gov/Quick\\_Stats/](http://www.nass.usda.gov/Quick_Stats/)
3. Agricultural Commissioner Office (2017) Annual County Crop Reports 2000-2015

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