Marketing California Lettuce

distribution channels and marketing margins of lettuce in movement from production areas to retail markets studied

Jerry Foytik

California lettuce growers receive 36¢ of the consumer's dollar—to cover the costs of production, harvesting, and field packing—and the rest of the dollar goes for marketing costs: 30¢ for packaging, transportation, wholesaling; and 34¢ for retailing.

The California retailer discards one head of lettuce for every 10 he sells, because of losses—from physical waste and spoilage—occurring throughout the distributive system.

Cross-hauling is not a serious problem in moving lettuce from producer to consumer. Lettuce from each producing area flows to nearby large consuming markets, and when such supplies are inadequate, additional quantities are obtained from more distant sources.

Lettuce is marketed primarily by going from producers to wholesalers to retailers. Appreciable quantities, however, are also handled by packers before reaching wholesalers or by truck-jobbers on the way from wholesalers to retailers.

An investigation of the distribution channels used and marketing margins established—in moving California-produced lettuce to housewives within the state—included a survey of 183 retail stores, and the data obtained represented approximately 31,500 crates.

Although eastern markets are the major outlet for California lettuce, about one sixth of the crop is sold within the state. Almost one quarter of the lettuce retailed in California during the winter months — December–March — comes from Yuma, Arizona. Thereafter very little lettuce arrives from out of state.

The California winter crop, one quarter of the annual production, is grown in Imperial Valley. Almost 60% of the acreage in later lettuce is in Monterey County, 30% in five nearby counties—Santa Cruz, San Luis Obispo, Santa Barbara, San Benito, and Santa Clara—and some 12% in other producing areas.

Distribution Channels

Insofar as possible, consuming markets obtain their lettuce from nearby producing areas. During the winter months—December–March—about 90% of the lettuce retailed in California comes from Imperial Valley and Arizona. As the season advances, supplies from producing areas to the north come into the market and are sold chiefly at nearby consuming markets.

Production from the Sacramento and San Joaquin valleys is sold primarily in the Central Valley. Supplies produced in the San Francisco Bay Area are retailed largely in coastal northern California. Lettuce originating in San Luis Obispo and Santa Barbara counties moves mainly to southern California. Salinas lettuce is distributed in substantial quantities to all three areas.

The relative importance of different dealers in handling lettuce varies with geographic location, city size, season, and lettuce size.

Only negligible quantities are handled by truckers—dealers who usually buy in producing areas and sell to retailers. About 30% of the retail sales in California, representing one third of wholesalers' supply, moves from producers to packers before reaching wholesalers. Truck-jobbers—dealers who buy produce mainly from wholesalers and follow a regular route of delivery to retail stores—handle 3% of the volume received by large city retailers and 17% of the quantity sold by retailers in small cities in southern California and 32% sold by retailers in small cities of northern California. These proportions remain approximately the same for each season and each lettuce size.

Sales by producers directly to retailers are negligible in southern California throughout the year and in the north during the winter months. After March, such sales represent one fourth of the medium lettuce and one half of the larger lettuce retailed in coastal northern California and one fourth of the large heads sold in the Central Valley. Retailers in large cities obtain more of their supply from producers than do small city retailers.

Most lettuce moves through wholesale markets. About three fourths of the quantity retailed north of the Tehachapi Mountains and almost the entire supply sold in the south are handled by at least one wholesaler. Wholesalers supply 95% of the lettuce received by stores in large cities and 80% by stores in small cities in southern California, compared to 88% and 66% for the Central Valley. After March, the relative volume going from wholesalers to retailers in coastal northern California decreases substantially—from 55% to 45% for small cities and from 80% to 50% for large cities.

Wholesalers supply 95% of the small, 85% of the medium, and 75% of the large lettuce received by large city retailers and about 80%, 70%, and 60% going to retailers in small cities. Wholesalers located in small cities are a significant source of supply for small city retailers, especially those in the north, but appear to provide none of the lettuce retailed in large cities.

Cost Components

A crate leaving the field contains, on the average, 47.1 heads of lettuce. Of these, 42.8 heads are sold to consumers and 4.3 are unsalable because of spoilage. This loss includes lettuce thrown away during unpacking and the lettuce later spoiled or damaged in the store. It is shown as part of the retailer's margin.

At the time of the study, California consumers paid an average price of 11.8¢ per head. Thus the sales value was $5.04 per crate for the 42.8 heads sold by retailers.

From the average crate, retailers received $1.70—34% of the consumer's dollar—to cover their expense and to

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GOATS

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duced the content of digestible protein by 0.9%. As good quality alfalfa hay would in itself supply an adequate amount of protein, this difference is considered insignificant.

Concentrate Mixtures

Group I—Mixture 1 (Complex) Feed	Amount lbs.	Group II—Mixture 2 (Simple) Feed	Amount lbs.
Barley (rolled)	32.0	Barley (rolled)	73.0
Corn (cracked)	15.0		
Molasses (cane)	10.0	Molasses (cane)	10.0
Milo Grain (cracked)	15.5		
Oats (rolled)	10.0		
Coconut Meal (expeller)	8.5		
Cottonseed Meal (41%)	7.0	Cottonseed Meal (41%)	15.0
Bone Meal	1.0	Bone Meal	1.0
Salt	1.0	Salt	1.0
Total	100.0	Total	100.0
Digestible Protein	9.1%	Digestible Protein	10.0%
Total Digestible Nutrients	73.8%	Total Digestible Nutrients	73.4%

Cottonseed meal was included in the simple mixture as a safety factor in case good quality alfalfa hay could not be obtained during the entire feeding trial. In addition, it was desirable for both mixtures to be nearly equal in digestible nutrient content, differing only in the number of feeds making up the mixture.

Because the milk produced by individual goats varies in percentage of butterfat, it was necessary—for purposes of analysis—to convert all production records to a common basis of 4% milk, known as fat-corrected milk. Thus, it was possible to compare the energy output of Group I and Group II goats on a common basis during each one of the 10-day periods.

Although the two groups differed by an average of only 0.18 pound of fat-corrected milk per goat per day during the first 10-day period, there was a difference of 0.4 pound during the second period, due possibly to some difficulty in adjusting the goats to the new feeds. During the third period there was a difference of 0.3 pound, and thereafter the difference between the two groups was never greater than an average of 0.2 pound daily per goat. During the 104 days of the feeding trial, Group I goats averaged 7.52 pounds of fat-corrected-milk and Group II goats averaged 7.44 pounds. This difference is well within the limits of experimental error.

Average Daily Production per Goat of Fat-Corrected Milk

Dates	Period No.	Group I—Complex Mix: Pounds of milk	Group I—Complex Mix: Number of goats	Group II—Simple Mix: Pounds of milk	Group II—Simple Mix: Number of goats
4/14–4/24	1	7.94	18	7.76	17
4/24–5/3	2	8.39	18	8.00	16
5/3–5/13	3	8.55	18	8.26	17
5/13–5/23	4	7.89	18	7.85	18
5/23–6/2	5	7.77	18	7.63	18
6/2–6/12	6	7.63	17	7.77	18
6/12–6/22	7	7.33	18	7.35	16
6/22–7/2	8	6.89	18	6.88	17
7/2–7/12	9	6.84	18	6.70	18
7/12–7/22	10	6.70	18	6.61	18
7/22–7/26	11	6.80	18	6.84	18
Average		7.52		7.44	

The average daily consumption of concentrates by 10-day periods is given in the table in column 2. Group I goats consumed an average of 1.11 pounds and Group II an average of 1.10 pounds of concentrates daily for each pound of butterfat produced in 10 days.

Average Daily Consumption of Concentrates by 10-Day Periods

Period No.	Group I: No. of goats	Group I: Concentrates lbs.	Group II: No. of goats	Group II: Concentrates lbs.
1	18	3.51	17	3.29
2	18	3.54	16	3.37
3	18	3.28	17	3.36
4	18	3.17	18	3.20
5	18	3.12	18	3.06
6	18	3.08	18	3.20
7	17	2.86	16	2.96
8	18	2.70	17	2.68
9	18	2.71	18	2.59
10	18	2.75	18	2.57
11	18	2.76	18	2.58

The results from the two concentrate mixtures—the simpler and more complex—were equally good. Furthermore, the 1954 feeding trials confirmed the first year's study and showed that the simple concentrate mixtures are satisfactory for both medium and high producing goats. However, neither of the concentrate mixtures used in the 1954 study could be expected to be satisfactory had they not been fed with the high-protein roughage alfalfa. A suitable mixture for use with a low-protein roughage, such as oat hay, would contain 5% to 6% more digestible protein, equal to the 18% to 20% total protein given in the analyses of commercial feeds.

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LETTUCE

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compensate for spoilage occurring within the distributive system, but discarded at the retail level.

The preretail margin was $1.50 per crate, or 30%. Somewhat over three fifths of this margin—92¢—consisted of charges for packing and container. About one seventh—21¢—was spent for transportation. The remaining one fourth—37¢—was the wholesaling margin including all charges, fees, commissions, and net profit for dealers between packers and retailers.

The farm price of $1.84, or 36% of the consumer's dollar, is derived by subtracting the retail and preretail margins from the price charged consumers. It is specified at the farm gate in order to include the amount received by growers for harvested but unpacked lettuce.

Variations

Spoilage, retail margins, and consumer prices vary among the stores surveyed. Location, size, and type of store provide a partial explanation for such differences.

Generally, spoilage losses were considerably higher in southern California, in small stores, and in cash-carry stores than in the north, in larger stores, and in credit-delivery stores. Retail margins and consumer prices, on the other hand, were lower in the first two categories but higher in the third.

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This article is based on a study undertaken jointly by the California Agricultural Experiment Station, the California Farm Bureau Federation, and the former Bureau of Agricultural Economics—now largely in the Agricultural Marketing Service—U.S.D.A.

A more complete report, the seventh in a series, entitled California Lettuce: Marketing Channels and Farm-to-Retail Margins, 1948–1949 *is available by addressing the Giannini Foundation for Agricultural Economics, 207 Giannini Hall, University of California, Berkeley 4.*