

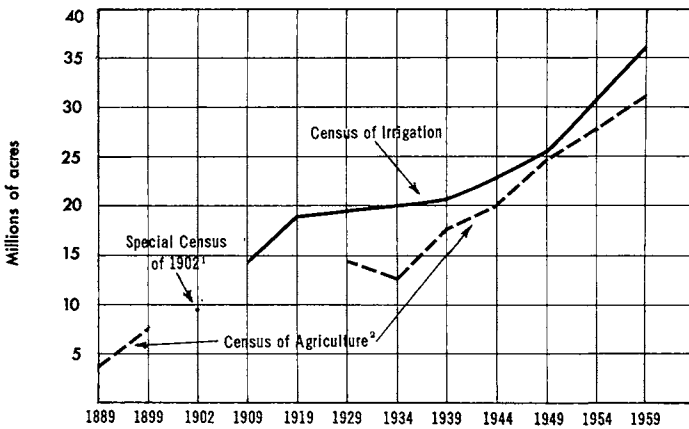
The checking resulted in the number of farms reported as receiving water from irrigation organizations being reduced from approximately 400,000 to 246,000. Because of the correction in the number of farms furnished irrigation water as shown by reports of the census of irrigation as the result of the matching of reports for the census of irrigation with the reports of the 1950 Census of Agriculture, the number of irrigated farms shown for the 1950 Census of Irrigation is not comparable with number of farm irrigation water users reported for irrigation organizations in 1959 nor with the number of farm water users or irrigated farms reported for irrigation organizations for other censuses.

**Acres irrigated as shown by census of irrigation and census of agriculture.**—For every census, the area irrigated as reported by irrigation organizations has exceeded the acres irrigated as reported by the census of agriculture. The area irrigated as reported by irrigation organizations has been overstated for every census. The overstatement arises from two sources:

1. Some irrigation organizations report the area assessed for water, the area eligible to receive water, or the total area in farms receiving water. Usually these areas are considerably greater than the area irrigated during a year.

2. In some cases, two or more irrigation organizations provide water used to irrigate the same area. In such cases, the same area is counted by each of the organizations supplying the water.

ACREAGE OF IRRIGATED LAND FOR THE 17 WESTERN STATES AND LOUISIANA



<sup>1</sup>Total irrigated land, all States.

<sup>2</sup>In 1889, 1899 and 1944 through 1959, all irrigated land in farms; 1929 and 1934, acreage of irrigated crops only; 1939, acreage of irrigated crops plus irrigated pasture. Data for 1909 and 1919 not available.

A comparison of the area reported as irrigated by each irrigation organization and the area reported as irrigated by the farm operators receiving water from the organization was made for the 1950 census. This comparison resulted in the reduction of approximately 7 percent in the acreage irrigated as reported by irrigation organizations. In 1959, approximately one-seventh of all the irrigation organizations provided water to farms that also received irrigation water from other irrigation organizations. These irrigation organizations provided water for one-fifth of the area irrigated by irrigation organizations in 1959. However, the area receiving irrigation with water from two or more irrigation organizations represented about one-fifth of the area irrigated by all irrigation organizations.

For 1950, the overstatement of the area irrigated plus the duplication in the counting of the area irrigated by water from two or more irrigation organizations was equal to 12 to 15 percent of the area irrigated as originally reported by irrigation organizations for 1949.

For 1959, irrigation organizations reported 17.7 million acres irrigated. The calculations of area irrigated by water furnished by irrigation organizations for farms included in the census of agriculture was 12.9 million acres. Part of the 4.8 million acre

difference is the result of the counting by each irrigation organization of areas to which two or more irrigation organizations provided water, and part of the difference is the result of the overstatement of areas irrigated by irrigation organizations. Also, it is very likely that the method used in the 1959 Census of Agriculture for calculating acres irrigated by water furnished farms by irrigation organizations may have resulted in an understatement of the area actually irrigated. There were 27,102 farms, representing 10.1 percent of all the farms with irrigation in the 18 States that obtained water from on-the-farm sources and also from irrigation organizations. The total acres irrigated on these farms was 5.3 million, of which 2.6 million acres were allocated as irrigated by water from irrigation organizations. On many farms, where irrigation water is obtained from irrigation organizations, the cost of water from irrigation organizations is likely to be less than the cost of water obtained from wells, etc. Because of the differences in cost and in the availability of water during the irrigating season, it is very likely that the proportion of the area irrigated with water from irrigation organizations may be considerably greater than the proportion of water obtained from such source.

Because of the correction of the area irrigated by irrigation organizations on the basis of detailed comparisons of the reports for each irrigation organization with the records for the 1950 Census of Agriculture, the figures for the area irrigated by water from irrigation organizations for 1950 are not comparable with those for 1959 nor with those for 1940 and prior censuses. The difference between the area irrigated as shown by the 1959 census and the 1950 census for irrigation organizations overstates significantly the increase in the acreage irrigated by water furnished by irrigation organizations.

**Irrigation in Hawaii.**—The first census of irrigation organizations was taken for 1959. The figures for Hawaii have not been included with those of the 18 States in conterminous United States because comparative data are not available for prior censuses. There were 16 organizations qualifying for the census of irrigation in Hawaii in 1959; these 16 organizations provided water for 86,949 out of the 141,179 acres irrigated in 1959 in Hawaii. The following table presents a summary of the more significant data for Hawaii. Of the 16 irrigation organizations in Hawaii, 10 were operated by commercial organizations and 6 by the State, cities, and other agencies.

SUMMARY FOR IRRIGATION ORGANIZATIONS IN HAWAII: 1959

| Item<br>(For definitions and explanations, see text)             | Hawaii      |
|------------------------------------------------------------------|-------------|
| Total acres irrigated in census year..... 1959..                 | 141, 179    |
| Irrigation organizations.....organizations 1959..                | 16          |
| Service area, 1959:                                              |             |
| Farm area reported served, by organizations..... acres 1959..    | 244, 888    |
| Farm area reported irrigated, by organizations..... acres 1959.. | 85, 251     |
| Water users served, total.....water users 1959..                 | 50, 763     |
| Farm irrigation water users.....water users 1959..               | 729         |
| Residential water users.....water users 1959..                   | 49, 342     |
| Other water users.....water users 1959..                         | 692         |
| LAND IRRIGATED BY SOURCE OF WATER, 1959                          |             |
| Ground water sources.....acres..                                 | 74, 000     |
| Surface water sources.....acres..                                | 67, 000     |
| WATER CONVEYED BY IRRIGATION ORGANIZATIONS, 1959                 |             |
| Total entering conveyance system in basin.....organizations..    | 16          |
| From natural sources within basin.....organizations..            | 1, 007, 106 |
| Surface water.....organizations..                                | 1, 007, 106 |
| Ground water.....organizations..                                 | 14          |
| Surface water.....organizations..                                | 437, 395    |
| Ground water.....organizations..                                 | 569, 711    |
| Total leaving conveyance systems.....organizations..             | 16          |
| Conveyance loss in basin.....organizations..                     | 10          |
| Delivered for use in the basin.....organizations..               | 122, 596    |
| To farm irrigation water users.....organizations..               | 884, 510    |
| To other water users.....organizations..                         | 16          |
| To other water users.....acre-feet..                             | 803, 333    |