

Clarke County Soil Conservation District



Bob Carroli receives a check from Glen Kimes, District Commissioner. Bob was first place winner in the annual Clarke Soil and Water Conservation District's speech contest, co-sponsored by Grinnell Mutual Reinsurance Co. of Grinnell and the Iowa Association of Soil Conservation District Commissioners.

Our Soil—

The Second Hundred Years

One hundred years ago the sloping land in Clarke County had from eight to 14 inches of topsoil when it was converted from its native prairie to cropland. It is estimated that 138,000 acres have four to six inches topsoil now and 20,000 acres

have four inches or less. This means that the productive top soil left today is about plow depth or less in thickness, or about one half of it has been lost by erosion.

Many times people believe that some of our flatter land

doesn't have a major water erosion problem in Clarke County. However, this idea is wrong. Soil loss due to water erosion on a Grundy soil with four percent slope can reach over 17 tons/acre/year.

Rotation	Soil	Slope	Slope Length	Tillage & Residue Mgt. Up & Down Slope*	Soil Loss Tons/Acre/Year
Continuous Corn	Grundy	4%	400'	Spring plow	16.1
Continuous Corn	Grundy	4%	400'	Fall plow	17.8

*Soil loss would be 1/2 these amounts if contoured.

Put into different terms this 17 tons soil loss can be expressed as 309 bushels of soil (a bushel of soil weighs about 110 lbs.) this means that you could be losing more than three bushels soil for every bushel of corn produced. Another way to look at it is, you could lose an inch of soil every 12 years. With land prices the way they are today this makes the production of a bushel of corn

quite expensive! With the intensive row cropping in Clarke County the past 10-15 years the remaining topsoil won't last for even 100 more years unless important conservation measures are applied to the land. This helps show the tremendous need for conservation treatment in Clarke County. Of the 158,000 acres of row cropland in Clarke County,

104,000 has an erosion rate above acceptable levels. By using contouring and conservation tillage we can reduce soil loss by 50 percent and double the life of our soils to allow more time for installation of permanent practices such as terraces. Erosion can be reduced to acceptable levels on 27,000 acres by conservation tillage and contouring.

Rotation	Soil	Slope	Slope Length	Tillage & Residue Mgt. Up & Down Slope*	Soil Loss Tons/Acre/Year
Continuous Corn	Grundy	4%	400'	Chisel disk leaving 1000# crop residue on surface after planting	10.3
Continuous Corn	Grundy	4%	400'	Chisel disk leaving 3000# crop residue on surface after planting	5.3
Continuous Corn	Grundy	4%	400'	Till plant leaving 4000# crop residue on surface after planting	6.0
Continuous Corn	Grundy	4%	400'	No-Till leaving 1000# crop residue on surface after planting	3.2
Continuous Corn	Grundy	4%	400'	No-Till leaving 6000# crop residue on surface after planting	1.4

*Soil loss would be 1/2 these amounts if contoured.

The remaining 77,000 acres need more intensive treatment. Of the 77,000 acres 54,000 acres

will need terraces, conservation tillage, contouring and crop rotations to reduce erosion to accep-

table levels. The remaining 23,000 acres should be seeded to permanent cover.

Rotation	Soil	Slope	Slope Length	Tillage & Residue Mgt. Up & Down Slope*	Soil Loss Tons/Acre/Year
Corn - Oat - Hay	Grundy	4%	400'	Spring plow	2.3
Corn - Oat - Hay	Grundy	4%	400'	Fall plow	4.4

*Soil loss would be 1/2 these amounts if contoured.

The Clarke Soil Conservation District has found that it will take up to 258 years to complete needed structural measures such as terracing at current rates of progress. However, our soil resource will be severely depleted if we cannot accomplish adequate treatment within the next 50 years. Terrace construction and conservation tillage must be accelerated.

Based on current average costs it will take about \$17 million dollars (\$164.00/acre) to treat the 104,000 acres to an acceptable rate of soil depletion. To accomplish this erosion control level in 50 years will require about \$342,000.00 to be spent on these critically eroding acres annually in Clarke County.

Other programs have been studied and need monies for implementation. Inventories have been prepared that assess

road ditch conditions and grade stabilization needs of Clarke County rural transportation system. The district is eager to implement erosion control measures identified in these plans where feasible. Approximately 100 priority road structure sites and 70 miles of road bank stabilization are needed and would cost approximately 3.5 million dollars. To do this in 50 years will require \$70,000.00 per year.

Greater technical assistance is needed to inform landusers of proper tillage methods and to accomplish needed surveys, design, layout and inspection of conservation practices. The immediate need for additional technical assistance is approximately \$10,000.00/year.

In using cost-share funds allocated by the Iowa Department of Soil Conservation the Clarke SCD number one priority remain

funding projects in areas where erosion is a critical problem. Requests for funding in these areas have far exceeded available funds the past several years.

The needs of the Clarke County SCD are great. When channeling available funds to priority critical eroding areas many other areas also important to conservation of natural resources and rural development cannot be given the attention they deserve.

As we develop a long range plan for the future we know that erosion due to wind and water will continue to be a major hazard until adequate conservation practices are applied.

Please support Clarke County Soil Conservation District effort during the Second Hundred Years.

Commissioners And Water Quality

As the events of the year 1978 are reviewed, we see a big increase in commissioners involvement in clean water projects. Much of the funding from federal sources is being allocated to clean up the lakes and streams of our environment. During the year, commissioners have been involved in meetings and hearings related to River Basin Surveys and Investigations, 208 Planning, Conservancy District Organization and Administrative Structure Planning, Resource Conservation Act or RCA (Culver Bill).

District Accomplishments

Activity	Fiscal 1978
New Cooperators	27 No.
Landowners Assisted	278 No.
Landowners Applying Practices	94 No.
Conservation Plans Prepared	13 No.
Conservation Plans Revised	2 No.
Resource Studies	1 No.
Referrals Served	78 No.
Critical Area Planting	31 Ac.
Ponds and Erosion Control Dams	29 No.
Grassed Waterways	18 Ac.
Minimum Tillage	587 Ac.
Pasture and Hayland Planting	1,975 Ac.
Terraces	17,200 ft.
Subsurface Drain	25,585 ft.
Wildlife Upland Habitat Management	53 Ac.
Cropland Adequately Treated	299 Ac.
Pasture and Hayland Adequately Treated	2,038 Ac.
Wildlife Land Adequately Treated	35 Ac.
Cropland to Grassland	46 Ac.
Any Use Wildlife Recreation Land	43 Ac.

SCD Dedicated to Helping Landowners

Every farm in Clarke County is different. No two farms or no two farmers are exactly alike. The soils are different. The drainage is different. The precipitation amounts are different. And the management practices are different.

But all farmers do make plans and think about factors that may help or hinder next year's crops.

One factor usually taken into consideration is what can be done to adequately protect the soil from erosion, so it will continue to grow good crops year after year. That's where the Clarke

County Soil Conservation District (SCD) can help.

Each SCD is dedicated to encourage and help landowners and operators to make and carry out conservation plans. They do this through the help of the Soil Conservation Service (SCS).

In Clarke County many conservation plans are developed each year. The service is free and easily obtainable.

Plans are usually written right on the farm, and in all cases each problem area is discussed with the landowner or operator. In

clusive in the plan are: current soils information, aerial photos, conservation alternatives and recommendations, a copy of the farmer-district cooperator agreement, pamphlets, and anything else that can be provided to the landowner.

The plan is then used as a guideline which can prove to be very important.

For instance, learning about your soils gives you a better understanding of their use and management. It can help you compare crop yields on different soils, decide which trees are best suited in your windbreak, which land is best suited for row crops, or deal with soil problems.

So take time out to contact the Clarke SCD to set up an appointment for developing a new or revised conservation plan. It's one of the best ways for you to prepare for the future.

SOIL CONSERVATION SERVICE PERSONNEL ASSIGNED

W. Keith Edwards District Conservationist
T. J. Laing Conservation Technician
Linda Hodge State Clerk, Secretary, Treasurer

AREA PERSONNEL

Erwin O. Aust Area Conservationist
Richard Birchmier Area Engineer
Marjorie Meyer Area Clerk
Laurence Dorgan Civil Engineer
Jack Langford Civil Engineer
Robert Loudon RC&D Coordinator

DISTRICT COMMISSIONERS

Richard Gonseth Chairman
Adrian Fuller Assistant Chairman
Philip Heinrichs Member
Glen Kimes Member
Merrill Thornton Member

ASSISTING THE COMMISSIONERS

Doyce Miller Assistant Commissioner
Mrs. Betty Webb Assistant Commissioner
Fred Redman Assistant Commissioner

COMMITTEES

District Banquet Adrian Fuller
Education and Youth Board Richard Gonseth
Annual Report Glen Kimes
Fair Booth Richard Gonseth
Soil Stewardship Adrian Fuller
Speech Contest Doyce Miller
Conservation Awards Contest Philip Heinrichs
Cooperator Letter Merrill Thornton
Poster Contest Betty Webb
Workbook Evaluation Adrian Fuller
Goodyear Contest Committee Project

Conservation is At Crossroads

Natural resource care is at a crossroads—the decisions you help make in the next ten years could very likely be the most important ones you will ever make.

In the 1930s, in the days of dust bowls and other resource destruction, the people of this country were decidedly interested in finding ways to save our natural resources. Then, after World War II, interest seemed to fade. Now, interest has reappeared. People all over the country are learning that we have serious resource problems that can't wait for another generation to solve.

Citizens of Iowa are being asked to help stimulate and guide the future of conservation in our communities and the nation. The Soil and Water Resources Conservation Act of 1977 is providing this opportunity.

Each state in the nation will be developing a strategy for soil and water conservation in that state.

The combined local and state data will be used for a national appraisal and program development.

The first national appraisal and program report is to be transmitted by the President to Congress on the first day it convenes in 1980.

The purpose of the appraisal and report is to ensure that USDA programs for the conservation of soil, water, and related resources are responsive to the short and long term needs of the nation.

PEOPLE'S CONCERNS

In 1978, as part of the federal Resources Conservation Act, more than 8,000 people in Iowa told conservation leaders which resources they were concerned about. Each county summarized results on the local level.

In Clarke County over 50 percent of the people responding to a Clarke Soil Conservation District, Public Opinion questionnaire categorized these problems as major concerns last summer:

Water Supply, the lands ability to produce food, soil erosion by water, improving rural areas, how land is used,

water quality, governments ability to deal with resource problems, flooding, loss of prime farmland.

Statewide, the three top concerns were soil erosion, water quality, and the way land is used.

WHERE YOU FIT IN NOW

The Clarke County Soil Conservation district is forming task force committees to study our top resource problems. We could use your help as we develop programs on how to deal with these problems. Your soil conservation district will be making or revising a longrange program that will note the present condition of resources, list goals for improving the condition of the resources during the next five years, and map strategies to guide conservation efforts in reaching the goals. You can start by calling the Clarke County soil conservation district office located in the Soil Conservation Service facility in Clarke County.

We want to know what you think, and need your help in formulating these programs.

District Operates With 3 Budgets

FINANCIAL STATEMENT

Expenditures of funds provided by the State of Iowa for District Commissioners' expenses, office supplies, clerk's salary, and cost-share conservation practices.

1-M Budget (July 1, 1977 - June 30, 1978)	
Total Allocation	\$1,631.94
Commissioners' Mileage, Meals	\$ 836.40
District Expenses	795.51
	\$1,631.94
Balance	\$ 0.00

2-M Budget (July 1, 1977 - June 30, 1978)	
Total Allocation	\$8,830.00
Clerk's Salary and expenses	8,805.78
Balance Released	\$ 24.22

3-M Budget (State Cost-Share Fund) 1976-77	
Total Allocation	\$34,490.00
Balance	0.00

3-M Budget (State Cost-Share Fund) 1977-78	
Total Allocation	\$50,000.00
Unobligated Balance	669.03

3-M Budget (State Cost-Share Fund) 1978-79	
Total Allocation	\$31,000.00
Unobligated Balance	15,083.78

RC&D Meet to Review Projects

The Clarke RC&D Steering Committee members are Richard Hill, chairperson, Tom O'Neil, Adrian Fuller, Don Martin, Gary Lamb.

During the regular monthly meetings, the committee meet to review community projects in Clarke County and suggest technical and financial assistance.

The 1978 fiscal year projects included: Construction of East Lake Park Dam, Clarke County Road Stabilization Structure Inventory.

Whitebreast Plan Study Continues

Watershed planning continued on studying the feasibility of several project alternatives.

Planning included assessing needs of municipal and rural water and fish and wildlife development. Additional watershed sponsors have been obtained to assure local responsibility for the water supply and fish and wildlife development beyond flood control as major benefits.



A graphic representation of the value of leaving crop residue on the surface to reduce soil erosion caused by wind and water is shown in this view of

a till planter. The amount of residue adds to the holding power of the soil.



A completed outlet terrace is shown on the Bob Greenfield farm northwest of Murray.

Minimum tillage is practiced on the field pictured.



Construction of the dam at the East Lake of Osceola was completed last fall. As part of the RC&D project, the outlet pipe is shown during

that phase of the project. Additional plans are underway to further develop the area for recreation.



The above picture shows the tile outlet terrace constructed on the Wayne Whitham farm located south of Woodburn. Heavy rains preceded the

taking of the picture and shows the effectiveness of the terrace in holding water.