

Table 9. Proportion of Harvested Acres Fertilized for Selected Crops by Class: 1969

	Total	Proportion of harvested acres fertilized				
		Class 1	Class 2	Class 3	Class 4	Class 5
Corn for all purposes.....	81.4	90.1	83.0	74.8	66.5	63.5
Sorghums for all purposes.....	64.1	73.2	65.7	59.0	51.6	44.4
Wheat.....	54.9	62.8	59.2	51.4	43.2	39.0
Oats.....	46.3	56.2	50.0	42.0	36.6	35.4
Barley.....	63.5	72.0	63.8	56.8	50.2	44.1
Soybeans.....	26.5	28.1	25.3	25.2	26.7	27.7
Peanuts.....	81.8	87.2	84.3	80.8	70.2	60.9
Cotton.....	77.6	99.1	77.5	68.1	62.7	57.0
Irish potatoes.....	98.9	99.3	98.6	97.6	94.1	90.1
Tobacco.....	99.1	99.0	99.1	99.1	99.2	98.9
Hay crops.....	16.4	22.9	16.4	12.3	12.3	13.7
Vegetables.....	89.5	91.9	87.1	83.6	80.0	79.6
Land in orchards.....	87.5	91.7	87.5	82.8	79.5	76.5

Changes From Prior Censuses

Increased fertilizer use probably has contributed greatly to the phenomenal gains in yields for many crops. Information on extent and level of fertilizer use provides important measures of changes in farm technology as well as a basis for projecting changes in crop yields and crop production.

According to data shown in table 10, the number of farms reporting fertilizer has decreased in each of the last three censuses; however, the percent of all farms has increased. Much of this decrease is accounted for by the decrease in total farms.

Table 10. All Farms Reporting Fertilizer Used or Purchased: 1909 to 1969

	Total	Increase or decrease (-) over preceding censuses		Percent of all farms
		Farms	Percent	
1969.....	1,953,510	-270,207	-12.2	63.9
1964.....	2,223,717	-154,737	- 6.5	60.0
1959.....	2,378,454	-537,952	-18.4	49.7
1954.....	2,916,406	336,135	13.0	54.1
1944.....	2,580,271	243,240	10.4	44.0
1939.....	2,337,031	12,941	0.6	38.3
1929.....	2,324,090	140,034	6.4	36.9
1924.....	2,184,056	- 87,123	- 3.8	34.3
1919.....	2,271,179	448,147	24.6	35.2
1909.....	1,823,032	-	-	28.6

The tonnage of fertilizer used on class 1-5 farms increased over 20 percent from 1964 to 1969. The quantity of fertilizer used in 1969 was almost one and three-quarters times the amount used 15 years earlier, and 50 percent more than the amount used 10 years earlier. In addition, sources other than the census data indicate that the primary plant nutrient content of commercial fertilizer has been increasing at a rapid rate during this time period. Census data show that much of the additional tonnage of fertilizer is being applied to crops in areas which in the past have not used extensive amounts of fertilizer. For

Class 1-5 Farms Table 11. Tons of Fertilizer Used: 1954 to 1969

	Total	Increase or decrease (-) over preceding census	
		Tons	Percent
1969.....	26,229,465	4,806,770	22.4
1964.....	21,422,695	4,040,410	23.2
1959.....	17,382,285	2,480,868	16.6
1954.....	14,901,417	-	-

example, there were large increases in the acreages fertilized for sorghums and soybeans between 1964 and 1969. Table 11 shows changes in total tons of fertilizer used on class 1-5 farms since 1954.

There has been a significant increase in the use of liquid fertilizing materials in recent years. Liquid fertilizing material used on class 1-5 farms in 1969 totaled 5.6 million tons, compared with 3.0 million tons used in 1964. The data show an increase in the tonnage of liquid materials in each of the 50 States between 1964 and 1969. Table 12 presents the changes in tonnage used for class 1-5 farms since 1959.

Three-fifths of the total increase of 2.6 million tons of liquid fertilizer between 1964 and 1969 were applied to corn. Other crops such as wheat and sorghums for which comparable data are available also showed substantial increases in the use of liquid fertilizers.

Table 12. Tons of Dry and Liquid Fertilizer Used: 1959 to 1969

	Tons of fertilizer		Increase or decrease	
	Dry	Liquid	Dry tons	Liquid tons
1969.....	20,647,890	5,561,161	2,194,253	2,592,103
1964.....	18,453,637	2,969,058	2,628,107	1,412,202
1959.....	15,825,530	1,596,755	-	-

Use on Selected Crops

There are four items on usages of fertilizer for which comparable data are available for class 1-5 farms for the past four censuses. These items, together with the pertinent data, are shown in table 13.

Class 1-5 Farms Table 13. Crops Fertilizer Data Collected on Entire Acreage: 1954 to 1969

	Hay and cropland pasture	Improved pasture	Corn	Cotton	All crops
Farms using fertilizer (1,000).....					
1969..	(NA)	77	680	108	1,269
1964..	396	117	939	182	1,438
1959..	339	103	1,020	200	1,489
1954..	342	95	1,033	190	1,465
Acres fertilized (1,000).....					
1969..	18,115	6,344	47,541	8,588	155,249
1964..	14,625	5,331	47,287	9,765	140,934
1959..	11,528	3,770	45,457	7,237	120,001
1954..	10,314	3,225	36,586	6,602	99,209
Tons fertilizer used (1,000).....					
1969..	2,919	983	9,558	1,552	26,229
1964..	2,255	819	7,205	1,872	21,423
1959..	1,852	619	5,879	1,328	17,382
1954..	1,559	488	4,622	1,164	14,901
Average pounds used per acre.....					
1969..	322	310	402	361	338
1964..	308	307	305	383	304
1959..	321	328	259	367	290
1954..	302	303	253	353	300

These four crops accounted for 52 percent of the total acreage fertilized in 1969, compared to 55 percent in 1964, 57 percent in 1959, and 57 percent in 1954. The fertilizer used on these crops represented 57 percent of all the fertilizer used in 1969, 58 percent in 1964, 57 percent in 1959, and 53 percent in 1954. The increase in the tons of fertilizer used on these crops accounted for 2.7 million tons of the 4.8 million tons increase