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Forestry Assistance for Woodland Owners

Few woodland owners are fully aware of the extent of technical forestry assistance available to them. Equally few realize the number of technical foresters working in their state or district to develop good timber management. While there is not a forester in every county (although some counties have assistant county agents who are trained foresters), there are various Federal, state and private foresters within reach of most forest owners.

Despite the extent of various agencies' personnel working in forestry today, there probably is potential need for much more assistance than is presently available. And such assistance as is available probably could be used to better advantage now. Much of the time and energy of the technical personnel today is spent in convincing owners of the need for and the value of proper timber management practices. Presumably, as more and more timber owners become aware of the value of good management and the nature and extent of available assistance, an increasing proportion of the technical forester's work actually can go toward direct rebuilding of our forests. Thus, technical assistance could be expanded even without increasing personnel merely by widespread acceptance of the need for forest management.

This article dealing with forestry assistance available is a continuation of the discussion of Farm Woodlot Management which appeared in the June issue of this Review. As pointed out in that article, timber management requires little expense and only a small amount of technical assistance in

the early stages of a development program. As the forestry program progresses, however, more assistance of a technical nature is required. Since four out of five acres of farm forests are managed in such a way that the stand cannot be maintained, it is reasonable to assume either that timber owners are not cognizant of the need for or possible income from forestry management or that they are not familiar with available technical assistance.

The problem of achieving better management by woodland owners of 500 acres or less is a difficult one but its solution is vital to any widespread improvement of our forests. These small owners make up 99 per cent of all owners and control 75 per cent of all privately owned woodland in the United States. The problem first of all is to reach a large number of small woodland owners and convince them of the need for good forestry practices and proper land utilization and the possibilities for increasing income from timber. Second, it is necessary to provide them with adequate technical assistance to establish good timber management and to market the forest crop.

Many groups are working to solve the first step in this problem—that of reaching owners—through forest education. Among them are the university agricultural extension services whose foresters spend considerable time in holding educational meetings for the purpose of getting timber owners interested in forestry. They also help organize forestry projects for rural youth as a means of educating future timber owners as well as promoting good management on timberland today.

Among others are private organizations such as the American Forestry Association and the American Products Industries, Incorporated. The AFPI is sponsoring the "Keep America Green" programs in which four Eighth District states are cooperating. In addition, this group has prepared films and posters for use in schools. At least one railroad in the Eighth District, the Gulf, Mobile and Ohio, sponsors a forestry program for youth. Other examples in this field include the Indiana Hardwood Lumber Associations and various industry groups and civic clubs which sponsor forestry programs. Today, as a result of these efforts, many people are becoming aware of and interested in forestry problems.

This article is concerned more with the second phase of the problem—the technical assistance available. It discusses the technical personnel at work in the district today, assistance available for reforestation projects, research and technical training being carried on and forestry legislation—all of which are parts of the over-all assistance available to woodland owners.

It might be noted at the outset that most stress is placed on the public agencies' assistance available. This is not to imply that private groups and companies have no concern with this phase of the forestry program. Actually, in the field of research they are doing considerable work and in other fields also assistance is available from private bodies.

TECHNICAL PERSONNEL

A number of foresters are available in each of the district states to give technical assistance either to individuals or groups. The functions and supervision of the various groups differ among states, but in general the groups discussed here are available for assistance in marking timber for cutting, for planning forestry programs, and for marketing advice. A timber owner interested in undertaking good timber management usually can find a qualified forester within a reasonable distance either through the State Forestry Department, the Agricultural Extension Service, the TVA, or the Soil Conservation Service.

Farm Foresters—Each farm forester employed under the Norris-Doxey Act covers from four to eight counties and will help farmers in all forestry operations mentioned in the previous paragraph. They also are in charge of fire control in counties which they serve in Illinois and Indiana, although not more than 25 per cent of their time can be spent in such work. These foresters work under the state forester in Illinois, Indiana, Missouri, and

Tennessee, and under the Agricultural Extension Service in Arkansas, Kentucky, and Mississippi.*

District Foresters—Duties of district foresters, who work under the state forester, vary among states. In Arkansas, Missouri, and Tennessee, their duties are primarily control of fire. District foresters' duties in the other four states include, in addition to fire control, timber management, marketing assistance and administration of forestry laws. In Mississippi, 48 technical and practical foresters in the state department of forestry are available to give advice to timber owners. Four of these are full-time management foresters, working out of the state office. The five district foresters also are technically trained as are the district and area rangers working with them. The latter's duties include management assistance in addition to their primary function of fire control. The staff of the Arkansas forestry division includes two full-time management foresters, but district foresters function chiefly as fire wardens.

Duties of district and farm foresters in Illinois and Indiana are nearly synonymous. Both states are divided into eleven districts of five to 15 counties each, with a district or farm forester available to give individual or group assistance.

Some counties in Kentucky are included in a farm forestry project as well as a forest district. District foresters are permitted to work with non-farm timber owners, so their work supplements that of the farm foresters. The Bluegrass Consulting Service Project undertaken by the Kentucky State Forestry Department is unique in that only woodland management service and reforestation aid are available. The forester will work two days with

TECHNICAL FORESTRY ASSISTANCE AVAILABLE THROUGH STATE AND FEDERAL AGENCIES IN EIGHTH DISTRICT STATES¹

	Farm Foresters (Norris-Doxey) ²	District Foresters	Extension Foresters	TVA and SCS Foresters
Arkansas.....	1	15 ³	1	6 ⁴
Illinois.....	8	2 ⁵	3
Indiana.....	4	7 ⁵	5
Kentucky.....	3	3 ⁶	1	1 ⁷
Mississippi.....	4	5 ⁸	1	3 ⁴
Missouri.....	7	7 ³	1
Tennessee.....	4	5 ³	2	13 ⁷
Total.....	31	44	14	23

¹ Does not include personnel in state offices, in universities, or in National Forest Service.

² An additional forester usually is employed as supervisor of all projects in the state.

³ Duties primarily fire control.

⁴ SCS foresters.

⁵ One district handled by state office personnel.

⁶ One forester is in charge of Bluegrass consulting project. Another district is organized and will be activated as soon as a competent forester can be employed.

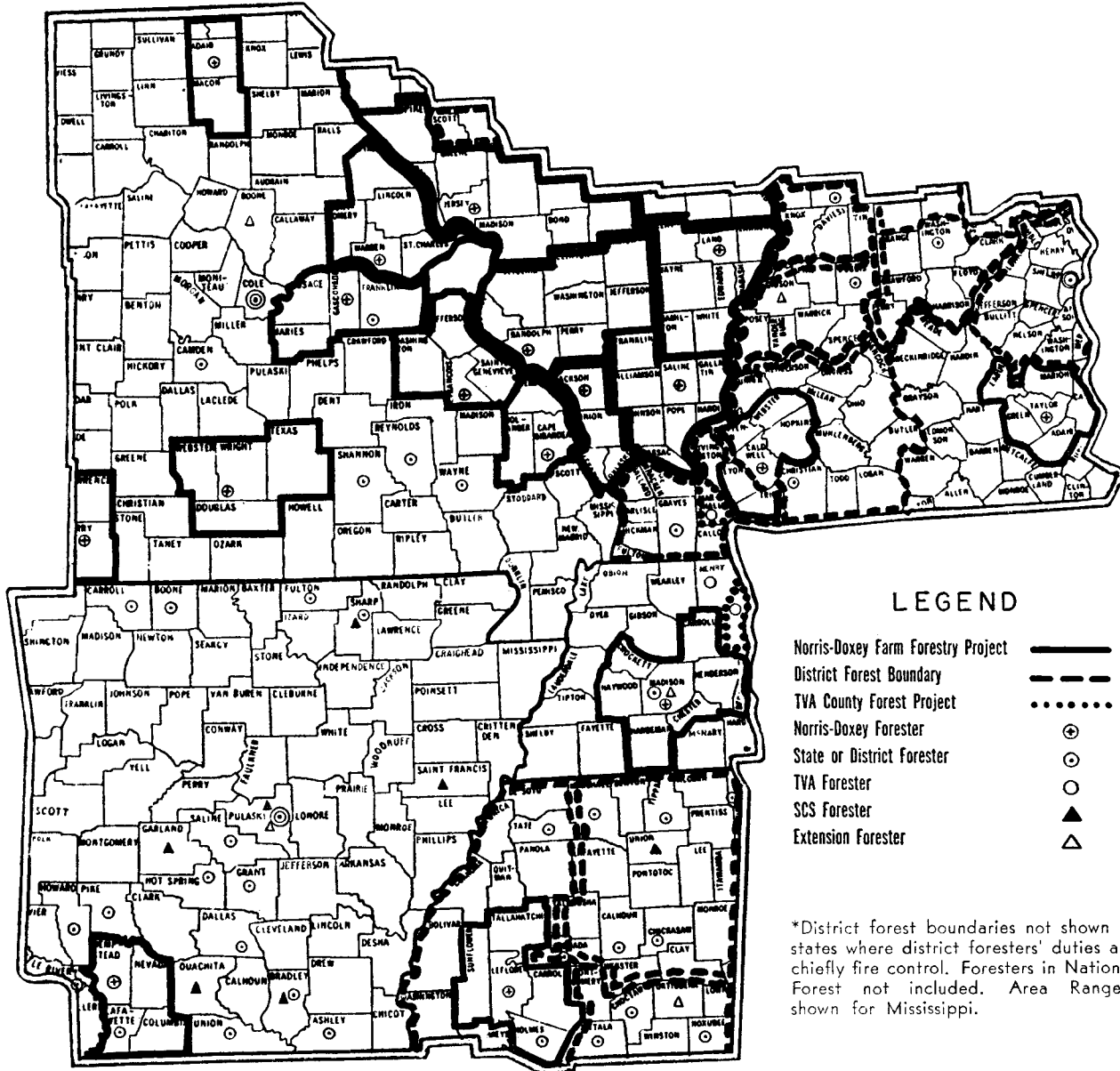
⁷ TVA foresters, one of which is hired cooperatively with the state extension service as an assistant county agent.

⁸ A total of 48 technical and practical foresters are available to assist timber owners in management problems. These include four full-time management foresters and the district rangers and area rangers who devote considerable time to management work.

* Two farm foresters in Illinois are cooperatively supervised by University of Illinois Forestry Department and the state forester.

LOCATION OF TECHNICAL FORESTERS AND FOREST DISTRICTS

EIGHTH FEDERAL RESERVE DISTRICT *



a timber owner free of charge and, if additional assistance is needed, will continue working with him for a fee. This service includes recommendations for proper management, estimates of volume and value, volume to be cut, and a plan for selling. As the department's staff is built up, this type of service is to be extended to other parts of the state.

Extension Foresters—Every district state has at least one extension forester whose work is primarily educational. They work with groups rather than individuals and a considerable amount of their time is spent with 4-H clubs. An exception to this general practice is found in Illinois where they give

individual service in one district where there is neither a Norris-Doxey nor district forester.

Indiana, with the second smallest forest acreage among district states, has more extension foresters than other district states. The head extension forester also serves a number of central Indiana counties. Three district extension foresters, serving 12 to 18 counties each, are stationed in the southern part of the state. One of the extension foresters in Tennessee is stationed at Jackson and serves the Eighth District portion of that state.

TVA Foresters—The Tennessee Valley Authority has a staff of about 35 foresters, 14 of whom operate

in district states. Two of these in the Eighth District are assistant county agents and are employed cooperatively with the Agricultural Extension Service. Three TVA foresters are stationed at Paris, Tennessee. One project of the TVA is setting up forestry demonstration farms and giving management advice to these and other timber owners. TVA foresters also work with sawmill operators, encouraging good cutting practices, reforestation and educational work in fire control. The TVA is equipped to furnish valley farmers an almost unlimited supply of seedlings for reforestation.

SCS Foresters—The Soil Conservation Service has six foresters in Arkansas and three in Mississippi. Of those in Mississippi, one is stationed in northern Mississippi in the Yazoo River Watershed. There, seedlings are furnished free of charge to anyone who wants to reforest land. All field office personnel in the 60 Soil Conservation Service offices in Arkansas have received forestry instruction and are capable of setting up forestry management plans.

In addition to these technicians, members of the United States Forest Service, although they are primarily concerned with duties within national forests, do give advice and help to nearby timber owners. Members of university staffs also cooperate in forestry programs and are available for consultation. Many of the larger lumber and pulp companies employ technical foresters, and in a number of cases these technicians will advise and help private timber owners. In some areas, private consulting foresters are available on a fee basis.

From the map, it is evident that technical assistance is available to a larger proportion of Eighth District farmers in Mississippi, Illinois, and Indiana than in the other four states. However, fewer counties are assigned to each farm forester in Missouri than in Illinois and Indiana, although much less of the state is covered by such projects. In all, 97, or about one-fourth, of the district counties are included in Norris-Doxey projects. Forest districts organized chiefly for fire control are not shown, but the foresters' headquarters are. Nearly 30 per cent of district counties are in forest districts where the forester is available to give management assistance. Even in areas and counties where no technical forester is shown, assistance can be obtained from the state or extension foresters who work in all counties of the state.

REFORESTATION

In addition to personnel available for technical assistance in forestry projects, considerable aid is

available for reforestation development. Reforestation of land having little or no growing stock and not particularly adaptable to pasture or crops should be a project in every state. According to the United States Forest Service, about 35 million acres should be planted in forests to conserve soil and make the land productive. The 1948 planting goals in 43 states total 220 million seedlings, enough to plant about 200 thousand acres. While this is a commendable goal (in 1947 less than half this number of seedlings was planted), at this rate about a century and a half would be required to complete reforestation of the 35 million acres even though no additional land needed reforesting in the meantime. This program thus needs to be stepped up considerably.

Adequate forest cover will be obtained on thousands of additional acres by natural restocking, but on the 35 million acres mentioned above there are probably too few seed trees of good species to restock the land satisfactorily in a reasonable length of time.

Each of the states and the TVA have tree nurseries. Seedlings are made available in all states at cost or less. For instance, in Mississippi a farmer may obtain 5,000 seedlings yearly at no charge. Capacity of nurseries varies from about 2 million seedlings per year in Kentucky and 2.5 million in Missouri to as many as 36 million in Mississippi. Nurseries in Illinois, Indiana, Tennessee, and Arkansas can produce 5 to 10 million seedlings a year.

For the seven district states, nearly 70 million seedlings can be produced a year. This number, however, is sufficient to reforest less than 1 per cent of the 12 million acres of poorly stocked and denuded forest land in Eighth District states. Partly alleviating this situation is the fact that TVA nurseries also can supply seedlings.

As noted, the reforestation program needs to be intensified. Partly this is dependent upon more widespread education. As this is achieved, however, greater seedling production will be needed.

FORESTRY EDUCATION AND RESEARCH

Scientific forestry training can be obtained at all district state universities. Four-year courses are now offered at Purdue and Missouri Universities. Two-year preforestry courses are offered at the Universities of Tennessee and Illinois, Mississippi State College and Monticello A. and M. College in Arkansas. Farm forestry courses are available at the Universities of Kentucky and Arkansas. Courses in farm forestry are required of all agricultural students in Arkansas, Mississippi and Ten-

nessee. In addition there are a number of forestry short courses conducted in the various states. For example, all assistant county agents in Mississippi are required to attend a four-day forestry course before starting on the job, and the University of Tennessee holds a three or four day short course for professional foresters and mill operators.

Research in Forestry—The importance of research cannot be overlooked in the development of our forest resources. This includes not only research in wood utilization as discussed in the May issue of this Review, but also research in production, management, and harvesting of timber.

FOREST RESEARCH EXPENDITURES AND THEIR RELATION TO ALL AGRICULTURAL RESEARCH EXPENDITURES, 1946¹

	Cents Per Acre Commercial Forest Land ²	As Per Cent of All Expenditure by State Experiment Stations	Per Cent Forest Crop Value Is of Total Agricultural Crop Value	Per Cent of All Land Forested
Indiana	1.11c	3%	4%	15%
Illinois	0.39	1	1	10
Kentucky	0.12	3	12	46
Mississippi	0.11	2	20	52
Arkansas	0.06	3	16	59
Tennessee	0.05	1	14	45
Missouri	0.01	*	6	43
District States.....	0.12c	2%	8%	39%

¹ Adapted from Hearings on Department of Agriculture Appropriations Bill for 1949, Part 1, p. 487.

² Does not include Federal funds not spent through State Experimental Stations.

* Less than 0.5 per cent.

Expenditure for forest research in 1946 by the seven district states combined was only \$103,000, a very modest sum considering the fact that 39 per cent of the area in these states is forest land. This sum is equivalent to only one-tenth cent per acre of commercial forest in district states.

Indiana, with the second smallest forest acreage, had a larger budget for forest research than any other district state. On a per acre basis, Indiana spent in 1946 one cent per forest acre. Illinois, with the smallest forest acreage of the district states, spent more money for forest research than Arkansas, Missouri and Tennessee, ranking second only to Indiana in the expenditure for forest research per acre of forest land. On the other hand, Missouri, with the second largest forest acreage, spent only one-hundredth of a cent per acre of forest land for research in forestry, the least expenditure per forest acre of any district state. However, forest research funds in Missouri for 1948 are four times the amount expended in 1946. Arkansas and Mississippi, each with over half their land in forests, spent only six-hundredths cent per acre in timber for research.

Federal funds for forest research amounted to about one cent per acre of commercial forest land in 1947. This included funds for forest products

research and regional forest experiment stations. Part of the funds, however, were allocated to state experiment stations and are included in calculations of expenditures by state experiment stations.

Regional forest experiment stations serving the Eighth District are the Central States and Southern Forest Experiment stations located at Columbus (Ohio) and New Orleans, respectively. To further the work of forest research, 53 forest research centers have been established in the United States, five of which are in the Eighth District. Each is located so as to serve a particular forest type or forest problem. For example, the research center at Stoneville, Mississippi serves all Delta counties and is interested primarily in bottomland hardwoods, while the one at Oxford, Mississippi, is concerned primarily with water control. Other forest research centers in the district are located at Carbondale, Illinois, serving southern Illinois, southwestern Indiana, western Kentucky and the boot-heel of Missouri. Two centers are located in Arkansas at Crossett and Harrison. Two additional research centers have been authorized which will serve the Eighth District. One will be located in Ohio and will serve eastern Kentucky, and one will be in southern Missouri.

State expenditures for forest research seem to be quite small by almost any standard of comparison. Certainly in absolute terms they are small. They are even smaller relative to total state expenditures on agricultural research. It would seem reasonable to expect that funds for forest research would be allocated in about the same proportion that value of forest crops is to value of all agricultural crops. However, the proportion of state agricultural experiment station funds used for forest research in Kentucky, Mississippi, Arkansas, Tennessee, and Missouri are much smaller than the ratio of forest crop value to all agricultural crops.

Although returns per acre from Missouri forests are low, forest crop value in 1946 was 6 per cent of total agricultural crop value. Yet less than one-half of 1 per cent of experiment station funds were used for forest research. A similar situation was present in Mississippi where value of forest crops was 20 per cent of the agricultural crop value, but only 2 per cent of experiment station funds were spent for forest research. Kentucky and Arkansas each spent 3 per cent of experiment station funds for forest research, while value of forest crops was 12 and 16 per cent, respectively, of all crop value. Tennessee and Illinois each used 1 per cent of experiment station funds for forest research. In

Illinois, this 1 per cent was equal to the ratio of forest crop income to income from all crops. However, in Tennessee forest crops were 14 per cent of all crops.

Quality of research was not considered in this analysis; it is assumed that returns per dollar spent for forest research were approximately the same among district states.

It might be noted, in addition, that the data presented do not give credit for private funds spent for research. Also, Federal funds not spent through the experiment stations are omitted. Presumably Federal funds are distributed somewhat in accordance with the importance of forestry in various states. Furthermore, many forest projects were proposed under the Research and Marketing Act and probably some of these have been undertaken since 1946. Some forestry departments, including those at the Universities of Missouri and Kentucky, recently have been reorganized and expanded. The forestry department at one district university, however, has been contracted.

FOREST LEGISLATION

Historically, the vast virgin timber stands were considered inexhaustible and undesirable cover for agricultural land. However, as more and more areas were cut over and good timber became scarce, enough feeling was aroused that forestry legislation was enacted to protect this natural resource and to increase its productivity.

Several Federal forestry laws have been enacted which directly or indirectly affect the small woodlot owners. The early laws (Week's Law, 1911 and the Clarke-McNary Act, 1924) extended the national forests and provided for increased Federal-state cooperation in fire control. Financial assistance also was provided for in the Clarke-McNary Act for production of forest planting stock and for extension work in forestry. The McSweeney-McNary Act of 1928 provided a broad charter for forest and forest products research, and set up the regional forest experiment stations. The Co-operative Farm Forestry Act (Norris-Doxey) was enacted in 1937 to increase farm forest income and farm employment, and to provide advice on forest management to farmers. Other Federal legislation has created agencies such as the Soil Conservation Service, the Tennessee Valley Authority, and the Civilian Conservation Corps (active during the thirties), all of which have assisted farm woodlot owners in timber management. Another agency, the Production and Marketing Administration, provides payments to farmers for reforesta-

tion and other forestry practices as an incentive to better land use.

Mississippi, Missouri, and Indiana are among the 27 states that have special forest tax laws. In Missouri and Indiana, owners can request that a fixed assessed value of \$1.00 per acre be placed on timber land, provided certain conditions of management, protection and maximum assessed value are met. The land so classified is subject to a yield tax in Missouri. For tax purposes in Mississippi, land and timber are separated; no property tax is assessed on timber, but the land is assessed. However, a yield tax must be paid on all timber cut. Arkansas also has a severance tax, but it is in addition to a property tax on timber. Mississippi has a forestry law specifying minimum size trees that can be cut or worked for naval stores unless certain provisions are made for restocking.

The tax law in Mississippi was enacted in 1940 and applies to all timber acreage. In Indiana, with timber classification on an optional basis, 4 per cent of timber acreage has been brought under classification by owners in the quarter of a century that the law has been in operation. The law in Missouri has been in effect little more than a year; consequently, only 72,000 acres have been classified under it. In times of greater financial stress, the tax provision probably will have more appeal in these states where classification is optional.

The above tax laws assist in reducing annual fixed costs during periods when the timber produces no income and thus assist in extending good management. They aid primarily, however, the larger owner. The owner of the average farm forest would receive little financial relief from them, since the assessed value of timberland is usually low and since the average size forest is only 62 acres. In many instances, the total annual tax on woodland of this size would be less than \$10.

SUMMARY AND CONCLUSIONS

1. There are 31 Norris-Doxey farm foresters in district states who can give qualified assistance in timber management, including marking and marketing. In addition, there are 17 district foresters who can give similar assistance in Indiana, Illinois, Kentucky, and Mississippi. The other 27 district foresters in Missouri, Arkansas and Tennessee are concerned chiefly with fire protection. Added to these are 14 extension, 14 TVA, and 9 SCS foresters located in district states.

2. About one-fourth of the district counties are included in Norris-Doxey farm forestry projects. Another one-fourth of the counties are in state forest districts in which the forester can give man-

agement assistance. Timber owners in many other counties are within a few miles of TVA or SCS foresters. Others are near the state forester's office or the state university. Still others, especially in the Ozark, Ouachita and Piedmont areas of Missouri and Arkansas, are near national forests, and can obtain some assistance from employees of the Forest Service.

3. About 35 million acres of land need reforestation in the United States, and about 220 million seedlings will be planted in 1948, according to reports of the Forest Service. At this rate, one-and-a-half centuries will elapse before the land now in need of reforestation is stocked.

4. Forest nurseries in district states will supply 70 million seedlings in 1948, enough to restock less than 1 per cent of district poorly stocked and denuded land.

5. Four-year forestry courses can be obtained at Purdue and Missouri Universities, and two-year preforestry courses are offered at the Universities of Tennessee and Illinois, Mississippi State College, and Monticello A. and M. College in Arkansas.

6. Expenditures by State Experiment Stations for forest research in district states were equivalent to only twelve-hundredths cents per acre of commercial forest land, and ranged from one and eleven-hundredths cents in Indiana to only one-hundredths cent in Missouri.

7. Forest research expenditures made up a much smaller proportion of all research in district states than would be expected from the importance of forest crops to all agricultural crops. Only 2 per cent of state agricultural experiment station funds were used for forest research, whereas the value of forest crops represented 8 per cent of all agricultural crops.

8. Research funds in Indiana and Illinois were allocated for forest research in about the same proportion that value of forest crops was of all agricultural crops. However, in the other five district states the percentage of research funds used in forestry was much smaller than the proportion of forest crop to total agricultural crop value.

Donald L. Henry

Survey of Current Conditions

As late as six months ago the opinion was widely held that mid-1948 would mark the beginning of a postwar down-turn. In the months that have elapsed since that time, few weak spots have developed in the economy. Thus there has been a shift in opinion, and currently the consensus seems to be for a continued upward trend during the remainder of 1948, at least.

There are certain implications inherent in such anticipation. It should be borne in mind that in many respects the national economy has been operating at peak levels for a number of months. In some areas the effective upper limits have already been reached. Under such conditions a general extension of the upward trend should not be expected to result in uniform increases in all segments of the economy. Nor is it reasonable to expect that an equal amount of strain will be placed on each of the component parts of the economic machine.

During the past year, industry generally has operated at near capacity levels with only minor

fluctuations resulting from temporary disturbances due to labor difficulties or material shortages. During the remainder of this year some increase in output can be expected, but it is unlikely that the level of production at the end of the year will be a great deal higher than it was at the beginning of 1948. At the present time some industries, such as steel, are operating approximately at capacity and further increases are not likely to develop. In other lines output might be increased well above the present rate provided raw materials supply and labor conditions are favorable.

If the volume of goods produced increases but slightly during the next six months, what can be expected to develop on the demand side of the equation? Consumer buying probably will continue at a high level. According to the recent survey by the Board of Governors, early in 1948 there were as many consumers who planned to buy automobiles and other durable goods this year as there were at the beginning of 1947—despite the fact that 7 million consumer spending units

bought automobiles in 1947 and 17 million bought other durables last year. While fewer consumer spending units plan to buy houses this year than last, the number that do plan to buy is larger than the estimated number of completions in 1948.

In addition to consumers' wants are the requirements of business, Government and foreign countries. While a substantial part of industry's expansion program has been completed, surveys indicate that total expenditures for plant and equipment this year will exceed those of last year. In addition there are many lines in which inventories still are not excessive in terms of sales, and consequently production for inventory purposes may represent a sizable proportion of total demand for goods. As pointed out before, the effects of the nation's preparedness and foreign aid programs will only begin to be felt in the latter part of the year.

It should be noted that the volume of potential demand for consumers' goods, as outlined above, appears to be quite capable of being translated into effective demand. Consumer income in April was estimated at an annual rate of \$209 billion and is expected to move higher during the remainder of the year. In part this will result from a continuation of third-round wage increases, which in the next six months probably will affect a major portion of all employed workers. This level of personal income as a source of consumer purchasing

power is supplemented by a large volume of liquid assets and can be added to by a substantial increase in consumer credit buying.

EMPLOYMENT

Total employment in the district moved upward in May for the third consecutive monthly advance, and is expected to reach a new peacetime peak in the summer months. Seasonal gains in agricultural employment were responsible for most of the increase. Nonagricultural employment was only slightly larger than in April.

Unemployment in May declined almost to the peacetime low of last fall. Nationally, unemployment is considered to be at a peacetime minimum, but in this district it is somewhat above what might be regarded as the frictional or minimum level. Further temporary increases probably will result from the influx of school graduates and summer workers into the labor market during the next few months.

Labor supply and demand are fairly well balanced. The shortage of stenographers and other trained office help which existed since the end of the war has eased. In general, recruiting difficulties currently apply mainly to concerns with relatively low wage rates and restrictive hiring specifications. The recent increase in construction activity resulted in spot shortages of skilled workers, but the shortage as yet has not been serious.

The total nonagricultural employment of 692,500 in the St. Louis area in May was approximately 2,000 higher than in March, 4,000 higher than in May, 1947, and 172,000 higher than in 1940. Between March and May, 1948, increases in construction, trade, and service more than offset declines in public utilities and Government employment. Total manufacturing employment remained stable as increases in the primary metals, transportation equipment, and food industries compensated for decreases in the finished lumber, textiles and apparel, chemical, and leather industries.

Between May and September, increases in employment, based on employer reports, are forecast for the St. Louis area in manufacturing, construction, trade, and public utilities industries. Transportation equipment, leather, and fabricated metal products are expected to have the largest employment increases in manufacturing. Government employment probably will continue to decline.

Figures released by the Bureau of Labor Statistics on industrial disputes during 1947 indicate that from the standpoint of time lost, labor disputes have not been very significant in this district. In

WHOLESALE

Lines of Commodities	Net Sales		Stocks
	May, 1948		May 31, 1948
	compared with		compared with
U. S. Dept. of Commerce*	April, 1948	May, 1947	May 31, 1947
Drugs and Chemicals.....	-10%	+ 5%	—%
Dry Goods	— 4	—11	—
Furniture	+ 7	+47	—
Groceries	— 6	— 1	+ 2
Hardware	-11	+ 3	+20
Plumbing Supplies.....	— 7	- 0 -	—
Tobacco and its Products.....	— 3	- 0 -	+12
Miscellaneous	— 4	+15	+19
**Total all lines.....	— 5%	+ 5%	+17%

*Preliminary.
**Includes certain items not listed above.

PRICES

WHOLESALE PRICES IN THE UNITED STATES					
Bureau of Labor Statistics (1926=100)	May, '48	Apr., '48	May, '47	May, '48	Comp. with
				Apr. '48	May, '47
All Commodities	163.8	162.7	147.1	+ 0.7%	+11.4%
Farm Products	189.1	186.7	175.7	+ 1.3	+ 7.6
Foods	177.4	176.7 R	159.8	+ 0.4	+11.0
Other	148.9	148.6 R	131.9	+ 0.2	+12.9
R—Revised.					

RETAIL FOOD PRICES					
Bureau of Labor Statistics (1935-39 = 100)	May 15, 1948	Apr. 15, 1948	May 15, 1947	May 15, '48	Comp. with
				Apr. 15, '48	May 15, '47
U. S. (51 cities).....	210.9	207.9	187.6	+1.4%	+12.4%
St. Louis	218.2	213.6	193.4	+2.2	+12.8
Little Rock	209.2	206.4	188.1	+1.4	+11.2
Louisville	201.6	198.2	180.0	+1.7	+12.0
Memphis	223.2	222.2	201.6	+0.5	+10.7

the four larger cities of the district, the total man-days lost due to industrial disputes in 1947 were less than the time that would have been lost if all the workers had taken one additional holiday, and were just a small fraction of the total time lost because of sickness and accident. The disrupting effect on production in other industries was much more important than the total time lost.

INDUSTRY

Eighth District industrial activity in May averaged slightly higher than in April, although operations in several of the district's leading manufacturing industries were scheduled at a lower rate than in the previous month. There was a sharp decline in the dollar value of new building authorized, although on-site construction activity continued at a high level. Coal production rebounded from the strike-depressed level in April, and crude oil output averaged the same as last month.

Consumption of electric power by industries in the major industrial centers was 2 per cent larger than in April and 9 per cent higher than a year ago. On a daily average basis the increase over the previous month was slightly larger, and all cities reported increases.

Manufacturing—Although manufacturing activity generally moved upward during the month, mixed trends continued to characterize this portion of the district's economy. A higher level of operations was indicated in the electrical equipment, food products, iron and steel products, machinery, metals and metal products, transportation equipment, and stone, clay and glass industries. On the other hand, decreases were indicated in the automobile, basic steel, meat packing, and distilling industries, while activity in the chemicals and rubber products industries remained about the same.

Steel—Scheduled operations of the basic steel industry in the St. Louis area in May were at a slightly lower level than in April. The decline resulted from the fact that at intervals during the month some of the open hearth furnaces were taken out of production for maintenance purposes. Averaging 73 per cent of capacity, the operating rate in May fell short of the 80 per cent of capacity at which the industry operated in April, but was considerably higher than the 41 per cent at which the furnaces were operating a year ago. Trade reports indicate that ingot output in May was lowered somewhat because of the necessity of using poor quality scrap.

Lumber—Available reports indicate that in May lumber production in the district was at the highest level this year. Average weekly production of southern pine mills was nearly 2 per cent above that in the previous month, and fractionally larger than in May, 1947. Reporting southern hardwood mills operated at 82 per cent of capacity as compared with 81 per cent in April and 76 per cent a year ago. Favorable weather conditions prevailed and logging operations continued at a high rate.

Whiskey—In Kentucky 42 of 63 distilleries were in operation at the end of May. This compares with 48 in production at the end of April and 40 operating at the end of May, 1947. Whiskey production in April totaled 10.6 million gallons, about the same as in the previous month and in April a year ago. In the face of a sharp decline in demand, producers are launching intensive campaigns to sell more whiskey. Consumption this year is expected to be at least 10 per cent less than the 178 million gallons consumed last year, which in turn was 23 per cent less than in 1946 when consumption reached a peak of 230 million gallons.

Meat Packing—Total Federally-inspected slaughter in the St. Louis area in May was slightly less than in April, but on a daily average basis operations were about the same. In May, 529,000 animals were slaughtered as compared with 570,000 in April and 465,000 in May, 1947.

Shoes—District shoe production in April did not remain at the high level of the previous month. An estimated 8.2 million pairs were produced in

INDUSTRY

CONSUMPTION OF ELECTRICITY

(K.W.H. in thous.)	No. of Customers*	May, 1948 K.W.H.	Apr., 1948 K.W.H.	May, 1947 K.W.H.	May, 1948 Compared with Apr., '48	May, '47
Evansville	40	8,615	8,421	8,844 R	+ 2%	+ 3%
Little Rock	35	4,221	4,156	3,458	+ 2	+ 22
Louisville	80	67,128	67,940	63,199 R	+ 1	+ 6
Memphis	31	6,149	5,773	5,266	+ 7	+ 17
Pine Bluff	24	6,033	4,983	1,065	+ 21	+466
St. Louis	139	73,236	70,992	69,873 R	+ 3	+ 5
Totals	349	165,382	162,265	151,705	+ 2%	+ 9%

* Selected industrial customers.
R—Revised.

LOADS INTERCHANGED FOR 25 RAILROADS AT ST. LOUIS

May, '48	Apr., '48	May, '47	June, '47	5 mos. '48	5 mos. '47
123,858	121,571	131,959	34,063	34,290	608,249
Source: Terminal Railroad Association of St. Louis.					

CRUDE OIL PRODUCTION—DAILY AVERAGE

(In thousands of bbls.)	May, '48	Apr., '48	May, '47	May, 1948 compared with Apr., '48	May, '47
Arkansas	86.4	87.9	80.5	- 2%	+ 7%
Illinois	171.6	172.8	186.7	- 1	- 8
Indiana	20.7	19.0	17.9	+ 9	+16
Kentucky	25.1	24.5	25.5	+ 2	- 2
Total	303.9	304.2	310.6	- 0 - %	- 2%

TRADE

DEPARTMENT STORES

	Net Sales		Stocks on Hand		Stock Turnover	
	5 mos. '48		5 mos. '48		5 mos. '48	
	May, 1948 compared with April, 1948	May, 1947	May 31, '48 to same period 1947	May 31, '48 to same period 1947	Jan. 1 to May 31, 1948	1947
Ft. Smith, Ark.....	- 3%	- 1%	+ 4%	+ 18%	1.56	1.69
Little Rock, Ark.....	6	+ 4	+ 7	+ 25	1.70	1.93
Quincy, Ill.	2	- 2	+ 3	+ 52	1.47	1.83
Evansville, Ind.	+ 4	+ 20	+ 27	+ 23	1.50	1.45
Louisville, Ky.	2	+ 1	+ 11	+ 19	1.78	1.93
St. Louis Area ¹	1	+ 1	+ 7	+ 8	1.62	1.61
St. Louis, Mo.....	0	+ 1	+ 6	+ 7	1.63	1.61
E. St. Louis, Ill.....	8	- 0	+ 19			
Springfield, Mo.	8	+ 3	+ 8	+ 35	1.39	1.59
Memphis, Tenn.	+ 7	- 0	+ 4	+ 17	1.55	1.80
*All other cities.....	2	+ 4	+ 7	+ 39	1.26	1.56
8th F. R. District.....	0	+ 2	+ 8	+ 14	1.61	1.70

* El Dorado, Fayetteville, Pine Bluff, Ark.; Harrisburg, Jacksonville, Mt. Vernon, Ill.; New Albany, Vincennes, Ind.; Danville, Hopkinsville, Trading days: May, 1948—25; April, 1948—26; May, 1947—26.

¹ Includes St. Louis, Mo., Alton, East St. Louis and Belleville, Ill. Outstanding orders of reporting stores at the end of May, 1948, were 13 per cent less than on the corresponding date a year ago.

Percentage of accounts and notes receivable outstanding May 1, 1948, collected during May, by cities:

	Excluding Instalment Accounts		Excluding Instalment Accounts	
	%		%	
Fort Smith.....	49%		22%	65%
Little Rock.....	24	48	25	55
Louisville.....	21	52	22	60
Memphis.....	30	51	25	53

INDEXES OF DEPARTMENT STORE SALES AND STOCKS 8th Federal Reserve District

	May, 1948	Apr., 1948	Mar., 1948	May, 1947
Sales (daily average), Unadjusted ²	333	326	318	315
Sales (daily average), Seasonally adjusted ²	340	343	318	321
Stocks, Unadjusted ³	313	331	319	272
Stocks, Seasonally adjusted ³	313	331	329	272

² Daily Average 1935-39=100.

³ End of Month Average 1935-39=100.

SPECIALTY STORES

	Net Sales		Stocks on Hand		Stock Turnover	
	5 mos. '48		5 mos. '48		5 mos. '48	
	May, 1948 compared with April, 1948	May, 1947	May 31, '48 to same period 1947	May 31, '48 to same period 1947	Jan. 1 to May 31, 1948	1947
Men's Furnishings.....	+12%	-16%	-7%	+29%	1.16	1.51
Boots and Shoes.....	+16	+10	+11	+25	1.76	1.82

Percentage of accounts and notes receivable outstanding May 1, 1948, collected during May:

Men's Furnishings.....	50%	Boots and Shoes.....	44%
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Trading days: May, 1948—25; April, 1948—26; May, 1947—26.

RETAIL FURNITURE STORE**

	Net Sales		Inventories		Ratio of Collections	
	May, 1948 compared with Apr., '48		May, 1948 compared with Apr., '48		May, '48	
	May, '47	May, '47	May, '47	May, '47	May, '48	May, '47
St. Louis Area ¹	+ 2%	+ 29%	- 1%	- 3%	36%	48%
St. Louis.....	+ 1	+ 3	- 1	- 3	36	48
Louisville Area ²	- 7	+ 24	+ 20	+ 24	19	29
Louisville.....	- 7	+ 23	+ 21	+ 25	17	28
Memphis.....	- 5	+ 4	- 2	- 6	22	20
Little Rock.....	- 0	+ 8	- 2	- 6	24	30
Springfield.....	- 5	- 32	*	*	*	*
Fort Smith.....	- 6	- 13	*	*	*	*
8th Dist. Total ³	- 0	+ 19	+ 3	+ 5	29	38

*Not shown separately due to insufficient coverage, but included in Eighth District totals.

¹ Includes St. Louis, Missouri; East St. Louis and Alton, Illinois.

² Includes Louisville, Kentucky; and New Albany, Indiana.

³ In addition to above cities, includes stores in Blytheville, and Pine Bluff, Arkansas; Hopkinsville, Owensboro, Kentucky; Greenville, Greenwood, Mississippi; Hannibal, Missouri, and Evansville, Indiana.

** 48 stores reporting.

PERCENTAGE DISTRIBUTION OF FURNITURE SALES

	May, '48	Apr., '48	May, '47
Cash Sales.....	15%	14%	21%
Credit Sales.....	85	86	79
Total Sales.....	100	100	100

April, as compared with the record 9.5 million pairs manufactured in March. The 14 per cent decrease was about the same as the decline nationally. Output was slightly below that of last year in both the district and in the nation as a whole.

Mining and Oil—Daily average production of crude oil remained the same as last month but was 2 per cent less than a year ago. Daily production averaged 304,000 barrels as compared with 311,000 barrels in May, 1947. Increased output in Indiana and Kentucky during the month was balanced by decreases in Illinois and Arkansas.

Coal production in the district in May totaled 10.6 million tons, a 37 per cent increase over strike-retarded April production and nearly 5 per cent above the total in May of last year. Output in all the producing areas was higher than a year ago and, in all areas except western Kentucky, was higher than last month.

Construction—Building permits valued at \$8.2 million were issued in the major district cities during May. This was a decline of nearly 14 per cent from the April volume, but the total was more than one-third larger than a year ago. Compared with last month, St. Louis and Louisville were the only cities to report increases, but the dollar value of permits in all reporting cities was higher than in May, 1947.

Fewer new family dwelling units were authorized for construction as compared with the previous month, due to decreases in Memphis, St. Louis, Louisville, and Evansville. However, Memphis continued to lead the district cities with a total of 297 new units authorized. In St. Louis, 116 additional family units were authorized as compared with 123 during April. Permits issued in Louisville provided for 152 new units, considerably less than the 289 units of last month. In Little Rock, 67 new units were authorized, 5 more than last month, and in Evansville permits were issued for 35 new dwellings, 5 fewer than in April.

CONSTRUCTION

BUILDING PERMITS (Month of May)

(Cost in thousands)	New Construction				Repairs, etc.			
	Number		Cost		Number		Cost	
	1948	1947	1948	1947	1948	1947	1948	1947
Evansville.....	71	58	\$ 183	\$ 184	103	138	\$ 55	\$ 40
Little Rock.....	81	85	499	503	294	178	148	114
Louisville.....	209	213	1,432	1,338	115	89	116	53
Memphis.....	834	947	2,869	2,259	181	182	155	120
St. Louis.....	320	284	2,198	1,086	338	355	515	402
May Totals.....	1,515	1,587	\$7,181	\$5,370	1,031	942	\$ 989	\$729
April Totals.....	1,796	1,546	\$8,411	\$7,247	1,246	861	\$1,040	\$719

TRADE

Retail sales at reporting Eighth District stores during May were generally lower than in April and again recorded diverse trends in comparison with dollar volume last year. Furniture store sales gained substantially over the comparable month last year, and in department stores the year-to-year increase in sales of homefurnishings was somewhat higher than the average for the entire store. At apparel stores, sales volume of men's wear was larger than in April but was substantially lower than in the same month a year ago. Women's specialty store dollar volume was less than in April or in May, 1947.

At reporting department stores, dollar volume was off slightly from April, but was 2 per cent larger than in May, 1947. On a seasonally adjusted basis, the May index of district department store sales was 340 per cent of 1935-39, but slightly below the April peak and above the previous high point reached in November, 1947.

Inventories held by reporting department stores at the end of May were greater in terms of value than at the end of April and May, 1947. In those stores reporting by departments, the largest inventory gains, percentagewise, were in some lines of women's and misses' ready-to-wear apparel and accessories, men's and boys' wear, and housefurnishings. On May 31, inventories were 4 per cent less and 14 per cent greater, respectively, than at the end of April and May, 1947.

Furniture stores reported no change in dollar sales from April to May, but volume was 19 per cent larger than in May, 1947. Trade reports indicate that low- and medium-priced goods are moving in good volume but some consumer resistance is being encountered in certain higher-priced lines. In contrast to a year ago, comparatively few lines are still in very short supply, and buyers are somewhat more conscious of quality and price than heretofore. As a result, furniture stores themselves are buying cautiously. At the end of May, however, inventories in terms of dollars were 3 per cent and 5 per cent over April 30 and May 31, 1947.

BANKING AND FINANCE

Banking developments during the past month mainly reflected a continuation of trends evident throughout most of 1948 to date. The loan decline which began early this year has extended through mid-June, according to figures of weekly reporting member banks in this district. The decrease to date has been more than seasonal.

BANKING

PRINCIPAL ASSETS AND LIABILITIES FEDERAL RESERVE BANK OF ST. LOUIS

(In thousands of dollars)	June 16, 1948	Change from	
		May 19, 1948	June 18, 1947
Industrial advances under Sec. 13b.....\$		\$	\$
Other advances and rediscounts.....	16,375	+ 4,383	+ 4,172
U. S. securities.....	1,136,972	+27,288	+ 70,187
Total earning assets.....	\$1,153,347	+\$31,671	+\$ 74,359
Total reserves	\$ 628,465	\$-22,701	\$+ 21,823
Total deposits	709,791	+19,423	+100,353
F. R. notes in circulation.....	1,079,604	+ 720	+ 5,351
Industrial commitments under Sec. 13b..\$	580	\$ - 0 -	\$+ 180

PRINCIPAL ASSETS AND LIABILITIES WEEKLY REPORTING MEMBER BANKS EIGHTH FEDERAL RESERVE DISTRICT

(In thousands of dollars.)

Assets	June 16,'48	Change from	
		May 19,'48	June 18,'47
Total loans and investments.....	\$2,021,419	\$- 21,762	\$- 10,889
(Commercial, industrial and agricultural loans, open market paper)	505,835	- 14,391	+ 85,222
Loans to brokers and dealers in securities	6,468	+ 653	+ 711
Other loans to purchase and carry securities	30,592	+ 56	- 26,638
Real estate loans.....	147,384	+ 101	+ 19,980
Loans to banks.....	1,395	- 75	- 988
Other loans	195,467	- 109	+ 40,023
Total loans	887,141	- 13,967	+118,310
Treasury bills	44,487	- 3,371	+ 25,925
Certificates of indebtedness.....	153,296	+ 28,552	+ 54,883
Treasury notes	86,050	+ 10	- 49,818
U.S. Bonds including guaranteed obligations	705,304	- 31,595	-160,432
Other securities	145,141	- 1,371	+ 243
Total investments	1,134,278	- 7,795	-129,199
Cash assets	776,471	+ 54,269	+ 66,508
Other assets	25,460	+ 254	+ 2,137
Total assets	\$2,823,350	+\$ 32,253	+\$ 57,756
Liabilities			
Demand deposits—total	\$2,153,189	+\$ 32,273	+\$ 46,801
Individuals, partnerships, and corporations	1,433,733	+ 10,908	+ 35,476
Interbank demand deposits.....	553,791	+ 28,440	- 24,186
U.S. Government deposits.....	36,233	- 15,089	+ 19,647
Other demand deposits.....	129,432	+ 8,014	+ 15,864
Demand deposits—adjusted*	1,316,900	- 12,174	+ 3,413
Time deposits	474,680	- 381	+ 5,444
Borrowings	6,500	+ 1,900	- 4,190
Other liabilities	16,167	- 1,158	+ 983
Total capital accounts.....	172,814	- 381	+ 8,718
Total liabilities and capital accounts.....	\$2,823,350	+\$ 32,253	+\$ 57,756

*Other than interbank and Government deposits, less cash items on hand or in process of collection.

DEBITS TO DEPOSIT ACCOUNTS

(In thousands of dollars)	May 1948	Apr. 1948	May 1947	May '48 comp with Apr. '48	May '47
El Dorado, Ark.....\$	20,424	\$ 21,701	\$ 17,058	- 6%	+20%
Fort Smith, Ark.....	34,759	37,135	31,033	- 6	+12
Helena, Ark.	6,626	6,952	5,166	- 5	+28
Little Rock, Ark.....	118,055	120,298	102,302	- 2	+15
Pine Bluff, Ark.....	22,236	22,388	18,898	- 1	+18
Texarkana, Ark.Tex.	9,291	10,244	8,529	- 9	+ 9
Alton, Ill.	25,049	23,848	20,473	+ 5	+22
E.St.L.-Nat.S.Y.,Ill.	102,267	106,651	101,656	- 4	+ 1
Quincy, Ill.	28,174	28,882	27,309	- 2	+ 3
Evansville, Ind.	101,227	106,350	91,327	- 5	+11
Louisville, Ky.	453,794	468,733	425,387	- 3	+ 7
Owensboro, Ky.	27,984	26,400	20,616	+ 6	+36
Paducah, Ky.	14,172	14,354	13,414	- 1	+ 6
Greenville, Miss.	15,922	17,631	12,625	-10	+26
Cape Girardeau, Mo.	10,317	11,243	9,672	- 8	+ 9
Hannibal, Mo.	7,131	7,345	6,563	- 3	+ 9
Jefferson City, Mo..	43,906	41,986	39,144	+ 5	+12
St. Louis, Mo.....	1,404,346	1,441,441	1,259,948	- 3	+11
Sedalia, Mo.	9,702	9,818	9,807	- 1	- 1
Springfield, Mo.	55,093	54,851	51,464	- 0 -	+ 7
Jackson, Tenn.	19,101	17,172	14,995	+11	+27
Memphis, Tenn.	428,908	472,361	375,987	- 9	+14
Totals	\$2,958,484	\$3,067,784	\$2,663,374	- 4%	+11%

The decline in loans seemingly reflects a more cautious attitude on the part of the district's bankers in conformity with the ABA program of voluntary credit restriction. In this connection, however, two facts should be noted. First, the loan decrease has been more marked at weekly reporting banks than at nonreporting member and non-member banks. Second, the movement has at least some seasonal characteristics.

The decline of \$94 million since January 1 in Eight District weekly reporting banks' total loans reflected decreases of \$102 million in commercial, industrial and agricultural loans and \$11 million in loans on securities. These declines were partly offset by \$4 million and \$15 million increases in real estate and "other"—mostly consumer—loans.

Real estate loans of reporting member banks leveled out at about \$146 million from late January to June. For the entire country, weekly reporting member banks' real estate loans expanded by 7 per cent in that period.

The district banks' "other" loans increased about 8 per cent for the year to date, while the rate of increase for all weekly reporting banks in the nation was 5 per cent.

The decline in business loans at the district banks was unbroken from January 21 through June 16 except for the week of March 10. The decline for the district to mid-June was 17 per cent in contrast to a 3 per cent decrease for all weekly reporting banks.

Total demand deposits at the district's reporting member banks as of mid-June were \$2,153 million, off \$245 million since December 31, 1947, due to a \$78 million decrease in individual, partnership and corporation deposits and a \$178 million decrease in interbank deposits, offset slightly by an \$11 million increase in U. S. Government deposits. Time deposits, which were \$57 million over a year earlier at mid-June, 1946, and up \$22 million in the year ending June, 1947, gained but \$5 million net in the year ending June 16, 1948.

AGRICULTURE

Much of the Eighth District farm land was in need of rain at the beginning of the third week of June. Some areas had been without rain for more than a month. However, showers during the latter part of June were beneficial, and subsoil moisture generally is adequate.

It appears that major district crops, with the exception of wheat, will be larger than last year. Cotton acreage in Delta counties is 10 per cent

larger than in 1947, according to estimates of the Staple Cotton Association. Similarly, corn acreage is believed to be considerably higher than the March 1 intended corn acreage. At that time farmers in district states intended to plant 2 per cent more corn acreage than in 1947.

The wheat crop being harvested has prospects of being second only to the record crop of 1947, according to the June 1 crop estimate. Winter wheat production was estimated at 877 million bushels, 32 million bushels more than the May 1 estimate, but 190 million bushels less than the 1947 winter wheat crop. The higher estimate for June 1 was based on improved prospects everywhere except some areas of the Great Plains. Total winter and spring wheat production is now estimated at 1,192 million bushels compared with a total production of 1,365 million bushels in 1947.

United States farm income in the first half of 1948 is estimated at \$12.6 billion, about 3 per cent more than the first half of 1947. About two-thirds of this income was from livestock and livestock products. This would be only a slightly higher dollar amount than in the like period in 1947, even though livestock prices have been 9 per cent higher on the average than in 1947. The higher prices have been offset by a lower volume of marketings. Income from crops is estimated at \$4.5 billion for the first half of 1948, about 5 per cent more than a year earlier.

Farm income in district states was about the same in April, 1948, as in April, 1947. The January-April income in district states was 5 per cent less than for the same period in 1947. The lower income for the district states may be attributed in part to the fact that farmers marketed a larger proportion of both cotton and tobacco than usual in the latter part of 1947 instead of early 1948.

AGRICULTURE

(In thousands of dollars)	CASH FARM INCOME					
	April '48, comp. with			4 month total Jan. to Apr.		
	April, 1948	March, 1948	April, 1947	1948	1948 comp. with 1947	1946
Arkansas	\$ 17,675	-32%	- 5%	\$ 106,131	- 9%	+27%
Illinois	130,700	+ 8	- 6	540,481	- 4	+44
Indiana	77,483	+ 9	+ 4	293,350	+ 5	+42
Kentucky	22,385	- 3	+ 5	157,331	-25	- 2
Mississippi	18,018	-48	+35	110,976	- 0	+53
Missouri	65,684	+ 9	+ 3	275,225	- 3	+42
Tennessee	23,046	-24	- 2	132,891	- 6	+18
Totals	\$354,991	- 3%	- 0 - %	\$1,616,385	- 5%	+34%
RECEIPTS AND SHIPMENTS AT NATIONAL STOCK YARDS						
	Receipts			Shipments		
	May 1948	May '48 comp. with Apr. '48	May '47	May 1948	May '48 comp. with Apr. '48	May '47
Cattle and calves.....	117,426	+ 5%	-15%	49,004	+ 7%	-22%
Hogs	239,667	+ 9	+ 9	74,898	- 22	+21
Sheep	68,595	+25	-34	34,244	+ 84	-51
Horses	1,503	-13	- 4	1,503	- 13	- 4
Totals	427,191	- 1%	- 8%	159,649	- 2%	-18%