

Gas and oil expenditures per acre increase with the decrease in size of farm. In other areas, gas and oil costs per acre do not vary with size of farm. Many of the operators of large farms have undoubtedly invested in tractors that burn low-cost fuel, thus reducing the fuel cost per acre. Machine hire costs per acre also are lower on the large farms than small farms. This is the opposite of this relationship for large and small farms in other areas. For example, in subregions 103 and 105, for Class I farms, expenditures per acre for hired labor were higher on large than on the small farms.

Commercial fertilizer is used more extensively here than in most other wheat subregions (see table 64). Its use was reported on more than 74 percent of the Class I farms in 1954. Of the important wheat-producing regions, only the Red River Valley approaches the white wheat region in percentage of farmers reporting the use of fertilizer.

Table 64.—USE OF COMMERCIAL FERTILIZER ON CASH-GRAIN FARMS IN SUBREGION 110, BY ECONOMIC CLASS OF FARM: 1954

Item	Economic class of farm						
	Total	I	II	III	IV	V	VI
Percent of farms using fertilizer.....	64.0	74.0	61.0	59.0	54.0	45.0	28.0
Tons used per farm.....	8.3	15.9	4.9	3.5	2.3	1.3	1.1
Rate of application, pounds per acre.....	96	89	104	152	146	204	326

#### EFFICIENCY LEVELS OF FARM OPERATION

For the year 1954, the cash-grain farmers of the white wheat region ranked high among cash-grain farmers in all wheat subregions in levels of efficiency. Gross sales per worker of \$16,000 were very high and the investment per \$100 gross sales was low (see table 65). The number of crop acres per man and the investment in machinery per man-equivalent was very high. One man can operate many acres with the large machinery used in the subregion. In 1954, wheat yields were 20 percent above average. A high level of production accompanied by high prices accounts in part for the high gross returns per farm and per worker. For each measure of level of efficiency, there was a decline from Class I through Class VI farms.

Table 65.—SELECTED MEASURES OF INCOME AND EFFICIENCY LEVELS ON CASH-GRAIN FARMS IN SUBREGION 110, BY ECONOMIC CLASS OF FARM: 1954

Item	Economic class of farm						
	Total	I	II	III	IV	V	VI
Gross sales per farm dollars.....	26,088	50,558	16,994	7,071	3,742	1,862	858
Specified expenses per farm..... dollars.....	4,613	8,537	3,098	1,020	1,150	803	581
Gross sales less specified expenses per farm dollars.....	21,475	42,021	13,896	5,451	2,592	1,059	276
Gross sales per man-equivalent..... dollars.....	16,105	21,408	12,518	6,702	3,941	2,512	1,210
Total investment per \$100 gross sales..... dollars.....	517	460	605	774	1,037	1,531	2,327
Total investment per man-equivalent..... dollars.....	84,163	96,881	73,074	40,260	38,372	39,374	26,603
Machinery investment per man-equivalent..... dollars.....	11,263	10,988	11,943	11,367	10,280	11,026	8,899
Machinery investment per crop acre..... dollars.....	23	18	29	49	63	82	154
Winter wheat yield per acre..... bushels.....	33	34	31	29	25	28	17
Crop acres per man-equivalent.....	480	619	417	230	162	135	57

#### RECENT CHANGES BY MAJOR WHEAT REGIONS

Some comparisons between 1954 and 1949 for hard winter, hard spring, and white wheat regions are given in tables 66 to 68. These are not comparisons of an identical group of farms in the two periods as the data for each year are for those farms classified as cash-grain farms in that particular year. The same farms may not have been classified as cash-grain in both years.

From 1949 to 1954, the size of farm increased, the acres in pasture increased, but the acreage in wheat decreased. The magnitude of these changes varied between subregions and between major wheat regions. The most drastic reduction in wheat acreage occurred in subregion 89, where the 1954 acreage was only one-third that of 1949. In several subregions the decrease in wheat acreage was as much as 25 percent.

Table 66.—A COMPARISON OF SOME ITEMS FOR ORGANIZATION, EXPENSES, AND HOME FACILITIES FOR CASH-GRAIN FARMS IN THE HARD WINTER WHEAT REGION: 1954 AND 1949

Item	Subregion 93		Subregion 94		Subregion 103	
	1949	1954	1949	1954	1949	1954
Total farms.....	16,605	19,859	18,002	23,140	34,453	32,545
Acres per farm:						
All land.....	337	358	349	362	812	820
Cropland.....	250	258	263	264	593	607
Wheat.....	84	71	205	145	340	223
Land pastured.....	78	92	78	95	216	212
Livestock—number per farm:						
All cattle.....	15	26	18	26	27	36
Milk cows.....	3	3	3	3	3	2
Hogs.....	9	10	4	3	4	3
Chickens.....	90	113	77	90	61	60
Expenditures per farm (dollars):						
Machine hire.....	197	223	343	263	655	473
Hired labor.....	181	161	298	241	716	504
Gas and oil.....	454	575	403	525	813	913
Total.....	832	959	1,134	1,020	2,184	1,890
Facilities—percent of farms reporting:						
Telephone.....	65	73	71	81	50	64
Electricity.....	74	93	86	95	71	89
Home freezer.....	7	30	11	33	14	42

Table 67.—A COMPARISON OF SOME ITEMS FOR ORGANIZATION, EXPENSES, AND HOME FACILITIES FOR CASH-GRAIN FARMS IN THE HARD SPRING WHEAT REGION: 1954 AND 1949

Item	Subregion 89		Subregion 90		Subregion 91		Subregion 105	
	1949	1954	1949	1954	1949	1954	1949	1954
Total farms.....	13,033	13,280	25,214	24,389	7,054	8,687	12,626	15,071
Acres per farm:								
All land.....	414	435	652	696	526	569	1,147	1,304
Cropland.....	358	378	504	535	425	442	721	769
Wheat.....	110	80	212	159	150	111	329	281
Land pastured.....	34	33	117	125	81	105	406	512
Livestock—number per farm:								
All cattle.....	11	13	18	25	17	30	22	36
Milk cows.....	4	4	5	5	4	4	3	2
Hogs.....	4	6	3	5	9	14	2	4
Chickens.....	58	79	38	54	74	101	35	46
Expenditures per farm (dollars):								
Machine hire.....	190	198	192	168	251	244	210	386
Hired labor.....	580	490	423	322	416	293	574	579
Gas and oil.....	744	833	764	857	666	812	900	1,004
Total.....	1,514	1,521	1,379	1,347	1,333	1,349	1,693	1,969
Facilities—percent of farms reporting:								
Telephone.....	53	61	42	43	45	52	26	30
Electricity.....	81	91	68	90	68	89	67	85
Home freezer.....	17	39	12	39	10	35	19	52