

WORK PLAN

LEE COUNTY SOIL CONSERVATION DISTRICT

November 1957

Revision

A. PURPOSE

The District has prepared a program which provides information relative to the location and boundaries of the District, a description of the soils, topography and climate of the area, and a brief history of the agriculture of the county. The program also describes the problems of the District and gives the long time objectives of the Commissioners.

This work plan states rather specifically what the District Governing Body proposes to do to reach these objectives. It outlines the operating policies to be followed, and in so far as possible, the methods to be used, and by whom each phase of this work is to be done. Those problems with which the District is prepared to deal at this time are included in this discussion. Other problems will be considered as they arise and as the work of the District develops.

B. ADMINISTRATION

The District Commissioners who were elected by the landowners of the District will be responsible for the administration of the District. They will determine the broad operating policies, and organize the efforts of those who are to assist them. The Commissioners will plan the type of work which is to be carried on, and all farm conservation plans which are prepared will be subject to their approval. The Commissioners will consider all requests for the assistance of the District, ~~and~~ will either approve or disapprove these requests, and determine the order in which assistance will be granted to the different groups or individuals. The Commissioners may assign certain responsibilities to others as they determine is desirable, and they may wish to designate certain community leaders to represent areas in the county or to act as Assistant Commissioners.

C. PLAN FOR PROVIDING ASSISTANCE IN ESTABLISHING CONTOURING AND TERRACING

The Commissioners are of the opinion that farmers will be more interested in developing a conservation plan for their farms after they have had some experience with contouring and other conservation practices. For this reason, the continued use of conservation practices will be continually stressed to keep farmers from discontinuing a practice after once starting.

Method demonstrations will be used in demonstrations of terrace building with plow, whirlwind terracer, bulldozer, and motor patrol. The Commissioners will need the leadership of the Extension Service in such demonstrations, and also the assistance of the Soil Conservation Service.

D. INFORMATION AND EDUCATION

1. General Educational Activities

The District Commissioners wish to provide information to all residents of the District relative to the extent of soil and water depletion, both by erosion and by cropping. They will also provide information relative to the possible conservation measures which have been developed, and the assistance which may be available to them through the Soil Conservation District.

The Commissioners have requested the Extension Service and Extension Director to assume responsibility for the educational work in soil conservation. This request has been granted and a Memorandum of Understanding covering this phase of the work has been prepared and signed by the District Commissioners and the Extension Service.

The usual methods for doing educational work will be followed, which include publicity in local newspapers, radio, circular letters, demonstrations, exhibits, window displays, and meetings with farmers and other groups in the District.

2. The Development of Group and Individual Interest in Farm Planning

The group approach in farm planning was very effective for the first few years of the District. However, at this time, with almost every township and community having a group, individual interest has replaced the group approach.

Many neighbors of the early group members have observed their use of conservation practices and have started using some of the same practices. Also, with SCS assuming their responsibilities under the ACP program, many individuals have become cooperators when the District purpose was explained to them.

The group approach has been used on two ACP pooling agreements recently, and with an aroused interest in such projects a continued use will still be made of groups. At the time when interest is aroused in a watershed, group planning will be needed and used.

E. FARM PLANNING

One of the principal activity of the District will be to assist cooperating farmers to develop conservation plans for their farms. The other activities of the District will be directed to the accomplishment of this purpose.

Assistance in the development of such plans will be provided either to individuals or to small community groups who request such assistance. The granting of assistance to both individuals and groups will be the responsibility of the Commissioners who will either approve or disapprove such requests and determine the priority of such assistance. Assistance may not be granted in the order in which requests are received. Priority will be established after considering interest, location with respect to problem areas, equitable distribution of work over the District, need as well as

F. RECOMMENDATIONS

General recommendations for each of the five problem areas are provided in the preceding chart. Additional recommendations are outlined below.

Cropland

The continual cropping over a long term of years has resulted in a gradual reduction in the fertility of the soil. If profitable farming operations are to be maintained, it will be necessary to provide for the replacement of plant food elements, which are removed by cropping or lost by erosion. It will also be important to follow farming practices which will improve the tilth of the soil and maintain the organic content of the soil at a high level.

a. Rotations will be recommended which are suited to the soil conditions and to the needs of the farmer in-so-far as his needs do not exceed the capability of the soil. Most rotations will include one or two years of clean-tilled crops and a year of small grain. All rotations should include one or more years of legume or legume-grass mixture. Under present conditions the growing of legumes is the most economical method of replacing the nitrogen in the soil. The legume and grass mixtures also provide organic matter and promotes good tilth. If the soil is low in organic matter and runs together badly, it is good practice to plow a crop of clover under.

b. Limestone is the first step in any soil building program. Limestone will be recommended in the amounts indicated by tests.

c. Barnyard manure and crop residues should be carefully saved and used. In no case should crop residue be burned. Green manure crops should be used frequently.

Phosphate and other fertilizers should be applied where soil tests indicate they are needed. Generally, fertilizers will give best results on limed land. The equivalent of 300 to 400 pounds of 0-20-0 is recommended in each rotation, and this will give best results if applied to a small grain at the time the legume seeding is made. Some of the soils of the district respond to the use of potash. In these locations a 0-20-10 or 0-16-8 fertilizer is recommended.

e. Special erosion control practices should be used on ground which has more than 3 ^{PERCENT} slope. Contour farming is adapted to use on slopes of from three to twelve percent; however, it is most effective on slopes of from three to six percent. Strip cropping in which alternate strips of meadow are grown between alternate strips of corn or grain, is much more effective than contouring in preventing erosion and should be considered particularly on long slopes or slopes of more than five per cent. Terracing is the most effective erosion control practice known. It is adapted for use on slopes ranging from three to eight per cent.

f.

Grassed waterways are recommended in all fields and they should be of sufficient width to carry the flow of water from the area drained. Waterways are most effective when the bottom is broad and flat, and the sod is left well up on the side of the waterway. In many cases the installation of tile lines on each side of the waterway will prove highly successful.

Pastureland

Pastures are particularly important in this District due to the fact that such a large acreage is devoted to pasture production. No attempt will be made to make specific recommendations in this Work Plan to meet the wide variety of pasture conditions which exist. Farm plans will provide for the improvement of existing pastures, for the establishment of good productive pastures (when sound land use indicates conversion of cropland to pasture) and for adequate supplementary pastures to provide continuous grazing over a long season. Recommendations will include the use of limestone and fertilizers in order to build up soil fertility. Legumes will be included in all seeding mixtures. For general pasture seeding on limed pasture a legume seeding of 8 pounds alfalfa, 2 to 3 pounds Red Clover, and 6 to 8 pounds of brome grass is suggested. On rougher land use a long term pasture seeding of 5 pounds of birdsfoot trefoil and 4 to 5 pounds of timothy.

Farm Ponds

Farm ponds provide an excellent source of livestock water if properly planned and constructed. The recommendations for the construction of farm ponds follows:

- a. The outlet should be adequate to handle the flow of the watershed area involved. An emergency spillway emptying the overflow on a well sodded area is adequate for small drainage areas. On larger drainage areas (over 10 acres) a drop-inlet should be used. Material to be corrugated iron pipe, reinforced concrete, or bell tile.
- b. The entire area draining into the pond should be maintained in grass. In no case should barnlots drain into farm ponds.
- c. All farm ponds should be fenced and livestock excluded. A pipe should be installed before the fill is made and a water tank placed below the dam.
- d. Adequate freeboard of 2 feet should be provided above the level of the overflow.
- e. Slopes of the fill should be at least three to one on the up-stream side and two to one on the downstream side. The fill and disturbed area should be mulched and seeded as soon as practical after construction is completed.

Gully Control

The recommendation for the control of gullies is dependent upon so many variable factors that no attempt will be made to include specific recommendations in this Work Plan. It will be the policy of the District Commissioners to provide assistance with these problems as they arise and first consideration will be given to control measures which may be used on the drainage area contributing to the flow into the gully. This would include terraces, contouring, strip cropping, and waterway development.

Diversion Terraces

Diversion terraces will be used to protect bottomland from damage by hillwater. The channel capacity and grade in these diversions will be determined by the amount of water which they will carry. In general, the grade will be flat enough to avoid erosion in the channel.

Drainage Enterprises

Consideration will be given to drainage problems encountered on individual farms and to the drainage problems of larger groups—either legally organized drainage districts or unorganized groups. Before consideration will be given to requests for assistance the interested parties must submit a written request to the District Commissioners requesting the assistance desired.

The District Commissioners recognize the responsibility of the County Board of Supervisors in the matter of legal drainage enterprises. If assistance is desired by and for such a drainage district, the request should be directed to the Soil District Commissioners and be signed and submitted by the County Board of Supervisors. Such work will be covered by appropriate memorandum of understanding and working agreements.

If an organized group or an individual wishes to request assistance the application should state the assistance desired and should be signed by the individuals concerned.

The Commissioners will give consideration to the following points when passing upon requests for technical assistance in the development of drainage plans.

- a. The applicants must be properly organized to carry out the project after the surveys are completed.
- b. The Commissioners will want assurance that the applicants will install the improvements if the survey indicates that the proposal is technically and economically sound.
- c. Plans should include provision for maintenance of the improvements.
- d. The project should be coordinated with a land use and soil conserva-

tion program in order to protect the improvement from impairment silting. These provisions do not of necessity have to precede the drainage work; however, they should be given consideration in the development of the long time plans.

Woodland

Land to be devoted to woodland will ordinarily be land not suited for cropland or productive pasture. Practices recommended will include protection from fire and grazing, selective and improvement cuttings, and new plantings of adapted species. The proper management of the woodland area as well as the usual conservation practices on the other land contribute to the development of desirable conditions for game production. The District Commissioners desire to cooperate with the State Conservation Commission and local sportsman's clubs in this phase of the work and it is expected that more specific plans for cooperation will be developed as time permits. Cooperation with local pulpwood industry to encourage the establishment of tree farms on cooperators' farms. In this way a continuous source of pulpwood can be assured a local industry.

G. COOPERATION WITH OTHER AGENCIES

District Commissioners will need the support of all other groups in the county to get the most maximum results of the program. The District has had many leaders in various organizations and agencies initiate interest in the District program.

Lee County Farm Bureau

The Farm Bureau was first to start the program interest but did receive the full cooperation of other groups. The Farm Bureau is set up through its leaders to lend valuable support to the educational program.

Vocational Agricultural Departments

At present only one school maintains a vocational agricultural department. Considerable educational information can be given at adult night school. Also, land judging contests are a valuable tool for demonstrations on capabilities and proper land use.

Agricultural Stabilization and Conservation Committee

The county ASC has encouraged the use of conservation practices through conservation practice payments. They also assisted in organizing the District. Since 1952 in the Secretary of Agriculture's Memo 1278 the SCS has been responsible for need and practicability, layout, checking construction and certifying completion of the primary Agricultural Conservation Program practices.

Rural Churches

The churches lent considerable effort towards the organizing of the District and it is hoped that continued efforts will be given towards the educational program. Soil Stewardship Sunday pamphlets have been distributed annually to rural ministers.

Schools

The interest the schools have shown in conservation shows that we have great possibilities of cooperating with them in this program. Considerable educational material can be given and demonstrations set up to aid in the soils program. Essay contests have proven a valuable tool in encouraging conservation studies in the schools. Also, the District has distributed plantings stock of a few pines and multiflora rose for corner plantings.

For the last several years the District has assisted with part of the expenses for three teachers to attend the Springbrook Conservation Camp.

Civic Organizations

The District plans to ask Civic groups of both Fort Madison and Keokuk as well as others to aid in the program. Considerable educational material can be given to these groups as well as their direct efforts in a promotional way in furthering the program. Considerable help has been given the District by the Agricultural Committee of the Chamber of Commerce in Ft. Madison and Keokuk in assisting at plowing matches.

State Conservation Commission

Through the services of a Farm Forester stationed at the Lee-Van Buren Co. Shimek Forest the District program is helped immensely by referral of individual woodland problems that arise on cooperators' farms.

The local Game Warden assists the District in educational benefits of corner wildlife plantings, renovation of farm ponds for restocking with fish, and furnishing fish for stocking ponds. Also the State Commission is the only source for purchase of trees, multiflora rose and wildlife plantings.

State Soil Conservation Committee

This committee allocates funds for District 1A and 2A budgets. The 1A budget is for commissioners' expenses and mileage, and office expense and demonstrational materials. The 2A budget pays for a clerk in the District office and also additional technical personnel in the field.

Conservation Associations

The Izaak Walton League in both Ft. Madison and Keokuk cooperate with the District in making multiflora rose available to District cooperators at a nominal cost or in some cases for free.

Other Groups

Other groups that can assist in the program are Farmers Home Administration, Board of Supervisors, Press, Radio Stations, Railroads, Pipelines, State Highway Commission, and the Army Engineers. The Commissioners hope and expect to cooperate with these groups as problems develop. Details will be worked out as the situation arises which are mutually satisfactory to the parties involved.

H. REPORTS

The Commissioners of this District will furnish cooperating agencies such reports as are requested in order that these agencies may have a record of the progress of the District. These reports will ordinarily include an annual report and may occasionally include other special reports. The Commissioners will expect the technicians assigned to the District to assist in collecting progress information for use in these reports. Records will be kept which will adequately reflect the progress and accomplishments to date.

I. REVISIONS

This Work Plan of the Lee County Soil Conservation District will be maintained in such a manner as to accurately reflect the activities of the District. In order to keep the plan current it will be revised from time to time as experience and changing conditions require. Suggestions from farmers, landowners, cooperating agencies and other interested individuals will be appreciated. When in the judgment of the District Commissioners, these suggestions will result in increased efficiency of operation, they will be included in the work plan. This Work Plan will be reviewed at least once a year to determine if changes are needed.

LEE COUNTY SOIL CONSERVATION DISTRICT

Dec 18-57
Date

By Geo W Schneider
Chairman,
Lee County Soil District Commissioners

The signing of this Work Plan was authorized by a resolution of the Lee County Soil Conservation District Commissioners adopted at a meeting held on

Dec 18 1957
Date

Robert M. Dowlings
Secretary