

Lettuce wages are among the highest farm wages in California. Monterey lettuce wages have increased more than 300 percent since 1966, but most of this increase occurred after 1975. In the late 1960s, Imperial County lettuce wages were 3 to 10 percent higher than Monterey wages, but Monterey wages rose in 1970 and exceeded Imperial lettuce wages by about 17 percent in the early 1980s.

Lettuce wages increased in spurts — in the early 1970s, in 1975, and in 1979-80. These wage increases are closely associated with periods of union activity, as the United Farm Workers (UFW), Teamsters, and several smaller unions competed for members and contracts, encouraging nonunion employers to increase wages and fringe benefits to avoid organization. During the late 1970s, about 60 percent of the Salinas lettuce crop was harvested under union contract; in 1984, only 25 percent of Salinas lettuce is expected to be harvested under union contract (the UFW is certified as bargaining representative for another 25 percent of the crop).

Workers queue for lettuce jobs, so employers typically screen applicants for experience and legal status. An estimated 70 to 80 percent of the Salinas lettuce work force is legally entitled to work in the United States.

A mechanical lettuce harvester that selects only mature heads has been developed, but it is not used commercially because harvest labor is readily available. Hand-harvesting costs are competitive with mechanical harvesting, because the machine will occasionally select a nonsalable head of lettuce that is not discovered until after it has arrived at an East Coast market. Hand harvesters can ensure that the carton contains only salable lettuce, and because transportation adds another \$3.50 to \$4.50 per carton to get lettuce to East Coast markets, hand harvesting is cost efficient.

Mechanical harvesting of heads of lettuce for supermarket consumers probably will not spread rapidly; it appears more likely that lettuce harvest workers will be displaced by the bulk handling and shredding of lettuce for the institutional market. Bulk handling, shredding, and packing in 10- to 20-pound bags appear amenable to mechanization.

Melons

Fresno County produces almost one-third of all U.S. cantaloupes during its short July-August marketing season. Melons require labor to plant, thin, prune, and weed before they are ready to harvest, but the harvest requires 65 percent of the total labor used. The

melon harvest appears to be on the verge of a packing change that promises to change the work force and wage system.

As melon farms expanded to 1,000 or more acres, growers usually picked melons into trucks and then hauled them to packingsheds where they were sorted, sized, packed, and cooled. Many large growers and packers operate throughout California to extend their marketing seasons, and the melon work force evolved into Imperial Valley-based picking and packing crews who moved north with the harvest.

The melon harvest has two distinct work forces and labor markets: field workers and packingshed workers. Field workers are Hispanic men between the ages of 18 and 40 who pick each melon and put it into a bag tied around the waist. When the bag contains 15 to 20 melons, the full bag is walked up a plank and dumped into a truck. Melons ripen rapidly in the Central Valley's hot sun, so each field must be repicked every two or three days. During the 6:00 a.m. to 1:00 p.m. workday, a typical crew of 10 to 15 harvesters walks 4 miles, covering 500 acres.

The field crew divides the piece rate wage equally. In 1983, the prevailing Fresno piece rate was \$6.40 per foot of melons loaded on the truck, enabling an average crew member to earn about \$5 hourly. Because the piece rate is divided equally, the crew handles recruitment and discipline: if more workers are needed, a current crew member brings a friend or relative; if a picker is not working fast enough, he will be terminated by the crew, a sanction that leads to workers literally running in the 100°F heat. There are no reliable figures, but it is estimated that 50 to 70 percent of the field workers are undocumented workers.

Packingshed workers sort and pack melons that are moved to them on conveyor belts. Melons are very perishable, and harvest walkouts enabled most packingshed workers to organize into unions and obtain relatively high wages that the packingsheds then passed on to growers. In 1983, hourly wages in unionized sheds ranged from \$8 to \$12.

Packingshed workers also tend to be Imperial Valley-based migrants who follow the harvest northward. However, many packingshed workers are white, often the descendants of Oklahoma and Arkansas migrants to California in the 1930s.

Packingshed wages are typically twice as much as field workers' wages. This wage difference, combined with improvements in field packing technology, has encouraged some growers to pick and pack melons in the field. Field

packing means that harvesters place melons on a conveyor belt as it moves through the field, and packers standing on a platform pack the melons. Elimination of the 50- to 70-pound bags changes the composition of the harvest work force to include women and older men and the employer's ability to control the speed of the conveyor belt changes the wage system from piece rate to hourly. Harvesters pick only melons that can be sold, eliminating the cost of sorting and hauling culled melons. Less handling also yields fewer bruises, but this quality advantage is partially offset by delays in getting field-packed melons into a cooler. Expected improvements in automatic field sizers, packing cartons, and portable cooling should make field packing more advantageous.

Shed packing is best suited for large acreages, since a shed permits harvesting and packing specialization. However, fixed investments in sheds used only two months each year, high shed wages, and increasing hauling charges made field packing 50 to 75 cents per carton cheaper in 1983.

It appears that melons are a commodity on the verge of shifting from specialized picking and packing work forces to integrated field picking and packing operations. This switch will eliminate jobs for relatively high-wage young men who earn piece rates, and create hourly wage jobs for women and older men.

Conclusions

The California farm labor market reflects the dynamics of labor, technology, production, and marketing. Mechanization in processing tomatoes displaced Bracero men who earned piece-rate wages and created hourly wage sorting jobs for local women. A similar work force and wage system change accompanied field-packing: jobs for piece-rate men disappeared, and hourly jobs for women and older men appeared. As labor and technology continue to change, the tomato and melon industries indicate that agriculture may begin to employ more and more women.

Strawberries and lettuce offer different lessons. The strawberry industry increased yields and switched to producing for the fresh market in the early 1970s, but it remains dependent on a supplemental illegal alien work force despite relatively high wages. The lettuce industry has restructured its work force and wage system and offers some of the highest farm wages in California to a mostly legal and local work force.

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