

# MONTHLY REVIEW

## *Agricultural and Business Conditions*

TENTH FEDERAL RESERVE DISTRICT

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FEDERAL RESERVE BANK OF KANSAS CITY

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### ALFALFA DEHYDRATION

**Development** The proteins, vitamins, and minerals present in alfalfa make it one of the most useful livestock and poultry feeds. Until comparatively recent years, most alfalfa was usually sun cured in the field and stacked or baled for use as a reserve winter feed. As an excellent legume crop it is still widely used in most sections of the country as field cured hay. However, it has been known for a number of years that the haying process, or sun curing of alfalfa and other hay crops, destroys from 25 to 70 per cent of the feed value. Moreover, in some areas, the alfalfa crop if allowed to mature and cure in the field is subject to extensive weather damage, especially from heavy rains at the time of the first cutting in the spring. Thus, it has long been the goal of scientific experiments in growing, harvesting, and curing alfalfa to devise a method of retaining the high feed values present in green alfalfa and to provide the farmer with a means of saving his entire crop from weather damage. The process of dehydrating, or artificially removing the moisture from freshly cut green alfalfa, appears to approach a practical solution of these problems.

Records of the United States Department of Agriculture indicate that one of the first attempts at artificially drying forage crops took place in 1910. Following this experiment, very little was done toward perfecting a method of drying forage crops until 1920, when a dehydrating plant was constructed in Louisiana. It was not until about 1925, however, that an active interest developed in dehydrating alfalfa. About that time several large dairies throughout the country became interested in drying alfalfa, as well as other forage crops, for use as a dairy cattle feed. By 1930, a number of commercial alfalfa dehydrators were in operation. The first alfalfa dehydrator west of the Mississippi River, and probably the second commercial dehydrator of importance, was erected in Kansas in 1931. Since that time the use of dehydrated alfalfa has become so well established in commercial poultry feeds that the number of alfalfa dehydrating plants in operation has expanded enormously.

Practically all of the large alfalfa growing areas in Nebraska, Kansas, Oklahoma, and Missouri are now dotted with small and large dehydrating plants. The alfalfa sections of the western range states such as Wyoming, Colorado, and New Mexico are, as yet, not close enough to large commercial livestock and poultry feeding areas to make dehydration profitable. In these sections, the crop is more advantageously used as a winter feed for livestock. The production of alfalfa was increased sharply during the war years when the demand for concentrate feeds greatly exceeded existing supplies. In many areas, the acreage in 1947, although below wartime peaks, still exceeds prewar levels by a substantial margin. The alfalfa acreage and the number of alfalfa dehydration plants in states of the Tenth District are shown in the table below.

ESTIMATED ALFALFA ACREAGE AND NUMBER OF COMMERCIAL ALFALFA DEHYDRATION PLANTS, 1940 AND 1947

	Alfalfa Acreage		Dehydration Plants	
	1940	1947	1940	1947
Colorado.....	598,000	600,000	0	3
Kansas.....	464,000	950,000	6	90
Missouri.....	248,000	283,000	8	50
Nebraska.....	527,000	1,025,000	*	80
New Mexico.....	140,000	150,000	*	8
Oklahoma.....	242,000	411,000	4	16
Wyoming.....	309,000	334,000	0	0

\*Not available.

**Dehydrating Process** Dehydration of alfalfa consists simply of rapidly removing the water content of the freshly cut plant by the use of blasts of intense heat. The fresh, green alfalfa, containing from 65 to 75 per cent moisture, is cut and loaded on a truck or trailer in the field by a special harvester. The field machinery and labor required for harvesting the crop are furnished by the dehydration plant. After the green hay is cut and loaded, it is hauled directly to the plant and dumped into a conveyor chute, inside of which are cutters that chop the hay into small pieces. A machine that performs the chopping operation in the field has been developed but is not extensively used at the present time. The chopped green pulp is then dumped into a superheated rotating drum and dried to about five per cent moisture content in three to five minutes. Approximately

four tons of alfalfa hay are needed to produce one ton of dehydrated meal. The dried material is blown from the drum into storage bins, and in many plants it is further carried by conveyors to a hammer mill and ground into meal and sacked. Some companies continue the process even one step further and through a more refined milling technique separate the leaves from the coarser stems, thus securing a high-grade leaf meal, the protein content of which ranges from 20 to 24 per cent.

Almost all the drum type dehydrators in use in the Midwest are either the direct fired or the auxiliary furnace type. In the first instance, the green chopped hay in passing through the drum comes into direct contact with the flame, with temperatures ranging from 1,500 to 2,000 degrees Fahrenheit. Because of the high moisture content, however, the hay is not burned if care is taken in feeding the green alfalfa at the proper rate. In the other type of dehydrator, a separate furnace is used for burning the fuel and thus the hay is not directly exposed to the flame.

Practically all dehydration plants are located on railroad lines through the valleys of the Midwest where alfalfa is grown as a principal crop. An average sized plant must be located at a point where it has access to at least 1,500 acres of growing alfalfa. The usual dehydrating plant will employ about 10 men, the force consisting of a plant superintendent, a field superintendent, a machinist, a plant foreman, three plant workers, and three field workers. The average operating time of a plant in the Midwest is about 200 days per year, with the plant often operating 24 hours per day when weather conditions permit continuous harvesting.

Either the field superintendent or the plant superintendent generally spends a great amount of time in the early spring contacting farmers whose alfalfa acreage is within a 7- to 10-mile radius of the plant. A simple oral agreement is usually made between the superintendent and the grower whereby the plant agrees to harvest and dehydrate the farmer's entire alfalfa crop for the year. Each farmer's alfalfa is cut and dried separately. The tonnage of each lot is determined by weighing the meal on a dry basis and the quality is measured by a chemical analysis of the dehydrated product to determine the carotene (source of vitamin A) and protein content. The yield of dry meal, the quality of the meal, and the general level of selling prices currently realized by the plant for meal establish the price paid to the grower. The farmer will usually realize a premium for his product if it shows a high tonnage yield per acre and a high test of carotene and protein. It is usual that the first cutting will yield a rather inferior quality meal, as alfalfa in the spring of the year has large stems and the

cutting will frequently contain a high percentage of weeds. The highest quality meal is manufactured from the third cutting in the early fall, when the alfalfa has wide leaves, small stems, and is higher in protein and vitamin A.

**Feed Value** In addition to the generally recognized protein value, one of the most valuable properties of dehydrated alfalfa meal is its high carotene content. It is essential, therefore, that utmost care be exercised to retain as high a percentage of this vital food quality as possible. For this reason, alfalfa hay scheduled for dehydration is usually harvested somewhat earlier than that for regular sun curing, as less fiber and more carotene and protein are found at this time than later when the alfalfa is more fully matured. After dehydration, however, preservation of the carotene content of the meal in storage presents another vitally important problem, as experimental studies have shown varying losses of this source of vitamin A under different storage conditions. It has been demonstrated that dehydrated alfalfa meal in storage for as long as six months at 38 degrees Fahrenheit retained a much higher carotene content than that stored at room temperature for a like period. Some degree of success in retaining the carotene content has also been attained through various treatments of the hay before drying.

In recent years, farmers have become more and more inclined to buy ready-mixed nutritionally balanced feed rations for dairy cattle, beef cattle, poultry, and hogs. This marked tendency has largely been a result of favorable prices for livestock and poultry and the development of a high appreciation of the value of nutritionally balanced feeds. Alfalfa meal, whether dehydrated or sun cured, has come to occupy an important place as one of the essential contents of these feeds, particularly in poultry rations, and provides one of the most economical sources of many required animal nutrients for feed manufacture. Significantly, many authorities in the field of animal nutrition feel that dehydrated alfalfa will continue to have a place in the mixed feed industry, despite any downward adjustment of general feed prices that may occur.

**Industrial Aspects** Developments in the production and processing of alfalfa in recent years offer an outstanding example of the industrial utilization of an agricultural commodity. Dehydration plants are located at the source of their raw material: the small farm communities. Thus, as a manufacturing type of operation, they furnish what is popularly termed a rural industry, utilizing a farm product and providing local employment to workers



not now needed in the rapidly developing mechanized agriculture of this country. The combined efforts of agriculture and industry have provided beneficial results in the form of a better product, a demand for workers for a variety of operations, pay rolls that will be a sustaining factor in other local enterprises, and a market for industrial machinery. If, in fact, dehydrated alfalfa has established a permanent place for itself in the mixed feed industry, it appears that the "rural industry" aspect of the dehydration companies may prove to be one of the stabilizing economic influences so long sought for rural areas.

The declining price of alfalfa meal since the close of the war, however, has presented a serious problem for many of the high-cost dehydrator plants, which are faced with high fixed expenses, increasing variable costs, and a lower price for their product. Many of these operators, whose initial outlays have ranged from \$7,500 to \$12,000 for portable units mounted on trailers up to \$40,000 to \$90,000 for complete stationary units, are thus experiencing their first real competitive market and are seeking new and more efficient ways of providing the high quality dehydrated alfalfa product demanded by mixed feed dealers.

### BUSINESS AND AGRICULTURAL CONDITIONS

#### MEMBER BANK CONDITION

Loan volume of District country member banks increased by 36 per cent in the year ended June 25, while loan volume of District reserve city member banks increased by 27 per cent during that period. However, a decrease in loans for purchasing or carrying Government securities was an important offsetting factor in the city banks, and it was of little importance in the country banks. Excluding such loans, the rate of loan expansion in the city banks approximated that of the country banks. During the last six months of 1946 the rate of loan expansion in the city banks was materially higher than in the country banks. During the first six months of 1947 the situation was reversed, as city bank loan expansion leveled off and country bank loan expansion was slightly larger than during the last six months of 1946.

Government security holdings of District member banks showed a substantial decline during the past year. The decrease for the reserve city banks was 21 per cent, and for the country banks it was 8 per cent. In this connection also, there was a marked difference between the developments during the last half of 1946 and the first half of 1947. Government security holdings of the country banks decreased very little during the last six months of 1946, while most

of the decrease in city banks for the twelve months occurred during that period. On the other hand, country banks decreased their Government security holdings at a faster rate than the city banks during the first six months of 1947. The decrease in Government security holdings for both classes of banks was in excess of the amount of their holdings retired for cash by the United States Treasury, as additional securities were marketed in order to alleviate tightened reserve positions. On the whole, country banks did not do much selling of Government securities until 1947, and during the year as a whole did relatively less selling of Government securities than did the city banks.

Loans and investments of District city member banks decreased by 10 per cent during the period under review, as the contraction in Government security holdings was much larger than the increase in loan volume. District country member bank loans and investments expanded by 3 per cent during the year. Not only was the increase in country bank loans somewhat larger than the decrease in Government security holdings, but other investments in the country banks increased by 34 million dollars.

While total deposit volume of District reserve city member banks decreased by 7 per cent in the 12-

#### SELECTED ITEMS OF CONDITION OF TENTH DISTRICT MEMBER BANKS

	(In millions of dollars)								
	ALL MEMBER BANKS			RESERVE CITY BANKS			COUNTRY BANKS		
	June 25 1947	May 28 1947	Dec. 31 1946	June 25 1947	May 28 1947	Dec. 31 1946	June 25 1947	May 28 1947	Dec. 31 1946
Loans and investments.....	4,022	4,073	4,070	2,188	2,223	2,224	1,834	1,850	1,846
Loans and discounts.....	1,081	1,077	1,002	634	638	616	447	439	386
U. S. Government obligations.....	2,613	2,673	2,754	1,378	1,412	1,437	1,235	1,261	1,317
Other securities.....	328	323	314	176	173	171	152	150	143
Reserve with F. R. Bank.....	766	756	764	461	456	453	305	300	311
Demand balances with banks in U. S.....	615	590	685	265	249	294	350	341	391
Cash items in process of collection.....	226	210	253	211	196	233	15	14	20
Gross demand deposits.....	4,739	4,748	4,912	2,629	2,633	2,728	2,110	2,115	2,184
Deposits of banks.....	872	862	976	808	796	893	64	66	83
War loan accounts.....	43	89	101	20	39	61	23	50	40
Other demand deposits.....	3,824	3,797	3,835	1,801	1,798	1,774	2,023	1,999	2,061
Time deposits.....	662	662	650	358	358	351	304	304	299
Total Deposits.....	5,401	5,410	5,562	2,987	2,991	3,079	2,414	2,419	2,483
Borrowings from F. R. Bank.....	12	9	3	11	7	3	1	2	*

\* Less than \$500,000.

	BANK DEBITS		Change from '46	
	June 1947	6 Mos. 1947	June	6 Mos.
	(Thousand dollars)		(Per cent)	
<b>COLORADO</b>				
Colo. Springs.....	34,080	194,779	+14	+9
Denver.....	425,500	2,524,194	+16	+19
Gr. Junction.....	10,624	68,004	+18	+21
Greeley.....	15,383	98,874	+38	+33
Pueblo.....	32,079	193,604	+18	+26
<b>KANSAS</b>				
Atchison.....	14,065	82,860	+94	+58
Emporia.....	7,507	52,600	+9	+8
Hutchinson.....	27,376	211,870	-24	+12
Independence.....	6,754	38,467	+8	+13
Kansas City.....	56,316	339,414	+13	+20
Lawrence.....	9,231	54,110	-5	+14
Parsons.....	7,312	41,528	+19	+21
Pittsburg.....	10,116	58,508	+20	+20
Salina.....	28,094	189,199	0	+28
Topeka.....	78,144	469,225	-10	+16
Wichita.....	198,707	1,149,184	+16	+17
<b>MISSOURI</b>				
Joplin.....	24,301	148,552	-3	+7
Kansas City.....	858,386	5,277,127	+15	+26
St. Joseph.....	83,484	515,803	+64	+48
<b>NEBRASKA</b>				
Fremont.....	11,793	72,744	+40	+50
Grand Island.....	18,439	116,220	+16	+23
Hastings*.....	13,101	80,112	....	....
Lincoln.....	66,197	406,520	+4	+14
Omaha.....	441,311	2,699,922	+30	+26
<b>NEW MEXICO</b>				
Albuquerque.....	57,731	365,119	+6	+14
<b>OKLAHOMA</b>				
Bartlesville.....	59,919	335,960	+21	+27
Enid.....	48,773	213,635	-3	+36
Guthrie.....	3,251	22,997	+3	+17
Muskogee.....	18,404	124,993	+5	+20
Okla. City.....	261,199	1,537,095	+18	+20
Okmulgee.....	5,397	35,099	+15	+14
Tulsa.....	367,300	2,003,968	+26	+26
<b>WYOMING</b>				
Casper.....	18,313	109,634	+27	+30
Cheyenne.....	23,719	148,914	+3	+17
District, 33 cities..	3,329,205	19,920,722	+17	+23
U. S., 334 cities.....	94,474,000	538,461,000	+9	+5

\*Not included in total; new reporting center beginning November, 1946.

month period ended June 25, total deposit volume was essentially unchanged in the country banks, showing an increase of 0.2 per cent. The principal factor decreasing deposits in both classes of banks was Treasury withdrawals from war loan accounts, although loss of interbank deposits was also significant, particularly in the city banks. Demand deposits other than war loan and interbank increased at a somewhat higher rate in the country banks than in the city banks, the increases being approximately 6 per cent and 5 per cent, respectively. Time deposits expanded by 5 per cent in city banks during the year and by 4 per cent in country banks.

#### DEPARTMENT STORE TRADE

Dollar volume of sales at reporting department stores in this District in June was 4 per cent larger than a year ago, and sales for the first half of July showed an increase of about 6 per cent over last year. Sales declined considerably more than is usual during June, and the seasonally adjusted index of daily average sales dropped to 305 per cent of the 1935-39 average from the high level of 316 per cent in May.

The value of department store inventories showed another sharp decrease during June, the seasonally adjusted index of stocks declining to 248 per cent of the 1935-39 average compared with 267 per cent in May and the near-record level of 302 per cent last March. Outstanding orders increased somewhat during June. This was the first increase in orders since last January and only the second increase since July, 1946. The value of inventories on June 30 was 16 per cent larger than a year ago, while the dollar volume of orders outstanding was 55 per cent smaller than a year earlier.

Department store sales and stocks in leading cities:

	SALES		STOCKS
	June '47 comp. to June '46	6 Mos.'47 comp. to 6 Mos.'46	June 30,'47 comp. to June 30,'46
	(Per cent increase or decrease)		
Denver.....	+5	+13	+21
Pueblo.....	-4	+8	+8
Hutchinson.....	-1	+6	+22
Topeka.....	+4	+8	+30
Wichita.....	-2	-2	0
Joplin.....	+11	+13	+48
Kansas City.....	+5	+10	+8
St. Joseph.....	+3	+8	*
Omaha.....	0	+8	*
Oklahoma City.....	-1	+3	-1
Tulsa.....	+6	+6	*
Other cities.....	+15	+13	+46
District.....	+4	+8	+16

\*Not shown separately but included in District total.

#### INDUSTRIAL PRODUCTION

**Meat** The slaughter of cattle and calves in June, as measured by packers' purchases at leading District markets, was at a rate considerably higher than average for this season of the year. Purchases of both classes of livestock in June this year were about 42 per cent greater than the 10-year average for the month. Hog slaughter was about equal to the 10-year average. The decline in sheep numbers since 1942 continues to be reflected in the current rate of sheep and lamb slaughter, which in June was 9 per cent under the 10-year average for the month.

The demand for meat for domestic consumption remains exceptionally strong. The usual summer decline in consumer demand has not yet become apparent. On the contrary, the demand for meat actually appears to have increased in June and July as indicated by meat prices at the retail level. Generally, this counterseasonal trend seems to reflect the present high level of employment and wages and the relatively cool weather that has prevailed thus far this summer. It is estimated that meat supplies in the United States during 1947 will be from 150 to 155 pounds per person. Thus, the per capita supply will likely be higher than during the war years and well above the average of 134 pounds per person consumed from 1937 to 1941.



**Flour Milling** A flurry of domestic flour buying by bakers and other users about mid-July gave flour millers their first large volume sales in several months. A sharp drop in cash wheat prices enabled millers to reduce flour prices as much as 50 cents a hundredweight, with the result that buyers long out of the market flooded mills with sizable orders. A few days later, however, wheat prices moved to higher levels and flour prices were increased accordingly. Following mid-July, domestic sales were generally slow and the bulk of the sales were replacement orders from users that were carrying only small reserve stocks. Commercial export demand continued dull, although the Production and Marketing Administration purchased about 87 million pounds of flour in the week following July 4.

Southwestern flour milling operations in June averaged about 96 per cent of full-time capacity. By the middle of July, however, mills were operating at approximately 98 per cent of capacity. Flour production in June was 68 per cent greater than in June, 1946, the month in which the price control law expired and in which mills were still under restrictions permitting them to grind for domestic consumption only 75 per cent of the flour ground for this purpose in the corresponding month of 1945.

**Petroleum** The continued heavy demand for petroleum products is the combined result of many factors, the most important of which are exceptionally high levels of employment and income, rapid installation of Diesel engines and oil burners, widespread mechanization of farms, increased highway and off-the-highway consumption of gasoline, and greatly expanded industrial and foreign needs. It is estimated by the Bureau of Mines that demand for petroleum products for domestic consumption and for export will average approximately 5.7 million barrels during 1947—about 412,000 barrels a day greater than the demand during 1946.

To meet this demand, domestic production of crude oil is expected to average approximately 5 million barrels daily during 1947, with the balance being supplied through the output of natural gasoline and condensate and through imports. Although refining capacity to convert crude oil into finished products was about 5.6 million barrels a day on June 30 of this year, the absence of adequate transportation facilities to move crude oil and products to respective markets has been one of the main causes of localized shortages of petroleum products.

This condition is particularly true in the Middle West, where construction of pipe lines and refineries during the war did not expand as rapidly as in other sections of the country. Despite this relatively un-

favorable situation, the Midwestern portion of the petroleum industry is faced with an enormous farm market demand which has increased as a result of expanded utilization of labor-saving devices and a relatively higher level of purchasing power available to the farmer. The growing unbalance between supply and demand in the Middle West increased to such a point that in the latter part of June most of the large oil concerns were forced to announce plans for allocating gasoline supplies to many Midwestern dealers on the basis of 1946 deliveries. In addition, scattered price increases for crude oil as well as widespread bonus payments have been reported.

On June 30, the Department of Commerce reinstated controls on exports of critical materials, including crude oil and refined products. Since these controls were scheduled to expire only 24 hours later, Congress immediately passed a special resolution continuing the law for two weeks. On July 15, a new law which continued export controls until February 29, 1948, went into effect.

Estimated gross crude oil production based on reports of the Oil and Gas Journal and the Bureau of Mines:

	June 1947	6 Mos. 1947	Change from '46	
	(Thousand barrels)		June	6 Mos.
			(Per cent)	
Colorado.....	1,162	6,888	+13	+37
Kansas.....	8,478	50,572	+7	+8
Nebraska.....	17	112	-29	-22
New Mexico.....	3,182	19,062	+6	+6
Oklahoma.....	11,660	68,482	+5	+1
Wyoming.....	3,546	20,543	+10	+10
Six states.....	28,045	165,659	+6	+6
United States.....	153,196	889,775	+4	+5

**Employment** Total employment in the nation rose sharply in June, reaching a record high of 60,055,000 workers, according to early estimates released by the Census Bureau. This level of employment is about 1,730,000 higher than in May and 3,700,000 above June of last year. The labor market, however, was unable to absorb completely the increased number of persons seeking work during June, and as a result unemployment also rose sharply, reaching a total of 2,555,000 persons. The large influx of young people into the labor market with the beginning of the summer vacation period was largely responsible for these changes in both employment and unemployment. Nonagricultural workers increased 310,000 from May to June, while a more than seasonal upswing in farm activity during June accounted for a gain of 1,420,000 farm workers.

The employment situation in June was thus even more encouraging than in May, when total employment also showed an increase despite a decline of 160,000 factory workers. The May decline in manu-

facturing employment resulted largely from material shortages in the automobile industry, weakened demand for certain soft lines, and normal seasonal trends which seem to be conforming to prewar patterns in the textiles, apparel, and leather groups. Workers employed by construction contractors numbered 1.75 million in May, reaching a level equal to that of May, 1941, and only slightly below the post-war peak attained last fall.

Among the major labor market areas in the Tenth District, Lincoln was the only one reporting a relatively tight labor supply in May. This was a continuation of the situation that had prevailed in April and was largely a result of expanding needs in manufacturing and construction. Demand for clerical workers in the Lincoln area was expected to increase further in July, when a branch office of a large insurance company was scheduled to be opened. In the Denver area, the meat-packing and rubber industries showed decreased employment during May, but increases in other manufacturing activities were sufficient to counterbalance this loss and even account for a slight over-all gain in the number of workers in manufacturing industries. Moderate gains in manufacturing employment were reported during May in the Topeka, Wichita, and Hutchinson areas, with expectations for even further employment increases in the near future.

Estimates of total nonagricultural employment as reported by the Bureau of Labor Statistics:

	Apr.	Aver.	Change from '46	
	1947	4 Mos. 1947	Apr.	4 Mos.
	(Number)		(Per cent)	
Colorado.....	271,000	271,500	+6	+6
Kansas.....	338,000	337,200	+2	+2
Missouri.....	898,000	902,500	0	+3
Nebraska.....	238,000	240,800	-1	0
New Mexico.....	84,200	83,100	+4	+2
Oklahoma.....	335,000	338,200	-2	+1
Wyoming.....	59,800	59,400	+6	-5
Seven states.....	2,224,000	2,232,700	+1	+2
United States.....	41,823,000	41,880,000	+5	+7

### AGRICULTURE

**Crops** Winter wheat production in states of the Tenth District was estimated as of July 1 to be about 582 million bushels. This is 2 million bushels less than the June 1 estimate, but is still 28 per cent above the final 1946 production and 86 per cent greater than the average winter wheat crop from 1936 to 1945. The reduction during June is attributed to crop losses that have been experienced from floods, unusually late freezing weather, and hail. Substantially higher yields per acre account for a large portion of the increase in the prospective crop this year as compared with 1946.

In late June and continuing into July, shortages of combines, of gasoline for tractors, and of boxcars were causing wheat harvesting and marketing diffi-

culties throughout the heavy wheat producing areas. Wet weather caused undue delay in the usual rate of harvesting wheat in Texas and Oklahoma, so that in many areas in Kansas wheat was ready for the combines before the custom machines had completed their work to the south. Scattered showers and thunderstorms continued to occur in July throughout the Wheat Belt, further delaying operations one to three days. Otherwise, moisture and weather conditions were generally favorable for growing crops. With the exception of New Mexico and Oklahoma, June rainfall was substantially above normal, with precipitation in Colorado 188 per cent of normal, in Nebraska 222 per cent, and in Wyoming 249 per cent of normal. Corn made good growth in July and weather during the month permitted better cultivation than was possible before July 1. The Department of Agriculture on July 15 estimated a somewhat larger corn crop than on July 1, although corn production will still be much below a year ago. Both corn and sorghums show considerable variation in height throughout the District because of uneven planting dates.

Department of Agriculture winter wheat estimates:

	PRODUCTION			YIELD PER ACRE	
	Indic. 1947	Final 1946	Aver. '36-'45	Indic. 1947	Final 1946
	(Thousand bushels)			(Bushels)	
Colo.....	56,856	35,100	17,333	24.0	20.0
Kans.....	279,642	216,756	158,441	19.0	16.2
Mo.....	24,684	18,780	25,015	17.0	15.0
Nebr.....	94,292	89,723	49,024	22.0	23.0
N. Mex.....	10,378	2,648	2,761	16.5	8.0
Okla.....	111,490	88,262	57,681	16.5	14.5
Wyo.....	4,864	4,348	1,926	23.5	23.5
7 States.....	582,206	455,617	312,181	19.1	16.9
U. S.....	1,092,122	873,893	653,893	20.0	18.0

Grain markets continued to register strength, and prices worked gradually higher in June and July. The prospective record wheat crop has been largely discounted in cash and futures trading, largely because of the known intent of this country to purchase and export as much of the crop as is not needed for normal domestic consumption. Furthermore, the prospect for a short corn crop has caused the Government in certain instances to substitute wheat for corn in export allotments previously established for July and August. This large potential demand for wheat accounts, in part, for the tendency of some farmers to hold wheat in storage on farms. In many instances, however, wheat is undoubtedly being withheld from market for income tax purposes.

The lower range of Kansas City cash grain prices:

	July 16 1947	June 30 1947	May 31 1947	June 29 1946
No. 1 dk., hd. wheat, bu..	\$2.29½	\$2.14½	\$2.61¼	\$1.88½
No. 2 mixed corn, bu.....	2.12	2.03	1.84	1.42
No. 2 white oats, bu.....	.94	.98½	.98	.84¾
No. 2 rye, bu.....	2.65	2.65	3.05	1.50½
No. 2 barley, bu.....	1.65	1.56	1.61	1.30
No. 2 white kafir, cwt....	3.45	3.30	2.90	2.69½



**Livestock** The 1947 spring pig crop for the states in the Tenth District was 2 per cent larger than the 1946 spring crop and 3 per cent above the average from 1936 to 1945. For the country as a whole, the 1947 spring pig crop exceeded that of 1946 by 1 per cent and the average by 2 per cent. The number of pigs saved in the seven states this spring was estimated at about 8 million head. The average number saved from 1936 to 1945 was 7.7 million head. The number of sows farrowed was slightly greater this spring than during the spring of 1946 in all states of the District except Oklahoma, Colorado, and New Mexico. Only Wyoming and New Mexico showed increases over last spring in the number of pigs saved per litter. Thus, the slightly larger number of sows farrowing offset the adverse effect of the cold wet spring on the number of pigs saved per litter.

Reports of intentions to breed sows for farrowing this fall indicate that the fall pig crop in states of the Tenth District may be substantially larger than the

1946 fall crop but will still be somewhat below average. The estimated number of sows to be bred for fall farrowing in these states is 20 per cent greater than the number farrowing in the fall of 1946.

Department of Agriculture pig crop estimates:

	PIGS SAVED			SOWS FARROWED		
	Spring			Fall		
	1947	1946	Aver. '36-'45	1947*	1946	Aver. '36-'45
(In thousands)						
Colorado.....	226	248	274	26	21	36
Kansas.....	1,130	1,074	1,211	114	99	155
Missouri.....	3,045	2,922	2,755	439	357	380
Nebraska.....	2,916	2,823	2,604	148	118	158
New Mexico.....	50	65	66	5	5	10
Oklahoma.....	558	634	764	89	81	120
Wyoming.....	78	69	68	8	7	9
Seven states.....	8,003	7,835	7,742	829	688	868
United States... 53,151	52,392	51,871	5,152	4,725	5,268	

\*Number indicated to farrow from breeding intentions reports.

Livestock prices at principal markets of the District were generally strong to higher in June, with further advances shown in July. A few high quality grass fat steers sold at Kansas City in mid-July at \$26.00 per hundredweight. Up to mid-July, there had not been any large movement of grass fed cattle from the bluestem pastures of Kansas and Oklahoma. The start of the usual summer marketings of these cattle was expected to be delayed until near the end of July because of the late season this year. Considerable numbers of cattle in the Osage-Flint Hills pastures have been contracted for delivery to eastern points.

Top carlot livestock prices at Kansas City:

	July 16	June	May	June	June	June
	1947	1947	1947	1946	1945	1944
(In dollars per hundredweight)						
Beef steers.....	30.50	28.75	27.00	17.65	17.65	16.85
Stocker cattle.....	23.00	23.00	23.00	17.50	15.40	13.75
Feeder cattle.....	24.50	23.75	23.50	17.50	15.75	14.50
Calves.....	23.00	26.00	26.00	17.50	15.00	14.00
Hogs.....	26.50	25.30	24.75	14.55	14.50	13.55
Lambs.....	26.00	26.50	25.25	17.75	16.00	15.75
Slaughter ewes....	8.25	9.25	11.00*	9.00	7.85	8.75

\*Unshorn.

The volume of receipts of cattle and calves at principal markets in the District indicates that cattle numbers in the United States are continuing their steady decline begun in 1944. Receipts at these markets in June were 51 per cent above the 10-year average for that month. Moreover, marketings each month since January have measured from 20 to 50 per cent over the average for those respective months. Federally inspected slaughter of cattle in the entire country in June was 31 per cent greater than the 5-year average from 1942 to 1946. Liquidation of cattle numbers is being strongly encouraged by favorable market prices and by what appears to be sound farm and ranch management practice. Many operators are apprehensive of carrying indefinitely wartime numbers of feeding and breeding stock and are taking advantage of prevailing prices to reduce numbers to what is considered a more nearly normal level.

	RAINFALL		6 Mos. 1947	
	June 1947		Total Normal	
	Total	Normal	Total	Normal
(In inches)				
<b>COLORADO</b>				
Denver.....	2.34	1.38	10.33	7.62
Leadville.....	2.76	1.16	11.34	8.61
Pueblo.....	3.43	1.36	9.34	5.66
Lamar.....	0.91	2.14	7.83	7.67
Alamosa.....	0.31	0.53	3.60	2.62
Steamboat Springs....	3.28	1.41	13.47	12.68
<b>KANSAS</b>				
Topeka.....	5.25	4.00	19.19	15.51
Iola.....	5.25	5.05	26.95	19.20
Concordia.....	8.58	4.15	18.23	12.64
Salina.....	3.80	4.50	16.61	13.78
Wichita.....	2.57	4.58	16.60	15.78
Hays.....	6.98	4.09	16.17	11.80
Goodland.....	2.95	2.77	9.31	8.93
Dodge City.....	3.53	3.19	13.47	10.13
Elkhart.....	1.79	2.37	9.90	8.22
<b>MISSOURI</b>				
St. Joseph.....	11.43	4.95	26.09	18.27
Kansas City.....	8.19	4.68	26.52	17.18
Joplin.....	6.92	6.00	29.25	23.10
<b>NEBRASKA</b>				
Omaha.....	10.81	4.56	23.54	13.80
Lincoln.....	9.95	4.32	20.62	13.79
Norfolk.....	7.86	4.73	15.60	14.24
Grand Island.....	7.58	3.99	15.71	13.26
Culbertson.....	8.18	3.27	15.01	10.29
North Platte.....	4.87	3.22	10.09	9.84
Bridgeport.....	9.97	2.51	13.67	8.78
Valentine.....	6.81	2.87	13.40	9.59
<b>NEW MEXICO</b>				
Clayton.....	2.09	1.80	9.22	6.70
Santa Fe.....	0.38	1.16	4.12	5.41
Farmington.....	0.01	0.35	2.47	3.46
<b>OKLAHOMA</b>				
Tulsa.....	5.01	4.45	23.49	19.84
McAlester.....	5.53	4.55	21.81	23.07
Oklahoma City.....	2.07	3.67	22.93	16.12
Pauls Valley.....	6.67	4.39	22.56	18.66
Hobart.....	2.50	3.54	18.47	13.95
Enid.....	1.56	4.02	18.50	15.05
Woodward.....	1.95	3.45	15.54	12.63
<b>WYOMING</b>				
Cheyenne.....	3.75	1.61	9.53	8.11
Casper.....	3.11	1.38	9.66	8.10
Lander.....	6.88	1.15	14.82	7.85
Sheridan.....	5.02	2.04	12.51	9.32

## NATIONAL SUMMARY OF BUSINESS CONDITIONS

By the Board of Governors of the Federal Reserve System

Industrial production declined somewhat further in June and the early part of July. Value of retail trade continued to show little change, after allowance for seasonal changes. Prices of commodities traded in the organized markets generally advanced and prices of coal and iron and steel were increased.

## INDUSTRIAL PRODUCTION

Total output of manufactures and minerals, as measured by the Board's seasonally adjusted index, which reached a postwar peak of 190 per cent of the 1935-39 average in March, had declined to 183 by June and a further reduction is indicated in July.

Durable goods production continued to decline slightly in June, reflecting mainly further small reductions in demand for various metals and metal products and building materials. Automobile passenger car production, however, which has been limited by the available supply of steel sheets, increased in June. In July the rate of automobile production was reduced again, reflecting partly a temporary curtailment in supplies of steel. Production of steel was curtailed in the early part of July as a result partly of uncertainties surrounding the signing of a new wage contract in the bituminous coal industry, but at the end of July steel operations again were scheduled at a rate of 94 per cent of capacity.

Contraction in nondurable goods production continued in June, reflecting chiefly earlier declines in domestic demands for these goods as well as some slackening in export demands. Further reductions in output in the textile industry accounted for most of the decline in June, but there were also decreases in activity in most other nondurable goods lines except meat packing, petroleum refining, and newsprint consumption.

Production of minerals decreased somewhat in June as a decline in production of bituminous coal more than offset gains in output of anthracite and crude petroleum.

## EMPLOYMENT

Employment in most types of nonagricultural establishments continued to show little change in June, after allowance for seasonal changes. Further reductions in employment in the textile and rubber industries were offset by increased employment in automobile plants and in some nonmanufacturing lines.

## CONSTRUCTION

Value of construction contracts awarded, as reported by the F. W. Dodge Corporation, declined 10 per cent from May to June, reflecting chiefly a further decrease in awards for most types of private construction. Awards for public construction, following increases in earlier months of the year, showed little change. New dwelling units started, according to preliminary estimates of the Bureau of Labor Statistics, continued to increase in June and amounted to 75,000 units as compared with 65,000 in June, 1946.

## DISTRIBUTION

Department store sales in June and the first three weeks of July showed about the usual seasonal decline and were 6 per cent greater than in the same period last year. The Board's seasonally adjusted index of sales was about 290 per cent of the 1935-39 average in May and June as compared with 270 during the first four months of the year. Value of sales at most other retail stores, after allowance for seasonal changes, has been slightly lower in recent months than during the first quarter of the year.

## COMMODITY PRICES

Prices of commodities traded in the organized markets generally advanced somewhat in June and the early part of July. Prices of coal, pig iron, and various steel products were also increased in this period. Wholesale prices of chemicals and some other products were reduced. Toward the end of the month prices of wheat and cotton declined considerably.

Retail prices of foods increased somewhat in June and the consumers' price index of the Bureau of Labor Statistics, at 157 per cent of the 1935-39 average, was slightly above the March peak.

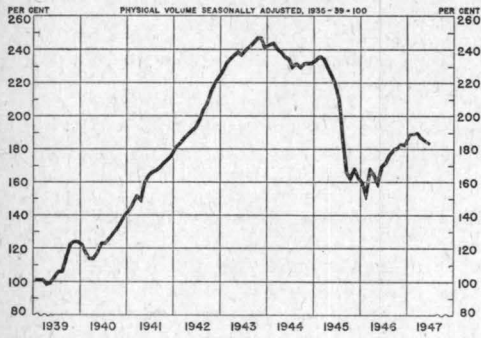
## TREASURY FINANCE AND BANK CREDIT

On July 2, the Federal open market committee of the Federal Reserve System directed the Federal Reserve Banks to terminate the policy of buying all bills offered at the fixed rate of  $\frac{3}{8}$  per cent and to terminate the repurchase option privilege on Treasury bills; the new policy applied to bills issued on or after July 10. The average rates bid on the weekly bill offerings rose to .74 per cent for the issue of July 24.

Additions to monetary gold stock during June and the first three weeks of July, together with a return flow of currency from circulation during July following a seasonal increase prior to July 4, resulted in a growth in member bank reserve balances. Required reserves increased, reflecting a further growth in deposits at member banks.

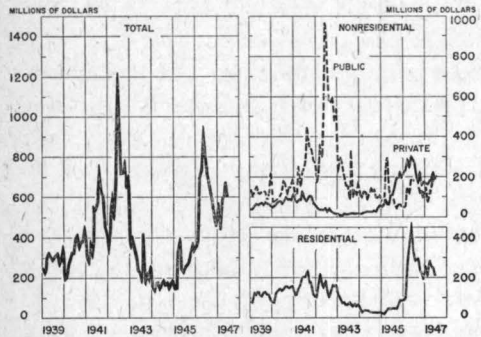
Commercial and industrial loans at banks in leading cities outside New York increased somewhat between early June and mid-July, following a decline which had been in progress since early April. Real estate and consumer loans continued to increase. Government security holdings at banks in leading cities increased by over 600 million dollars between June 4 and July 16 with most of the additions at New York City banks.

## INDUSTRIAL PRODUCTION



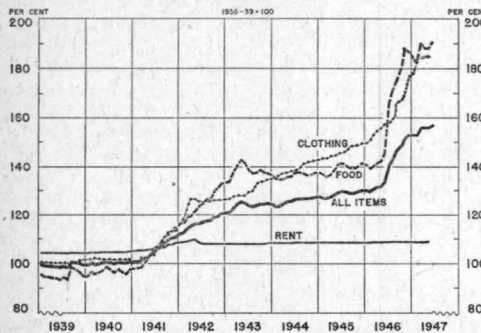
Federal Reserve index. Monthly figures, latest shown is for June, 1947.

## CONSTRUCTION CONTRACTS AWARDED



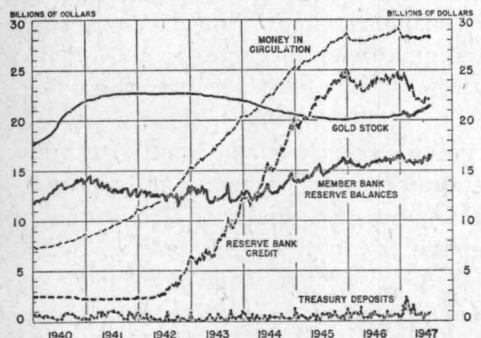
F. W. Dodge Corporation data for 37 Eastern States. Nonresidential includes awards for buildings and public works and utilities. Monthly figures, latest shown are for June, 1947.

## CONSUMERS' PRICES



Bureau of Labor Statistics' indexes. "All items" includes housefurnishings, fuel, and miscellaneous groups not shown separately. Midmonth figures, latest shown are for June, 1947.

## MEMBER BANK RESERVES AND RELATED ITEMS



Wednesday figures, latest shown are for July 23, 1947.