

LABOR MANAGEMENT SEASONAL FARMWORK

J. W. MAMER

D. O. ROSEDALE

In March, the tops of the rootstocks were cut off about one-half to one inch above the bud, making an angled cut away from the bud, so bleeding would occur on the opposite side from the bud. The tape was removed. At this time the buds on the rootstocks were swelling. The chip buds were kept from swelling by the tightness of the tape covering, which should have been removed earlier. Locating the buds and cutting off the tops of the rootstocks was very easy because there was no mound of soil to remove; and the chip bud could be easily located by means of the contrasting color of the white tape with the ground. In May the vines were examined. Seven of the 180 had failed to push. Of these seven, three buds were still dormant, since the rootstock tops had not been cut off properly and were forming new shoots. Two of the field buds had died, but the bud shield was still alive and growing. One bud and bud shield had failed completely.

Two separate blocks of St. George rootstock (73 vines) that had been budded to Cabernet Sauvignon by the standard method in September of 1973, but had failed to grow, were rebudded to Cabernet (48 vines) and Zinfandel (25 vines) on May 15 and May 28, respectively. Half-inch white plastic tape was used on dormant budwood, wrapping the bud shield but leaving the bud exposed. On about half these rootstocks, the tops had been cut off earlier to push the original bud. The new bud was placed on the opposite side of the trunk from the old bud (see photos 1, 2, 3). The vines were not covered. At the end of two weeks most of the buds were swelling. At this time the tops of those vines that had not been cut off were removed in order to force the buds. No differences in the swelling and ensuing growth of the buds could be noticed between rootstocks with tops and those without tops. On July 5, at the last inspection, all but five buds were growing in the block budded to Cabernet Sauvignon, for a successful take of 89.6%. Because this block was removed, it is not known if these last five would eventually have pushed, even though still green. Most of these vines were growing vigorously and had formed small bushes 14 to 22 inches high (see photo 4). A final inspection was made on September 23 in the block budded to Zinfandel. All but three vines were growing, for a successful take of 88%.

The use of 1/2" white plastic nursery-men's tape appears to be a promising way to bud grapevines. This budding method may be used even to correct a

mixed variety in a vineyard after the vines have been trained as a bilateral cordon for the first two years. One or two chip buds placed on the trunk 10 to 12 inches below the bottom wire of the trellis and wrapped with plastic tape make it easy to obtain the correct fruiting variety and to re-establish the cordon or cane either the same or the following year, depending upon whether or not the vine was budded in the spring, summer or fall. When budding high on a trunk, a very large bud generally has to be used. Two buds on opposite sides of the trunk will allow one to bring out one branch of the cordon from each bud. However, if only one bud is used, it is still possible after the shoot is bent to form one arm of the cordon, and to start the opposite arm from the lateral shoot that generally pushes near the bend, after the shoot has been tied in place. By using dormant wood held in refrigeration, it is possible to bud anytime in the spring up to about the middle of July and safely force the bud the same year.

Experience shows that the bud shield should be tied tightly with tape, but the bud itself should remain exposed, so that it can push. Do not cut the tape. There is no danger of the tape girdling the vine, since it tends to stretch with the growth of the stock.

Advantages of tape

The advantages of using tape are: (1) digging a basin around the rootstock in order to bud is unnecessary; (2) it is not necessary to cover the bud with soil after budding; (3) there is no mound of soil hardened by winter rains to be removed in the spring; (4) the white budding tape easily marks the location of the bud so that the top of the rootstock may be cut off; (5) as weather warms up in the spring, the bud will push along with the other buds and not be delayed as in the mounding technique; (6) rootstock irrigation is possible anytime after budding without the danger of arresting the callusing.

The tape should not be removed in the spring after the top of the rootstock is cut off, because leaving the tape intact prevents the bud shield from being disturbed and possibly breaking the callus, prevents the bud from drying out, and adds support to the shoot in its initial growth. There is no danger of girdling the shoot in the early part of the year.

C. J. Alley is Specialist, Department of Viticulture and Enology, University of California, Davis.

THE CONDITIONS under which seasonal farmworkers are recruited and employed continue to be one of the most persistent problems in U.S. agriculture. The recruitment and management of seasonal labor has remained troublesome for both employer and employee. The standard of living of seasonal farmworkers has brought social burdens and unfavorable publicity to farmers, who have rarely felt that labor supplies have been satisfactory.

In 1965 the Coastal Growers Association, a nonprofit agricultural cooperative of more than 300 citrus grower members, confronted the problem directly by initiating a new approach to their labor management practices. The approach they developed was to actively seek employees living or working in the local community. They also sought employees outside the community through referral from present and past employees. Their policy of not employing workers in family groups was continued. The management strategy was to retain employees as long during the year as possible, and to be competitive in the labor market by providing attractive pay levels without unduly increasing picking costs.

These new personnel practices were intended to secure an adequate supply of workers, reduce turnover, and increase efficiency. Their view was that success in these efforts would reduce or stabilize picking costs, and increase both hourly wage rates and potential total earnings of workers.

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TABLE 1
EMPLOYMENT AND OUTPUT

Year	Pickers employed	Total man-hours worked	Average days worked per man	Total boxes picked
1965	8,517	1,286,000	17	4,358,000
1966	6,611	1,833,000	31	7,172,000
1967	5,188	1,849,000	40	8,615,000
1968	3,870	1,614,000	46	7,591,000
1969	3,585	1,342,000	42	6,386,000
1970	3,483	1,316,214	47	6,261,334
1971	3,757	1,594,531	50	7,100,144
1972	3,335	1,559,189	55	6,950,225

Source: Association records.

TABLE 2
HARVEST COSTS, DIRECT COSTS, TOTAL COST PER BOX,
AND TOTAL BOXES PICKED

Year	Total boxes picked	Average boxes per man	Direct labor cost per box	Total cost per box
1965	4,358,000	629	\$0.530	n.a.
1966	7,172,000	1,085	0.537	\$0.606
1967	8,615,000	1,660	0.527	0.585
1968	7,591,000	1,961	0.543	0.614
1969	6,386,000	1,781	n.a.	n.a.
1970	6,261,334	1,797	0.539	0.609
1971	7,100,144	1,889	0.576	0.646
1972	6,950,225	2,084	0.611	0.682

Source: Association records and computed.

By applying modern labor-management practices in recruitment and management of seasonal labor, the Coastal Growers Association of Oxnard, California, has been able to meet its manpower needs without undue increases in harvest costs and at the same time offer its employees substantially improved working conditions and earning possibilities.

employment with the CGA and to motivate workers to remain with the association throughout the harvest season and return in successive years, employers offered paid vacations, special leave, promotional and training opportunities, health and hospitalization insurance, savings and retirement plan, minimum wage and training guarantees, comprehensive personnel and job records, reference card, name badges for supervisors, foremen, and office staff, weekly payroll system showing earnings to date, suggestion plan, employee letters at Christmas, birthday greetings and cakes, adult education, counseling and legal aid, youth training programs, housing improvement, entertainment, training and work improvement, in-field facilities, glove and sleeve allowance, improved bags, quality control tickers, year-round work, no hiring of illegal immigrants, and unemployment insurance.

It has been the policy of the association 1) to review the concept and operations of each benefit with the view of taking into account more fully the desires of employees and 2) to develop new benefits that the association believes would be financially feasible and which would make employment with the association more attractive. This continuing policy of the association to improve the benefits and to develop new ones is no doubt a benefit in itself.

As indicated by table 1, while the number of pickers declined, the total boxes of fruit picked increased sharply in 1966 and 1967. Since then, production has

tended to fluctuate between 6 and 7 million boxes. Between 1965 and 1972 the total man-hours worked increased by 21%, while total boxes picked increased by 59%. The increase in average number of days worked per man, no doubt, contributed to the ease of meeting harvest schedules with reduced numbers of workers, yet the amount of employment realized per man fell short of the potential.

In general, in the 1965-71 period, the association was able each year to offer a longer period of employment to more employees than were willing to accept such employment. However, as progress was made in inducing workers to remain with the association for longer periods each year, the association sought to increase its capacity to offer year-round work to a larger number of workers. Thus in 1972 the organization of pruning crews was initiated.

The annual incomes of association workers increased much more than did their hourly earnings. In the 1965-72 period average hourly earnings increased by 53.7%; the average earned per man per year increased by 377%, from \$267 to \$1,273.

The management of the association has concluded from worker comments that the "annual earnings to date" shown on checks is of interest to the workers and helps to persuade them to remain with the association for longer periods.

A critical question, of course, remains: what was the impact of the labor recruitment and management procedures on the cost of harvesting citrus? In table 2 are

shown direct cost per box and total cost per box. From 1965 to 1972, the direct labor cost per box increased from \$.530 to \$.611, or by 15% over seven years. The total cost per box also increased, from \$.606 in 1966 to \$.682 in 1972, a 13% increase in six years. During this same period the index of prices paid by farmers increased by 26%. The total expenditure for hired labor in California agriculture increased by 42.4% in the 1965-72 period. The consumer price index increased by about 33%. Thus the increases in total cost per box in the period studied were less than the changes in farm wage rate, prices paid by farmers, consumer prices and related indices of price change in the economy.

Conclusions

It is the conviction of the association management that the labor management practices and fringe benefits offered were the critical factors in enabling the association to satisfactorily meet its manpower needs. Further, the association was able to obtain a satisfactory labor supply without undue increases in per unit harvest costs.

Additional studies of other organizations similar to Coastal Growers Association are needed to fully appraise the potential of this approach to the recruitment and management of seasonal labor.

John W. Mamer is Extension Economist at the University of California, Berkeley, and Donald O. Rosedale is County Director of Agricultural Extension, Los Angeles County.