

MONTHLY REVIEW

Agricultural and Business Conditions

TENTH FEDERAL RESERVE DISTRICT

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FEDERAL RESERVE BANK OF KANSAS CITY

JUNE 30, 1947

KANSAS AND OKLAHOMA BLUESTEM PASTURES

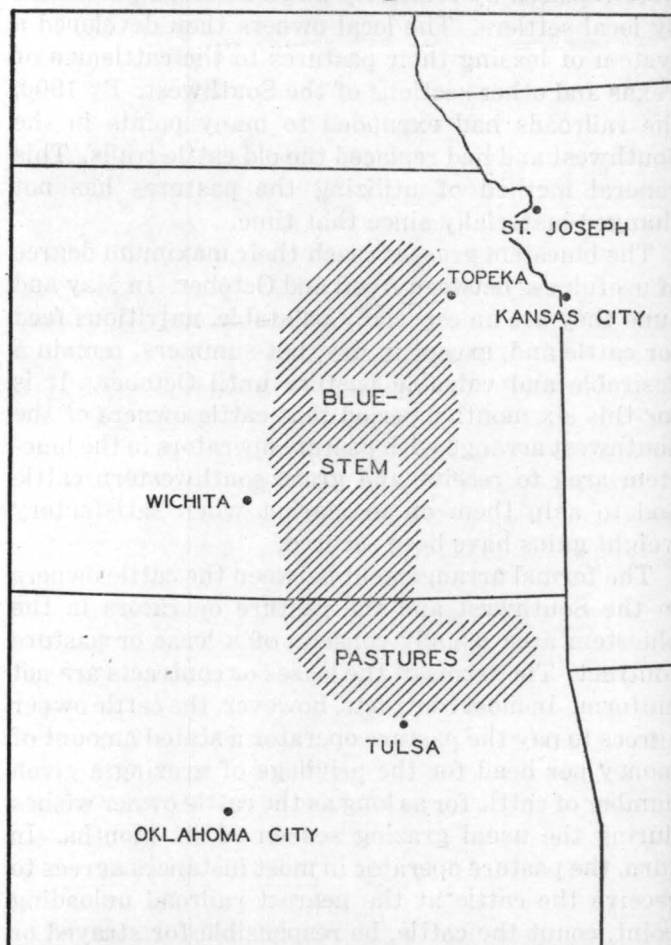
Location The shaded area on the accompanying map represents the Flint Hills bluestem pastures of Kansas and the Osage bluestem pastures of Oklahoma and comprises one of the most valuable cattle pasture sections in the United States. Comparatively few areas in the country produce highly finished beef on grass alone. The four million acres of bluestem pastures of Kansas and Oklahoma, however, turn out yearly almost one half million head of strictly grass fattened beef cattle. In many instances, two- and three-year-old steers from the ranges of the Southwest are grazed on this unusual grass from four to six months and marketed as finished slaughter cattle. The reputation of the bluestem pastures as a beef producer is clearly indicated by the fact that they are filled to capacity with cattle almost every spring, whether market prices are high or low.

The name bluestem pastures is derived from the type of grass that is the natural and original vegetative covering of the land in the area. The big and little bluestem grasses formed large sections of the prairie sod that covered part of the eastern Great Plains states when they were settled by the pioneers. The area in eastern Kansas and Oklahoma that remains unbroken by the plow is probably the most productive of the original grass lands. The bluestem grasses appear to reach their highest forage value in this region, which covers some twelve to fifteen counties in Kansas and parts of seven counties in Oklahoma. To the west, where a more arid climate persists, these grasses rapidly lose their grazing value, becoming more fibrous and tough except early in the growing season. Eastward, the change in forage value is somewhat more gradual, and bluestem east of the Appalachians does not furnish a desirable pasture.

It has been estimated that the best bluestem pasture in Kansas and Oklahoma is made up of about 95 per cent grasses and 5 per cent weeds. The principal grasses are big bluestem, little bluestem, side oat gamma, Indian grass, and Kentucky blue grass. However, big and little bluestem comprise well over half of the grasses present. Big bluestem has a rather

coarse root system and is, therefore, not highly drought resistant. For this reason, it usually grows in valleys and in low sheltered ravines where a supply of subsoil moisture is likely to be present. On the other hand, little bluestem is a bunch grass having a fine, very much divided root system and is, thus, considerably more drought resistant. It is the dominant grass on much of the upland pastures where big bluestem cannot survive. Both grasses otherwise have about the same growing habits and feeding value.

The topography of the bluestem area varies in different sections from gently rolling to rough and broken. Almost the entire region has numerous out-



croppings of limestone which are constantly weathering away. Consequently, generous quantities of calcium, phosphorus, iron, and other minerals are distributed over the soil by rainfall. This unending process maintains the mineral content of the soil, replenishing the supply of available nutrients for the growing grasses. The result is that each spring the hills and valleys of the area are covered with a bountiful supply of succulent grass, rich in proteins and minerals. Most authorities agree that this is the secret of the beef-making value of the Flint Hills-Osage bluestem pastures of Kansas and Oklahoma.

Pasture Leasing In the late 1860's the cattle drives of the Southwest began their brief period of history. In the northward movement of cattle to the most accessible railroad shipping points, frequently the herds were driven through parts of the bluestem areas of Kansas and Oklahoma. Taking note of the grazing value of this lush pasture area, the owners soon began to start their cattle northward earlier in the spring and allowed them to graze through the summer on the bluestem pastures. Shortly afterward, as the value of these pastures became more apparent, the free pastures disappeared and were replaced by relatively large holdings purchased by local settlers. The local owners then developed a system of leasing their pastures to the cattlemen of Texas and other sections of the Southwest. By 1900, the railroads had expanded to many points in the Southwest and had replaced the old cattle trails. This general method of utilizing the pastures has not changed materially since that time.

The bluestem grasses reach their maximum degree of usefulness between April and October. In May and June they are an especially palatable, nutritious feed for cattle and, except in dry, hot summers, remain a desirable and valuable pasture until October. It is for this six months' period that cattle owners of the Southwest arrange with pasture operators in the bluestem area to receive and graze southwestern cattle and to ship them on to market when satisfactory weight gains have been secured.

The formal arrangement between the cattle owners in the Southwest and the pasture operators in the bluestem area usually consists of a lease or pasture contract. The terms of the leases or contracts are not uniform. In most contracts, however, the cattle owner agrees to pay the pasture operator a stated amount of money per head for the privilege of grazing a given number of cattle for as long as the cattle owner wishes during the usual grazing season of six months. In turn, the pasture operator in most instances agrees to receive the cattle at the nearest railroad unloading point, count the cattle, be responsible for strayed or

stolen cattle, furnish salt, keep up fences, furnish water, and otherwise care for the cattle. He also makes a commitment as to how many acres of pasture are to be allotted to each head of cattle during the grazing season. The agreement generally provides that the pasture operator will ship the cattle to market at the close of the grazing season, or when directed to do so by the cattle owner. The charge per head for the season in recent years has varied from \$5 to \$16 depending upon the quality of the grass in different sections of the area. This charge also varies from year to year, moving up or down with changes in the level of cattle prices. The charge per head rose as high as \$21 following World War I. The highest price reported for the 1947 season was \$16 per head in Wabaunsee County, Kansas.

In some instances, the cattlemen of the Southwest have shipped their cattle into the same pastures year after year and thus have dealt with only one or two pasture owners in the bluestem area. In such cases, there is little difficulty in reaching an agreement for the use of the pasture. On the other hand, many pastures are contracted for by a different cattle owner every year. The two parties to the contract are often brought together through a local banker, stockman, commission firm, or a special leasing agent, with the contract simply being mailed to both parties for their signatures. In general, terms of the contract are faithfully observed, with only rare instances of negligence occurring on the part of either party.

The financing required by both the cattle owners and pasture operators is so varied that no accurate and complete summary is possible. Banks and other lenders in the Southwest often complete loans to the cattlemen for the purchase of cattle. Likewise, production loans are sometimes extended by lenders in the bluestem area or by those located at the terminal livestock market where the cattle will eventually be sold. The amounts of the loans made range from 50 to 100 per cent of the current value of the livestock purchased, depending upon the borrower's ability as a cattleman, his total assets, and other factors which determine his credit standing. Loans are generally secured by a chattel mortgage on the cattle. Interest rates usually vary from 5 to 8 per cent. Loans frequently are granted to the pasture operator for the purpose of meeting family living expenses until the receipts from the pasture lease are realized. In addition, many operators require loans to carry on pasturing operations and to buy feed when pasture conditions make it necessary. In such instances, a second lien is usually placed by the owner on the cattle or by the pasture operator on other security offered, the loan or loans being liquidated as in the case of the prior liens at the time the cattle are marketed.

In-Movement of Cattle The actual movement of the cattle from Texas and other southwestern areas usually begins in March and April. A study of the bluestem pastures made several years ago indicates that perhaps from two thirds to four fifths of the cattle arriving in the area originate in Texas. In years when spring comes early, some pastures in the southern portion of the area are in condition for grazing between April 1 and 15. To the north the opening grazing date usually falls between April 15 and May 1. Probably well over half of the cattle in the area every summer are shipped in by the cattlemen of the Southwest. At the same time, a considerable number of pasture owners and operators purchase southwestern cattle for their own account. In many instances, they utilize part of their pastures in handling their own stock and lease the remainder to other local stockmen or to cattlemen in the Southwest. Steers averaging about three years old or over form the principal class of cattle shipped in although younger heifers and steers will be grazed from time to time by a few cattlemen. The Hereford is the dominant breed of cattle grazed in the area, with Texas Coastal Plains cattle ("Coasters"), Brahma grades, Hereford-Shorthorn crosses, mixed Hereford-Short-horn and "Coaster" crosses, and Mexican cattle comprising the balance of the breeds usually present in the summer.

With his bluestem pasture contracted for several weeks or months previously, the owner in the Southwest loads the cattle into railroad cars and ships them to the pasture operator. Some owners prefer to make the trip with the cattle, while others depend upon railroad employees to care properly for the cattle in transit. The pasture operator must then be prepared to receive the shipment at the nearest railroad unloading pens. From that point he must provide the facilities and labor to move the cattle into pasture and otherwise begin to fulfill the terms of the contract with the cattle owner.

The majority of the cattle received in this manner are shipped in for the summer grazing season of four to six months. However, cattle move into and out of the area every month in the year, the largest in-movement being in April and the largest out-movement being in September. The movements during the balance of the year consist of the relatively small numbers of breeding and stock cattle that are wintered on the valley farms. Under certain conditions, cattlemen of Texas and the Southwest ship cattle into the bluestem area for wintering on pasture, protein concentrates, and roughage. Probably no more than 50,000 to 75,000 head a year are handled in this type of operation. The number shipped in each winter for this purpose will depend in part upon the amount of

pasture, feed, and water that is available in the bluestem area and in part on the condition of the ranges in the Southwest. If there is sufficient grass, feed, and water on southwestern ranges, the tendency is for the cattle owners to winter their cattle at home rather than ship them north.

During the summer the cattle are allowed to graze freely within the allotted pastures. They receive no other feed except in dry seasons when the protein content of the grass becomes so depleted that the feeding of a protein concentrate such as cottonseed meal or cake is ordinarily advisable. Experiments conducted at the Oklahoma Agricultural and Mechanical College show that there is normally little advantage in feeding concentrates to cattle grazing on bluestem until after about July 15. Until that date, the added expense of supplemental feeding is not justified since the cattle receiving concentrates gain no more weight than those on grass alone.

Cattle will gain from one to two pounds a day on bluestem grass and have put on as much as three hundred pounds during the summer grazing season. The cost of putting one hundred pounds of gain on steers in the bluestem pastures of Chase County, Kansas, has varied from \$2.60 to \$8.30 per head, depending upon the age and weight of the animals as they were turned onto pasture. Cattle that are two or more years old will make more profitable gains than younger cattle. This fact accounts for the dominance of two- and three-year-old steers utilizing the bluestem pastures each season. In somewhat comparable experiments dealing with the dry lot feeding of cattle, two-year-old steers that were fed corn, legume, and mixed hay for a period of slightly over five months averaged a daily gain of 2.4 pounds. This amounted to an average total gain of 389 pounds with the feed cost per 100 pounds of gain amounting to \$12.07.

Out-Movement of Cattle As a matter of common practice, the pasture owner inspects from time to time the cattle grazing on his pasture, determining their condition, weight, and finish. He must also be sure that the pasture is furnishing enough feed to keep the cattle gaining weight. When a part or all of them have gained the weight and degree of finish desired, the owner is generally notified.

The date selected by the owner for moving the cattle to market is largely determined by the condition of the pasture, the condition and finish of the cattle, and the price being paid currently for grass fattened cattle. A high market price tends to encourage early marketing in July and August. A low price, conversely, tends to cause the owners to hold the cattle on pasture until later in the season. Dry weather early in the season rapidly lowers the grazing

value of the pastures and encourages early marketing. Good weather that helps to keep the grass in excellent grazing condition until late in the season encourages delayed marketing. Knowing that his cattle are in condition for marketing, the owner has only to reach a decision as to price and pasture conditions. When he decides that circumstances are favorable, instructions are forwarded to the pasture operator to ship the cattle to a terminal market. Some times, if the opportunity arises, the stock may be sold to a country buyer.

The movement of cattle out of the bluestem area usually starts in July when the dry, hot summer weather begins to deplete the grazing value of pastures. Although cattle may still be profitably grazed after July, the rate of gain is somewhat slower because of the gradual lowering of the protein content of the grass. The peak of the shipments usually occurs in September. The marketing of practically all of the cattle on leased pastures is completed by the last of October.

The average weight of steers marketed from the area is generally about as follows: aged fat steers, 1,200 to 1,300 pounds; aged half-fat steers, 1,125 to 1,225 pounds; aged feeder steers, 1,025 to 1,100 pounds; grass-fat two-year-old steers, 1,000 to 1,100 pounds; and feeder steers, 900 to 975 pounds. The principal markets for cattle coming out of the bluestem pastures are Kansas City, Wichita, St. Joseph, and East St. Louis, with some of the heavier and better finished steers weighing 1,300 pounds or more going as far as Chicago.

When the cattle are sold, the funds are paid to the cattle owner or portions may be disbursed directly to the pasture operator and to the financing agent if a loan is involved. The pasture operator receives payment at a stated amount per head for grazing the stock regardless of whether the cattle remained on the pasture for two months or six months. He is also paid for any expense incurred in handling and re-shipping the cattle that is not provided for in the pasture contract. Loans that may have been secured by the owner to purchase and carry the stock prior to pasturing are repaid. The balance of the funds, after deducting shipping and other costs, represents the net return to the cattle owner, and the chain of processes involved in pasturing cattle in the bluestem area of Kansas and Oklahoma is complete.

Pasture Management Since the largest influx of cattle into the area occurs at the beginning of the growing season, it is necessary to allot a sufficiently large number of acres of pasture per head of cattle to prevent overgrazing during the period of early growth of grass. The average allot-

ment varies from four to five acres per head in the northern part of the area to seven to nine acres per head in Osage County, Oklahoma. As the season develops, many of the conservatively managed pastures actually become understocked. This is particularly true in June and July when the grasses are growing rapidly. By mid-July some cattle have reached market condition and are shipped to market. This further reduces the grazing load on the pasture and allows the grass to make top growth and store plant food in the roots. Experience in both dry and wet years has shown this type of pasture management to be generally sound.

At the same time, this general system of management fails to make the most efficient use of the year's crop of grass. The large top growth that has accumulated by the close of summer does not allow uniform grazing of the pasture at the beginning of the next season, as the cattle will seek sections where the new growth is not covered with old grass. This fact has encouraged pasture operators either to carry cattle through the winter in order to use this excess forage or to burn off the pasture early the next spring. Many operators prefer the latter procedure, since burning warms the soil and stimulates an early growth of new grass. It is interesting to note that a large number of cattle owners who lease these pastures will not permit their stock to be grazed on pastures that have not been burned.

There is some difference of opinion as to how much, if any, the carrying capacity of the bluestem pastures has declined since they first began to be used extensively. Agronomists point to old grazing records made prior to 1900 which indicate that these pastures at that time were stocked at the rate of two acres for a mature cow or steer. By 1933, they report the best pastures could carry only one animal on four acres for a grazing season of six months. The average capacity for the area in 1940 is said to have been seven acres per animal. On the other hand, several pasture owners state that pasture conditions are now as good as, if not better than, in 1920. In looking at good bluestem pastures today, these men find it impossible to visualize the grass growing any thicker or greener in 1900. It is known that in early years many of the pastures were heavily overstocked and that some deterioration was the result. However, there appears to be some evidence to the effect that, with scattered exceptions, much of the damage done to the pastures in the early years has subsequently been repaired by the weather and the more conservative pasture management practices of recent years.

Many pasture owners in the area are apprehensive of a return of dry years similar to 1934 and 1936. In those years, the poorly managed pastures, as might be

expected, suffered the greatest degree of damage. At that time, it was the considered opinion of a number of owners of excellent grass land that much of the grass was killed by the drought and would never regain its former state of hardness. In subsequent years, however, the combination of favorable weather and conservative grazing resulted in a remarkable recovery of the grass plants, and by 1940 most of the pastures were considered to be in about normal condition. Nevertheless, there are still numerous hold-

ings that have been continuously overgrazed and badly managed, and some few pastures on the fringe of the area are in an almost hopeless state of depletion.

Considerably more technical knowledge is now at hand to guide the users of bluestem pastures than was available thirty years ago. Experiments, research, and practical experience have developed a great fund of information concerning the physiology of grass plants, soil chemistry, systems of pasture management, and range and soil conservation.

BUSINESS AND AGRICULTURAL CONDITIONS

MEMBER BANK CONDITION

During May, loans of the District country member banks continued their recent high rate of expansion. An increase of 13 million dollars brought the expansion for the first five months of the year to 53 million dollars, or 14 per cent. Although Government security holdings of these banks declined during the month, loans and investments combined increased by 7 million dollars. However, total deposit volume declined by 27 million dollars. The decline in deposits was met by decreasing cash balances, chiefly through reducing demand balances with other commercial banks. Total deposit volume of the District country member banks was 64 million dollars lower at the end of May than at the beginning of the year, and demand deposits other than interbank and war loan were down by 62 million.

The loan volume of the District reserve city member banks also expanded during May, but the increase of 5 million dollars was relatively much smaller than in the country banks. The slower rate of loan expansion in the District city banks, compared with District country banks, is in line with recent months, as loan volume expansion of the city banks during 1947 has been less than 4 per cent. Interbank deposits of the District city banks declined by 42 million dollars during May, but demand deposits other than interbank and war loan accounts showed an increase of 33 million dollars. During the first five months of 1947 total

deposit volume of the District reserve city member banks contracted by 88 million dollars. Interbank deposits and war loan accounts decreased by 97 million and 22 million, respectively, but other demand deposits increased by 24 million dollars and time deposits by 7 million.

DEPARTMENT STORE TRADE

Dollar volume of sales at reporting department stores in this District in May was 11 per cent larger than in the corresponding month a year ago, and sales for the first half of June showed an increase of 7 per cent over last year. However, when price increases are taken into account, it is probable that the physical volume of sales is below the level of a year ago. Sales increased sharply during May, and the seasonally adjusted index of daily average sales rose to 316 per cent of the 1935-39 average as compared with the record high of 321 per cent last September.

The retail value of department store inventories at the end of May was one third larger than a year earlier. Increased tightening of inventory controls, however, is indicated by declines in the seasonally adjusted index of stocks the past two months. In March, the index of stocks was at a near-record level of 302 per cent of the 1935-39 average, but in April it was down to 282 per cent and by May to 266 per cent, as stocks began to be affected by continued sharp reductions in outstanding orders. The volume of orders outstanding at the end of May was 50 per cent

SELECTED ITEMS OF CONDITION OF TENTH DISTRICT MEMBER BANKS

| | ALL MEMBER BANKS | | | RESERVE CITY BANKS | | | COUNTRY BANKS | | |
|---|--------------------------|------------------|-----------------|--------------------|-----------------|-----------------|----------------|-----------------|-----------------|
| | May 28 1947 | Apr. 30 1947* | Dec. 31 1946 | May 28 1947 | Apr. 30 1947 | Dec. 31 1946 | May 28 1947 | Apr. 30 1947 | Dec. 31 1946 |
| | (In millions of dollars) | | | | | | | | |
| Loans and discounts..... | 1,077 | 1,059 | 1,002 | 638 | 633 | 616 | 439 | 426 | 386 |
| U. S. Government obligations..... | 2,673 | 2,686 | 2,754 | 1,412 | 1,417 | 1,437 | 1,261 | 1,269 | 1,317 |
| Other securities..... | 323 | 323 | 314 | 173 | 175 | 171 | 150 | 148 | 143 |
| Reserve with F. R. Bank..... | 756 | 767 | 764 | 456 | 460 | 453 | 300 | 307 | 311 |
| Demand balances with banks in U. S. | 590 | 622 | 685 | 249 | 252 | 294 | 341 | 370 | 391 |
| Cash items in process of collection.... | 210 | 219 | 253 | 196 | 204 | 233 | 14 | 15 | 20 |
| Gross demand deposits..... | 4,748 | 4,795 | 4,912 | 2,633 | 2,652 | 2,728 | 2,115 | 2,143 | 2,184 |
| Deposits of banks..... | 862 | 909 | 976 | 796 | 838 | 893 | 66 | 71 | 83 |
| War loan accounts..... | 89 | 107 | 101 | 39 | 49 | 61 | 50 | 58 | 40 |
| Other demand deposits..... | 3,797 | 3,779 | 3,835 | 1,798 | 1,765 | 1,774 | 1,999 | 2,014 | 2,061 |
| Time deposits..... | 662 | 660 | 650 | 358 | 357 | 351 | 304 | 303 | 299 |
| Total deposits..... | 5,410 | 5,455 | 5,562 | 2,991 | 3,009 | 3,079 | 2,419 | 2,446 | 2,483 |
| Borrowings from F. R. Bank..... | 9 | 4 | 3 | 7 | 4 | 3 | 2 | ** | ** |

* Revised. ** Less than \$500,000.

| | BANK DEBITS | | Change from '46 | |
|------------------------|--------------------|----------------|-----------------|--------|
| | May 1947 | 5 Mos. 1947 | May | 5 Mos. |
| | (Thousand dollars) | | (Per cent) | |
| COLORADO | | | | |
| Colo. Springs..... | 31,145 | 160,699 | +4 | +8 |
| Denver..... | 412,080 | 2,098,694 | +13 | +19 |
| Gr. Junction..... | 10,894 | 57,380 | +19 | +22 |
| Greeley..... | 15,953 | 83,491 | +38 | +33 |
| Pueblo..... | 29,825 | 161,525 | +10 | +27 |
| KANSAS | | | | |
| Atchison..... | 12,487 | 68,795 | +100 | +53 |
| Emporia..... | 8,700 | 45,093 | +6 | +8 |
| Hutchinson..... | 30,595 | 184,494 | +13 | +20 |
| Independence..... | 6,392 | 31,713 | +7 | +14 |
| Kansas City..... | 55,991 | 283,098 | +19 | +22 |
| Lawrence..... | 8,937 | 44,879 | +23 | +19 |
| Parsons..... | 6,894 | 34,216 | +23 | +21 |
| Pittsburg..... | 9,829 | 48,392 | +37 | +20 |
| Salina..... | 28,370 | 161,105 | +42 | +34 |
| Topeka..... | 76,823 | 391,081 | +20 | +22 |
| Wichita..... | 167,493 | 950,477 | +17 | +17 |
| MISSOURI | | | | |
| Joplin..... | 23,832 | 124,251 | +7 | +9 |
| Kansas City..... | 864,093 | 4,418,741 | +24 | +28 |
| St. Joseph..... | 84,325 | 432,319 | +63 | +46 |
| NEBRASKA | | | | |
| Fremont..... | 12,250 | 60,951 | +48 | +52 |
| Grand Island..... | 22,440 | 97,781 | +45 | +25 |
| Hastings*..... | 13,925 | 67,011 | | |
| Lincoln..... | 69,960 | 340,323 | +20 | +16 |
| Omaha..... | 456,207 | 2,258,611 | +30 | +26 |
| NEW MEXICO | | | | |
| Albuquerque..... | 55,979 | 307,388 | +9 | +16 |
| OKLAHOMA | | | | |
| Bartlesville..... | 64,172 | 296,041 | +30 | +28 |
| Enid..... | 29,298 | 164,862 | +32 | +53 |
| Guthrie..... | 3,994 | 19,746 | +25 | +19 |
| Muskogee..... | 19,539 | 106,589 | +10 | +23 |
| Okla. City..... | 260,142 | 1,275,896 | +18 | +20 |
| Okmulgee..... | 5,641 | 29,702 | +14 | +14 |
| Tulsa..... | 348,479 | 1,636,668 | +27 | +26 |
| WYOMING | | | | |
| Casper..... | 18,562 | 91,321 | +31 | +30 |
| Cheyenne..... | 21,226 | 125,195 | +15 | +20 |
| District, 33 cities.. | 3,272,547 | 16,591,517 | +23 | +24 |
| U. S., 334 cities..... | 87,833,000 | 443,987,000 | +2 | +5 |

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

below that of last January and 70 per cent below the peak in July of last year.

Department store sales and stocks in leading cities:

| | SALES | | STOCKS | |
|--------------------|---------------------------------|--------------------------------------|--|-------------|
| | May '47 comp. to May '46 | 5 Mos. '47 comp. to 5 Mos. '46 | May 31, '47 comp. to May 31, '46 | May 31, '46 |
| | (Per cent increase or decrease) | | | |
| Denver..... | +11 | +15 | +37 | |
| Pueblo..... | -1 | +11 | +19 | |
| Hutchinson..... | +11 | +7 | +43 | |
| Topeka..... | +9 | +10 | +33 | |
| Wichita..... | +3 | -2 | +13 | |
| Joplin..... | +18 | +14 | +75 | |
| Kansas City..... | +11 | +10 | +25 | |
| St. Joseph..... | +14 | +9 | * | |
| Omaha..... | +11 | +9 | * | |
| Oklahoma City..... | +6 | +4 | +14 | |
| Tulsa..... | +11 | +6 | * | |
| Other cities..... | +21 | +12 | +63 | |
| District..... | +11 | +9 | +33 | |

* Not shown separately but included in District total.

INDUSTRIAL PRODUCTION

Meat Cattle slaughter in May, as indicated by packers' purchases at leading District markets, was down 12 per cent from April but was 236 per cent greater than in May a year ago.

Cattle continued to move to market in good volume, and purchases were unusually large as compared with the corresponding month last year. As stated in the previous issue of the Review, however, the wide variance between the two years is due mainly to the abnormal market conditions that existed last year, when uncertainty regarding Government price controls caused cattle to be withheld from marketing.

The volume of hog slaughter in May was 2 per cent less than in May, 1946, and was 10 per cent below the ten-year average for the month. Sheep slaughter was up 33 per cent from May of last year but was 21 per cent below the ten-year average for the month.

An increasingly stronger market in June for all classes of meat animals continued to attract about average daily receipts of cattle, lambs, and hogs. A persistently active consumer demand for meat has caused packing concerns to bid aggressively for livestock. Consumers have shown no concerted resistance to retail meat prices since the beginning of the year, except briefly in late April and early May. In mid-June, however, there were scattered reports of resistance appearing in some eastern cities. Despite record prices for meat, per capita consumption in early 1947 was the largest reported in the past thirty-five years.

Flour Milling Southwestern flour milling operations in May averaged about 91 per cent of full-time capacity. The level of operations in May decreased almost 4 per cent from April, but flour output was 74 per cent higher than in May, 1946. An upturn in milling activity occurred in the second week of June, when operations rose to 104 per cent of capacity as new crop wheat from the Southwest began moving to market.

The export flour business remained rather slack in early June but was enlivened somewhat at mid-month by the issuance of the first Government licenses for July flour exports to Latin America. Domestic flour sales also showed strength toward the middle of June, largely reflecting replacement buying on the part of users who have been carrying minimum stocks. Most buyers appear to feel that flour prices are relatively high and are expecting downward adjustments as the harvest of the new wheat crop progresses.

Petroleum Output of crude oil in the United States averaged more than 5 million barrels a day during May. This surpassed all records, being 2 per cent greater than the previous high attained in July, 1946. In the states represented in the Tenth District, daily production during May averaged 930,500 barrels—the highest since October, 1937.

According to a recent release of the Department of Commerce, construction expenditures for crude petroleum and natural gas drilling in the states of the

Tenth District amounted to more than 120 million dollars during 1946, an increase of 116 per cent over 1939. The District accounted for 18 per cent of total drilling expenditures in the nation in 1946, as compared with 15 per cent in 1939.

Extensive drilling operations continued during April, when more than 500 wells were completed in the Tenth District. Oklahoma reported 279 wells drilled, while Kansas ranked second in the District with 158 completions.

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

| | May | 5 Mos. | Change from '46 | |
|--------------------|--------------------|---------|-----------------|--------|
| | 1947 | 1947 | May | 5 Mos. |
| | (Thousand barrels) | | (Per cent) | |
| Colorado..... | 1,214 | 5,707 | +29 | +42 |
| Kansas..... | 8,851 | 41,770 | +8 | +8 |
| Nebraska..... | 19 | 96 | -30 | -20 |
| New Mexico..... | 3,260 | 15,776 | +4 | +5 |
| Oklahoma..... | 11,989 | 56,858 | +4 | 0 |
| Wyoming..... | 3,512 | 16,809 | +7 | +9 |
| Six states..... | 28,845 | 137,016 | +7 | +6 |
| United States..... | 155,698 | 734,853 | +5 | +5 |

Employment Both agricultural and nonagricultural employment in the United States showed a marked increase during May, according to early estimates released by the Census Bureau. The total employed labor forces in May numbered approximately 58,300,000 workers, with nonagricultural activities accounting for about 85 per cent of the total. Unemployment in turn dropped sharply, reaching the low point of last fall—about 2,000,000 persons.

Total nonagricultural employment in the Tenth District increased slightly during March, the latest month for which detailed information is available, and reached a level 2 per cent above that of March, 1946. Manufacturing employment in the District declined 1 per cent from February to March but was 10 per cent above that of March of last year. All the states represented in the District, except Nebraska and Oklahoma, showed an increased number of manufacturing workers as compared with a year ago, with gains ranging from 1 per cent in Kansas to 18 per cent in New Mexico.

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

| | Mar. | Aver. | Change from '46 | |
|--------------------|------------|-------------|-----------------|--------|
| | 1947 | 3 Mos. 1947 | Mar. | 3 Mos. |
| | (Number) | | (Per cent) | |
| Colorado..... | 270,000 | 271,600 | +4 | +6 |
| Kansas..... | 336,000 | 337,000 | +2 | +2 |
| Missouri..... | 905,000 | 904,000 | +3 | +4 |
| Nebraska..... | 241,000 | 241,700 | +1 | +1 |
| New Mexico..... | 82,900 | 82,800 | +2 | +1 |
| Oklahoma..... | 340,000 | 339,300 | +1 | +1 |
| Wyoming..... | 59,900 | 59,200 | -2 | -8 |
| Seven states..... | 2,234,800 | 2,235,600 | +2 | +3 |
| United States..... | 42,043,000 | 41,898,000 | +7 | +8 |

AGRICULTURE

Farm Land Values In the year ending March 1, 1947, the price of farm land continued the upward trend of the previous eight to ten years.

Index numbers of estimated value per acre of farm real estate in states of this District on March 1 averaged about 12 per cent higher than on March 1, 1946. Kansas led in the increases over a year ago with a rise of 17 per cent. Colorado and Nebraska were next with increases of 13 per cent. Wyoming, New Mexico, and Missouri each had an increase of 11 per cent while Oklahoma showed an increase of 8 per cent.

The index of land values for the entire country on March 1 stood at 159 (1912-1914=100) or 12 per cent above the level of March 1, 1946. The upward trend in land values was fairly general throughout the country except in far western states where values appear to have leveled off in the forepart of this year. For the country as a whole, average farm land values are now 14 per cent above 1919 and are only 6 per cent below 1920, the peak year following World War I. Values on March 1 actually averaged above 1920 levels in 24 states, including Oklahoma and New Mexico.

Commercial banks have increased in importance as a source of credit for the purchase of farm land. Banks furnished about 27 per cent of the credit involved in purchases of farm land in 1946 compared with 23 per cent in 1945 and 16 per cent in 1943. Nevertheless, the proportion of buyers paying all cash for farm land continues to be more than one half, in spite of higher land prices and easy credit.

Department of Agriculture indexes of estimated farm real estate values on March 1:

| | Colo. | Kans. | Mo. | Nebr. | N.Mex. | Okla. | Wyo. | U. S. |
|-----------|-----------------------|-------|-----|-------|--------|-------|------|-------|
| | (1912-14 average=100) | | | | | | | |
| 1947..... | 141 | 140 | 113 | 108 | 168 | 169 | 147 | 159 |
| 1946..... | 125 | 120 | 102 | 96 | 151 | 156 | 132 | 142 |
| 1945..... | 108 | 111 | 91 | 86 | 132 | 131 | 115 | 126 |
| 1944..... | 93 | 96 | 82 | 77 | 117 | 120 | 102 | 114 |
| 1943..... | 78 | 84 | 74 | 64 | 101 | 111 | 88 | 99 |
| 1942..... | 69 | 74 | 66 | 59 | 95 | 101 | 78 | 91 |
| 1941..... | 63 | 71 | 60 | 55 | 87 | 96 | 71 | 85 |
| 1940..... | 61 | 71 | 59 | 58 | 84 | 93 | 68 | 84 |
| 1939..... | 61 | 76 | 58 | 65 | 83 | 93 | 66 | 84 |
| 1938..... | 60 | 78 | 60 | 69 | 83 | 94 | 66 | 85 |
| 1937..... | 60 | 78 | 60 | 72 | 82 | 91 | 66 | 85 |
| 1936..... | 57 | 75 | 60 | 73 | 80 | 91 | 65 | 82 |
| 1935..... | 53 | 73 | 58 | 72 | 76 | 86 | 62 | 79 |
| 1934..... | 54 | 72 | 57 | 72 | 76 | 83 | 62 | 76 |
| 1933..... | 54 | 70 | 55 | 69 | 75 | 76 | 62 | 73 |
| 1932..... | 65 | 89 | 67 | 90 | 89 | 94 | 77 | 89 |
| 1931..... | 81 | 103 | 79 | 106 | 109 | 116 | 95 | 106 |
| 1930..... | 83 | 113 | 92 | 113 | 110 | 127 | 98 | 115 |
| 1929..... | 82 | 113 | 95 | 116 | 109 | 127 | 96 | 116 |
| 1928..... | 82 | 113 | 96 | 117 | 108 | 127 | 95 | 117 |
| 1927..... | 82 | 113 | 99 | 119 | 108 | 128 | 94 | 119 |
| 1926..... | 89 | 113 | 104 | 123 | 106 | 130 | 95 | 124 |
| 1925..... | 92 | 115 | 112 | 123 | 108 | 131 | 100 | 127 |
| 1920..... | 141 | 151 | 167 | 179 | 144 | 166 | 176 | 170 |
| 1915..... | 93 | 103 | 102 | 101 | 100 | 95 | 103 | 103 |

Crops Crops in most of the District were generally in good condition during the first half of June, although noticeably retarded by persistently cool, wet

| | RAINFALL | | | |
|------------------------|-------------|--------|-------------|--------|
| | May 1947 | | 5 Mos. 1947 | |
| | Total | Normal | Total | Normal |
| | (In inches) | | | |
| COLORADO | | | | |
| Denver..... | 4.18 | 2.21 | 7.99 | 6.24 |
| Leadville..... | 1.14 | 1.35 | 8.58 | 7.45 |
| Pueblo..... | 2.99 | 1.60 | 5.91 | 4.30 |
| Lamar..... | 2.97 | 2.25 | 6.92 | 5.53 |
| Alamosa..... | 1.07 | 0.73 | 3.29 | 2.09 |
| Steamboat Springs..... | 1.82 | 2.13 | 10.19 | 11.27 |
| KANSAS | | | | |
| Topeka..... | 2.40 | 4.42 | 13.94 | 11.51 |
| Iola..... | 7.35 | 4.80 | 21.70 | 14.15 |
| Concordia..... | 3.00 | 3.84 | 9.65 | 8.49 |
| Salina..... | 4.79 | 3.91 | 12.81 | 9.28 |
| Wichita..... | 4.69 | 4.66 | 14.03 | 11.20 |
| Hays..... | 5.31 | 3.51 | 9.19 | 7.71 |
| Goodland..... | 3.64 | 2.52 | 6.36 | 6.16 |
| Dodge City..... | 4.01 | 2.85 | 9.94 | 6.94 |
| Elkhart..... | 4.89 | 2.42 | 8.11 | 5.85 |
| MISSOURI | | | | |
| St. Joseph..... | 3.45 | 4.70 | 14.66 | 13.32 |
| Kansas City..... | 4.26 | 3.94 | 18.33 | 12.50 |
| Joplin..... | 6.46 | 5.36 | 22.33 | 17.10 |
| NEBRASKA | | | | |
| Omaha..... | 4.65 | 3.77 | 12.73 | 9.24 |
| Lincoln..... | 3.37 | 4.08 | 10.67 | 9.47 |
| Norfolk..... | 3.00 | 3.95 | 7.74 | 9.51 |
| Grand Island..... | 2.24 | 4.02 | 8.13 | 9.27 |
| Culbertson..... | 2.73 | 2.87 | 6.83 | 7.02 |
| North Platte..... | 2.40 | 2.78 | 5.22 | 6.62 |
| Bridgeport..... | 2.27 | 2.71 | 3.70 | 6.27 |
| Valentine..... | 3.14 | 2.82 | 6.59 | 6.72 |
| NEW MEXICO | | | | |
| Clayton..... | 5.85 | 2.53 | 7.13 | 4.90 |
| Santa Fe..... | 2.47 | 1.19 | 3.74 | 4.25 |
| Farmington..... | 1.53 | 0.57 | 2.46 | 3.11 |
| OKLAHOMA | | | | |
| Tulsa..... | 6.26 | 5.05 | 18.48 | 15.39 |
| McAlester..... | 8.00 | 6.04 | 16.28 | 18.52 |
| Oklahoma City..... | 7.92 | 4.88 | 20.86 | 12.45 |
| Pauls Valley..... | 7.82 | 5.31 | 15.89 | 14.27 |
| Hobart..... | 8.87 | 4.25 | 15.97 | 10.41 |
| Enid..... | 4.26 | 4.08 | 16.94 | 11.03 |
| Woodward..... | 6.94 | 3.53 | 13.59 | 9.18 |
| WYOMING | | | | |
| Cheyenne..... | 2.19 | 2.43 | 5.78 | 6.50 |
| Casper..... | 2.97 | 2.20 | 6.55 | 6.72 |
| Lander..... | 3.75 | 2.26 | 7.94 | 6.70 |
| Sheridan..... | 2.59 | 2.65 | 7.49 | 7.28 |

weather. New Mexico, however, still reports a definite moisture deficiency, with less than half of normal rainfall. The freeze that occurred in Wyoming, Colorado, northwestern Kansas, and western Nebraska on May 29 did considerable damage to garden crops, fruit, and early corn. In certain sections of these states, the return of freezing and nearly freezing weather on June 12 caused additional damage and retarded crop development. There were numerous reports of damage to winter wheat and to barley, with some farmers plowing under barley to replant with corn. The snow accompanying the unseasonable cold wave flattened many alfalfa fields, but little permanent damage was reported.

The June 1 estimates of the Department of Agriculture indicate that the states of this District will produce a winter wheat crop of 584 million bushels. This figure exceeds the May 1 estimate by 42 million bushels and represents an increase of 28 per cent over the 1946 crop produced in this District. Winter wheat production for the entire country was estimated at

1,093 million bushels, considerably above last year's output of nearly 874 million bushels.

Department of Agriculture winter wheat estimates:

| | Indicated 1947 | | | | Final 1946 | Aver. '36-'45 |
|---------------|---------------------------|-----------|---------|---------|------------|---------------|
| | June 1 | May 1 | April 1 | | | |
| | (In thousands of bushels) | | | | | |
| Colo..... | 49,266 | 47,124 | 45,100 | 35,100 | 17,333 | |
| Kans..... | 277,761 | 263,142 | 247,401 | 216,756 | 158,441 | |
| Mo..... | 26,299 | 23,205 | 21,164 | 18,780 | 25,015 | |
| Nebr..... | 102,864 | 98,578 | 97,218 | 89,723 | 49,024 | |
| N. Mex..... | 8,084 | 6,336 | 4,368 | 2,648 | 2,761 | |
| Okla..... | 115,168 | 98,715 | 88,205 | 88,262 | 57,681 | |
| Wyo..... | 4,724 | 4,623 | 4,251 | 4,348 | 1,926 | |
| 7 States..... | 584,166 | 541,723 | 507,707 | 455,617 | 312,181 | |
| U. S..... | 1,093,071 | 1,025,789 | 973,047 | 873,893 | 653,893 | |

Most grain prices in June were down from the levels prevailing in May. The known world scarcity of grain, together with purchases of wheat by Government buying agencies, failed to hold prices up to May levels after new crop wheat began to move to market in June. Wheat prices declined rather steadily from the first of the month to mid-June, but corn prices advanced sharply.

The lower range of Kansas City cash grain prices:

| | June 18 1947 | May 31 1947 | Apr. 30 1947 | May 31 1946 |
|-------------------------------|--------------|-------------|--------------|-------------|
| No. 1 dk., hd. wheat, bu..... | \$2.28¾ | \$2.61¼ | \$2.63¼ | \$1.88½ |
| No. 2 mixed corn, bu..... | 2.10 | 1.84 | 1.56½ | 1.42 |
| No. 2 white oats, bu..... | .95 | .98 | .90 | .84¾ |
| No. 2 rye, bu..... | 3.00 | 3.05 | 2.95 | 2.45 |
| No. 2 barley, bu..... | 1.55 | 1.61 | 1.40 | 1.30 |
| No. 2 white kafir, cwt..... | 3.27 | 2.90 | 2.77 | 2.69½ |

Livestock The top price of beef steers at Kansas City on June 18 was \$28.00 per hundredweight, as compared with a top price of \$27.00 per hundred in May. Some choice grain-fed steers weighing 1,657 pounds sold at Kansas City on June 11 for \$28.75 per hundred. Hog prices continued strong at principal markets in the District through early June. The top price of hogs at Kansas City on June 18 was \$25.00 per hundredweight.

Top carlot livestock prices at Kansas City:

| | June 18 1947 | May 1947 | Apr. 1947 | May 1946 | May 1945 | May 1944 |
|--------------------------------|--------------|----------|-----------|----------|----------|----------|
| (In dollars per hundredweight) | | | | | | |
| Beef steers..... | 28.00 | 27.00 | 26.50 | 17.65 | 17.50 | 16.85 |
| Stocker cattle..... | 23.25 | 23.00 | 22.00 | 17.15 | 15.50 | 14.10 |
| Feeder cattle..... | 23.25 | 23.50 | 23.15 | 17.25 | 15.90 | 14.75 |
| Calves..... | 25.00 | 26.00 | 26.00 | 17.50 | 15.00 | 14.00 |
| Hogs..... | 25.00 | 24.75 | 27.25 | 14.55 | 14.50 | 13.50 |
| Lambs..... | 23.50 | 25.25 | 24.35 | 17.75 | 16.10 | 16.25 |
| Slaughter ewes..... | 7.40* | 11.00 | 10.35 | 9.25 | 9.00 | 9.00 |

*Shorn basis.

The condition of ranges along the eastern slope of the Rocky Mountains was reported on June 1 to be the best in several years. Cattle and sheep were generally in good flesh, with satisfactory weight gains being secured in most areas except in the dry sections of southwestern New Mexico. The bluestem pastures of Kansas and Oklahoma were well stocked with cattle and had a very good supply of grass on June 1. These pastures, however, are reported to be carrying somewhat fewer cattle this season than in 1946.