

Coast Farm Workers Begin Fight on Machine Harvests

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LOS ANGELES, Sept. 17—A curious battle of man against the machine is shaping up in the rich agricultural valleys of California. Having won wars against growers and the teamsters' union, Cesar Chavez's United Farm Workers has opened fire on mechanical harvesting machines, which are fomenting the same kind of revolution in agriculture here that the assembly line prompted in Detroit 60 years ago.

To a large extent, the improved wages, won only recently by farm workers after almost a decade of strife, have created a backlash, accelerating the development of machines that will put more and more farm workers out of jobs.

University of California agricultural researchers, who have a world reputation for innovation in farming, now find themselves under attack for helping develop machines that can reduce manpower needs in the fields and automatically pick, sort and otherwise harvest a wide range of crops in California, the nation's richest agricultural state.

A special investigation by the university, focusing on the role of agribusiness interests in supporting some agricultural research, is being conducted by the state's Auditor General, partly in response to pressure from organized farm workers and sympathetic state legislators.

Lieut. Gov. Mervyn Dymally, noting that electronic sorting machines introduced this year in the harvesting of tomatoes would displace more than 11,000 farm workers in 1977, has demanded that the university end its research in agricultural automation. "Human needs of farm workers must be given precedence," he said.

'Rapid and Reckless' Trend

At a recent convention of the United Farm Workers in Fresno, what the organization called a "rapid and reckless" trend toward mechanization was denounced as perhaps the most significant single threat to farm workers.

If unchecked, the union founded by Mr. Chavez contends, mechanical harvesting equipment would lead to elimination of 100,000 of the 250,000 farm labor jobs in California over the next decade.

In a resolution at the close of the convention, delegates said that mechanical harvesters were being developed "solely for the purpose of increasing the profits of corporate growers at the expense of the farm workers" and demanded a moratorium on future research in agricultural mechanization until it was assured that the interests of farm workers would be protected.

Although it is too soon to determine if the growing pressure will have any effect, remarks by some University of California agricultural researchers indicate they have become more timid in undertaking some new mechanization projects. At the same time, they say that if they drop out, private business researchers will take over the role.

Organized agricultural interests assert that without increased mechanization the United States would lose parts of the agriculture industry to low-wage areas of the world, particularly Mexico, Central and South America and the Orient. And, they contend that increasing field workers' productivity results in more jobs in food canneries and allied food industries.

"Mechanization in agriculture hasn't reduced the number of workers in the labor force," Frank Heringer, president of the California Farm Bureau Federation, said. Since the universities developed a mechanical harvester in the 1960's, he said, the amount of acreage in tomatoes in California has doubled. The same number of people are employed, he added, "and they have less strenuous jobs."

New Confrontation Expected

The new system, which employs electronic sensors to determine color, ripeness and condition, has reduced from 20 to four or five the people needed on each tomato harvesting machine.

The confrontation of man and machine is expected to heat up still more soon. The University of California and the United States Department of Agriculture recently developed the first promising lettuce harvesting machines, which use an electronic eye to inspect a head of lettuce as it grows in the field, determines its ripeness, and—if the time is right—orders it cut off and taken by conveyor belt to a hopper.

In its trials so far, the system has worked so fast that existing packing systems cannot deal with it efficiently, but this problem is being researched.

The machine, which costs more than \$60,000, has yet to have a major impact on lettuce production, but its existence looms over future negotiations between lettuce growers and the United Farm Workers.

Mechanization is far from a new phenomenon in farming. Harvesting machines, combines and other machines have long cut manpower needs in production of wheat and other grains. But, only fairly recently has technology produced machines that can harvest soft, easy-to-bruise crops such as tomatoes, lettuce, peaches and prunes.

Research by scientists at the University of California's Davis campus, near Sacramento, is generally regarded as one reason why California, which has only 2 percent of the nation's farms, produces about 9 percent of its total farm income, although another reason is the prevalence here of large corporate-owned farms.

In recent years, economic motives have increasingly supplanted the fear of labor shortages as the main thrust behind the drive to automate. As Mr. Chavez and the teamsters' union (which this year bowed out of its long, bitter competition to organize farm workers) signed more and more farm workers to labor contracts, the wages of farm laborers began to climb to more than \$3 an hour.