

DELAWARE COUNTY
SOIL CONSERVATION DISTRICT
MANCHESTER, IOWA
DISTRICT PROGRAM

Program
of the
Delaware County Soil Conservation District

History of Organization

The Delaware County Soil Conservation District, located in the northeastern part of the State of Iowa, was organized by the land owners of the District to enable farmers to make a coordinated effort toward the attainment of sound land use throughout the county and to accomplish the widespread use of farming practices which conserve soil.

The Delaware County Soil Conservation District includes all of the area within the boundaries of Delaware County, Iowa, exclusive of incorporated cities and towns. Delaware County is located in the third tier of counties south of the Minnesota State line and is in the second tier of counties west of the Mississippi River. The area of the district is about ~~349,401~~ ^{351,162} acres and contains around ~~2,200~~ ^{2,036} farms.

The organization of the Soil Conservation District was recommended and carried out by the Delaware County Farm Bureau, Delaware County AAA, other local organizations, and farmer leaders of the county.

A series of interest meetings were held in the county to which all farmers were invited to attend and discuss the erosion problems in Delaware County. The interest was high enough at these meetings to warrant putting out petitions and three or more leaders in each township circulated these petitions, gathering a total 583 names or 28% of the landowners signatures.

A hearing was held in Delaware County August 3, 1944, and as a result of this hearing the State Soil Conservation Committee granted a referendum to be held September 2, 1944.

A total of 310 votes were cast, 287 being in favor of the organization of the district.

Conditions Within the District

Delaware County is partly in the Iowan drift soil area and partly in the Mississippi loess area and hence the soils are partly of glacial and partly of loessial origin. Owners operate 50.4 percent of the total farm land and renters 49.6 percent.

The type of agriculture most commonly followed in Delaware County at the present time consists of a system of general farming, including the raising and feeding of hogs and cattle and the production of such general crops as corn, oats, soybeans, and clover-timothy. Dairy farming is also practiced rather extensively, and on many farms which are not operated on a dairy basis exclusively, considerable income is provided from dairy products. Hog production in most cases furnishes the largest part of the farm income, with dairying and beef cattle following in the order named. The average yield per acre, 1939 to 1942, was corn 56.8 bushels, oats 35.8 bushels, and soybeans 16.5 bushels.

The average rainfall of 33 inches is usually sufficient for all the common crops.

About seventy five percent of the farmers of the district do not follow a definite crop rotation.

Tractors are abundant throughout the district and most farms are well equipped with machinery and farm improvements.

From data taken from "Soil Erosion of Iowa" we find that only three percent of Delaware County is bottom land which is found in relatively narrow areas along the various streams.

The balance of the county, 97%, is subject to sheet and gully erosion in varying degrees of severity. Approximately 147,840 acres of the county has a depth of surface soil of only 4 to 8 inches, and 206,080 acres with a covering of 8 to 12 inches.

Most of Delaware County is adequately drained, however, there are many scattered areas where the lack of proper drainage is a serious problem. The lack of proper outlets, the use of undersized tile, and the shallow placing of tile has in many cases led to improper drainage of many acres of wet land.

All of the soils in the district are acid in reaction and, therefore, in need of lime. Approximately 80% of the district is in need of lime at the present time.

The lack of grassed waterways of the proper size and shape has led to the development of many gullies in some sections of the area.

The common practice of checking corn in straight rows and carelessly located dead furrows has aggravated erosion when the rows and furrows run up-and-down the hill.

Pasturing of timber land and clear cutting has, in many cases, reduced the earnings of such land and encouraged erosion.

The District recognizes other factors which are closely related to the soil problem and indirectly affects land use. Low farm incomes hinder owners in their attempts to maintain and improve their land. The short term lease encourages tenants to obtain the maximum possible production during their short tenure without regard for conserving soil or maintaining fertility.

To outline the problems more fully the district has been divided into four general problem areas. There may be in some cases small areas or individual farms within each of the areas which may vary from the general description of the problem area in which it lies.

Problem Area I.

Problem area number one contains approximately 69,632 acres and is located in four localities of the district. Two of the localities are located in the northeastern part of the county, one north of Greeley, and the other east and west of Colesburg. The largest area in this problem area is located in the southeastern part of the county and takes in most of Delhi and Union townships. Another small area is found along the eastern boundary of South Fork township.

In problem area number one erosion has taken its greatest toll. From 50 to 75% of the top soil has been removed by erosion leaving an average covering of 2 to 4 inches, and on many fields all of the top soil has been removed. The slopes in this area range from 10 to 15% with steep valleys and sharply rounded hills.

Many gullies are to be found in this area due to the fact that sheet erosion is in a more advanced stage.

Inproper land use and the lack of rotations are two other outstanding problems in this area.

Run down pastures, grazed and over cut timber land, and raw gullies are other problems.

Near Earlville a sand area of 5,000 acres is to be found in this problem area. Lack of organic matter plus the other problems common to the balance of the area are to be found.

Control measures in this area will call for practically all of the soil conservation practices* as well as land use adjustment.

Problem Area II.

Problem area number two contains approximately 56,473 acres and is located in the northern part of the county. This area starts just west of the Backbone State Park and runs in a narrow band of several miles wide across the northern part of the county. Another small part of this area is found south of Dyersville along the west side of North Fork township.

Moderate sheet erosion has accrued in this area and as a result 25 to 50% of the top soil has been removed leaving a covering of 4 to 8 inches. Slopes are not as steep as in area number one, but average from 5 to 10%. In the northwestern part of this area west of the State Park, 4,750 acres of sandy soil is to be found.

Besides erosion control the need for crop rotations, waterways, and pasture improvement are evident.

Problem Area III.

Problem area number three contains approximately 25,200 acres and is found in scattered localities throughout the district. This problem area is made up of the sandy loam and loamy sand soils of the county. The sandy areas described in this problem area are found on the more gently rolling land from 0 to 5% in slope.

This soil type as a rule is low in organic matter and every effort must be made to incorporate organic matter in the soil by following a crop rotation, utilization of crop residues, and use of manures.

Fall plowing creates a serious wind and water erosion problem.

The use of soil conservation practices not only will reduce erosion, but will conserve moisture in the soils of this area.

* Conservation practices - Contouring, Strip Cropping, Terraces, Lining, Rotations, gully control and Pasture and Timber Management.

Problem Area IV.

Problem area number four contains approximately 214,144 acres and is found in all townships except Colony.

This is the more gently rolling area of the county with slopes ranging from 0 to 5%. Less than 25% of the top soil has eroded from this area. The top soil depth averages from 8 - 12 inches.

Sheet erosion and drainage are the main problems of this area. The slopes are very long and as a result sheet erosion is more severe than most people realize.

Crop rotations and other soil conservation practices must be used to conserve the soil and maintain fertility.

Community Problem

Soil conservation is a community problem. When land depreciates in value it becomes more difficult for it to contribute its share in the support of schools, roads, and local government. A well cared for farm becomes less valuable if the land around it declines. Uncontrolled run-off and silt from one farm may cause serious damage to other land located further down in the drainage system. Erosion as well as low wet areas do not follow property lines. In many cases the drainage of wet land requires the cooperation of several farmers. The Delaware County Soil Conservation District offers an opportunity for all land owners and operators to work together rather than individually to protect their land and safeguard their future welfare.

District Objective

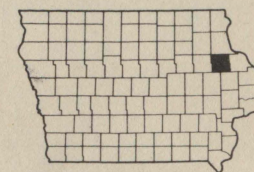
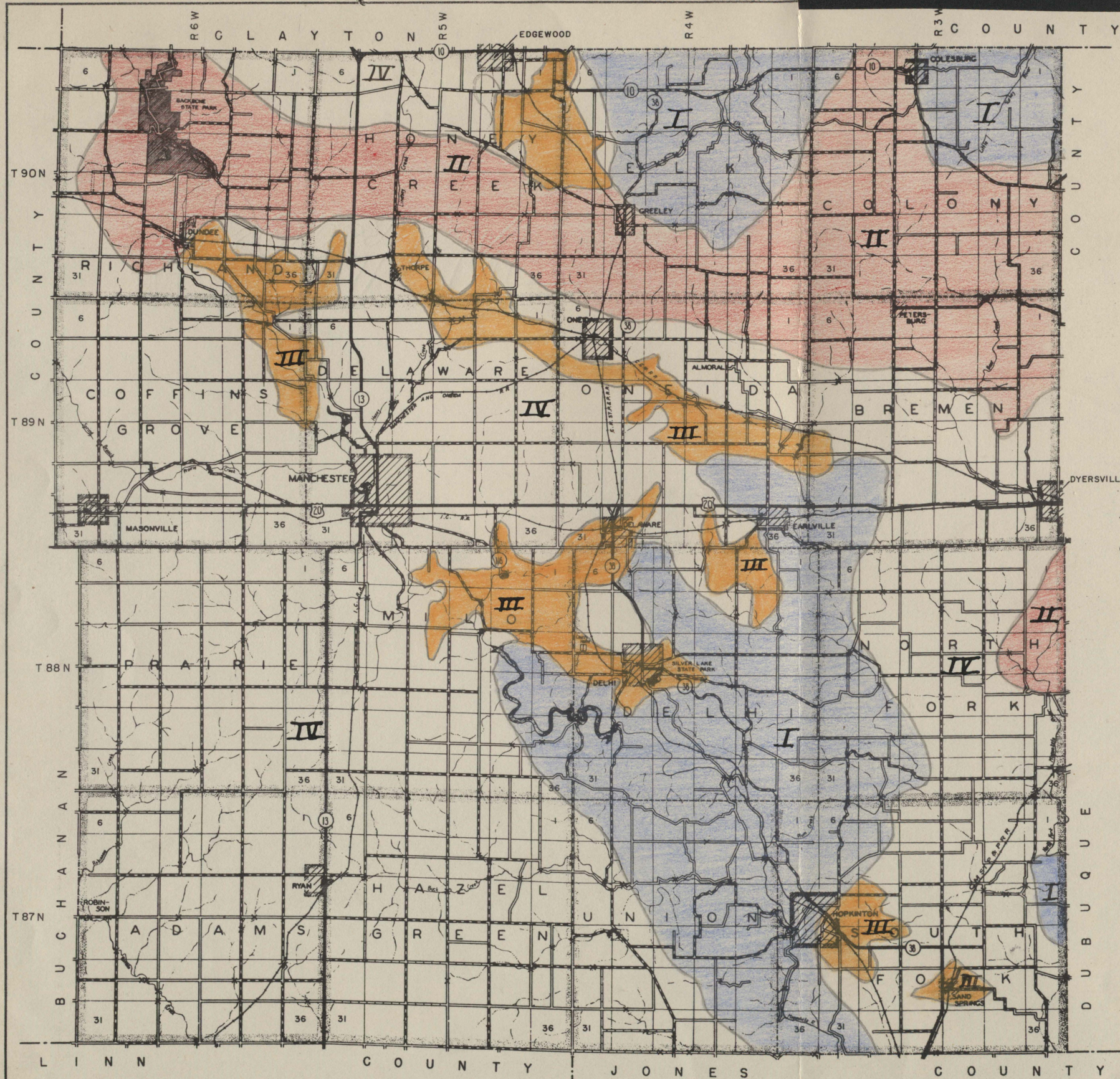
It will be the object of the District to make available to every farmer the facts and information which will enable him to plan the best possible use and management of his land; and to provide the necessary technical assistance for putting these plans into effect. The district will encourage every farmer to recognize the true effects of soil losses, to study the practical methods which might be used to combat this menace, and to take action by adopting a good land use program along with suitable erosion control practices.

The objectives of the district can be accomplished through the cooperative effort of all farmers in the district who are interested in conserving and building up soil fertility. It can be assisted by

Delaware County Soil Conservation District

Date January 13 1945

Secretary, District Governing Body



LOCATION IN
IOWA

Total acreage approximate 349,401

The District includes all of Delaware County
exclusive of incorporated cities, and towns.

 EXCLUDED AREA

DELAWARE COUNTY SOIL CONSERVATION DISTRICT

Scale in miles
0 1 2 3 4 5