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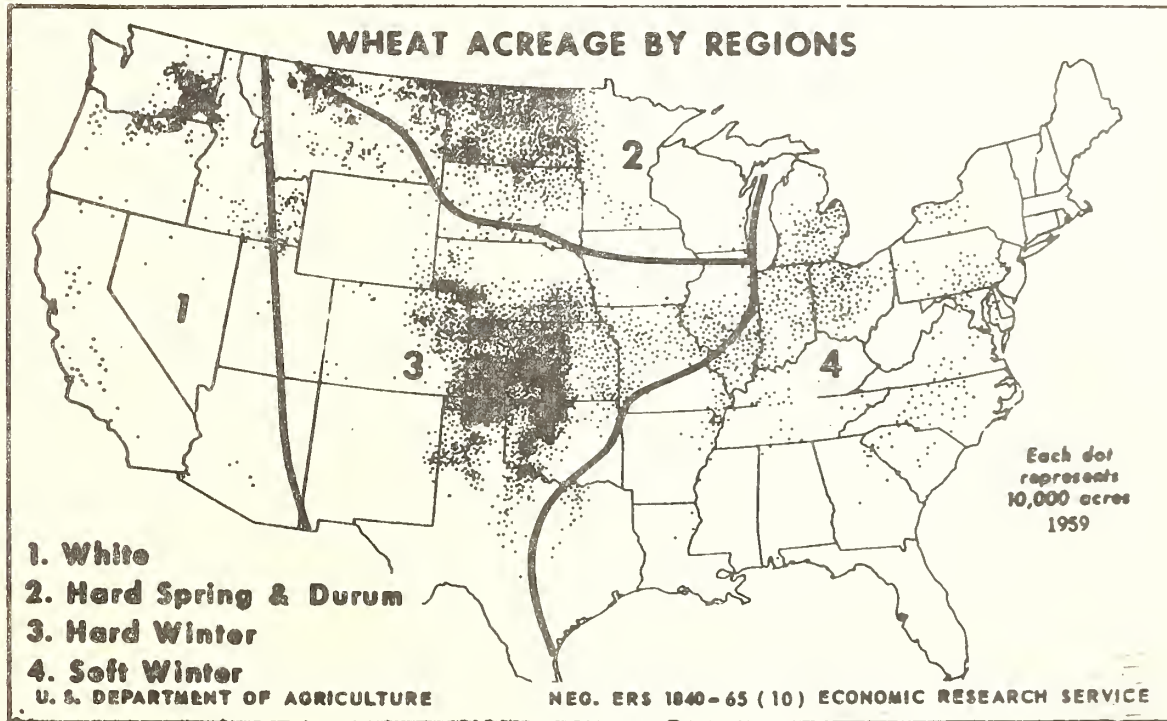
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CLASSES OF WHEAT IN THE U.S. WHEAT ECONOMY

By Frank Gomme



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CLASSES OF WHEAT IN THE U.S. WHEAT ECONOMY

By Frank Gomme 1/

Wheat dates back to the dawn of civilization. Although wheat's origin is unknown, it was first cultivated in Southwestern Asia, where evidences of earliest man have been found. Wheat was not native to the New World, so probably arrived in the Western Hemisphere with the conquistadors and early Spanish settlers. It was an important crop of the early English colonies along the U.S. east coast. As man moved West, wheat went with him. The United States now produces more classes of wheat in volume than any other country.

Wild einkoin, still grown in the Balkan States, is believed to be the common ancestor of all wheats. Since its beginning, wheat has undergone many changes and now accounts for over 20 percent of the world's cropland and is grown in nearly every country. For years, any improvement in the wheat plant came about through selection of the best grain from one year's harvest as seed for the next year's plantings. However, since the early 1900's, plant scientists have been producing new varieties of wheat by genetic breeding.

Only three species of wheat are commercially important in the world today and they account for 90 percent of all the wheat grown. These three species are Triticum aestivum (common wheat), Triticum compactum (club) and Triticum durum (durum). In years past, small acreages of other species were grown in the United States, principally for livestock feed, but they have since virtually disappeared from commercial production.

Wheat also may be further classified according to texture of the ripened kernel, color of the kernel, and the growing habits of the plant. Each of the 223 varieties grown in the United States may be classified under these three general features.

The varieties of wheat grown in the United States were most recently enumerated in the 1964 wheat varietal survey.

1/ Economist, Economic and Statistical Analysis Division, ERS.

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: Five tables, numbers (3-7) are in-
: cluded in this publication because of their
: historical significance. They originally
: appeared in the ERS Statistical Bulletin
: No. 423, Food Grain Statistics Through
: 1967.
:
:

Table 1.--Estimated percentage of total wheat acreage in the United States occupied by each class at 5-year intervals for selected years, 1919-64

Year	Hard Red Winter	Hard Red Spring	Soft Red Winter	White	Durum	Total
	Percent	Percent	Percent	Percent	Percent	Percent
1919	32.0	24.2	30.1	7.3	6.4	100.0
1924	41.4	22.4	22.1	5.9	8.2	100.0
1929	43.5	22.0	17.7	7.4	9.4	100.0
1934	44.6	23.2	20.9	6.7	4.6	100.0
1939	47.6	20.9	19.6	6.6	5.3	100.0
1944	46.8	24.0	18.2	7.7	3.3	100.0
1949	54.2	20.8	13.0	7.8	4.2	100.0
1954	55.9	21.4	11.9	8.3	2.5	100.0
1959	56.7	19.5	12.7	9.0	2.1	100.0
1964	57.6	15.6	13.6	8.4	4.8	100.0

Agricultural Research Service: Based on Distribution of the Varieties and Classes of Wheat in the United States published in 1959 and 1964.

Wheat can be either fall or spring planted. Normally if planted in the spring a true winter wheat would not produce a crop. Both winter and spring wheats may produce grain that is red or white or some variation thereof. These shades may range from yellow to amber. Wheat may also be classified as to whether its kernel is hard or soft. Hard wheats are normally higher in protein and gluten and are used in bread flour. Soft wheats are lower in protein and are milled into flour for cookies, cakes, crackers, and pastries. Probably the most often used classification of wheat in the United States is as follows: hard red winter, hard red spring, soft red winter, white and durum. There are also many subclasses, the most important of which are white club wheat, winter white and spring white wheat and red durum. All wheat may be further defined on the basis of quality grades running from No. 1 through No. 5 and sample.

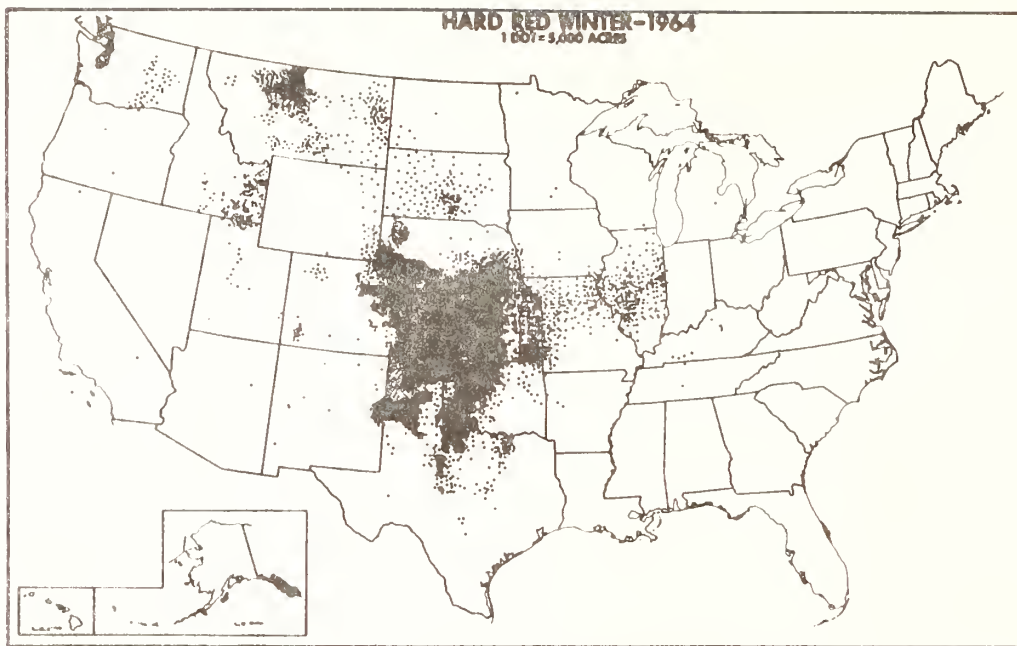
HARD RED WINTER WHEAT

Regions and Varieties

Hard red winter wheat (HRW) is the largest and most important class of wheat in the United States. Generally, any change in the United States wheat picture can be attributed, in some part, to this class.

Botanically, Triticum aestivum is a common bread wheat. First introduced from Russia in 1873, hard red winter spread to become the most widely produced of all classes of wheat. It is normally grown in areas of limited rainfall where soils are relatively high in available nitrogen. Both of these conditions are conducive to grain with a high protein content.

Some varieties of hard red winter are among the most winter-hardy and drought-resistant wheats in the world. The

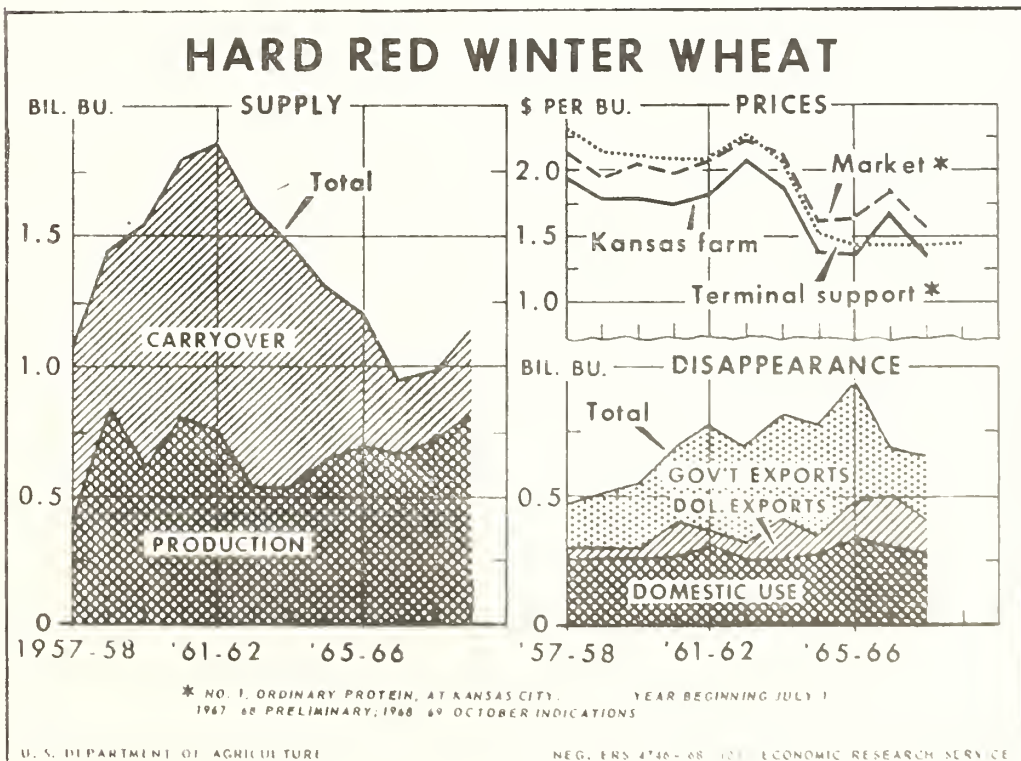
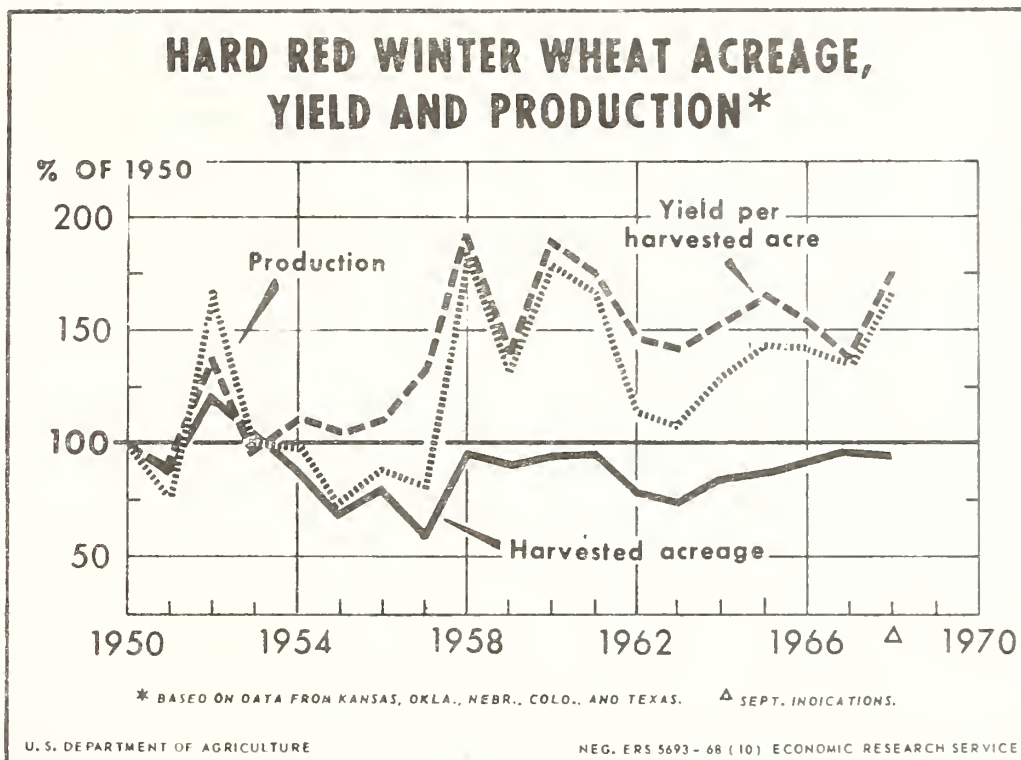


largest planted acreage in HRW was around 1950. Its share of the total acreage has expanded rapidly since the early 1900's and by 1964 had risen to almost 58 percent of the total. Production has varied from a low of 177 million bushels in 1933 (a drought year) or 33 percent of the total to a record high 836 million bushels in 1958--57 percent.

The heart of the HRW production area is Kansas. This State usually accounts for about a third of the HRW crop and more than 15 percent of the total United States wheat crop. Oklahoma, Nebraska, Montana, Texas, and Colorado are also important producers. In most of this region there is little competition from other classes of wheat or other small grains. However, to the east in areas of higher annual rainfall HRW comes into competition with soft red winter wheat. To the north, with more severe winters, fall-seeded HRW gives away to hard red spring and durum. Hard red winter is found in 3 general regions: the Central and Southern Great Plains, the Intermountain and Western States, and the Northern

and Midwestern States. A particular variety's response to climatic conditions and resistance to certain diseases and insects may make it especially suited to one particular location.

Sixty-seven varieties of hard red winter were reported grown in 1964. Of the 9 varieties which in 1964 accounted for over a million acres, one had been released in 1956 and 3 in 1960. Each of the others had been grown for a longer period of time. Turkey, the major variety in the early 1900's, had all but disappeared by 1964. Varieties such as Blackhull, Kanred, and Tenmarq, which were important in the 1920's and 1930's have now declined in importance. In 1964, Wichita and Triumph were the two most important varieties, accounting for 24.7 percent of the total hard red winter acreage. If all the derivatives of Triumph were included in the above, the total would reach 39.5 percent of the hard red winter acreage. Scout, first reported in the 1964 varietal survey, has become important in Kansas, Nebraska, Colorado, and Wyoming. For the 1968 crop, it was



the leading variety, accounting for over 30 percent of the total acreage in these States.

Markets and Uses

During the time of record-high carryovers, hard red winter accounted for three-fourths of the total--in 1961 a whopping 1,104 million bushels. Now, with stocks at lower levels, it accounts for just over one-half. Hard red winter's primary domestic use is in the milling of bread flour. This flour, high in gluten, is especially suited to modern bread-making methods. Hard red winter may account for over 40 percent of the total domestic food use. This quantity may fluctuate depending on price spreads between hard red winter and hard spring wheat. As the price spread narrows, the milling demand for hard red spring will increase at the expense of hard red winter. Quality of the hard red winter crop in relation to soft red may also affect the total. For as the price of soft red approaches that of hard red winter, the demand for hard red normally increases.

Total domestic use over the years has ranged between 250 and 300 million bushels. This class of wheat usually accounts for at least half of the total domestic disappearance in the United States. The largest estimated domestic use was in 1943 when large quantities of hard red winter were moved into feed channels. However, in most years feed use is rather small, as price levels and the long-held

idea of HRW as bread wheat and not a feed wheat tend to limit any expansion.

It is the major export class, with more shipped than all other classes together. During the record export year of 1965/66, hard red winter shipments totaled almost 600 million bushels, of which 400 million bushels moved under food aid programs to needy people around the world. While India has been the largest recipient of HRW under the aid programs, Japan and Western Europe have been the most important commercial customers. Most of the hard red winter is shipped via Gulf ports. Considering its dominance in the U.S. export picture, hard red winter wheats also may be the major class of wheat moving in world trade.

Because of its dominance in the wheat supply and disappearance picture, HRW also plays a dominant role in wheat price determination. Prices of other classes of wheat, except durum, normally tend to move in relation to that of hard red winter. This relationship would depend upon the degree of substitution between the classes at that time.

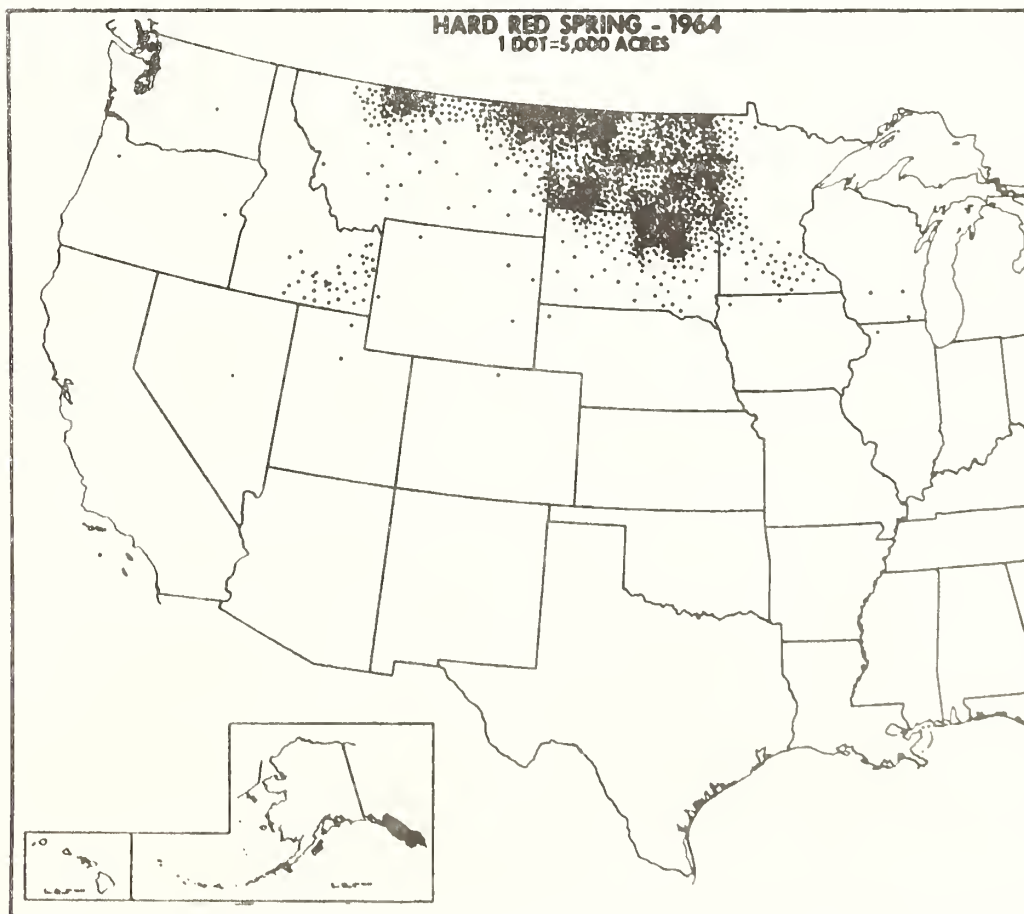
Kansas City is the major terminal market for hard red winter. Because of its proximity to the major wheat area, as well as its position on a major transportation route, Kansas City has long been an important cash market for this wheat.

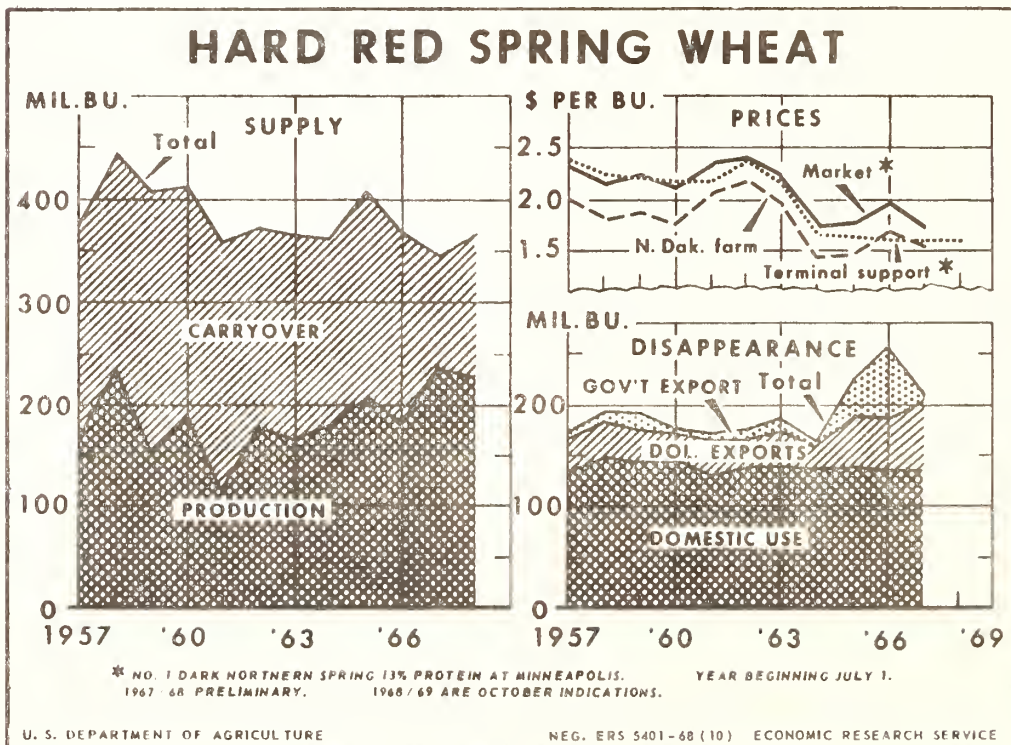
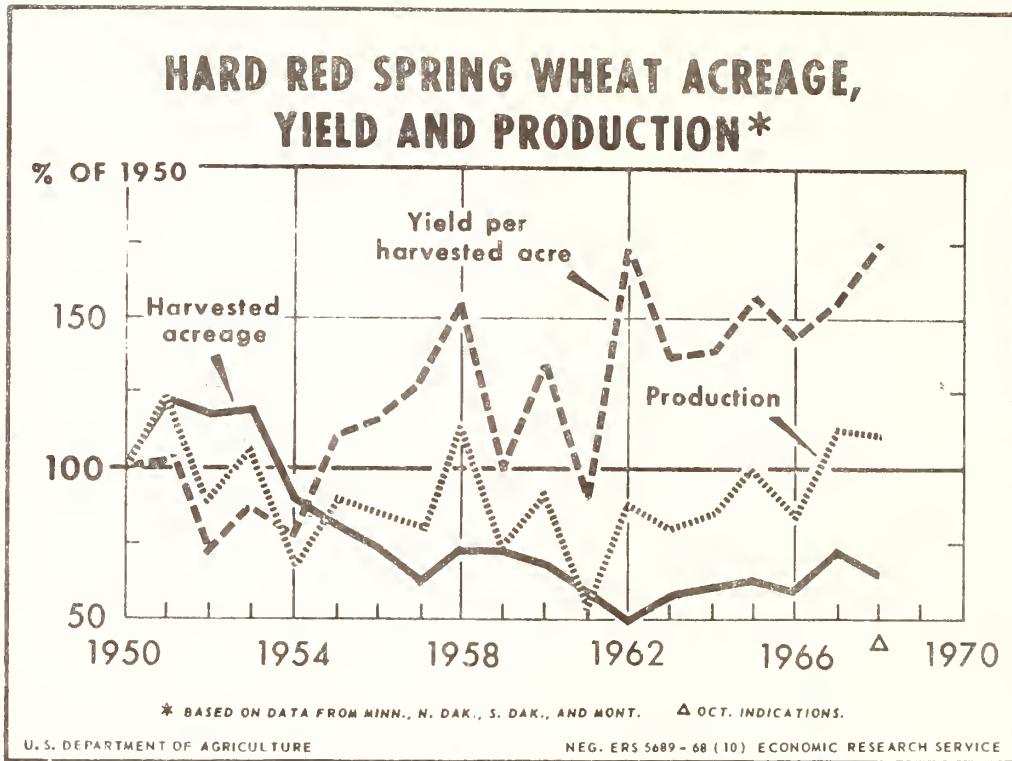
HARD RED SPRING WHEAT

Regions and Varieties

Hard red spring wheat (HRS) is highly regarded as a quality bread wheat. It is principally grown in the northern sections of the United States, where climatic extremes are especially suitable to spring-sown grains. Because of these extremes in climate, winter wheat, which must be seeded in the fall, generally does not survive. However, in those areas of the spring wheat belt where winter wheat can be grown it usually out-yields spring wheats partly because of its earlier maturity date. Often both spring and winter wheats will be grown, giving a better distribution of labor and reducing the risk of crop failure. Spring wheat may also be sown on land where the fall-seeded crop has been winter killed.

The major HRS wheat States are North Dakota, South Dakota, Montana and Minnesota. The spring wheat region also includes Colorado, Wyoming, Wisconsin and Idaho. Traces of HRS wheat are found in many adjoining states. Stem rust and other diseases, along with competition from corn and soybeans, have pushed spring wheat westward out of some of the old traditional areas and concentrated it in the Dakotas and Montana. This region is characterized by an annual average rainfall of 15 to 25 inches. Because of the scarcity of moisture, yields are often drastically reduced by drought and heat, particularly in the western part of this region. Consequently, there is a continuous search for high yielding varieties which may escape injury by (1) heading out before hot weather occurs, (2) ripening before soil moisture is exhausted, (3) or have traits which help them endure these conditions.





All grains in the spring wheat area, except winter rye, are spring-planted and are harvested with the same machinery. Therefore, it is not difficult for large changes in acreage of the various alternative crops to occur as prices change or damage from weather or disease take place. When irrigation is possible, HRS fits well into a crop rotation program. In the Red River Valley of Minnesota and North Dakota, it is grown in rotation with sweet clover, sugar beets, corn or with other small grains. In the drier western areas of the spring wheat region, it is alternated with summer fallow. This permits the idle land to store and conserve moisture for the succeeding crop. HRS is usually sown as early as possible in the spring, giving it a better chance to fully develop and escape damage from heat, drought, or rust. It is a common practice to windrow the crop and thresh it from the swath, when at harvesttime the fields are too weedy or are ripening unevenly.

Since the early 1900's, the proportion of the total wheat acreage occupied by HRS has generally declined. From the 1919 high of 24.2 percent of the total, it had dropped to 15.6 percent in 1964. Because of weather hazards and disease epidemics, both per acre yields and total production have fluctuated sharply. Production dropped to a record low of 51 million bushels in 1936 and a recent low of 117 million bushels in 1961. Production reached a high of 256 million bushels in 1951, while per acre yields were at their high in 1968. HRS wheat production accounted for as much as a fifth of the total wheat crop in the early 1940's, but only about 14 to 15 percent in recent years.

Many of the earliest known varieties of HRS were of Russian origin, while most of varieties now grown have been developed in the United States or in Canada.

HRS is highly vulnerable to various rust strains, so new and improved resistant varieties are always in demand. Thirty-nine varieties of HRS were reported grown in 1964, of which only one was common as far back as 1919. The development

of hardier and more disease-resistant varieties has affected the popularity of many of the earliest grown varieties. Prior to 1934, Marquis was dominant, occupying over three-fourths of the acreage for years. Thatcher and Ceres gained popularity in the mid-1930's. A severe rust epidemic in 1935 hit both Marquis and Ceres varieties. The three most common varieties in 1964; Justin, Lee, and Selkirk have all been released since the severe rust epidemic of 1950. The leading variety, Justin, was released in 1962 and by 1964 accounted for nearly one-quarter of the hard red spring acreage. Selkirk made up approximately 50 percent of the total in 1959, but had dropped to around 20 percent by 1964. Lee held at around 15 percent of the total during this same period. Crim, Pembina and Chris are new varieties which are accounting for increasing acreage. No variety of spring wheat has been resistant to all the races of any disease. New varieties that are resistant to known diseases and insects may be susceptible to mutations of these diseases and insects. Consequently, new varieties must be continuously under study.

Markets and Uses

Since World War II, domestic use of HRS has generally averaged around 140 million bushels a year. As much as 85 percent of this total may move into food use. Demand for hard spring wheat has been strong as the importance of commercial baking has increased. Modern bakers require a flour that will mix into a strong dough capable of holding up under high speed mixers.

At times HRS is blended with durum wheat to produce flour for macaroni products. However, this normally occurs only when durum is in short supply. The quantity of other wheat used with durum will depend upon the relative supplies and the prices of both wheats. As the price spread between hard red spring and hard red winter wheat widens, millers will substitute hard winter for hard spring. This is not a perfect substitution, but common where both kinds of wheat are available and the

price spread is favorable. Because of its high quality and the premiums it normally commands, HRS is not often used for feed. HRS supplies are supplemented each year by small amounts of imported wheat. The majority of this is seed wheat and comes from Canada.

Although HRS exports have seldom been larger than 50 million bushels, much greater quantities were shipped in both 1966/67 and 1967/68. Normally, because of price it has been an unattractive purchase for countries buying wheat under the food aid programs. However, in some recent years, the United States has moved substantial quantities under these programs in order to protect the limited supplies of other classes of wheat.

In recent years, stocks of HRS have been sufficient to cover domestic and export requirements. In 1944, HRS stocks accounted for 47.6 percent of the total, but have seldom reached 25 percent since then. However, the largest physical quantity was over 251 million bushels in July 1958.

Prices of U.S. HRS are affected as much by supplies and prices in Canada as by those of competing wheats in the United States. Domestic HRS prices tend to move in relationship to HRW, subject to quality and supply considerations. Canada, our principal competitor for export markets, indirectly affects prices by its actions in the world export markets.

Minneapolis is the major terminal market for HRS, as well as an important milling center for hard spring flours. Although HRS is grown in the North Central United States, less than half the total spring wheat exports normally move through the Great Lakes. In recent years, large amounts have been shipped from the Atlantic ports to Europe and from Pacific ports to Japan.

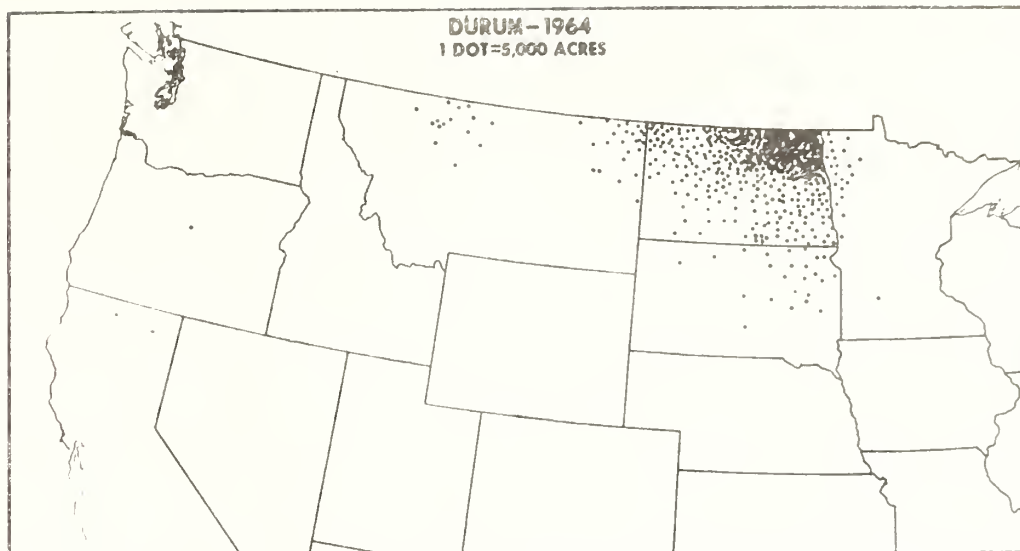
DURUM WHEAT

Regions and Varieties

Durum wheat is unique among the 5 classes of wheat grown in the United States. Botanically, Triticum durum is a species distinct from the common bread wheats. There are two separate forms of durum, of which only one is still grown extensively in the United States. Red seeded durum, common among world durums, has not been important in this country since around 1950. Amber durum is the second form. It has kernels that are free threshing, white, and usually rather long and pointed. The kernels are also translucent, which gives them an amber appearance. Durum is the hardest of all wheats. All the durums now commercially grown in the United States are of spring habit.

Durum has been widely grown in the United States since about 1900; however, it has never accounted for more than 10 percent of the total wheat acreage. In 1929 it had expanded to a high of 9.4 percent of total acreage, but had dropped to 2.1 percent in 1959. The area planted to durum has shifted northward until the center of production is now in northeastern North Dakota. Over four-fifths of the U.S. durum crop is normally produced in this State. Of the estimated 1968 crop of 101 million bushels, 84.9 million came from here. Lesser quantities are produced in South Dakota, Montana, Minnesota, and California. Durum production totaled 95 million bushels in 1928, but dropped to 7 million in 1934, and hit a low of only 5 million bushels in 1954.

Most of our early durum varieties were introduced from southern Russia and the Mediterranean. Durum, like all spring wheats, is highly vulnerable to various rust strains. Consequently, new



and improved varieties have been continuously in demand. Of the 10 varieties grown in 1964, only one was in existence before 1924. Kubanka was probably the first important variety. In the mid-1930's Mindum and Pentad became popular. By 1954, Mindum accounted for almost 70 percent of the total durum acreage. However, its susceptibility to certain rust strains has contributed to its decline in the past 15 years. By 1959, Mindum had dropped to 5 percent of the total while Langdon and Ramsey (released in 1956 under an accelerated variety development program) accounted for almost 86 percent. By 1964, Wells was the leading variety with Lakota in second place. These 2 varieties had been released in 1960. Leeds--a new variety of rust resistant durum wheat released in 1966 has gained in popularity.

Markets and Uses

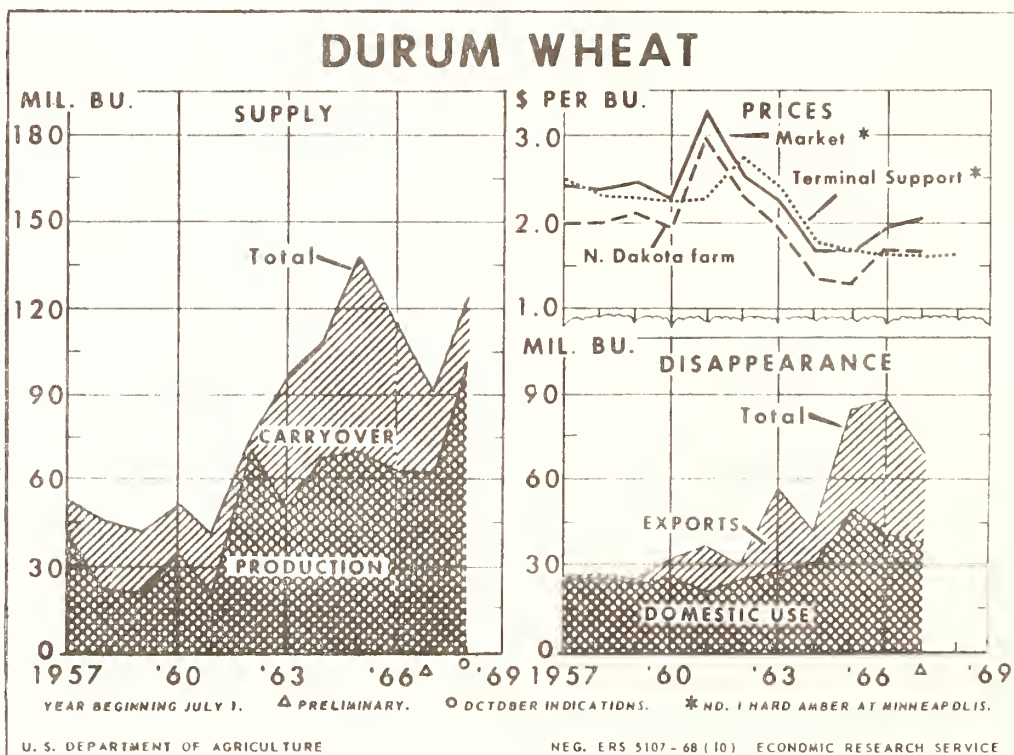
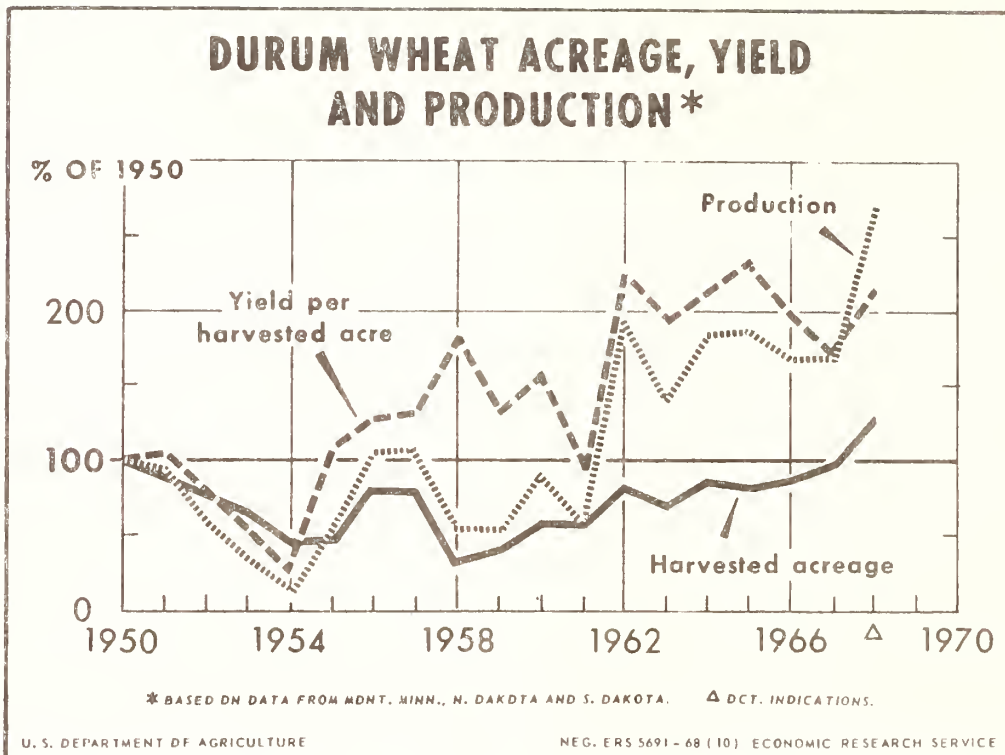
Durum is used for the manufacture of semolina, a purified middling obtained from the grinding process. Semolina is used in the production of macaroni and spaghetti and related products. Domestic use of durum has been fairly stable over the years, averaging slightly less than 30 million bushels. The exact level in any given year will depend upon both avail-

able supply and quality of the crop. In years of short supply, other wheats may be substituted in the production of macaroni products. In a 1965 study over 23 million bushels of durum were estimated to have been used for these products.

Over the years, the durum situation has been characterized by sharply fluctuating production and supplies, resulting in wide-ranging prices. The great variations in durum yields may be attributed to both weather and rust factors. The variation in acreage seeded is in response to changes in prices and Government programs. As durum supplies increase, the premium paid for it over hard red spring wheat decreases, thus tending to discourage further expansion.

Minneapolis has long been the major terminal market for durum. It is also an important milling center. The Great Lakes are the principal export point, although some durum moves out of Gulf and Atlantic ports.

Durum is grown in many countries, the main producers are the Mediterranean countries, North America, the Soviet Union, and Argentina.



But Argentina and Canada are the only major exporters of durum wheat. The United States has exported large quantities in the past 3 years, but previously most of the production was consumed domestically. During years of high prices, some countries export durum and import cheaper bread wheats. World durum trade is small, totaling only 3 to 4 percent of the total world wheat trade. Western Europe is the major importer of durum, almost all of which is on a commercial basis. In the last few years, the United States has shipped minute amounts of durum under the food aid programs.

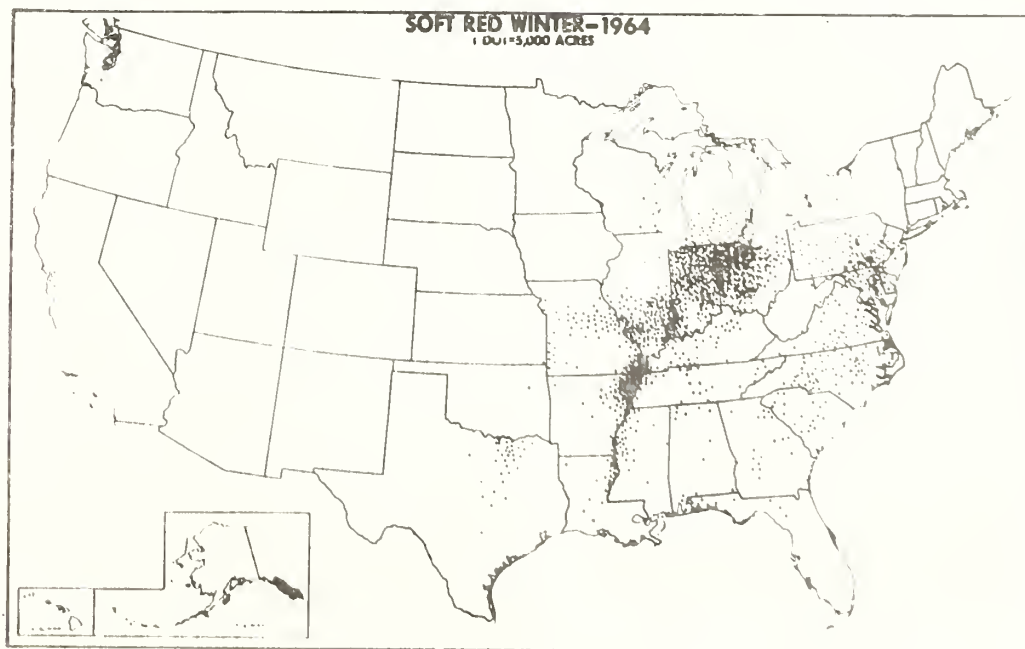
EASTERN SOFT WHEATS

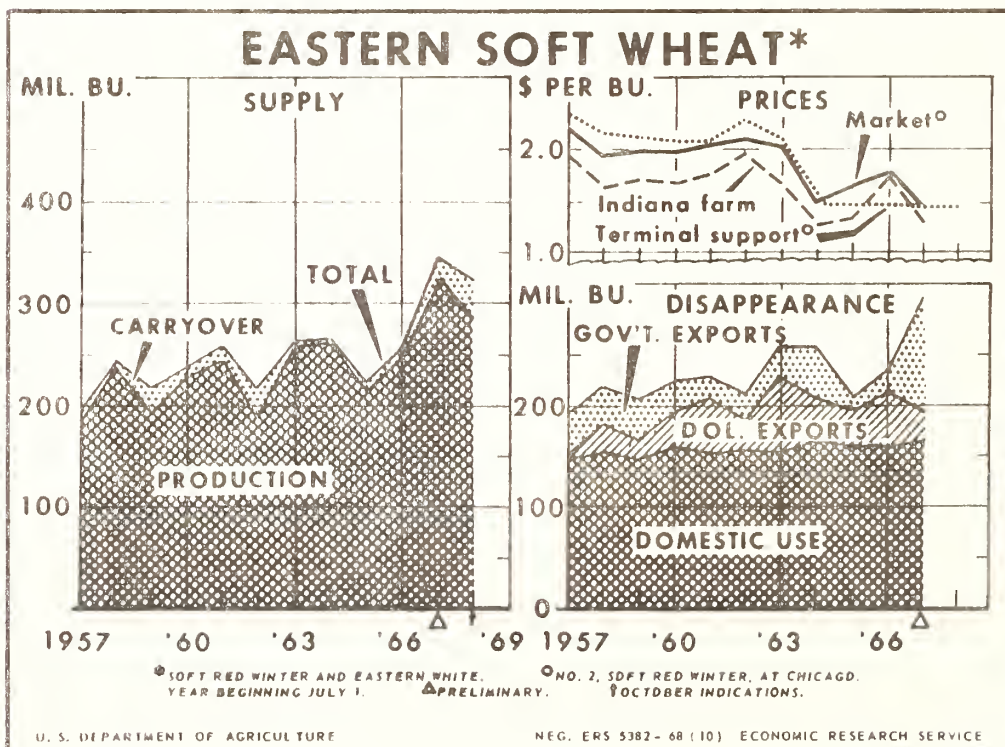
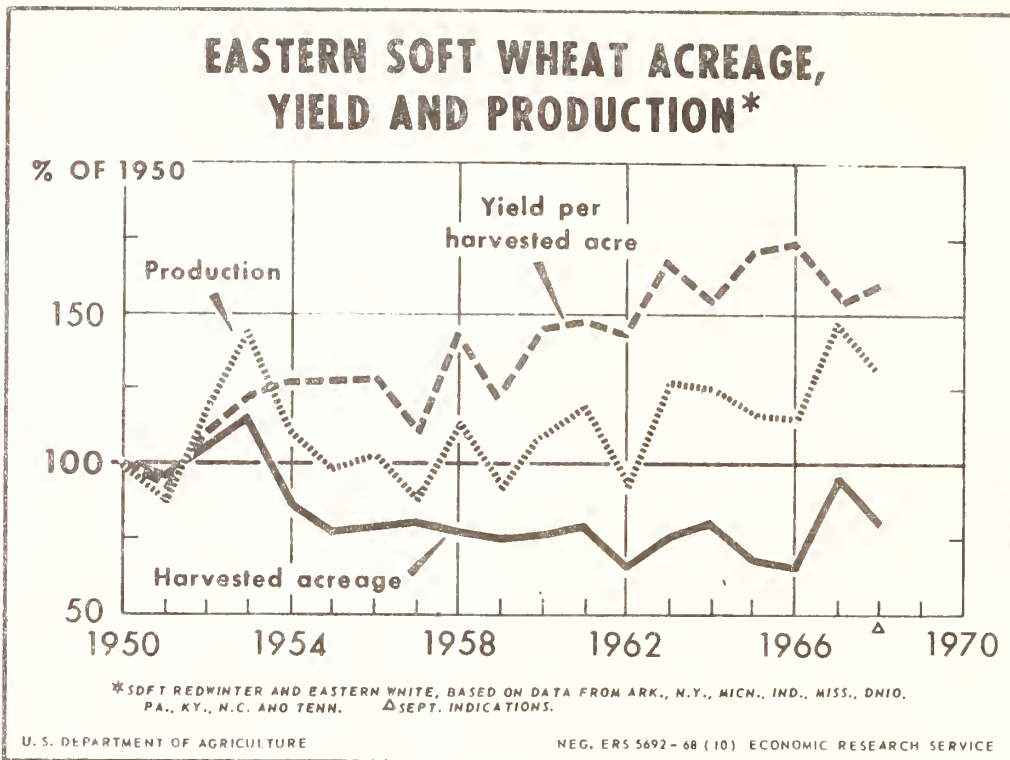
Regions and Varieties

Soft red winter and white wheat grown in the east have been grouped into a general category called "eastern soft wheat." The most important wheat grown is soft red winter, while eastern white wheat is of lesser importance. Eastern white is included here because of its

isolation from the western white wheat area and its independence of that area's supply and demand factors. Except where specifically noted, this discussion will combine the two eastern wheats.

About one-fourth of the wheat produced in the United States is grown in the eastern region, including the States east of the Mississippi River plus Louisiana and parts of Missouri, Arkansas and Texas. The western boundary is more climatic than geographic so there is no sharp line of demarcation between the soft wheats of the east and the hard wheats of the west. Agriculture in the eastern soft wheat area is diversified, as opposed to the hard wheat areas of the west where wheat is the dominant crop. Here, dairying and the raising of livestock and poultry are the leading industries. Wheat has to compete with corn, soybeans, hay, pasture, other crops and people for land usage. Eastern soft wheat is often grown as a supplement to and in rotation with other crops. Nearly all





the soft wheat grown in the East is seeded in the fall and harvested in the following spring and summer.

Acreage in eastern soft wheat as a percent of the total acreage has dropped sharply over the years. From a 1919 level of almost a third of the total, acreage in these wheats dropped to less than 15 percent in the early 1960's. However, increasing yields have limited any decline in production--1967 was a record for the eastern soft wheat crop compared with a recent low of 148 million bushels in 1951.

The major soft red wheat producers in the east are: Illinois, Missouri, Ohio, Indiana, and Pennsylvania. Since 1964 there has been a rapid expansion in soft red acreage in the Mississippi Delta States and the Southeastern States. White wheat in the east comes principally from New York and Michigan, with traces in adjoining States.

Eastern farmers generally prefer beardless varieties, of wheat, usually more suitable for livestock use. Often the earlier a variety matures the more desirable. This permits more extensive use of land and labor.

Many of the early varieties of eastern soft wheats can be traced back to Europe and the Mediterranean. Sixty-five varieties of soft red winter were reported grown in 1964. The large number of varieties reflect the diverse geographical area over which this wheat is grown. Fulcaster, Fultz, Mediterranean, and Poole were some of the early varieties of soft red. Only traces of these varieties are found today. Only 2 varieties, Thorne and Monon, have ever accounted for over 30 percent of the acreage. Introduced in 1937, Thorne increased rapidly, totaling nearly 3.5 million acres in 1949. Monon, released in 1959, was the only variety grown on more than a million acres in 1964, slightly more than one-third of the class acreage.

Only two varieties of eastern white are now commercially important. Avon was the most important variety in 1964, accounting for over half the acreage in New York and over 10 percent in Michigan. Genesee, which had been the principal variety in 1959 in New York, had slipped badly. During this 5-year period it held its own in Michigan, making up around 63 percent of the acreage. Yorkwin and Cornell 595, which had been important in the past, had all but disappeared by 1964.

Markets and Uses

Stocks of eastern soft wheat have been running at a much reduced level in recent years. Since 1960, eastern soft wheats have accounted for a little over one percent of the total stocks compared with over 10 percent 30 years ago.

Flour milled from eastern soft wheats is one of the basics in the manufacture of pastries, cookies, crackers, and cakes. Despite specialized uses, in some instances one class may be substituted in part for another, although some products such as saltines have rather rigid requirements for a specific wheat.

Substitution may take place between eastern soft wheats and low-protein hard wheats grown in adjacent areas in the production of family type flour. In addition to the usual competitive factors of location and quality requirements of the final products, the degree of competition between these wheats is also affected by the general lack of price support eligibility of eastern soft wheat.

Annual domestic use of eastern soft wheat is fairly stable at around 150 to 160 million bushels. The bulk of this goes into food use. A large proportion of eastern white wheat is ground for flour. It is also used in prepared whole grain breakfast cereals.

At times large quantities of soft red winter move into feed use. Because of its quality and the fact that many sections of the eastern soft wheat region are feed grain deficient areas, wheat in this region is more likely to be fed. Exports act as the mechanism for holding carryover stocks of this wheat at moderate or negligible levels. Commercial exports fluctuate depending on the size and quality of Western Europe's crop--also soft wheat--and the U.S. export price of soft wheat versus that of hard winter, ordinary protein. Since many producers of eastern soft wheat are not in the wheat program, prices are usually weak relative to the price support loan level. On the other hand, low-protein hard wheats usually derive greater price strength from the loan program because the program absorbs excess hard wheat supplies.

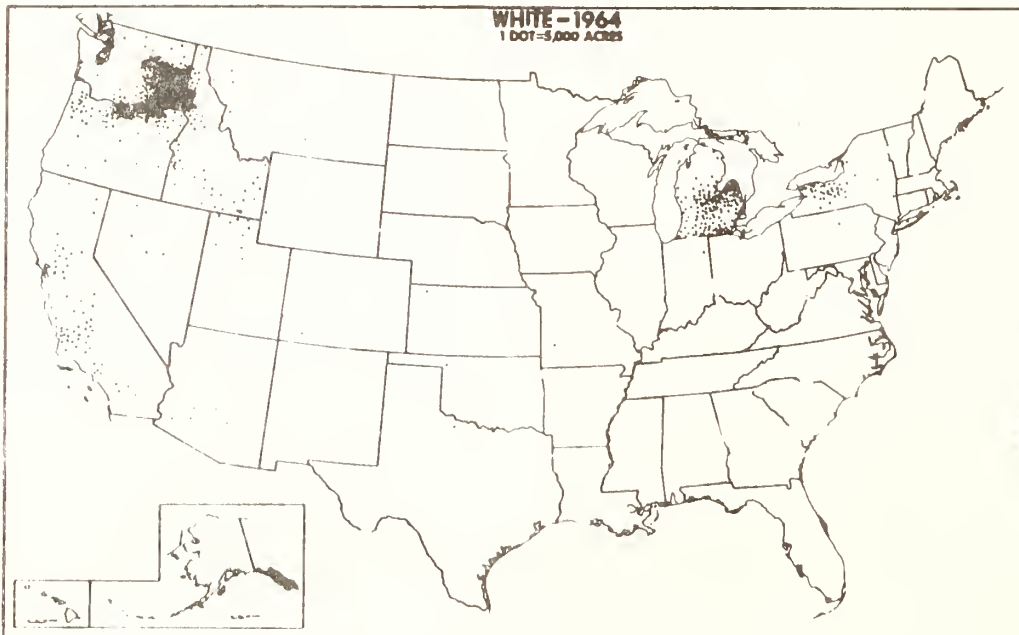
Chicago, and St. Louis, are the two major interior terminal markets for eastern soft wheat. There are a number of other marketing centers in this region of which the most important are Buffalo, N.Y. and Toledo, Ohio.

WESTERN WHITE WHEAT

Regions and Varieties

White wheat may be hard or soft, spring or winter, common or club. Eastern white wheat has been grouped with soft red wheat in the East because of its isolation from the major white wheat area. Although western white wheat is at times listed as a subclass of white wheat, in this article all white wheat grown in the Western United States has been placed into a general category called western white wheat.

White wheat is grown in most of the western states. The majority of each year's crop comes from the Pacific Northwest, which encompasses Washington, Oregon, and northern Idaho. Washington is the most important producer, frequently accounting for over half the western white wheat crop. Although the Pacific Northwest accounts for 85 percent of the total western white wheat production, small quantities are also grown in California, Montana and Utah, with trace amounts in adjoining states.



Soil and climate throughout the greater part of the western white region are not favorable to hardness of wheats. Therefore, most of the wheat of this region is either semi-hard or soft. Most of the wheat in this area is grown using the summer-fallow system. To some extent, all five of the major classes of wheat are grown in this area. Soft white and white club, subclasses of white wheat are the most important, followed distantly by hard red winter.

Barley is probably the most important feed grain competitor for land use in this region. With the expansion in irrigation, alfalfa and truck crops have also increased in importance.

Many of the earliest white wheats originated in Europe, while more recently developed ones come from Australia. Extensive research on new varieties has also been carried out in the Pacific Northwest.

The percentage share of the total U.S. wheat acreage occupied by white wheat in the west has changed little since the early 1900's. From a 1949 level of 5.1 million acres, it had decreased to 3.6 million by 1964, chiefly as a result of acreage reduction programs. Production in the west has more than tripled over the last 40 years, climaxing in a record 1967 crop of around 190 million bushels.

There are two distinct types of white wheat: common and club. Club wheat is distinguished from common white by the shorter and denser, laterally compressed spikes.

Forty-two varieties of white wheat were grown in 1964. Of these, only four were commercially important in the eastern white wheat region and were grown almost exclusively in this area. The bulk of the white wheat acreage is in the western United States. The variety which now dominates the western white wheat acreage is Gaines, released in 1961. It is a winter hardy semi-dwarf wheat with

satisfactory soft wheat baking qualities when grown under the proper climatic conditions. In 1964, it was the only white variety to occupy over a million acres, accounting for 34.9 percent of the total white wheat acreage. By 1967, acreage in Gaines had increased to over 2 million acres or about three-fifths of the total winter wheat acreage planted in the Pacific Northwest. Baart, Goldcoin, Hybrid 128, and Pacific Bluestem were all important early varieties of white wheat in the West.

In the past 20 years, varieties such as Elgin, Elmar, Omar, and Moro have also been introduced and become important, but Moro is the only one extensively grown today.

Markets and Uses

Despite the fact that white wheat is produced inland, the principal markets are the seaboard cities of Seattle and Tacoma, Wash. and Portland, Oreg. This is an area of flour mills and export houses. Portland, is the major coastal terminal market for western white. Some wheat is retained in the interior to be ground by mills, the most important of which are in the Pendleton, Oreg., and Spokane, Wash. areas.

Although domestic use has never been very large, domestic markets have absorbed from 20 to 40 million bushels of western white in recent years. It is primarily used for cracker and pastry flour. Because of the scarcity of hard red wheats in this area, the high-protein hard white wheats are also used in multipurpose or family flour. Millers in the Pacific Northwest have required from 25 to 50 million bushels of wheat a year for grinding flour during the past 30 years. Of this total, normally less than one-third would be white wheat. Hard wheats must be shipped into the region to be blended with the soft wheats to strengthen the flour. The amount of wheat shipped in depends upon the protein content of the Pacific Northwest wheat crop.

Large quantities of western white were used for feed during 1942-44 under the government wheat feeding program. Although the Pacific Northwest has traditionally been a feed grain deficit area, white wheat feeding has seldom totaled more than 10 million bushels since 1950.

The western white wheat area (specifically the Pacific Northwest region) has traditionally been a heavy net exporter. Government-assisted export programs have benefited this area since the 1930's. Export volume prior to the 1950's had never reached 100 million bushels. The record movement was in 1967/68, when 147 million bushels were shipped, over half of which was under Government programs. Government export subsidy payments, increased

cash sales to Japan, and the Food for Peace Program were all instrumental in maintaining exports at high levels. In recent years, large quantities of western white have been shipped to the food-deficit countries of Southeast Asia under the Food for Peace Program. Japan has been the largest commercial purchaser of western white.

As is true in most of the other commercial wheat areas, farmers in the western white wheat region have made extensive use of the government loan programs. This along with an active export demand has kept white wheat prices in the West above loan levels in most recent years.

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Table 2.--Estimated supply and distribution of wheat, by region and major class, United States, July-June 1957-67

Item	Note.--Figures in this table, except production, are only approximations										
	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68
-- Million bushels --											
All wheat											
Stocks July 1	909	861	1,295	1,313	1,411	1,322	1,411	1,195	901	817	535
Production	956	1,457	1,118	1,355	1,232	1,092	1,147	1,284	1,312	1,312	1,524
Supply 1/	1,865	2,318	2,413	2,668	2,643	2,414	2,558	2,485	2,613	2,624	2,858
Exports 2/	402	443	510	662	719	644	667	856	744	744	1,950
Domestic disappearance 3/	593	608	597	603	608	580	644	589	680	680	652
Stocks June 30	801	1,295	1,313	1,411	1,322	1,195	901	817	535	425	537
Hard Red Winter											
Stocks July 1	648	611	936	1,001	1,104	1,085	936	670	532	267	257
Production	429	836	620	795	754	535	544	635	673	678	711
Supply	1,077	1,447	1,556	1,796	1,858	1,620	1,480	1,305	1,205	945	968
Exports 2/	215	275	290	432	486	437	562	498	595	377	369
Domestic disappearance 3/	251	256	265	260	287	247	248	275	343	311	272
Stocks June 30	611	936	1,001	1,104	1,085	936	670	532	267	257	321
Eastern Soft 4/											
Stocks July 1	13	8	25	12	14	29	6	5	8	10	20
Production	137	237	194	226	244	188	257	261	214	249	324
Supply	200	245	219	238	258	217	263	258	222	259	344
Exports 2/	43	66	61	66	78	56	106	92	52	79	141
Domestic disappearance 3/	149	154	146	158	151	155	152	166	160	160	164
Stocks June 30	8	25	12	14	29	6	5	8	10	20	39
Hard Red Spring											
Stocks July 1	196	203	251	218	237	187	195	180	200	186	109
Production	169	233	151	188	116	179	163	180	209	177	236
Supply 1/	378	444	409	414	359	371	367	361	410	365	346
Exports 2/	38	46	49	32	42	39	48	25	86	120	73
Domestic disappearance 3/	135	147	142	145	130	137	139	136	138	136	136
Stocks June 30	203	291	218	237	187	195	180	200	186	109	137
Durum											
Stocks July 1	13	27	22	18	20	5	46	41	68	54	29
Production	40	22	20	34	21	70	52	68	70	63	63
Supply	53	49	42	52	41	75	98	109	138	117	92
Exports 2/	1	1	1	6	16	4	29	10	34	47	31
Domestic disappearance 3/	25	26	23	26	20	25	28	31	50	41	38
Stocks June 30	27	22	18	20	5	46	41	68	54	29	23
Western White 4/											
Stocks July 1	39	32	61	64	36	16	12	5	9	18	10
Production	131	129	133	112	97	120	126	140	150	145	190
Supply	170	161	194	176	133	136	138	145	159	163	200
Exports 2/	105	75	109	126	97	108	111	100	100	121	147
Domestic disappearance 3/	33	25	21	14	20	16	22	36	41	32	36
Stocks June 30	32	61	64	36	16	12	5	9	18	10	17

1/ Includes negligible imports.

2/ Exports are of wheat, including flour and other products in terms of wheat and based largely on inspection data.

3/ Wheat used for food (in the United States and U.S. territories, and by the military, both at home and abroad), feed, seed, and industry.

4/ White wheat raised in the East has been combined with soft red winter. All white wheat raised in the West is grouped under the category western white. This breakdown differs from the data in the supply and distribution by class table published in the wheat situation.

Table 3.- Percentage of hard wheat acreage by major variety in the United States 1964 with comparisons, and the estimated acreage for 1964

Variety	Percentage of acreage ^{1/}										Acreage 1964
	1919	1924	1929	1934	1939	1944	1949	1954	1959	1964	
Hard Red Winter Wheat											
Blackhull	(*)	7.5	22.7	25.1	27.0	15.0	3.9	1.2	0.4	0.1	33,909
Cheyenne	---	---	---	.2	2.5	4.6	4.3	4.9	7.8	7.5	2,383,675
Comanche	---	---	---	---	---	.1	13.0	8.3	5.7	1.7	544,912
Improved Triumph	---	---	---	---	---	---	---	---	---	9.1	2,893,403
Kanred	0.5	21.2	13.0	10.9	5.1	3.3	.6	.2	.1	.1	16,504
Pawnee	---	---	---	---	---	.1	24.3	19.6	12.2	5.5	1,750,998
Tenmarq	---	---	---	.7	11.7	28.6	6.3	1.8	1.1	.2	63,165
Triumph ^{2/}	---	---	---	---	---	.2	12.2	11.5	19.4	10.6	3,364,495
Turkey	99.4	70.5	59.5	55.9	42.0	27.1	7.2	3.5	1.8	.8	266,349
Wichita	---	---	---	---	---	---	6.6	19.2	19.0	14.1	4,456,180
Other varieties ^{3/}	---	.7	4.1	6.1	8.7	20.1	21.1	29.5	32.5	50.3	15,981,312
Total ^{4/}	99.9	99.9	99.3	98.9	97.0	99.1	99.5	99.7	100.0	100.0	31,754,902
Hard Red Spring Wheat											
Ceres	---	---	2.6	31.5	27.0	10.3	6.7	4.7	2.4	2.2	187,673
Justin	---	---	---	---	---	---	---	---	---	23.4	2,006,987
Lee	---	---	---	---	---	---	---	28.9	14.2	16.1	1,383,365
Marquis	71.4	85.4	87.4	60.2	24.3	9.7	5.0	1.8	.6	.2	19,769
Mida	---	---	---	---	---	.1	31.4	11.8	2.0	1.0	82,776
Pembina	---	---	---	---	---	---	---	---	---	10.1	867,308
Rival	---	---	---	---	(*)	25.8	16.6	3.6	.1	(*)	1,914
Rushmore	---	---	---	---	---	---	.1	15.2	3.9	1.6	138,232
Selkirk	---	---	---	---	---	---	---	.1	50.9	19.0	1,627,242
Thatcher	---	---	---	(*)	41.6	28.3	19.1	19.2	8.4	10.1	867,635
Other varieties ^{3/}	.3	.4	2.8	4.0	4.1	25.0	15.7	13.6	17.0	16.3	1,398,748
Total ^{4/}	71.7	85.8	92.8	95.7	97.0	99.2	94.6	98.9	99.5	100.0	8,581,649
Durum Wheat											
Carleton	---	---	---	---	---	0.3	15.8	1.5	---	(*)	169
Kubanka	1.2	11.6	12.5	24.6	12.8	8.3	7.8	4.0	0.1	---	---
Lakota	---	---	---	---	---	---	---	---	.2	20.0	524,913
Langdon	---	---	---	---	---	---	---	---	63.9	4.7	121,811
Mindum	---	.3	5.5	15.9	22.5	31.2	27.4	69.6	5.1	.6	16,695
Ramsey	---	---	---	---	---	---	---	---	21.9	1.1	29,914
Stewart	---	---	---	---	---	.6	37.6	15.9	3.6	1.4	35,401
Wells	---	---	---	---	---	---	---	---	(*)	71.1	1,871,914
Other varieties ^{3/}	96.8	74.5	60.3	41.7	44.6	46.8	2.8	8.8	5.2	1.1	30,460
Total ^{4/}	98.0	86.4	78.3	82.2	79.9	87.2	91.4	99.8	100.0	100.0	2,631,186

^{1/} The asterisk (*) indicates the variety was reported as grown, but the estimate of acreage was less than 0.1 percent. ^{2/} Combined acreage in 1964 of all varieties with Triumph in the name was 8,069,697 acres, or 25.4 percent. ^{3/} Other varieties includes acreages for which the variety was not indicated and presumably not known. ^{4/} Some columns may not total to 100 percent; these discrepancies indicate the extent to which known varieties grown previous to 1959 have disappeared.

Agricultural Research Service: Based on Distribution of the Varieties and Classes of Wheat in the United States in 1959 and 1964.

Table 4.- Percentage of soft wheat acreage by major variety in the United States 1964 with comparisons, and the estimated acreage for 1964

Variety:	Percentage of acreage ^{1/}										Acreage 1964
	1919	1924	1929	1934	1939	1944	1949	1954	1959	1964	
White wheat											
Albit	---	---	1.7	9.8	3.1	0.5	---	---	---	---	---
Baart # ^{2/}	10.0	16.9	17.1	19.8	21.6	19.8	10.2	7.6	3.1	0.8	33,280
Dawson	2.5	2.2	.9	8.9	9.2	9.2	.9	.1	(*)	---	---
Elgin (Alicel)	---	---	---	---	.1	1.2	12.9	5.4	3.0	1.8	85,722
Elmar	---	---	---	---	---	---	---	27.5	2.4	.3	12,116
Federation	---	1.1	16.8	17.4	14.4	13.8	8.8	4.8	2.5	1.1	51,438
Gaines	---	---	---	---	---	---	---	---	---	34.9	1,603,867
Genesee	---	---	---	---	---	---	---	3.4	19.2	15.8	728,636
Goldcoin	19.1	23.4	19.9	10.9	6.5	8.6	5.6	.1	.1	.9	42,633
Hybrid 128	5.8	14.5	8.0	3.6	1.1	2.1	1.2	.1	(*)	---	---
Omar	---	---	---	---	---	---	---	---	29.4	9.2	424,753
Pacific Bluestem # ^{2/}	27.4	13.0	8.1	4.2	3.1	1.3	.6	.3	.4	.2	7,425
Rex	---	---	---	---	9.0	8.9	6.6	3.0	.1	.1	5,126
Yorkwin	---	---	---	---	3.0	9.0	17.2	14.2	3.5	.8	41,344
Other variety ^{3/}	26.3	23.7	24.9	20.8	25.4	24.6	35.9	33.5	36.3	34.1	1,562,144
Total ^{4/}	91.1	94.8	97.4	95.4	96.5	99.0	99.9	100.0	100.0	100.0	4,598,484
Soft Red Winter Wheat											
Clarkan	---	---	---	---	1.2	7.8	9.0	1.5	0.3	(*)	2,491
Dual	---	---	---	---	---	---	---	---	9.4	4.1	309,619
Fulcaster	12.6	17.3	14.0	11.8	10.3	7.0	3.4	.9	.7	(*)	3,384
Fultz	23.5	17.1	14.5	15.8	12.2	10.4	3.6	.7	(*)	(*)	683
Kawvale	---	---	---	.4	10.2	6.9	2.9	.4	(*)	---	---
Knox	---	---	---	---	---	---	---	.1	23.8	11.1	828,900
Mediterranean	13.6	5.7	5.4	4.4	3.2	2.9	2.4	1.2	.6	.1	7,665
Monon	---	---	---	---	---	---	---	---	---	36.0	2,689,570
Poole	12.0	10.0	6.0	5.7	3.1	1.8	.4	.1	(*)	(*)	67
Seneca	---	---	---	---	---	---	---	12.9	16.0	6.0	446,409
Thorne	---	---	---	---	(*)	13.7	33.2	22.3	8.7	3.0	228,684
Trumbull	(*)	5.7	9.0	9.6	10.8	5.1	2.9	.8	.1	(*)	22
Vermillion	---	---	---	---	---	---	---	---	9.3	7.5	558,895
Vigo	---	---	---	---	---	---	4.4	24.8	3.1	.4	26,366
Other variety ^{3/}	34.0	39.7	47.7	50.2	47.4	42.6	31.3	33.9	28.0	31.8	2,377,024
Total ^{4/}	95.7	95.5	96.6	97.9	98.4	98.2	93.5	99.6	100.0	100.0	7,479,779

^{1/} The asterisk (*) indicates the variety was reported as grown, but the estimate of acreage was less than 0.1 percent.

^{2/} The sign (#) following a variety name indicates this variety is ordinarily regarded as having semihard to hard grain. Unmarked varieties have soft grain.

^{3/} Other varieties include acreages for which the variety was not indicated and presumably not known.

^{4/} Some columns may not total to 100 percent; these discrepancies indicate the extent to which known varieties grown previous to 1959 have disappeared.

Agricultural Research Service: Based on Distribution of the Varieties and Classes of Wheat in the United States in 1959 and in 1964.

Table 5.--Wheat, Grade No. 1: Terminal support rates per bushel, principal markets, 1938-66

For the crop of-	Hard Red Winter		Soft Red Winter		Dark Northern Spring			Hard Amber Durum	Soft White
	Kansas City, ordinary	Kansas City, 13% protein	Chicago	St. Louis	Minneapolis, ordinary	Minneapolis, 13% protein	Minneapolis, 15% protein	Minneapolis	Portland
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
1938	.73	.74	.76	.74	.81	.82	.85	.73	.67
1939	.78	.79	.81	.81	.87	.88	.91	.82	.73
1940	.78	.79	.82	.82	.87	.88	.91	.82	.73
1941	1.11	1.12	1.16	1.16	1.15	1.16	1.19	1.13	1.05
1942	1.28	1.28	1.33	1.33	1.32	1.33	1.36	1.30	1.21
1943	1.38	1.38	1.43	1.43	1.42	1.43	1.46	1.40	1.30
1944	1.51	1.52	1.56	1.56	1.53	1.54	1.57	1.53	1.46
1945	1.54	1.55	1.59	1.59	1.55	1.56	1.59	1.56	1.49
1946	1.65	1.66	1.70	1.70	1.66	1.67	1.70	1.67	1.60
1947	2.03	2.04	2.08	2.08	2.04	2.05	2.08	2.05	1.98
1948	2.24	2.25	2.29	2.29	2.25	2.26	2.29	2.26	2.19
1949	2.21	2.22	2.26	2.26	2.22	2.23	2.26	2.23	2.16
1950	2.26	2.27	2.31	2.31	2.27	2.28	2.31	2.28	2.21
1951	2.45	2.46	2.50	2.50	2.46	2.47	2.50	2.47	2.40
1952	2.49	2.50	2.53	2.53	2.51	2.52	2.55	2.52	2.44
1953	2.50	2.51	2.54	2.54	2.52	2.53	2.56	2.53	2.45
1954	2.54	2.55	2.58	2.58	2.57	2.58	2.62	2.67	2.46
1955	2.38	2.40	2.38	2.38	2.41	2.44	2.47	2.66	2.28
1956	2.31	2.33	2.31	2.31	2.34	2.37	2.40	2.59	2.21
1957	2.32	2.34	2.32	2.32	2.36	2.39	2.42	2.51	2.22
1958	2.15	2.17	2.15	2.15	2.20	2.23	2.26	2.30	2.05
1959	2.12	2.14	2.12	2.12	2.19	2.22	2.25	2.29	2.03
1960	2.08	2.10	2.08	2.08	2.15	2.18	2.21	2.25	1.99
1961	2.09	2.11	2.09	2.09	2.16	2.19	2.22	2.26	1.99
1962	2.28	1/	2.28	2.28	2.35	1/	1/	2.75	2.18
1963	2.07	2.10	2.10	2.10	2.16	2.19	2.23	2.41	2.00
1964 2/	1.53	1.58	1.57	1.57	1.63	1.66	1.70	1.73	1.47
1965	1.43	1.48	1.49	1.49	1.58	1.62	1.68	1.63	1.44
1966	1.43	1.48	1.49	1.49	1.56	1.60	1.66	1.61	1.46

1/ Sedimentation value was used in place of protein to figure premium, therefore comparable value cannot be computed.

2/ Hard Red Winter and Dark Northern Spring prices figured at base sedimentation value of 38-42.
Consumer and Marketing Service, Grain Division.

Table 25.--Wheat: Average cash price per bushel, principal markets, 1931-66

Year beginning July	Hard Red Winter		Soft Red Winter		Dark Northern Spring			Hard Amber Durum	Soft White
	Kansas City, No. 1 ordinary	Kansas City, No. 1 13% protein	Chicago, No. 2	St. Louis, No. 2	Minneapolis, No. 1 ordinary	Minneapolis, No. 1 13% protein	Minneapolis, No. 1 15% protein	Minneapolis, No. 1	Portland, No. 1
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
1931	.49	.55	1/	1/	.68	1/	.73	.60	.56
1932	.51	.54	1/	1/	.56	1/	.61	.50	1/
1933	.85	.86	1/	1/	.91	1/	.91	.85	.71
1934	1.01	1.02	1/	1/	1.11	1/	1.14	1.15	.81
1935	1.07	1.10	1/	1/	1.21	1/	1.25	.98	.81
1936	1.29	1.29	1.28	1.29	1.43	1/	1.47	1.36	1.07
1937	.99	1.00	.98	.99	1.13	1/	1.19	.91	.87
1938	.69	.72	.72	.73	.76	1/	.82	.65	.66
1939	.89	.89	.93	.95	.92	1/	.95	.84	.80
1940	.82	.83	.90	.89	.86	1/	.89	.81	.76
1941	1.15	1.16	1.19	1.21	1.12	1/	1.17	1.09	.96
1942	1.29	1.30	1.48	1.46	1.27	1/	1.34	1.26	1.18
1943	1.57	1.57	1.70	1.71	1.56	1/	1.61	1.56	1.45
1944	1.62	1.66	1.71	1.71	1.62	1/	1.67	1.63	1.51
1945	1.70	1.75	1.80	1.80	1.73	1.75	1.81	1.79	1.63
1946	2.25	2.29	2.35	2.39	2.30	2.32	2.42	2.28	2.02
1947	2.57	2.72	2.71	2.71	2.70	2.81	3.03	2.80	2.50
1948	2.22	2.24	2.29	2.30	2.26	2.30	2.38	2.34	2.21
1949	2.19	2.23	2.14	2.17	2.24	2.29	2.38	2.28	2.10
1950	2.42	2.34	2.33	2.34	2.34	2.40	2.56	2.42	2.24
1951	2.44	2.46	2.48	2.47	2.42	2.45	2.53	2.50	2.44
1952	2.34	2.39	2.24	2.27	2.39	2.45	2.51	2.80	2.39
1953	2.28	2.40	2.03	2.03	2.33	2.48	2.68	3.53	2.32
1954	2.36	2.55	2.19	2.22	2.49	2.64	2.83	4.07	2.36
1955	2.17	2.32	2.13	2.13	2.35	2.40	2.47	2.37	2.10
1956	2.27	2.30	2.26	2.27	2.31	2.33	2.42	2.60	2.40
1957	2.16	2.28	2.17	2.20	2.32	2.35	2.39	2.42	2.26
1958	1.95	2.11	1.94	1.95	2.09	2.16	2.25	2.38	2.01
1959	2.02	2.12	1.99	2.01	2.17	2.21	2.26	2.46	2.00
1960	1.98	2.09	1.98	1.98	2.12	2.15	2.18	2.27	2.04
1961	2.08	2.25	2.05	2.07	2.31	2.34	2.41	3.27	2.10
1962	2.23	2.40	2.10	2.14	2.34	2.40	2.51	2.56	2.17
1963	2.12	2.19	2.03	2.05	2.24	2.27	2.30	2.28	2.08
1964	1.59	1.64	1.49	1.51	1.74	1.77	1.78	1.66	1.51
1965	1.63	1.76	1.64	1.64	1.75	1.78	1.87	1.65	1.53
1966 2/	1.82	1.87	1.76	1.77	1.95	1.96	1.97	1.93	1.76

1/ Not available. 2/ Preliminary.

Consumer and Marketing Service, Grain Division.

Table 6.--Wheat and flour: Indicators of export movement, by type of program and class of wheat, annual 1962-66

Period and program	Wheat (grain only)-Inspections for export ^{1/}								Flour (wheat equivalent)-Registrations of export sales ^{2/}
	Hard Winter	Red Winter	Hard Spring	Durum	White	Mixed	Total		
	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.
<u>July-June 1962/63</u>									
Dollars	38.3	24.7	17.3	3.3	29.1	1.6	114.3	18.8	
Government Programs:									
CCC Credit	6.1	.5	.1	---	---	---	6.7	---	
Title I-P.L. 480	267.5	11.3	1.8	---	82.7	10.8	374.1	42.7	
Title IV-P.L. 480	5.5	---	---	---	.7	---	6.2	.3	
A.I.D.	1.5	---	.8	---	---	---	2.3	.1	
Barter	6.9	3/	.5	---	.7	---	8.1	3/	
Donations	17.2	---	4.8	---	.3	---	22.3	39.0	
Total	343.0	36.5	25.3	3.3	113.5	12.4	534.0	100.9	
<u>July-June 1963/64</u>									
Dollars	128.3	65.9	30.3	27.9	64.0	2.3	318.7	19.6	
Government Programs:									
CCC Credit	4.8	.8	.4	---	.1	---	6.1	---	
Title I-P.L. 480	280.7	4.2	.7	---	61.8	.9	348.3	37.7	
Title IV-P.L. 480	9.9	1.3	.5	---	2.1	3/	13.8	1.2	
A.I.D.	.1	---	.4	---	---	---	.5	.3	
Barter	24.9	.4	1.5	---	.1	---	26.9	---	
Donations	24.2	3/	12.5	---	3/	---	36.7	39.2	
Total	472.9	72.6	46.3	27.9	128.1	3.2	751.0	98.0	
<u>July-June 1964/65</u>									
Dollars	53.9	21.9	17.2	9.1	41.2	1.0	144.3	17.8	
Government Programs:									
CCC Credit	.4	.8	---	.2	---	---	1.4	---	
Title I-P.L. 480	341.4	12.6	1.7	---	64.2	.8	420.7	28.1	
Title IV-P.L. 480	26.1	31.0	.2	---	.2	---	57.5	.3	
A.I.D.	---	---	---	---	---	---	---	.4	
Barter	5.7	---	.3	---	.1	---	6.1	.2	
Donations	15.8	1.4	.9	---	.7	---	18.8	37.4	
Total	443.3	67.7	20.3	9.3	106.4	1.8	648.8	84.2	
<u>July-June 1965/66</u>									
Dollars	122.5	28.6	45.7	31.4	41.5	.4	270.1	15.6	
Government Programs:									
CCC Credit	6.3	2.8	.3	1.3	2.6	---	13.3	2.0	
Title I-P.L. 480	282.3	7.2	28.4	1.1	55.8	---	374.8	24.8	
Title IV-P.L. 480	60.8	5.3	3.9	.1	1.3	---	71.4	8.0	
A.I.D.	---	---	3/	---	---	---	---	.1	
Barter	38.8	.6	2.0	---	.3	.1	41.8	.2	
Donations	19.6	2.7	3.1	---	---	---	25.4	36.0	
Total	530.3	47.2	83.4	33.9	101.5	.5	796.8	86.7	
<u>July-June 1966/67</u>									
Dollars	138.7	24.6	46.5	42.7	46.6	.4	299.5	21.8	
Government Programs:									
CCC Credit	19.8	19.5	2.7	.9	6.8	.8	50.5	8.0	
Title I-P.L. 480	74.1	16.5	50.6	3.0	60.1	---	204.3	7.4	
Title IV-P.L. 480	26.0	5.1	3.6	---	1.9	---	36.6	2.8	
A.I.D.	.1	3/	1.0	---	---	---	1.1	---	
Barter	45.2	1.6	4.3	.5	14.7	---	66.3	1.3	
Donations	1.7	.4	9.2	---	---	---	11.3	26.2	
Total	305.6	67.7	117.9	47.1	130.1	1.2	669.6	67.5	

^{1/} Based on weekly reports of inspections for export. Does not include rail or truck movement to Canada or Mexico.

^{2/} Registrations of sales under the Cash Payment Flour Export Program (GR-346) for period ending on Saturday nearest to end of month shown. Flour inspections are not available nor are registrations of flour broken down by class of wheat from which the flour was milled. ^{3/} Less than 50,000 bushels.

Table 7.- Wheat: Indicator of export movement by coastal area and class of wheat, annual 1961-66

Coastal area	Wheat (grain only)-Inspections for export ^{1/}						
	Hard Winter	Red Winter	Hard Spring	Durum	White	Mixed	Total
	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.
<u>July-June 1961/62</u>							
Coastal areas:							
Great Lakes	---	6.5	15.3	14.4	6.1	---	42.3
Atlantic	4.9	31.6	6.8	.3	16.0	.7	60.3
Gulf	365.2	14.3	6.9	.8	---	---	387.2
Pacific	26.0	---	.1	.4	90.0	1.1	117.6
Total	396.1	52.4	29.1	15.9	112.1	1.8	607.4
<u>July-June 1962/63</u>							
Coastal areas:							
Great Lakes	2/	10.2	8.1	3.1	3.2	---	24.6
Atlantic	12.8	18.0	10.1	---	11.6	11.7	64.2
Gulf	290.5	8.3	6.3	2/	---	.1	305.2
Pacific	39.7	---	.8	.2	98.7	.6	140.0
Total	343.0	36.5	25.3	3.3	113.5	12.4	534.0
<u>July-June 1963/64</u>							
Coastal areas:							
Great Lakes	1.4	21.4	17.8	7.9	5.5	---	54.0
Atlantic	5.5	30.4	15.6	19.1	16.2	1.3	88.1
Gulf	406.6	20.8	9.7	.9	---	1.0	439.0
Pacific	59.4	---	3.2	---	106.4	.9	169.9
Total	472.9	72.6	46.3	27.9	128.1	3.2	751.0
<u>July-June 1964/65</u>							
Coastal areas:							
Great Lakes	.8	15.0	7.3	4.9	4.7	---	32.7
Atlantic	5.0	22.0	4.6	3.2	7.5	.8	43.1
Gulf	390.4	30.7	4.6	1.2	---	.9	427.8
Pacific	47.1	---	3.8	2/	94.2	.1	145.2
Total	443.3	67.7	20.3	9.3	106.4	1.8	648.8
<u>July-June 1965/66</u>							
Coastal areas:							
Great Lakes	---	6.3	12.8	11.0	2.1	---	32.2
Atlantic	1.1	12.8	39.6	14.7	4.5	---	72.7
Gulf	457.8	28.1	11.1	8.0	.1	.3	505.4
Pacific	71.4	---	19.9	.2	94.8	.2	186.5
Total	530.3	47.2	83.4	33.9	101.5	.5	796.8
<u>July-June 1966/67</u>							
Coastal areas:							
Great Lakes	1.1	9.5	13.4	27.5	4.5	---	56.0
Atlantic	1.3	15.8	61.6	11.1	6.3	.8	96.9
Gulf	254.9	42.3	17.8	8.0	---	.3	323.3
Pacific	48.3	.1	25.1	.5	119.3	.1	193.4
Total	305.6	67.7	117.9	47.1	130.1	1.2	669.6

^{1/} Based on weekly reports of inspection for export. Does not include rail or truck movement to Canada or Mexico. ^{2/} Less than 50,000 bushels.



