

Farm Population of California

prospective adjustments in state's agriculture resulting from rapidly growing population studied

Varden Fuller

The following article is the third and last in a series of reports on a study of the farm population of California.

If California's population continues to grow rapidly—as is highly probable—local markets for agricultural products will undoubtedly expand in consequence of the population growth.

Prospective adjustments in the state's agriculture for the absorption of some of the additional population as farmers or farm laborers and in response to the growing magnitude of local markets are questions of considerable significance.

Farm Labor Outlook

An examination of the prospects of California's agriculture as an occupational base requires consideration of the outlook for farms and farm operators.

The number of farms in California continually increased until 1930 and then remained stationary, at roughly 135,000, but the total acreage of land in farms did not change appreciably from 1900 until 1940. The growth in numbers of farms to 1930 was accomplished mainly by subdivision, but since that year, the subdivision trend has been reversed—except for the rapid growth of small units under 10 acres. The largest addition to the state's total farm acreage since 1890 occurred during the 10-year period of 1940-1950, and the bulk of that acreage went into large farms.

Between 1930 and 1950, the amount of cropland increased by 2.3 million acres and acreage under irrigation increased by 1.8 million acres—yet none of the changes increased the total number of commercial farms. Farms under 1,000 acres—except for the small part-time and residence types—actually decreased in number. The large farms got larger and more numerous by absorbing most of the land that was released from farms of intermediate sizes as well as most of the newly developed land.

Several indications suggest that the occurrences of 1930-1950 are in accord with a trend that will probably hold for some years to come. Even though California agriculture continues to expand its acreage and output, this may not mean additional commercial farms. On the contrary, the number of commercial farms may decline.

The expansion of cropland in the past two decades was highly concentrated in the large farms and was mainly achieved by developing land already in farms. Much of the future development into irrigated cropland involves expensive land preparation or water conveyance or drainage projects, to which small parcels of land are not well adapted. Consequently, there is a good possibility of further consolidation of smaller holdings to facilitate the more intensive development.

In balancing up the various considerations that bear upon long-range prospects, it does not seem probable that California agriculture offers the opportunity to absorb new commercial farm operators except as replacements on presently existing units. However, part-time and residential farms may continue to increase.

Whether the number of persons employed as hired farm laborers—estimated to be 350,000 in 1950—will increase or diminish depends mainly on the rate of mechanization and other technological changes and the effectiveness with which labor is used.

Recently, great advances have been made with machines such as the cotton picker and with precision planting, weed control, hormone sprays for controlling the set of fruit, and other similar technologies that substantially reduce requirements for hand and stoop labor—the type of jobs for which the great bulk of farm workers are hired.

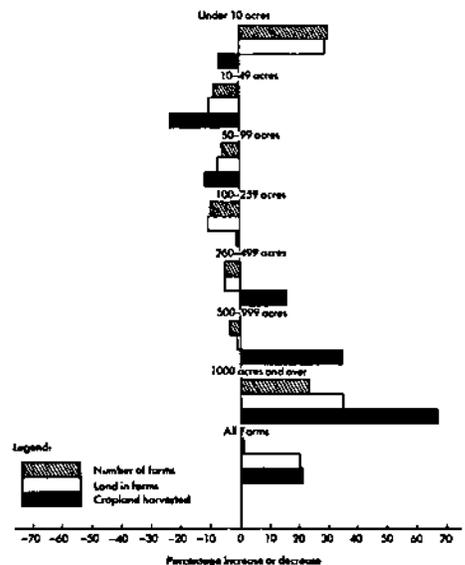
As hand labor requirements diminish, there will likely be some counterbalancing increase in the need for skilled and technically trained workers to operate and maintain equipment and to perform the more exacting procedures of technologically advanced agriculture. But the net balance of change in total labor requirements is likely to be downward.

Whether this means that fewer persons will be employed to perform the declining total work to be done on farms depends mainly on whether the average of days of work per man rises or falls.

Expanding Local Markets

From its inception, California's agriculture has emphasized commodities for which it had exceptional production

Recent Change in Number of Farms, Land in Farms 1930-1950 and Cropland Harvested 1929-1949 by Size of Farm



advantages rather than concentrating on supplying the needs of the population residing within the state or in the western region.

As California's population has increased, many of the products that were once important exports—cattle, wheat,

Concluded on page 15

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HUMBOLDT

Continued from page 4

may remain unused in the form of residues left in the woods, and slabs, edgings, and sawdust resulting from manufacture.

In 1953 about 175 million cubic feet of such wood residues were produced in Humboldt County. About two fifths of the total was left in the woods—the bulk of it in the form of pieces too small or of too low a quality for use in sawmills or veneer plants. Much of this type of unused raw material is suitable for pulping. But unless an active local market for pulpwood is established, such logging residues cannot be considered part of the effective wood supply.

Substantial progress has recently been made in using coarse sawmill and plywood plant residues for pulp chips. Twelve plants in the county are now equipped with chippers, producing raw material for pulp mills located elsewhere in the State. Large volumes of unused mill residues remain, however.

These limitations on the volume, accessibility, and utilization of timber mean that Humboldt County is approaching the most difficult part of its transition from old-growth timber liquidation to permanent timber management. The county still has time to do many things that will help in mitigating future raw material shortages which would inevitably result if present trends continue. Permanent stability of timber industries can only be obtained if the forest land in the county is under effective management. Moreover, such management is needed now if the county is to avoid in the future the sort of crisis which has wrecked the economies of many other timber-dependent areas.

At present, net timber growth in the county is estimated at about 440 million board feet per year, or a little over 250 board feet per acre annually. Almost four times as much—960 board feet per acre—would be needed to balance the 1951 level of cutting.

Commercial timber growth in the redwood stands can be increased by cutting mature stands selectively. This means removing now only the bigger, overmature trees and leaving a fairly heavy reserve stand of thrifty younger trees. Such cutting increases annual growth substantially on redwood areas. Although selective cutting is now an established practice in Humboldt County, there is still much need to increase the area so treated and to leave heavier reserve stands.

Management of Douglasfir stands for increased timber growth would require cutting only those patches of timber in the stand which are now overmature, and leaving untouched those areas now occupied by thriftily growing trees. The cur-

rent practice of clearcutting Douglasfir stands over a large area of 100 or more acres has resulted in destroying much small timber which would have grown rapidly if left on the ground and has not led to satisfactory restocking of the land.

The cutting practices needed to build up timber growth will only be widely adopted if certain existing economic obstacles to forest management are removed. Among the most important of these obstacles are taxation policies which discourage timber growing, the difficulty of providing adequate technical forestry advice for the large number of landowners with small forest holdings, unfamiliarity of many owners with timber markets, and the need for better fire protection. Problems such as these cannot be solved by the timber owners and operators alone.

To use the timber resources fully and to realize their potential economic benefits will require efforts by all citizens: efforts to understand the forest situation; to recognize the potential benefits from improving it and the costs of failing to do so; and to put into effect practical measures of general county policy which seem likely to be essential for continued timber prosperity.

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POPULATION

Continued from page 2

butter, and eggs are prominent examples—have shifted to the import category. As these deficits occurred, they were filled by inshipments from other states. Meanwhile, the production of export commodities—many of which California is the nation's principal or sole supplier—has continued without regard to the size of the state's market. Thus, the dominant influences governing the agricultural output of California have been those of demand outside of the state rather than within it.

Influence of Markets

Of the few commodities for which the state is on a self-sufficing basis, market milk is the most important and most likely to adjust to the needs of an expanding state population.

There would appear to be no compelling reasons for expecting a state market based on 20 or 25 million people to have much more influence on what California agriculture produces—other than such commodities as market milk—than a market based on 12 million. Hence, there appear to be no reasons for an expanding population, in and of itself, to induce

a trend toward a more self-sufficing agriculture.

Flexibility and adaptability have always been outstanding characteristics of California's agriculture. Future changes—even if the state continues its rapid growth—are likely to be influenced much more by national and world markets than by the size of the state's markets or by the need of an expanding occupational base to absorb its mounting population.

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COTTON

Continued from page 7

measured, have always been the source of most reliable information. With the complexity of modern farming, diversity of soil conditions, variety of crops and management practices, field testing becomes a difficult and time-consuming task.

In experiments conducted to date, the most reliable and easily applied diagnostic guide in cotton fertilization is the sodium bicarbonate test for available phosphorus.

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NEMATODES

Continued from page 10

have continued to make satisfactory progress during the second year of growth.

Most growers prefer to replace old vineyards immediately following their removal, but it is likely that a rotation program—followed by soil fumigation—will be essential to obtain productive vineyards for the length of time necessary to make them profitable. The minimum time for such rotations has not been determined, but in this case, three years seem to be sufficient.

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L. A. Lider, Assistant Professor of Viticulture, University of California, Davis, has cooperated in rating the vines and evaluating their growth.