

three, which present data for all farms. The omission of class 6—part time, part retirement, and abnormal farms—from tables 4 through 13 is an omission of the smaller farms, for the most part.

Class 1-5 irrigated farms number 43,985 less than all irrigated farms. However, 41,094 of this difference is accounted for by the farms having less than 50 acres irrigated. Thus the differential in irrigated acreage covered by the class 1-5 group from the all farm group is much less than is indicated by the percentage that class 1-5 farms is of all farms (82.9 percent).

The 1969 Census of Agriculture enumerated 257,147 farms with irrigated land in the conterminous United States, Alaska, and Hawaii. Of the total number of irrigated farms, 213,162 or 82.9 percent were in class 1-5 (those having market value of sales of \$2,500 and over). In comparison with previous censuses, the total number of irrigated farms counted in 1969 was 16.5 percent less than the figure shown in the 1959 Census of Agriculture and 13.5 percent less than the 1964 Census of Agriculture. The count of irrigated class 1-5 farms in 1969 also showed a decrease of 9.9 percent and 7.3 percent from the 1959 and 1964 censuses, respectively.

The States with the largest concentrations of irrigated farms, in proportion to the total number of farms, are located in the western half of the United States. The percentage distribution of irrigated farms among the 50 States is shown in chart 2. The 17 Western States and Louisiana account for 81.8 percent of all irrigated farms in the United States. Three of the Western States, California, Texas, and Nebraska, account for 47.1 percent of the irrigated farms in the western area. The Eastern States, Alaska, and Hawaii account for 18.2 percent of all irrigated farms with four of these states, Florida, Arkansas, North Carolina, and Kentucky, accounting for 48.7 percent in this eastern area.

The number of farms applying water for crop or pasture can vary considerably from year to year because of climatological and other uncontrollable conditions. The availability of water

for irrigation depends on the quality and timing of precipitation, or on the fluctuation in ground water tables. Rain or lack of it during the growing season determines the need for artificial application of water. The East Atlantic Coastal States and the Midwestern States have the largest variation in year-to-year irrigation where the Mountain States consistently irrigate year after year. The 1969 census collected an additional item of information for class 1-5 farms by recording those that irrigated at some time from 1965 to December 1969, whether or not they irrigated in the census year, 1969. Summary table 1 presents this information and compares it with the number of farms reporting irrigation for the year 1969.

Irrigated Land in Farms

In contrast with the increasing trend in number of irrigated farms to 1954 followed by a down trend, each census since 1935 has marked an increase in acreage of land irrigated on farms in the United States (chart 3). The acreage of land irrigated in the entire United States has tripled since 1935. In the Western States plus Louisiana, the 1969 acreage irrigated was more than 2¾ times the 1935 acreage. In the Eastern States, irrigated acreage climbed almost 16-fold in this period.

The difference in rate and timing of development reflects the differences between climates in the East and West. In much of the arid West, irrigation has been prerequisite to cultivated crop production. While irrigation during short rainfall periods in the Eastern States can be a definite benefit to production, it is seldom required to prevent complete failure.

The 1969 Census of Agriculture shows that there were 39.1 million acres irrigated in the conterminous United States, Alaska, and Hawaii. In comparison with previous censuses, this represents an increase of 2.1 million acres irrigated, or 5.6 percent, since 1964 and an increase of 6.0 million acres irrigated, or 18.0 percent (excluding Alaska) since 1959. Most of the acreage increase in irrigated land has occurred in the Western States and Louisiana. This area has shown an increase of 1.7 million acres since 1964 and an increase of 4.3 million acres since 1959. However, in terms of percentage increases in irrigated land, the 30 Eastern States, Alaska, and Hawaii have shown the largest increase, an 11.2 percent increase since 1964 and an 87.3 percent increase since 1959.

Summary Table 1. Comparison of Numbers of Farms Irrigated Any Time During the January 1965 to December 1969 Period

	Class 1-5 farms irrigating 1965-1969	Class 1-5 farms irrigating 1969	Percent not irrigating in 1969		Class 1-5 farms irrigating 1965-1969	Class 1-5 farms irrigating 1969	Percent not irrigating in 1969
United States.....	232,001	213,162	8.1	Missouri.....	1,508	1,214	19.5
California.....	41,675	39,523	5.2	Nevada.....	1,445	1,426	1.3
Texas.....	26,453	24,751	6.4	Tennessee.....	1,187	927	21.9
Nebraska.....	19,797	19,053	3.8	Wisconsin.....	1,161	1,034	10.9
Idaho.....	15,115	14,786	2.2	South Dakota.....	1,134	978	13.8
Colorado.....	13,031	12,738	2.3	Pennsylvania.....	1,090	745	31.7
Washington.....	11,265	10,692	5.1	Ohio.....	929	723	22.2
Oregon.....	9,585	8,842	7.8	South Carolina.....	925	594	35.8
Montana.....	8,393	7,951	5.3	Mississippi.....	907	753	17.0
Utah.....	7,230	7,055	2.4	Illinois.....	876	681	22.3
Florida.....	7,050	6,280	10.9	Massachusetts.....	833	774	7.1
North Carolina.....	7,029	4,810	31.6	Indiana.....	640	428	33.1
Kansas.....	6,523	6,065	7.0	Minnesota.....	597	447	25.1
Arkansas.....	5,598	5,246	6.3	Hawaii.....	586	560	4.4
Kentucky.....	4,747	3,878	18.3	Maryland.....	585	496	15.2
Wyoming.....	4,561	4,464	2.1	North Dakota.....	583	436	25.2
Georgia.....	4,386	3,409	22.3	West Virginia.....	429	212	50.6
New Mexico.....	4,031	3,904	3.2	Alabama.....	356	245	31.2
Louisiana.....	4,025	3,789	5.9	Connecticut.....	301	229	23.9
Oklahoma.....	3,906	3,495	10.5	Delaware.....	189	154	18.5
Arizona.....	2,977	2,894	2.8	Maine.....	144	98	31.9
Virginia.....	2,741	1,916	30.1	New Hampshire.....	119	96	19.3
Michigan.....	2,059	1,719	16.5	Rhode Island.....	93	73	21.5
New Jersey.....	1,531	1,294	15.5	Vermont.....	65	59	9.2
New York.....	1,529	1,171	23.4	Alaska.....	22	21	4.6

Crops by Acres Irrigated

Chart 4 lists the most common crops grown on irrigated land, arrayed in descending order of the irrigated acreage of each crop in 1969. To a considerable extent, the crops which occupy the greater acreage on nonirrigated farms tend to be important also on irrigated land. There are marked differences, however. For instance, cropland pasture occupies more nonirrigated land than any individual crop for harvest, but ranks fifth in acreage of irrigated land. Wheat ranks third on nonirrigated lands but is eighth under irrigation.

The importance of irrigation to the production of the selected crops is more clearly shown by a listing of the percent of the total acreage of each crop which is grown under irrigation: