

obtained with three spray applications containing GS 13005 and endosulfan. In this trial, the crop was treated three times (1 lb actual/acre) beginning at onset of bloom. Reductions in numbers of worm-damaged seeds were good, and yield increases were very significant. Sprays containing Fenthion and Abate also appeared to provide fairly satisfactory control. The Thuricide treatments were regarded as unsatisfactory.

Several pesticides were tested in 1967 for sunflower moth control in a commercial seed field of sunflower. Treatments were applied by aircraft. Endosulfan and GS 13005 sprays gave satisfactory reductions in severity of head damage, and also resulted in the largest percentage of uninfested heads. Endosulfan was also used as a dust and spray, but the control obtained with the dust was inferior to that obtained by the spray. Diazinon spray gave only fair larval control. The biological control agent (Biotrol 2.5D) and Azodrin were unsatisfactory in this test. The low population of moths in the field, and the low larval infestation and seed loss, permitted only a moderate increase in seed yield with endosulfan and GS 13005.

Chemical analyses have shown that single and multiple applications of endosulfan and diazinon leave identifiable residues in the mature seed. However, endosulfan now has state and Federal registration with a permissible tolerance of 2 ppm. It is now being recommended for control of sunflower moth larvae at 1 lb of active chemical per acre, since chemical residues are within the established tolerance. Three spray applications appear to be optimum, especially when insect populations are heavy. Early morning treatments do not appear to adversely affect, or repel, bee pollinators for more than a day—or to affect the seed set on the variety used.

Sunflower moths in this area do not emerge and cause head infestations until June, and are generally most serious in July and August. Therefore, it appears advantageous to plant sunflowers as early in the season as possible, and to use strains that bloom quickly, early and uniformly—prior to any significant moth emergence and larval infestation.

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The rural community at for families

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Four factors appearing to be associated with attitudes of community residents toward OEO-financed housing facilities for migrant farm workers and their families are: (1) type of primary source of income in the community; (2) resident property ownership; (3) distance of the housing facility from crops being harvested; and (4) distance of the facility from centers of population. Early community involvement and planning contributed greatly to creating and sustaining successful relationships within the rural area.

THE DEMISE OF THE bracero program has focused new attention on the domestic farm worker. Despite accelerated mechanization efforts, relatively large numbers of seasonal laborers will probably be required in the harvest of perishable crops for at least the next decade. To help ensure an adequate labor supply, and to improve the laborer's living conditions, the California Office of Economic Opportunity (OEO) is financing low-cost temporary housing for migratory farm workers and their families in areas that need large numbers of seasonal labor. During the past two harvest seasons, housing complexes with as many as 100 units were constructed and occupied. (According to law, such temporary housing can be occupied for a maximum of six calendar months during one year and must be capable of being dismantled at the end of such periods of occupancy.)

Community reactions to these housing facilities and their occupants have varied, and the publicity each has received appears to be related directly to the amount of negative community reaction. To learn more about the attitudes of residential communities toward the migrant housing facilities and occupants, a research project was initiated in 1966 by the Department of Applied Behavioral Sciences,

University of California, Davis. The project also included a study of the migrants living in these units.

The findings summarized here are from interviews with 423 persons living in three rural California communities: one in the Sacramento Valley (community A), and two in the San Joaquin Valley (communities B and C). These communities were selected because they were near three proposed but not completed OEO migrant housing facilities, housing facilities had not previously been available for migrant farm worker families in the areas, and two of the three communities had expressed negative reactions toward having migrant housing facilities nearby.

Data on the over-all characteristics of the communities showed residents were primarily middle-class Anglo-American Protestants with a median educational level of twelfth grade. The mean taxable annual family income was approximately \$7,500, ranging from a mean of \$5,700 (community A) to \$8,350 (community C). The majority wanted their children to graduate from college, and expected that they would. The primary source of income was reported to be wages and salaries by three-fifths of the respondents in community A, half in community B, and three-fourths in community C. Only two-fifths of the residents of community A reported owning property, compared with three-fifths in community B and one-half in community C.

Site location

The communities differed in the location of the housing site relative to the population center and the crop area. In community A the site was less than $\frac{1}{4}$ mile from a village, and most occupants had to drive 10 to 20 miles to work (only a few perishable crops were grown nearby). In community B, the site was $2\frac{1}{2}$ miles from the nearest population center but within an area with a high need for seasonal labor. In community C, the site was about $1\frac{1}{2}$ miles from the nearest population center and also 10 to 25 miles from the area of employment. In communities B and C the sites were

and OEO-financed housing of MIGRANT FARM WORKERS

purchased by a local growers' association and deeded to the county, whereas in community A the site was purchased by the county board of supervisors.

Four main factors associated with community attitudes toward migrants and the housing facility were: (1) the primary source of community income; (2) property ownership by residents; (3) distance between the housing facility and crops; and (4) distance between the housing facility and the population center.

Negative attitudes

The negative attitudes expressed about the facility and migrants took different forms with different types of respondents. Propertyless persons whose primary source of income was wages and salary generally displayed more negative attitudes in terms of how they believed the community felt as a whole; the necessity of providing such housing; the effect of the facility on property values; the effect on welfare costs; the prospect of the migrants becoming a permanent part of the community; and having their children associate with children of migrants. On the other hand, propertied persons whose primary source of income was fees, profits, inheritance, etc., generally showed a more negative attitude in terms of: the effect of migrant behavior on the community and its residents; the effect on taxes; and matters of physical closeness to the migrant, as at swimming pools, movies, etc.

Negative attitudes were fostered by closeness of the facility to the community population (in these cases matched by greater distances to crops). Thus, physical closeness was matched by detached feelings about the needs for such labor.

From these findings it appears that basic considerations for persons involved in establishing housing facilities for migrant farm workers and families should include site location, public awareness of the need for the facility, and community involvement in the planning and acquisition of the site.

At least three aspects warrant careful consideration in planning the location of such a housing facility: (1) distance to

shopping and other services needed by occupants; (2) distance to work; and (3) distance from permanent community residents. If farm workers are to become an integral part of the community, the ideal location would be close to work and close to services, yet not isolated from permanent residents. Such locations are not easily found.

Resistance to a proposed site will usually be most vocal among residents who live nearest to the site, unless they are engaged in phases of agriculture requiring the services of the migrant. Total elimination of resistance is doubtful. Community C "solved" the problem by giving in completely to the vocal opposition and establishing a site too far from work and too close to the local dump and sewage-disposal plant.

Services

Since farm workers spend most of their day, six or seven days a week, in the fields, a facility should be close to the sources of goods and services needed by families living there. Bare minimum requirements would include a nearby grocery store and service station. To offer farm workers the same opportunity for selection that permanent residents demand when shopping for clothes and non-perishable foodstuffs bought in large quantities, there should be a community with several supermarkets and department stores within a reasonable distance (say, 10 miles).

Proximity of the housing to available jobs is important. Not only do workers need to live close to their work, but resistance to their presence is less among persons who directly feel the need for their labor.

Public awareness of need

Community residents must not only be made aware of the need for the facility, and the benefits to be derived, but must also be informed of the costs involved, possible effects on local schools and other social institutions, and the experiences of other communities with similar facilities. A program to create community

awareness must be started well before construction of a facility—at least a year in advance. Starting a program less than eight months before the opening of the facility markedly increases the chances of failure.

Community involvement in the site

The importance of local involvement in bringing about change has been proven by many valid and reliable studies. In this study, only community B made an all-out effort to involve the community in developing the facility. Initial efforts were begun some nine months prior to completion of the facility. Leaflets, flyers and word-of-mouth contacts helped community residents to become aware of the costs, potential problems, and benefits. Several community meetings were held, and many personal visits were made by members of the local growers' association. In community C, although a local growers' association did furnish the land, the only community members who appeared to be actively involved were those who lived near the sites being considered for purchase. In community A, where the board of supervisors purchased the site, any community involvement that may have occurred appeared to be "after the fact" and did little more than make headlines.

Integration

Another advantage to early community involvement was that in several instances, such involvement continued after the facility was occupied. Continuing involvement greatly increases the possibility of achieving, as a side benefit, at least partial integration of the migrant families into the community life. The housing projects offer an opportunity for the rural and urban segments of a community to work together for their mutual benefit—while also providing benefits for the migrant farm worker and his family.

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