

SOIL SURVEY OF 16 COUNTIES MADE

Work of State and U. S. Government Is Far From Complete.

Detailed soil surveys have been made of only 16 counties in Arkansas and of two small areas around Fayetteville and Stuttgart, making a total of only 18.7 per cent of the state that has been surveyed, according to George C. Branner, state geologist.

A general soil reconnaissance has been made of the Ozarks region and all that part of the state north of the Arkansas river and west of the Coastal Plain shore line, which passes through Pulaski, Lonoke, White, Independence, Lawrence and Randolph counties.

The accompanying map shows the counties and portions of the state which have been surveyed and those yet to be surveyed.

Soil surveys are conducted by the Bureau of Soils of the United States Department of Agriculture. Results are published by the government printing office and advance sheets for single counties are printed in paper bound pamphlet form for free distribution through senators and congressmen or by the Bureau of Soils.

Much Data Is Given.

The survey bulletins give a general description of the history, climate, agricultural development, soils and surface character of the county or area covered. The kinds of crops suitable to each variety of land are outlined. A detailed account of the varying soils in the area covered is given and a large scale colored map of the area shows the exact locations of the various kinds of soils.

Counties for which soil surveys have been completed and bulletins published are: Craighead, Mississippi, Pope, Conway, Faulkner, Yell, Perry, Lonoke, Prairie, Jefferson, Drew, Ashley, Columbia, Miller, Hempstead and Howard. Areas around Stuttgart and Fayetteville have been surveyed and a general reconnaissance of the northwest quarter of the state has been completed. The meager general information contained in this reconnaissance report has been published in a separate bulletin.

These bulletins are considered of great value to farmers who are trying to get away from haphazard methods of farming, because they give a detailed description of every kind of soil found in the area covered and tell what crops do well on the various kinds of soil.

Survey Report Thorough.

For instance the soil survey bulletin for Perry county devotes from one to three pages to each of the following kinds of soil found in that county: Hanceville stony fine sandy loam, Hanceville stony loam, Hanceville gravelly fine sandy loam, Hanceville very fine sandy loam, Hanceville loam, Conway loam, Conway silt loam, Waynesboro fine sandy loam, Waynesboro loam, Holston silt loam, Teller very fine sandy loam, Bastrop silt loam, Bastrop clay, Muskogee silt loam, Muskogee silty clay loam, Pope fine sandy loam, Pope silt loam, Atkins silty clay loam, Casa fine sandy loam, Casa loam, Portland very fine sandy loam, Portland clay, Perry clay, Yahola very fine sand, Yahola very fine sandy loam, Yahola silty clay loam, rough stony land and riverwash.

The soil surveys are conducted on a co-operative basis by the federal and state governments. The College of Agriculture, University of Arkansas, has supervised the state's part of the work and appropriations to match federal funds for this work have been made through the university. The 1925 legislature did not make any appropriation for this work and consequently, there is no soil survey program in the state at this time.

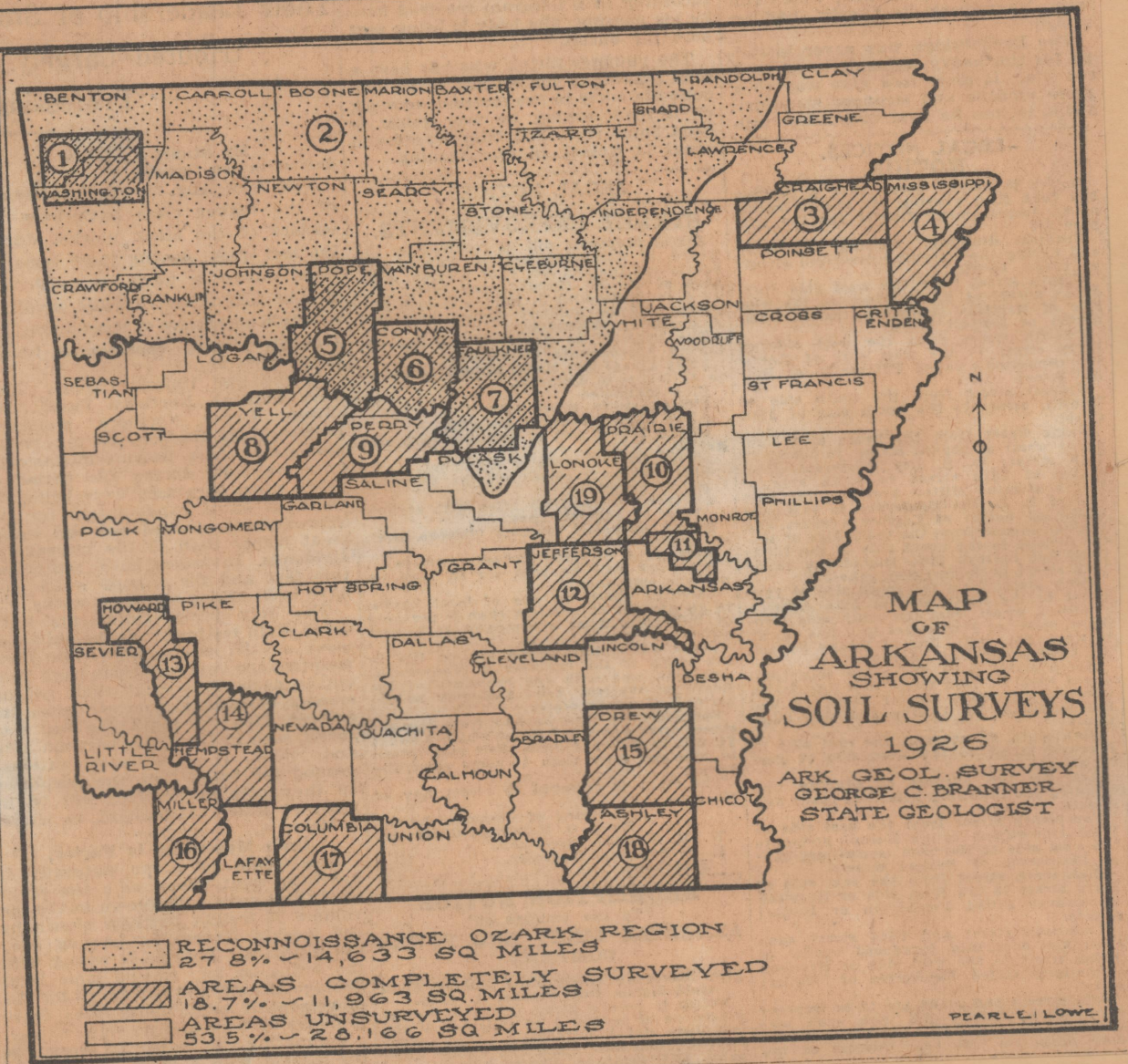
The 1923 legislature made a small appropriation for survey work, and surveys were begun in Pulaski, Baxter, Clay, Bradley and Nevada counties. Bulletins on these surveys have not been published.

The government soil survey is considered a great aid to farmers, extension workers, county agents and others interested in development of scientific diversified farming, according to T. Roy Reid, assistant director of the agricultural extension department of the University of Arkansas.

"Before intelligent scientific farming can be done, the farmer must know what kinds of soil he has to deal with, the crops best suited to the soil at hand, best methods of tilling and necessity for drainage, and must have other information that can be obtained in detail only from an official soil survey," Mr. Reid said.

The Agricultural Experiment Station has issued a bulletin, containing a description of all soils of the state, together with a state soil map. This bulletin deals with the different classes of soils found in the state, their

Portions of State Whose Soil Has Been Surveyed By State and Federal Governments Are Shown Here



crop possibilities and fertilizer treatment. The bulletin was written by Prof. M. Nelson, Prof. W. H. Sachs, and Prof. R. H. Austin of the College of Agriculture staff and may be obtained by applying to the Agricultural Experiment Station at Fayetteville. The total area of the various federal soil surveys in the state aggregates about 12,248 square miles, or slightly more than 23 per cent of the total area of the state. The federal soil survey bulletins for the counties in which such surveys have been made can be obtained from the U. S. Bureau of Soils, Washington, D. C.

ANTI-EROSION WORK WILL BE EXPANDED

Wheat Planted as Cover Crop, Soil-Building Legumes Will Be Sown.

Special to the Gazette.

Conway, Oct. 5.—Soil erosion prevention work in the East Cadron creek area of Faulkner, White and Cleburne counties, is expanding rapidly, Fred C. Newport, regional director, said today. Activities consist principally of seeding winter cover crops, running terrace and contour lines and gully control.

Thirty terracing plows, 37 fresnoes and five Corsicana graders now are in use on farms in the area, the service supplying the equipment and the farmers the teams. One hundred additional terracing plows and 85 fresnoes have been bought. One hundred eight miles of terrace lines have been run.

With the distribution of a carload of approximately 1,000 bushels of seed wheat for winter cover crop purposes completed and 90 per cent of it in the ground, co-operators are preparing ground for soil-building crops, principally vetch and lespedeza. Two carloads of seed have arrived and large additional quantities have been bought.

Trees to Be Set Out.

The most badly eroded and washed lands will be planted in black locusts, for which the state Forestry Commission early last summer established a 10-acre nursery on the campus of the Arkansas State Teachers College here. It was hoped to obtain 3,000,000 seed-

lings for transplanting during the coming winter, but the drought reduced the production to about 800,000. These will be transplanted next January. It is planned to produce 3,800,000 seedlings next year. Some pine will be grown with the black locusts. Where the black locusts are planted they are expected to remain for five years. Then they will be cut and the land put back into ordinary crops. The locusts in five years will make fence posts.

Co-operative agreements in the East Cadron area have been signed by 258 farmers holding an average of 173 acres each, and scores of additional applications are on file. "We are meeting with the finest sort of co-operation," Mr. Newport said.

A large force of men is employed on the Woolly Hollow recreational area, seven miles northeast of Greenbrier, where a 35-acre artificial lake will be created.

TO SPEND \$300,000 ON SOIL PROJECT

Utilization Program in Faulkner County to Cover 250 Square Miles.

Special to the Gazette.

Conway, April 10.—The land conservation and soil utilization program to be undertaken by the government in the watershed of East Cadron creek, embracing about 250 square miles, at a cost more than \$300,000, is the biggest program ever evolved for this county, in the opinion of Dr. A. R. Winston, technical assistant of the soil erosion service, United States Department of Agriculture.

Dr. Winston appeared at the courthouse last night and discussed the project before about 100 members of the Chamber of Commerce and others interested. In the afternoon he addressed a gathering of more than 700 persons, mostly farmers, at Centerville.

The director of the five-year program will be announced from Washington soon and work will begin before the end of April, Dr. Winston said. Several trucks and other equipment has arrived in Conway for the project and a carload of office furniture is here for the establishment of an office.

Dr. Winston said a Civilian Conservation Corps camp will be established in the area and that 200 men in this camp and about 10 or 12 experts from government ranks will be in charge of the work.

Farmers on whose lands the project will be carried out will be asked to work on their property, Dr. Winston said, but no coercion will be used. They will not be paid for the work they do, he said, but the work done on their farms will not cost them anything. The government will pay all expenses.

Detailed Survey Planned.

"First," he said, "we must make a detailed study of every farm in the area. We will have aviators make an air map. The CCC men's first duty will be to stabilize gulleys and to stop further washings."

"Past farm practices will be considered. When all this data is compiled experts will devise the best land use program possible for each man's farm. We expect to spend \$60,000 or \$75,000 on seed alone," he said.

He pictured the East Cadron watershed as an ideal farming section upon completion of the big project.

Dr. Winston said the project is the only one in Arkansas and one of 10 being carried on in the United States.

The Washington man stressed the importance of checking soil erosion and said there is no single problem more important before the American farmer and merchant.

Funds for the Faulkner county project were allotted from the PWA by authority of Secretary of the Interior Ickes.

"He (Mr. Hall) is as much responsible as any person for the government's selecting this area," Dr. Winston said.

New Soil Act Epochal Move For Arkansans

Democrat 3-19-37
**Fast-Eroding Farming
Dirt May Be Saved
Under Program.**

(This is another in a series of articles on legislation enacted at the recent Arkansas general assembly. Others in the series will follow daily.)

(By Associated Press)

The Arkansas farmer stands to benefit, on the whole, from legislation enacted at the recent session of the general assembly.

New laws written into the statute books give the state's agriculturists opportunity to participate fully in the federal soil conservation and rural electrification programs.

The ruralist will receive better supported service from the agricultural extension workers.

Law enforcement agencies will have more authority to protect the farmers' property rights.

In addition, the state is now in position to better develop its natural resources, to carry out flood control works, and bring to the rural resident a new market for his products and labor.

Principal bit of farming legislation is the Hardgrave soil conservation act which permits formation of soil conservation districts throughout the state. A state conservation committee will direct the program in co-operation with the University of Arkansas College of Agriculture. This school was designated as the state agency to receive soil conservation grants from the government.

Local Districts Provided.

The districts may be organized on petition of 25 landowners after public hearing and referendum elections. Within such districts approved soil conservation practices will be carried out along scientific lines.

The new rural electrification law gives farmers the right to organize co-operative, non-profit corporations to bring the benefits of electric lights and power to their communities. Funds will be made available by the federal government and state officials are busy now planning extensive development along this line.

The new sources of income may assure county farm extension workers their salaries, help carry out their educational program on a larger scale. Depleted county funds will receive \$75,000 a year from the Northcutt sales tax to help pay the salaries of these agents. The Hall liquor tax bill provides an additional \$265,000 a year for the same purpose, in addition to taking over expense of the state's branch agricultural experiment stations. A new station, for livestock and forestry, will be provided for by the increased liquor tax.

Seeking to protect the farmer's henroost and pasture, the legislature made theft of farm fowls a felony and passed a law requiring persons transporting livestock to possess documentary evidence of their rights to possession. The law is aimed at cattle thieves.

New Forestry Program.

The state will spend \$100,000 a year in severance tax funds on development of a forestry program. The state forestry service devotes its activity to aiding the property owner realize a profit on his timber. The new appropriation, much larger than any made heretofore by the assembly, will permit greatly expanded activity by this organization.

A reorganized and enlarged game and fish commission will attempt to afford greater protection to wild life. The legislature stripped the commission of its authority to promulgate regulations, but passed other laws shortening seasons on deer and turkey hunting, increased hunting and fishing licenses, and gave the federal government authority to acquire property for use as game and migratory waterfowl refuges.

A state flood control commission will be set up under provisions of another law with full authority to co-operate in federal activities, including constructions of dams and reservoirs for both flood control and water power development. The highly developed drainage and levee districts in eastern Arkansas will not be affected by this new commission, but under another law will have authority to co-operate with the government in their own right.

The state plant board, which seeks to protect the producer from diseased seeds and plants, was given broader powers to enforce its regulations.

Wooring New Factories.

The new state industrial commission will attempt to bring manufacturing money into denuded farm areas, providing employment for stranded farm populations. The publicity commission aims to attract both tourists and capital to the state, affording fresh markets to the rural producers.

To throw further safeguards about the farmer and his cash income, the legislature gave him the only real exemption available under the new sales tax. Although all other sellers in the state must collect the tax from their customers, the farmer will not have to add this levy to anything he sells for the first time if he produced that article himself.