

Part 2.—USE OF FERTILIZER AND LIME

Introduction.—In the 1959 Census of Agriculture, information was obtained relative to tons of fertilizer and lime and acres upon which they were used, for a sample of approximately 20 percent of farms in the conterminous States, and for all farms in Alaska and Hawaii. Additional information was obtained on the acres of pasture and specified crops fertilized, and the amount of fertilizer, liquid and dry, used on each crop.

Fertilizer and Lime.—The enumerators were instructed to include all commercial fertilizer and lime used in 1959, regardless of when it was purchased, whether purchased by the landlord, the tenant, or both, jointly. Regardless of who purchased the fertilizer, it was to be reported on the questionnaire of the person who was operating the land on which it was applied. If the landlord was the purchaser, but the tenant used the fertilizer on his crops, he (the tenant) was to report the fertilizer on his questionnaire. Manure, straw, gypsum, and refuse materials were not to be reported as fertilizer. Lime included ground limestone, hydrated and burnt lime, marl, oyster shells, and other forms of lime. Lime used for spray or sanitation purposes was excluded.

The fertilizer and lime may have been purchased in 1958, and may have been used in 1959 on crops planted in 1958 for harvest in 1959, or on crops planted in 1959 for harvest in 1960. If several applications were made during the year, the total amounts of fertilizer and lime were reported, but the acreage was counted only once.

The data shown for the census on the use of fertilizer and lime do not represent the total fertilizer and lime used in the United States. Considerable quantities of both fertilizer and lime are used on places not included in the census of agriculture, such as golf courses, lawns and gardens of homes, places with insufficient agricultural operations to qualify as census farms, and farms with no agricultural operations, and farms in the Soil Bank. In some States the quantity of fertilizer and lime used by such non-farm places comprises a significant part of the fertilizer and lime used in the State.

The figures on the use of fertilizer and lime are estimates based on the tabulation of data for only a sample of approximately 20 percent of the farms. (See page XVIII of the Introduction for a description of the sample.) These figures are subject to sampling errors. Measure of these sampling errors may be obtained from tables 4 and 5 of the Introduction.

When all, or nearly all, of the farms having a selected crop report the use of fertilizer, the estimated acres fertilized may exceed the acres harvested because of sampling variation.

The questionnaire for the 1959 census contained, for the first time, separate questions regarding the quantities of liquid and dry fertilizer used. Liquid fertilizers were to include those fertilizers or fertilizing materials purchased in the fluid or liquid form (including liquefied gases).

The total tons of liquid fertilizer used in 1959 as shown by the census was 1,591,496 tons. About 40 percent of the liquid ferti-

lizer was used for corn, about 13 percent for cotton, and about 7 percent for wheat. Almost one-fifth of the liquid fertilizer was used in California.

The number of tons used is the only measure of the quantity of fertilizer used obtained in the census, as fertilizer or fertilizing materials used may not indicate accurately the relative amounts of plant nutrients used for various crops or areas. There is wide variation in the plant nutrient content of fertilizers used.

Commercial fertilizer and lime used in 1959 under soil-conservation programs were to be reported.

The fertilizer inquiries on the questionnaire contained six parts listing the crops to which fertilizer might be applied. Three parts were uniform for all States:

- (a) Hay and cropland pasture
- (b) Other pasture (not cropland)
- (f) All other crops

The other three parts related to specified crops, which varied by State, so that it was possible to obtain detailed data for three important crops commonly fertilized in each State. Fertilizer applied to crops other than the three selected for each State was to be reported under "All other crops." If two or more crops were harvested from the same land in 1959 or if one crop was harvested and the land planted to another crop for harvest after 1959, and both crops were fertilized in 1959, then the acreage fertilized was to be reported for each crop. In the case of wheat and some other crops planted in the fall of 1959 and fertilized at the time of planting, the acreage fertilized may relate to the acreage for harvest in 1960 and not to the acreage harvested in 1959. The inquiries regarding fertilizer and lime on the questionnaire for 1959 were as follows:

Section XI.—FERTILIZER AND LIME

Include all fertilizer and lime used on this place during 1959, whether purchased by you or by your landlord.

271. On how many acres were commercial fertilizer and fertilizing materials used in 1959? None Acres _____
(If "None," mark X and skip to question [272].)

(Answer these questions, if "Yes.")

	(1) On how many acres was fertilizer used?		(2) How much was used—			
			Dry materials? (Include rock phosphate)		Liquid materials?	
	No	Yes	Acres	Tons	Tons	Tons
(a) Hay and cropland pasture?	<input type="checkbox"/>	<input type="checkbox"/>		/10		/10
(b) Other pasture (not cropland)?	<input type="checkbox"/>	<input type="checkbox"/>		/10		/10
(c) ¹	<input type="checkbox"/>	<input type="checkbox"/>		/10		/10
(d) ¹	<input type="checkbox"/>	<input type="checkbox"/>		/10		/10
(e) ¹	<input type="checkbox"/>	<input type="checkbox"/>		/10		/10
(f) All other crops?	<input type="checkbox"/>	<input type="checkbox"/>		/10		/10

272. How many acres were limed in 1959? None Acres _____
(If "None," mark X and skip to question [274].)

273. How much lime or liming materials was used in 1959? Tons _____
(Include ground limestone, hydrated and burnt lime, marl, oyster shells, etc. Omit lime used for sprays or sanitation.)

¹ Items (c), (d), and (e) varied by States. See following tabulation of specified crops fertilized by States.

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The three crops for which data on acres fertilized and tons of fertilizer used were obtained are indicated in the following table for each State.

Table 12.—INDIVIDUAL CROPS FOR WHICH FERTILIZER DATA WERE OBTAINED FOR 1959, BY STATES

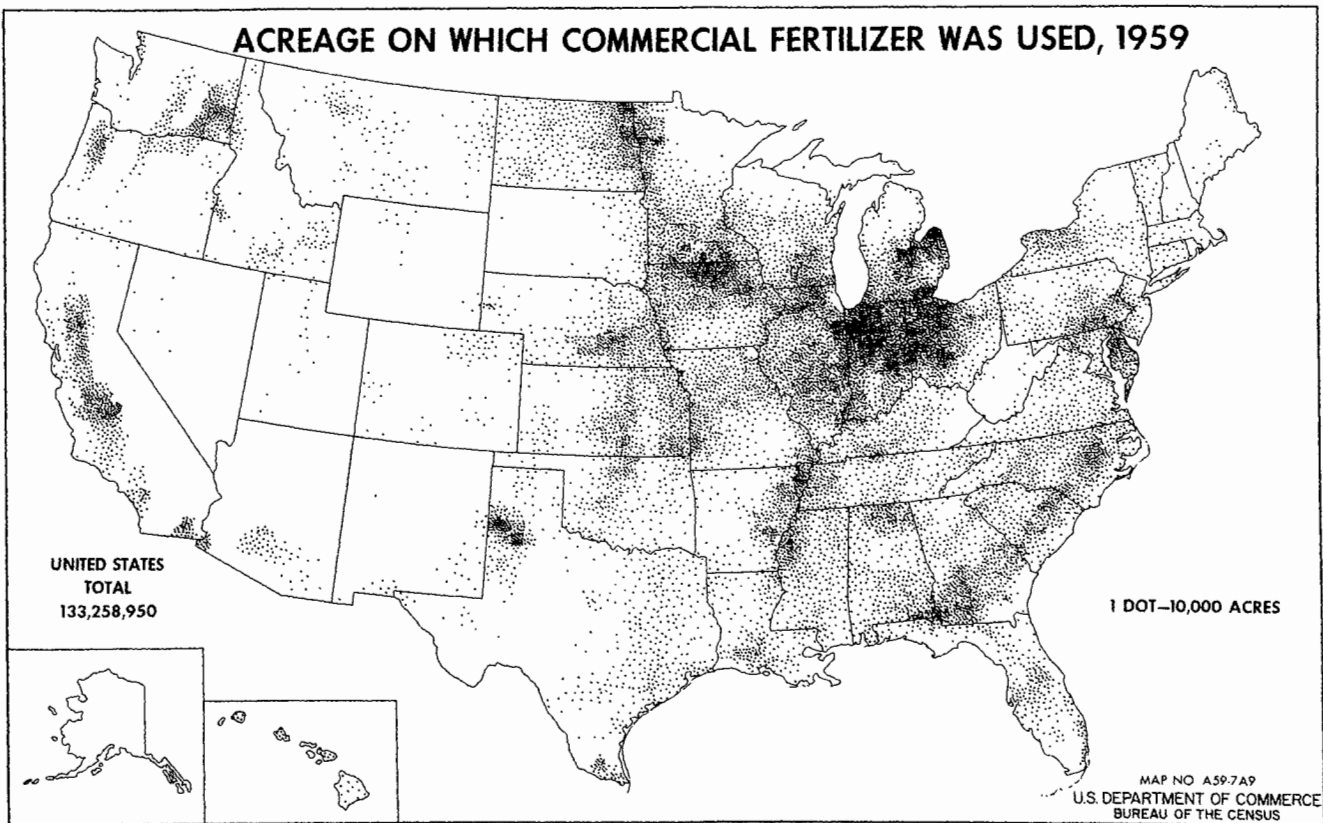
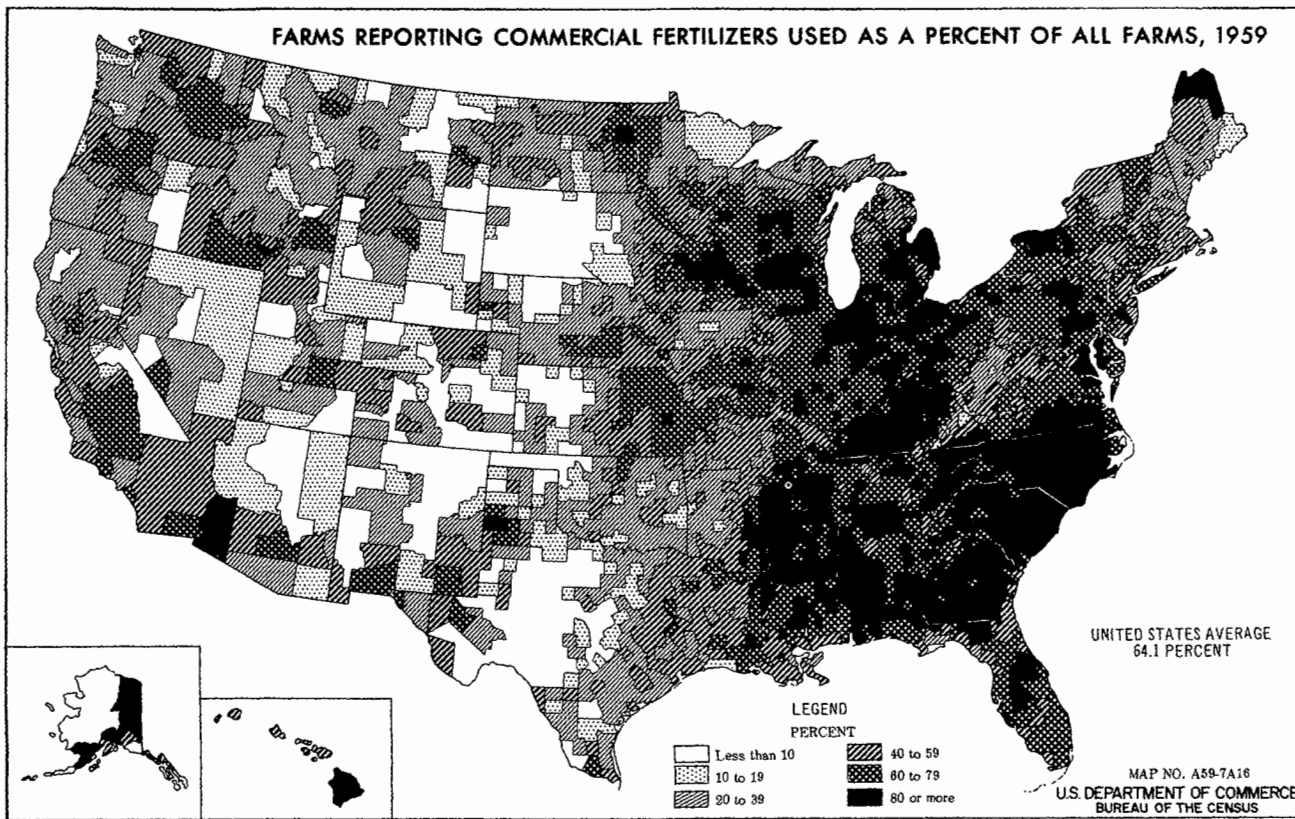
State	Barley	Coffee	Corn	Cotton	Irish potatoes	Oats	Pine-apples	Sorghums	Soy-beans	Sugar beets	Sugar-cane	Tobacco	Wheat	Vegetables
Alabama			X	X					X					
Alaska														X
Arizona	X			X	X	X		X	X					
Arkansas			X	X					X					
California				X	X				X					
Colorado			X		X					X				
Connecticut			X		X					X				
Delaware			X		X							X		
Florida			X		X				X				X	
Georgia			X	X					X					
Hawaii		X					X		X		X			
Idaho					X					X			X	
Illinois			X						X				X	
Indiana			X						X				X	
Iowa			X						X				X	
Kansas			X					X	X				X	
Kentucky			X									X	X	
Louisiana			X	X					X				X	
Maine			X		X	X							X	
Maryland			X		X	X							X	
Massachusetts			X		X							X	X	
Michigan			X									X	X	
Minnesota			X		X				X	X			X	
Mississippi			X	X					X	X			X	
Missouri			X						X				X	
Montana	X									X			X	
Nebraska	X		X			X				X			X	
Nevada	X					X				X			X	
New Hampshire			X		X	X							X	
New Jersey			X		X								X	
New Mexico	X			X				X					X	
New York			X	X	X								X	
North Carolina			X	X								X	X	
North Dakota			X		X								X	
Ohio			X						X				X	
Oklahoma			X	X									X	
Oregon	X				X								X	
Pennsylvania			X		X								X	
Rhode Island			X		X	X							X	
South Carolina			X	X					X				X	
South Dakota			X		X								X	
Tennessee			X									X	X	
Texas			X	X				X					X	
Utah	X									X			X	
Vermont			X		X	X							X	
Virginia			X									X	X	
Washington	X									X			X	
West Virginia			X		X								X	
Wisconsin			X		X				X				X	
Wyoming			X		X					X				

OTHER PUBLISHED DATA FOR USE OF FERTILIZER AND LIME: 1959 CENSUS OF AGRICULTURE

Where found	Geographic area for which available	Period	Presentation of data
Volume I, parts 1-50	Counties and States	1954 and 1959	County table 7.—State and county totals for use of commercial fertilizer, lime and liming materials, and crops on which commercial fertilizer was used.
	States only	1920 and 1959	State table 5.—State totals for commercial fertilizer and fertilizing materials, and lime and liming materials for 1959 with available comparative data from earlier censuses to 1920.
		1959	State totals on use of commercial fertilizer, lime and liming materials, and the crops on which commercial fertilizer was used, classified as follows: State table 17—By class of farm. State table 18—By type and class of farm. State table 19—By type of farm. State table 20—By size of farm. State table 21, 21(a), 21(b).—By tenure of operator for all States and by color and tenure of operator for the Southern States.
Volume II Chapter V	United States only	1959	Size of farm.—United States totals for tons of fertilizer and the crops and acres on which it was used.
Volume II Chapter X	States and United States	1959	Tenure of operator.—Tons of commercial fertilizer used by States; and tons, acres and specified crops on which used for the United States.
Volume II Chapter XI	United States only	1959	Economic class of farm.—Acres and tons of commercial fertilizer used, and specified crops on which they were used.
Volume II Chapter XII	States and United States	1959	Type of farm.—Tons of commercial fertilizer used by States; and tons, acres, and crops on which fertilizer was used.

Use of Fertilizer in 1959.—Fertilizer was used on nearly two out of three farms in 1959. The proportion of farms using fertilizer was much higher in the North and the South than in the West. The 2,374,000 farms reporting fertilizer use in the conterminous United States were equivalent to 74.3 percent of the farms reporting cropland harvested in 1959.

The acres fertilized in 1959 totaled 133,258,950 acres. This acreage was equivalent to 15.8 percent of the total acreage of cropland harvested and of all pastureland, except woodland pasture. The total acreage fertilized minus the acreage of hay and pasture fertilized would be equivalent to 46.5 percent of the acres of all crops harvested other than hay crops.



The distribution of fertilizer use by crops or groups of crops for 1959 was as follows:

Table 13.—USE OF COMMERCIAL FERTILIZER AND FERTILIZING MATERIAL ON CROPS AND PASTURE, FOR THE UNITED STATES: 1959

Crops and pasture fertilized	Farms reporting use of fertilizer			Tons used		Acres fertilized			Pounds per acre	Percent distribution of—	
	Total	Percent of all farms in the United States	Percent of all farms using fertilizer	Total	Average per farm reporting	Total	Average per farm reporting	Percent of acreage fertilized ¹		Tons used	Acres fertilized
United States, total.....	2,378,454	64.1	100.0	19,802,175	8.3	2133,258,950	56.0	15.8	297	100.0	100.0
Hay and cropland pastured.....	490,330	13.2	20.6	2,195,396	4.5	13,399,909	27.3	10.4	328	11.1	10.1
Other pasture (not cropland).....	154,727	4.2	6.5	745,547	4.8	4,456,949	28.8	1.0	335	3.8	3.3
Corn.....	1,568,714	42.3	66.0	6,759,814	4.3	51,000,884	32.5	64.6	265	34.1	38.3
Sorghums.....	31,236	0.8	1.3	155,049	5.0	2,358,804	75.5	18.4	131	0.8	1.8
Wheat.....	494,095	13.3	20.8	1,406,386	2.8	17,486,168	35.4	42.1	161	7.1	13.1
Soybeans.....	79,467	2.1	3.3	279,717	3.5	2,731,113	34.4	14.0	205	1.4	2.0
Cotton.....	381,919	10.3	16.1	1,636,264	4.3	8,545,771	22.4	62.5	383	8.3	6.4
Tobacco.....	312,654	8.4	13.1	655,244	2.1	817,853	2.6	98.0	1,602	3.3	0.6
Irish potatoes.....	29,140	0.8	1.2	449,284	15.4	869,503	29.8	75.4	1,033	2.3	0.7
Sugar beets.....	17,552	0.5	0.7	143,346	8.2	637,696	36.3	95.3	450	0.7	0.5
Oats.....	8,322	0.2	0.3	17,005	2.0	188,467	22.6	14.2	180	0.1	0.1
Barley.....	13,304	0.4	0.6	52,435	3.9	985,644	74.1	30.5	106	0.3	0.7
Sugarcane.....	966	(2)	(2)	156,044	161.5	209,903	217.3	95.4	1,487	0.8	0.2
Pineapples.....	111	(2)	(2)	28,275	254.7	57,183	515.2	90.6	989	0.1	(2)
Coffee.....	1,215	(2)	0.1	4,174	3.4	7,716	6.4	99.5	1,082	(2)	(2)
Oats and other grains.....	134	(2)	(2)	870	6.5	7,032	52.5	79.7	247	(2)	(2)
Vegetables.....	74	(2)	(2)	132	1.8	285	3.9	125.6	926	(2)	(2)
Unspecified other crops.....	964,137	26.0	40.5	5,117,193	5.3	29,561,329	30.7	39.9	346	25.8	22.2

² Less than 0.05 percent.

¹ Percentages for crops or pasture fertilized represent the ratio of the acreage fertilized to the total acres of crops that are harvested in the United States. The percentage for total acres fertilized is based on all cropland harvested plus the acres of pasture, other than woodland; in the case of pasture to the total acreage of pasture (excluding woodland pasture).

² Area of land on which fertilizer was applied. In some cases, two or more crops were fertilized and harvested from the same land.

The following summary indicates the data covering fertilizer and fertilizing materials obtained for 1959 and prior censuses.

Census of—	Kind of data obtained
1959.....	Commercial fertilizer and fertilizing materials in 1959—tons (separately for dry and liquid) and acres on which used. Inquiries were obtained separately for hay and cropland pasture, other pasture (not cropland), 3 important crops (which varied by States), and for all other crops.
1954 ¹	Commercial fertilizer and fertilizing materials in 1954—tons, acres on which used, and cost. Inquiries were obtained separately for hay and cropland pasture; other pasture; 2 important crops (which varied by States); fruits, vegetables, and potatoes; and for all other crops.
1945 ¹	Commercial fertilizer in 1944—cost only.
1940 ¹	Quantity and cost of commercial fertilizer bought in 1939.
1930 ¹	Quantity of commercial fertilizer bought in 1929. Amount expended was for commercial fertilizer, manure, marl, lime, and limestone. (No separate expenditure data were obtained for fertilizer alone.)
1925 ¹	Amount expended in 1924 for manure and fertilizer, including lime and ground limestone. (No separate data were obtained for fertilizer alone.)
1920.....	Amount expended in 1919 for manure and fertilizer.
1910.....	Amount expended in 1909 for manure and other fertilizer.
1900 ¹	Amount expended for fertilizers in 1899.
1890 ¹	Amount expended for fertilizers in 1889.
1880 ¹	Amount expended for fertilizers in 1879.

¹ Alaska and Hawaii not included.

Data for fertilizer use for corn, sorghums, wheat, soybeans, cotton, tobacco, Irish potatoes, sugar beets, oats, barley, sugarcane, pineapples, coffee, vegetables, and oats and other grains were not obtained for all States, hence, the data given for each of these crops understate the use of fertilizer on these crops. In the States in which data were not obtained separately in 1959 for these crops, the data on fertilizer used for such crops were included with all other crops.

The following data provide a measure for the coverage of the inquiries on fertilizer use for the various crops.

Crop	States with separate inquiry for fertilizer use for the crop	Acreage of crop for all States	Acreage of crop in States with separate inquiry on fertilizer use for the crop	
			Total	Percent of acreage for crop for all States
Hay and cropland pasture.....	50	129,065,155	129,065,155	100.0
Other pasture (not cropland).....	50	466,224,802	466,224,802	100.0
Corn.....	39	79,616,031	78,920,502	99.1
Sorghums.....	4	17,927,257	12,807,900	71.4
Wheat.....	26	49,566,924	41,563,205	83.9
Soybeans.....	14	23,070,264	19,877,312	86.2
Cotton.....	12	14,649,284	13,683,667	93.4
Tobacco.....	6	1,108,274	834,312	75.3
Irish potatoes.....	23	1,200,431	953,375	79.4
Sugar beets.....	9	911,796	668,932	73.4
Oats.....	5	26,572,824	1,346,780	5.0
Barley.....	7	14,199,311	3,229,100	22.7
Sugarcane.....	1	553,837	220,048	39.7
Pineapples.....	1	63,134	63,134	100.0
Coffee.....	1	7,757	7,757	100.0
Oats and other grains (Alaska only).....	1	7,303	7,303	100.0
Vegetables for sale.....	1	3,490,763	227	(¹)

¹ Less than 0.05 percent.

More fertilizer is used on corn than on any other crop. In 1959 more than one-third of all fertilizer was used for corn. Corn accounted for approximately two-fifths of the acreage fertilized in 1959. Nearly 2 out of every 3 acres of corn harvested in 1959 were fertilized. In 4 out of the 10 States having 2 million or more acres of corn harvested in 1959, 80 percent or more of the corn harvested in 1959 was fertilized.

Wheat ranked second among crops in terms of the acreage fertilized. In the 26 States for which data were obtained for wheat, the acreage fertilized totaled 17.5 million acres. However, the quantity of fertilizer used on wheat was less than that used on hay and cropland pasture and on cotton.

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The acreage fertilized for hay and cropland pastured was exceeded only by the acreage for corn and wheat fertilized in 1959. However, the quantity of fertilizer used on hay and cropland pasture was 2.2 million tons and exceeded the quantity used on wheat.

As measured by acres fertilized, cotton ranked fourth among the crops fertilized in 1959. Except in Texas, Oklahoma, Arizona, and New Mexico, nearly all the cotton acreage was fertilized. Separate data were not obtained on the acreage of cotton fertilized in Missouri, Florida, Virginia, Kentucky, Tennessee, and Nevada. Nearly all the acreage of cotton harvested in 1959 in these States was fertilized. In the States for which cotton was listed as a separate crop fertilized, approximately 62 percent of the cotton harvested in 1959 was fertilized.

Data were obtained for tobacco fertilized for 6 out of the 26 States reporting tobacco harvested. In the 6 States for which data were obtained for the acreage of tobacco fertilized, 98 percent of the tobacco acreage was fertilized. In the 20 States for which figures were not obtained on tobacco fertilized, nearly all the acreage of tobacco harvested was fertilized.

Information on the use of fertilizer on soybeans was obtained in 14 States that accounted for 86 percent of the acreage of soybeans harvested for all purposes in 1959. Except in the Southern States, only a small part of the soybean acreage was fertilized in 1959.

Nearly all the acreage of sugar beets harvested was fertilized. Separate data on sugar beets fertilized was obtained in 9 out of the 21 States with sugar beets harvested for sugar in 1959. These nine States accounted for 3 out of 4 acres of sugar beets harvested for sugar in 1959. In these nine States, the acreage of sugar beets fertilized was 95 percent of the acreage of all sugar beets harvested. The average quantity of fertilizer used per acre was 450 pounds; however, 24 percent of the fertilizer used on sugar beets was liquid fertilizer.

Figures on oats fertilized were obtained in 1959 in only five States. These five States had only 5 percent of the acreage of oats harvested in 1959.

Data on the use of fertilizer on sorghum crops were obtained in four States. These States accounted for 71 percent of sorghums harvested for all purposes in 1959.

Information on the use of fertilizer on Irish potatoes was obtained in 1959 for 23 States. Those States accounted for four-fifths of the acreage of Irish potatoes harvested in 1959.

The use of fertilizer on barley was obtained for only seven States. Those States accounted for 22.7 percent of the acreage of barley harvested in 1959. The data on fertilizer use for those States were as follows:

State	Farms reporting barley fertilized	Tons of fertilizer used	Acres fertilized	Percent of barley acreage fertilized	Pounds of fertilizer used per acre fertilized
Total.....	13,304	52,435	985,644	30.5	106
Montana.....	2,498	5,750	236,751	13.6	49
New Mexico.....	233	1,081	10,567	36.6	205
Arizona.....	642	12,470	104,976	79.0	238
Utah-Nevada.....	1,629	3,517	32,527	20.9	216
Washington.....	3,163	12,406	325,250	48.3	76
Oregon.....	5,139	17,211	275,573	54.9	125

Data on the use of fertilizer on sugarcane in 1959 was limited to the State of Hawaii. The summary for Hawaii follows:

Percent of farms with sugarcane reporting use of fertilizer.....	85.5
Acres fertilized, total.....	209,903
Percent of acres in sugarcane.....	95.4
Tons of fertilizer used, total.....	156,044
Average per acre fertilized, pounds.....	1,487

Data are not available on the use of fertilizer on the 333,789 acres of sugarcane in States other than Hawaii.

Pineapples are of commercial importance only in Hawaii and information on the use of fertilizer was obtained only for that State. The summary for pineapples is as follows:

Percent of farms with pineapples reporting use of fertilizer.....	95.7
Acres fertilized, total.....	57,183
Percent of acres in pineapples.....	90.6
Tons of fertilizer used, total.....	28,275
Average per acre fertilized, pounds.....	989

Coffee is a commercial crop only in Hawaii. The following data summarizes the use of fertilizer on coffee in 1959:

Percent of farms with coffee reporting use of fertilizer.....	89.5
Acres fertilized, total.....	7,716
Percent of acres in coffee.....	99.5
Tons of fertilizer used, total.....	4,174
Average per acre fertilized, pounds.....	1,082

CHANGE IN THE USE OF FERTILIZER

Data are available for the quantity of fertilizer used in the conterminous United States for only 1959, 1954, 1940, and 1930 censuses.

Census year	Tons of fertilizer used		
	Total	Increase over preceding census	
		Tons	Percent
1959.....	19,603,104	649,744	3.4
1954.....	18,953,360	11,949,534	170.6
1939.....	7,003,826	-531,196	-7.0
1929.....	7,535,022	NA	NA

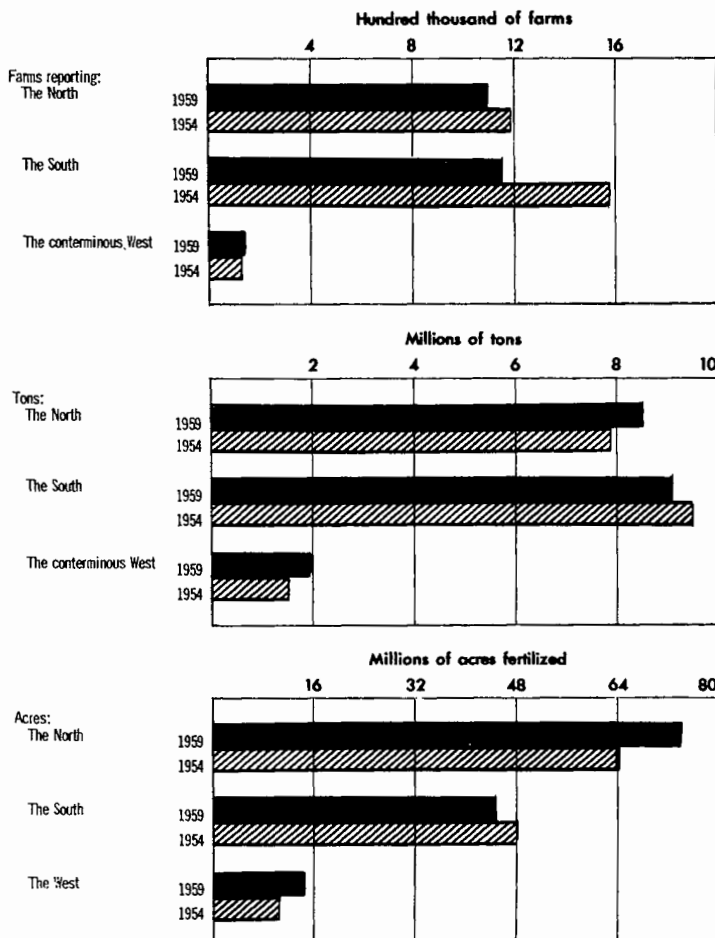
There has been a large increase in the proportion of farms using fertilizer. Since 1940, the quantity of fertilizer used has doubled.

Figures on the number of farms using or purchasing commercial fertilizer and fertilizing materials are available for a long period for the conterminous United States.

Census year	Farms reporting fertilizer used or purchased		
	Total	Increase over preceding census	
		Number of farms	Percent
1959.....	2,374,015	-542,391	-18.6
1954.....	2,916,406	336,135	13.0
1944.....	2,580,271	243,240	10.4
1939.....	2,337,031	12,941	0.6
1929.....	2,324,090	140,034	6.4
1924.....	2,184,056	-87,123	-3.8
1919.....	2,271,179	448,147	24.6
1909.....	1,823,032	NA	NA

While the number of farms reporting the use of fertilizer declined from 2,916,000 in 1954, to 2,374,000 in 1959, for the conterminous United States, the proportion of the farms reporting fertilizer increased from 61.0 in 1954, to 64.1 in 1959. Most of the decrease in the number of farms reporting fertilizer occurred in the South where the decline in the number of farms from 1954 to 1959 was relatively large.

Use of Fertilizer and Fertilizing Materials by Crops.—For 1959 and 1954, data are available by crops for the 48 States for only hay and cropland pasture and other pasture (not cropland).

COMMERCIAL FERTILIZER: FARMS REPORTING, TONS, AND ACRES FERTILIZED, BY REGIONS: 1959 AND 1954


For the other crops fertilized data are not available for all States for 1959 and 1954. The proportion of the total acreage for the United States of each crop in the States for which data on the use of fertilizer on that crop were obtained was as follows:

Crop	Percent	
	1959	1954
Barley.....	22.7	
Coffee (Hawaii only).....	100.0	
Corn.....	99.1	99.4
Cotton.....	93.4	93.5
Irish potatoes.....	79.4	
Oats.....	5.0	24.6
Pineapples (Hawaii only).....	100.0	
Rice.....		19.0
Sorghums.....	71.4	
Soybeans.....	86.2	
Sugar beets.....	73.4	37.2
Sugarcane.....	39.7	
Tobacco.....	75.3	75.8
Wheat.....	83.9	75.5

The acreage of other pasture (not cropland) fertilized was 4 percent greater in 1959 than in 1954. However, the quantity of fertilizer used on other pasture was 15 percent greater in 1959 than in 1954, as the quantity used per acre was greater in 1959 than in 1954 in most States.

The increase in the acreage of corn fertilized from 1954 to 1959 accounted for almost half of the increase in the acreage of all crops fertilized. The increase from 1954 to 1959 in the quantity of fertilizer used for corn amounted to more than 742,000 tons.

In the 21 States for which the figures for wheat fertilized were obtained in both 1959 and 1954, the acreage for wheat fertilized increased almost 4 million acres. The increase in the acreage of wheat fertilized in those 21 States accounted for about two-fifths of the increase in acreage for all crops fertilized from 1954 to 1959.

The acreage of hay and cropland pasture fertilized was about the same in 1959 as in 1954. The quantity of fertilizer used was about 10 percent greater in 1959 than in 1954 because of an increase of approximately 10 percent in the average amount used per acre.

The decreases in the acreage of tobacco fertilized and the tons of fertilizer used on tobacco from 1954 to 1959 were the result of the decrease in the acreage of tobacco harvested. The quantity of fertilizer used per acre of tobacco fertilized was about 20 percent greater in 1959 than in 1954.

Use of Lime and Liming Materials.—In 1959, about one out of eight farms reported the use of lime and liming materials. The use of lime is concentrated largely in the Northern States and the South Atlantic States. While the number of farms reporting the use of lime was fewer in 1959 than in 1954, the proportion of farms reporting the use of lime increased from 10.9 to 12.3 percent for the 48 States.

The following summary indicates the data covering lime and liming materials obtained for 1959 and prior censuses.

Census of—	Kind of data obtained
1959.....	Tons of lime and liming materials and acres limed in 1959. Ground limestone, hydrated and burnt lime, marl, oyster shells, etc., to be included. Lime used for sprays or sanitation to be omitted. Lime furnished under the Agriculture Conservation Program to be included.
1954 ¹	Lime or liming materials purchased in 1954 (tons and cost) and acres limed. Ground limestone, hydrated and burnt lime, marl, oyster shells, etc., to be included. Lime used for sprays or sanitation to be omitted. Lime furnished under the Agriculture Conservation Program to be included.
1945 ¹	Cost of lime or liming materials purchased in 1944. Ground limestone, hydrated and burnt lime, marl, oyster shells, etc., to be included. Lime used for sprays or sanitation to be omitted. Lime furnished under the Agriculture Conservation Program to be included.
1940 ¹	Tons and cost of liming materials—lime, marl, gypsum, etc., bought in 1939.
1930 ¹	Amount expended in 1929 for commercial fertilizer, manure, marl, lime, and ground limestone. (No separate data for liming materials.)
1925 ¹	Amount expended in 1924 for manure and fertilizer, including lime and ground limestone. (No separate data for liming materials.)

¹ Alaska and Hawaii not included.

The tons of lime and liming materials used in 1959 were 11.1 percent greater than in 1954, while the acreage limed was 2.9 percent less in 1959 than in 1954. The average amount of lime and liming materials used per acre was 3,760 pounds in 1959, or 14.3 percent greater than in 1954 in the conterminous United States. The increase from 1954 to 1959 in the tons of lime and liming materials used was the result largely of the increase in the Southern States.

Significant increases have occurred during the last two decades in the number of farms reporting and the quantity of lime and liming materials used in the conterminous United States.

Census year	Farms reporting		Tons of lime and liming materials used	
	Number of farms	Percent increase over preceding census	Total	Percent increase over preceding census
1959.....	453,954	-12.8	19,161,340	11.1
1954.....	520,445	-35.8	17,276,170	¹ 102.9
1944.....	811,222	71.9	NA	NA
1939.....	471,807	NA	8,516,107	NA

¹ Percent increase over 1939.

