

A slightly different method, involving the same assumptions but based upon the type of farm as classified above, was used for calculating A-E size in the communities listed in table 1. While this method is less direct, the comparability is great as shown by the fact that in Arvin the A-E size by the special method was 265 A-E acres as against 247 A-E acres by the method used for all communities. In Dinuba the respective figures were 89 and 84.

4. *Gross farm income.*—Gross farm income from all the farms in each community was calculated, using known 1940 acreages, 1937-41 yields, and 1935-39 prices for the San Joaquin Valley.

Estimation of income is fairly direct and highly reliable. Using yields and prices, returns per acre were calculated and these returns multiplied by acres in the various crops. Certain assumptions and manipulations were necessary, since crop data were not always broken down with sufficient exactitude. The following major assumptions were made:

(1) All commercial orchard was assumed to be vineyard. This is very nearly correct for Dinuba, less so for Arvin. Since returns per acre vary in both directions but not very greatly in either, the error of such an assumption is slight. Income was based upon Shultis' calculations.

(2) Commercial vegetables were given the average value of all commercial vegetables, developed by Shultis in his calculations of standard acres. Acreages in commercial vegetables were not broken down by type, so this average figure was necessary. Again, no great error can enter here.

(3) No income from crops was attributed directly to either milo-maize or any of the pasture uses of land. It was assumed that income from these classes was realized through the sale of livestock and livestock products.

(4) Yields were based upon 1937-41 averages (irrigated land) for the San Joaquin Valley. Actual yields were used for cotton and potatoes. Wheat, barley, oats, and rye yields were based upon weighted average of irrigated and nonirrigated yields.

(5) Prices were based upon estimates of prices received by California farmers for the years 1935-39, made by the California Crop Reporting Service.

(6) All unspecified non-soil-depleting crops were assumed to be pasture and all unspecified soil-depleting crops were assumed to be oats.

A tabulation (table 46), based on these assumptions, shows gross income per acre and total gross income for crops.

These estimates can be considered reasonably exact. It is doubtful if there is any appreciable bias which would affect the relative gross returns between two communities, the most important aspect of this table.

Calculations of returns from livestock enterprises were more difficult to arrive at. Estimates of the number of livestock of each kind were made by assuming a proportionate distribution of the total livestock within the minor civil division, as reported by the census of 1940, on an areal basis. That is, the area in farms in each community was calculated as a proportion of the total area in farms in the township, and stock apportioned according to this ratio.