The wheat regions previously outlined are discussed separately on the following pages. When reference is made to other than the cash-grain farmers in the wheat regions the fact is indicated.

The number of cash-grain farmers and the percentage of total wheat production of each major region are as follows:

Area	Number of cash-grain farmers	of total U. S. wheat produced in area
Hard winter wheat	75, 544 61, 427 9, 109	20 13 9

## THE HARD RED WINTER WHEAT REGION

Wheat production is most highly concentrated in subregions 93, 94, and 103 (see fig. 7). A similar area extends into southwestern Nebraska and northeastern Colorado where wheat production is specialized. The relative importance of wheat production in this region is indicated by the following data:

Item		Subregion	Total (3	
	93	94	103	subregions)
Total wheat produced on commercial farms (1,000 bu.)  Percent of U.S. total wheat produced on commercial farms  Percent of region total wheat produced on cash-grain farms.  Percent of region total wheat produced on other commercial farms.	39, 260 4 74 26	78, 586 9 84 16	108, 129 12 82 18	225, 975 25 81 19

THE HARD WINTER WHEAT AREA, SUBREGIONS 93, 94, AND 103

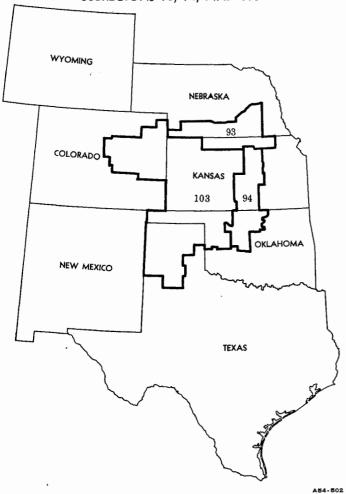


Figure 7.

Wheat production in this region is largely the result of physical conditions. The soils and temperature are favorable for such production, and the precipitation very definitely limits the alternatives to wheat.

Most of the soils in this region belong to the Chernozem group; these are dark, deep, heavy prairie soils, which are excellent for wheat production. But obviously, there are variations in the soils and amount of rainfall in so large a territory. Not much of the occasional coarse-textured soil is used for wheat except on the fringes of the good wheat land where, stimulated by the high prices of the war periods, farmers have broken grassland not well suited to wheat production.

Some of the most serious problems here have come from extending wheat production to land unsuited for it. Severe wind erosion is not limited to the less favorable areas but occurs most often and is most severe in such areas. If winter wheat makes little growth in the fall the soil surface is exposed and wind erosion is likely to take place. Damage consists of the destruction of the wheat seedling and the loss of the topsoil.

The topography varies from level plains to undulating and rolling land. The slopes are seldom so steep as to make the use of large machinery difficult. The limiting factor is rainfall which varies from 15 to 25 inches annually. About three-fourths of this falls during the growing season.

Because of the limited rainfall and high rate of evaporation, much of the wheat is grown on summer-fallow land. In 1954, the wheat and summer-fallow acreages were:

	Subregion			
-	93	94	103	Total
Wheat (1,000 acres) Summerfallow (1,000 acres)_	1, 418 609	3, 362 280	7, 249 4, 608	12, 029 5, 497

The extent of summer-fallowing varies considerably in the hard winter wheat region and depends on the annual precipitation. Nearly all of the fallow land is used for wheat. Most of it is found in areas of less than 20 inches of rainfall. In dry periods the practice of summer-fallowing shifts considerably to the east. In years of above-normal precipitation the summer-fallow acreage may be reduced throughout the entire region.

Transportation facilities and markets are generally adequate for these wheat growers. Local elevators are found in practically every town along the railroads. Considerable quantities of grain are transported by truck to the central markets. Farm-to-market roads have been improved but relatively few are hard-surfaced and many are not even graveled. This is not a serious drawback in marketing wheat since it need not be delivered at any set time.

When yields of wheat are high, a very large quantity is harvested within a short period, approximately 2 months. Local areas usually complete their harvest in 10 to 20 days. Railroads frequently are unable to provide sufficient boxcars to ship the grain to the terminal markets as rapidly as harvested. It is usual to store some of the wheat on the ground in the fields until transportation and storage are available. This may seem a wasteful practice but in the western part of the region, where July and August rainfall is very low, it provides a very cheap temporary method and the risk of spoilage is not high. Storage capacity on farms and in local elevators is far from adequate for the quantity of grain, but it has been increasing very rapidly during the last decade. Tall elevators dot the landscape. Semiterminal elevators with capacities in the millions of bushels have been built at some of the larger shipping centers such as Oklahoma City, Okla.; Wichita and Hutchinson, Kans.; and Lincoln, Nebr., in the hard winter wheat territory.