

50 copies

Annual Reports

1957

1958

1959

- 1 to Office ✓ ✓ ✓
- 6 to Walt ✓ ✓ ✓
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Clyde Spry ✓ ✓ ✓

B.B. Wickenlauper - senator - Washington, D.C. ✓ ✓ ✓

Thomas Martin - " " " ✓ ✓ ✓

Ben Jensen - Congressman " " ✓ ✓ ✓

~~Chris Jensen~~ - ~~Gov. of Iowa~~ ^{new man Doyle - Sheldon, Ia}

Gilbert Fridley - Pres. Ia. Agr. Soc. Indiana ✓ ✓ ✓

Mr. J.D. Shaeman - State Senator - Des Moines ✓ ✓ ✓

Lester Kilmer - State Representative - " " ✓ ✓ ✓

Area - 7 -
Audubon ✓ ✓
Carroll ✓ ✓
Council Bluffs ✓ ✓
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Logan ✓ ✓
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Area 9 -
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1959

Seventeenth Annual Report

CASS COUNTY SOIL CONSERVATION DISTRICT

Ia-SCD-27

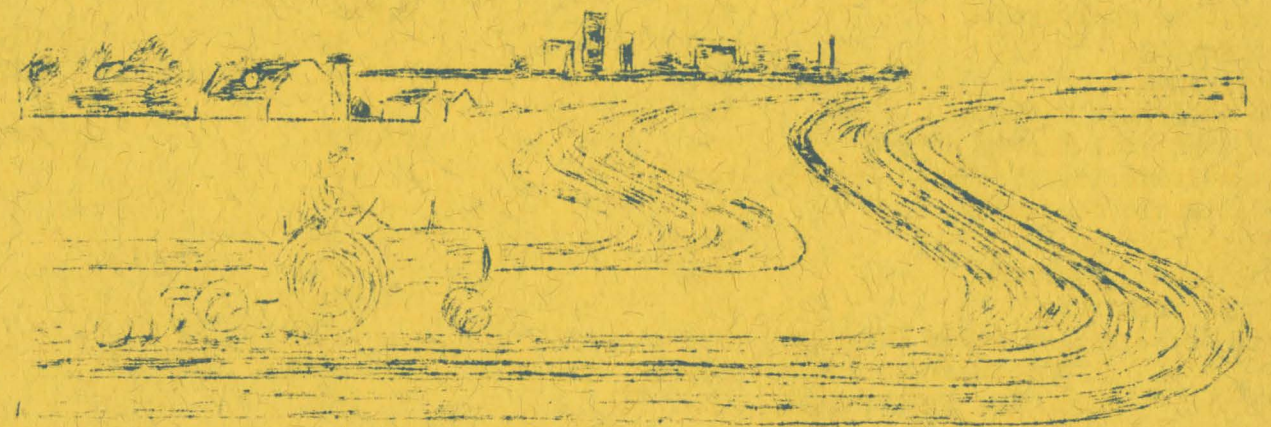
Atlantic, Iowa.

CASS COUNTY

SOIL CONSERVATION DISTRICT

ANNUAL REPORT

1959



≡ OUR SOIL ★ OUR STRENGTH ≡

1959

CASS Soil District

CASS COUNTY

SOIL CONSERVATION DISTRICT

ANNUAL REPORT

1959



OUR SOIL ★ OUR STRENGTH

1959

SEVENTEENTH ANNUAL REPORT

CASS COUNTY SOIL CONSERVATION DISTRICT

DISTRICT COMMISSIONERS

George Hosfelt, Chairman
Wendell Pellett, Ass't.

Boyd D. Bailey
Frederick Baier, Ass't.

Carl M. Keller
Gayle R. Johnson, Clerk

COOPERATING AGENCIES

Soil Conservation Service
Agri. Stabilization & Conservation
Production Credit Association
Game Conservation Club
County Conservation Board

Extension Service
Farmers Home Administration
Federal Land Bank Association
Board of Supervisors
Chambers of Commerce & Civic Clubs

ACCOMPLISHMENTS

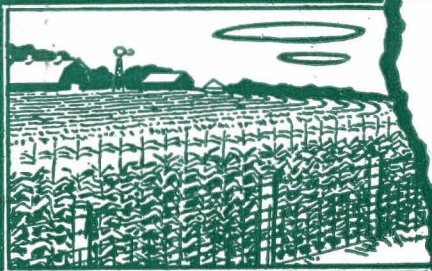
PRACTICES	UNIT	THIS YEAR	TO DATE
Contouring	Ac.	2,698	74,252
Waterways	Ac.	75	1,260
Terraces	Mi.	87	977
Dams	No.	4	329
Diversion	Mi.	5	45
Tile Drains	L. F.	185,615	1,135,548
Open Drains	Mi.	3	73
Drainage	Ac.	611	4,954
Permanent Pasture Seeding	Ac.	72	
Limestone application	Tons	8,938	
Cooperators	No.	59	1,003
Farm Plans	No.	60	827
ACP Referrals serviced	No.	396	
Standard Soil Survey mapped	Ac.	102,000	102,000
Educational activities of leaders	No.	107	
Individuals reached	No.	800	
Demonstrations	No.	2	
Educational Meetings	No.	85	
Total Attendance	No.	939	
Soil Conservation Radio Programs	No.	5	
" " Newspaper articles	No.	9	
" " Bulletins distributed	No.	525	

EXPENDITURES OF STATE FUNDS

1-A	2-A
Office supplies	Clerical & Technical salaries
Commissioners mileage	
Office expense	
Rental	
Printing	
Materials for demonstrations	
Meeting expense	
TOTAL	

SOIL CONSERVATION DOESN'T COST, IT PAYS!!

S



IOWA

Lester Balding
% Schoenthal
1606 Oak



SOIL and WATER

Official Publication of the Iowa Association of Soil District Commissioners and the Iowa State Watersheds Association



OCTOBER
1959

Iowa Soil and Water Features
CASS Soil District

Howell's Feed and Mobile Milling

LYMAN, IOWA
WAYNE FEEDS

Custom
Grinding
&
Mixing



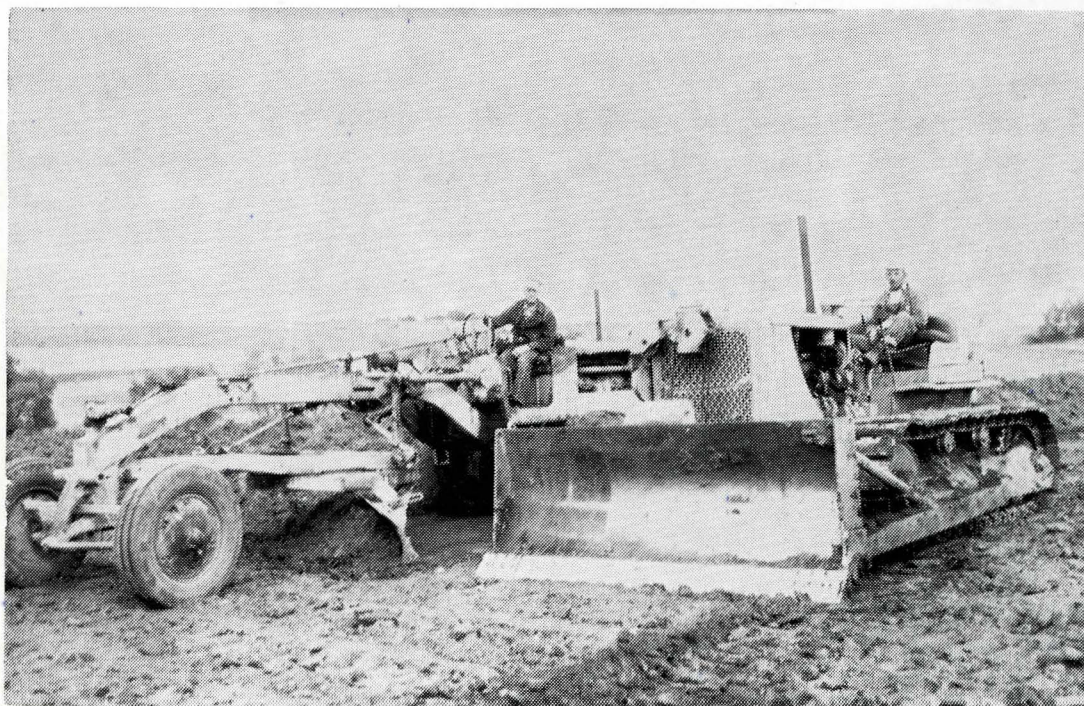
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if
Desired

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ELBA "Pud" HUDDLESON CONSERVATION CONTRACTOR



Waterways — Ponds — Terracing — Clearing
ALL TYPES OF CONSERVATION WORK

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WIOTA, IOWA

IOWA SOIL and WATER

Newman Lyle, President of the Iowa Association of Soil District Commissioners, Inc., Sheldon, Iowa.

Barr Keshlear, President, Iowa State Watershed Association, Shenandoah Iowa. Address changes mail to: Iowa Soil & Water, P. O. Box 1471, Des Moines, Iowa.

POST OFFICE ENTRY
Entered as second class matter at the Post Office at Holstein, Iowa.
FREQUENCY
Monthly

PUBLICATION BOARD
Clyde Spry, Iowa Secretary of Agriculture.
Frank H. Mendell, State SCS Conservationist.
Dr. George M. Browning, Associate Director, Experimental Station, Iowa State University.
Barr Keshlear, President, Iowa State Watersheds Association.
Newman Lyle, President, Iowa Association of Soil District Commissioners.

HUBERT BEASLEY,
Managing Editor, Garden Grove, Iowa,
Iowa Association of Soil District Commissioners, Publisher.

Iowa Soil & Water is published jointly by the Iowa Association of Soil Conservation District Commissioners and the Iowa State Watershed Association as information for proper conservation of each acre of agricultural land within its capabilities. The publication supplies information for members of both groups and others interested in soil erosion control and flood prevention.

Published at Holstein, Iowa

VOL. VII OCTOBER, 1959 NO. 10
15 cents per copy \$3.00 per year

Officers and Directors of the Iowa Association of Soil Conservation District Commissioners, Inc. (A non-profit organization)

Newman Lyle, Sheldon	President
Joe O'Hara, Shenandoah	Vice-President
Everett Rice, Storm Lake	Treasurer
Don Johnson, Fairfield	Secretary
Everett Rice, Storm Lake	Director
Wilbur Peters, Persia	Director
George Hosfelt, Massena	Director
William P. Eno, Sheffield	Director
Cameron Stafford, Blairsburg	Director
Cecil Gillispie, Winterset	Director
Wayne C. Mark, Cedar Falls	Director
Donald L. Johnson, Fairfield	Director
Ed Kadera, Iowa City	Director

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3. High Feed Efficiency
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A Farm Is As Big As Its Power to Produce.

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the Ingredient that Cannot Be Duplicated!

RESEARCH is the ingredient that makes every sack of Walnut Grove feed different from any other kind of feed.

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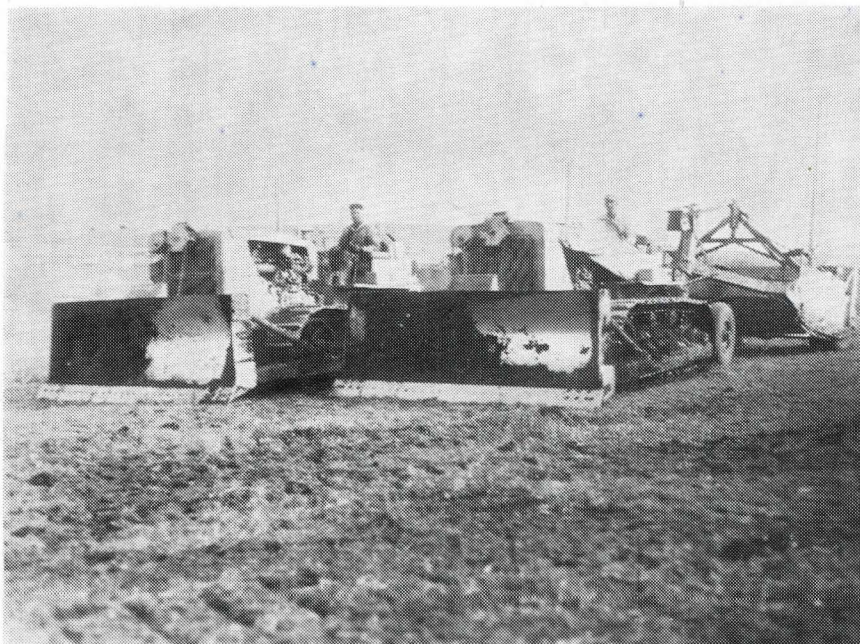
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Terracing — Waterways — Ponds — Clearing

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Anita, Iowa

"OUR VARIOUS AGENCIES"

By George Eason
Farmer Member State Soil
Conservation Committee

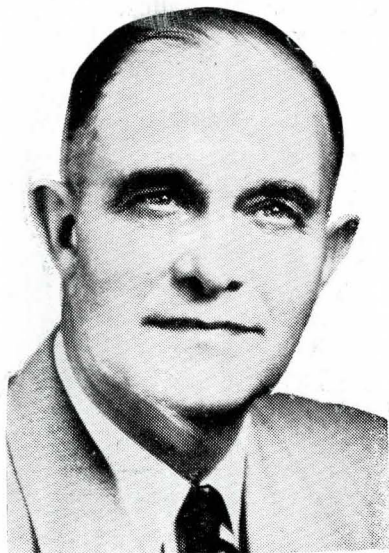
In thinking over some of the things most important to readers of Iowa Soil and Water, I am continually reminded of the confusion which exists in many people's minds, when we refer to the various State and Federal agencies. This situation is not helped only when we refer to ASC, SCS, FHA, etc; in the abbreviated form. Many people new to soil conservation work find it difficult to identify the difference between State Soil Conservation Committee, State Conservation Commission and State Association of Soil Conservation District Commissioners. Maybe a brief review of the last three would help a bit.

The State Soil Conservation Committee is composed of five former members appointed by the Governor and three members, consisting of State Secretary of Agriculture, State Soil

—Continued on page 6

Iowa Soil and Water

President's Corner



NEWMAN LYLE

LETTER FROM THE PRESIDENT

By Newman Lyle
President I.A.S.C.D.C.

Dear Iowa Conservation Friends:

As the new president of your Association it becomes my duty and privilege to write this column. With full realization, on my part, of the task ahead, I will need the assistance of all of you to keep our organization advancing, as it must. At this time, I wish to thank you for the trust you have placed in me. Please be patient with my mistakes, I hope they will be caused by inexperience and am certain not by design.

—Continued on page 18

The Cover



An aerial view of contoured corn, partially picked, on the Clarence Pellett farm, northeast of Atlantic. Clarence was one of the first Commissioners elected in Cass County. He served eight years as a Soil District Commissioner starting with the establishment of the District. Clarence Pellett was active in promoting Soil Conservation work and was awarded the Master Farmer award by Wallace's Farmer in 1953.

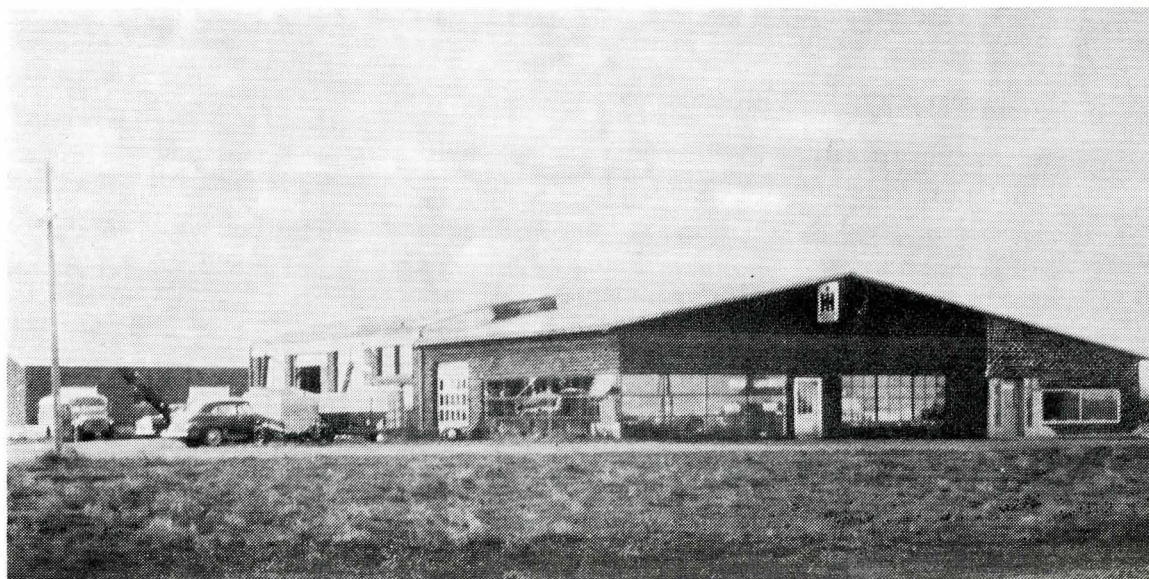
Iowa Soil and Water

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PHONE 28

MASSENA, IOWA



Gamble Appliances — Full Line of Hardware

13' FREEZERS AT \$199.95



Hoegh Oil Company

PHONE 66

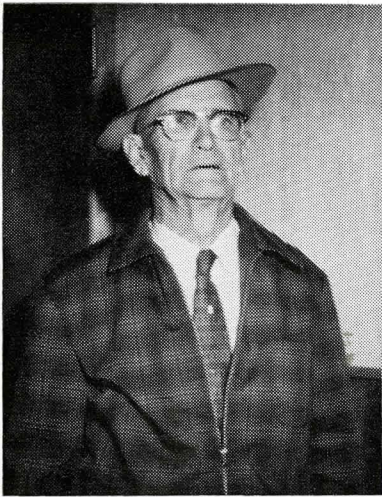
ATLANTIC, IOWA



TIRE REPAIRING — TIRE RECAPPING

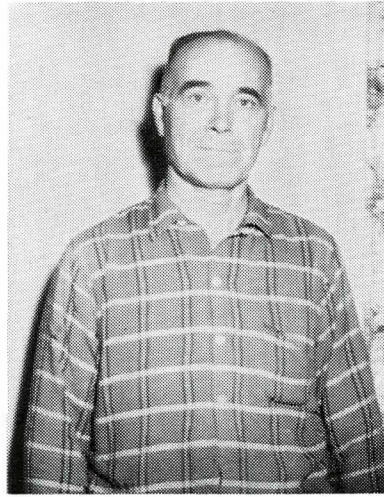
Complete Tire Service
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CASS SOIL CONSERVATION DISTRICT'S PAST and ASSISTANT COMMISSIONERS



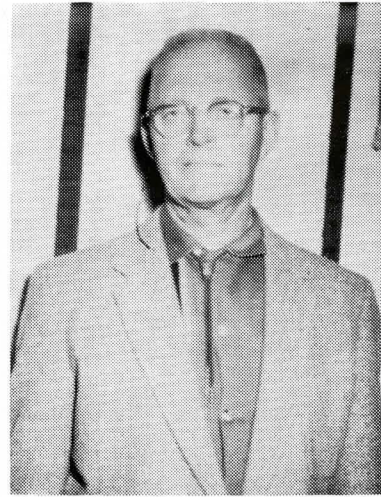
CLARENCE PELLETT
Past Commissioner

Mr. Pellett served an eight-year term as Soil Conservation District Commissioner for Cass County from 1942 to 1950. Clarence farms 300 acres in Pymosa Township.



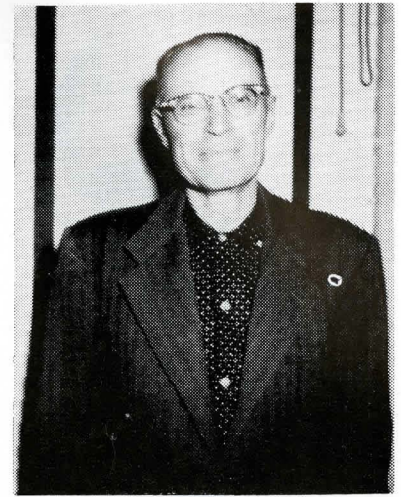
JAMES WINSTON
Past Commissioner

Mr. Winston served a six-year term as Soil Conservation District Commissioner for Cass County from 1948 to 1954. Jim farms 480 acres in Washington Township.



JOE LAWTON
Past Commissioner

Mr. Lawton served a six-year term as Soil Conservation District Commissioner for Cass County from 1942 to 1948. Joe farms 400 acres in Cass and Washington Townships.



CARL EUKEN
Past Commissioner

Mr. Euker served a four-year term as Soil Conservation District Commissioner for Cass County from 1942 to 1946. Carl is now retired and his sons farm the 480 acres.

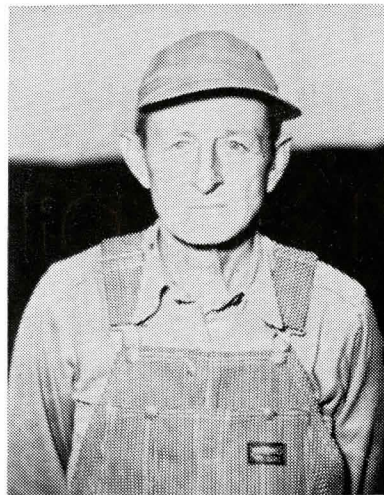
OUR VARIOUS AGENCIES—

(Continued from page 4)

Conservationist and Dean of Agriculture, Iowa State University. This group of men serve in an administrative capacity. They are primarily concerned with the allocation of funds to the 100 Soil Conservation Districts within the state. These funds are appropriated by the state legislature, and are used to furnish clubs and state aids, supplies and equipment to the various County Soil Conservation district offices. The state committee is also the agency which reviews and grants approval to watershed projects under Public Law 566.

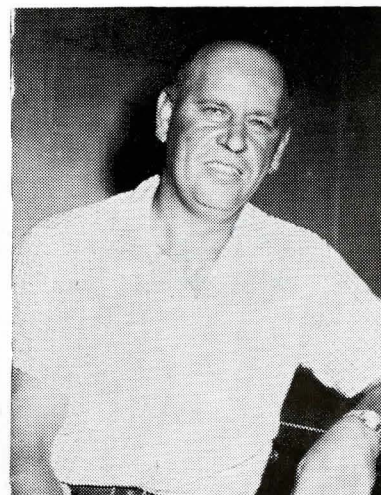
The State Conservation Commission very briefly is the agency entrusted with the conservation and protection of fish and wildlife. They have a tremendous task which at times overlaps into the conservation of Soil and Water but they have no direct connection with the district program as such.

Then we have the "State Association of Soil Conservation district commissioners." This group is composed of a board of directors elected by the district commissioners in each county. They do not receive support from tax sources, and depend upon dues paid by each individual district to carry out their program. They as a group speak the wishes of the district



GILBERT LACEY
Past Commissioner

Mr. Lacey served a six-year term as Soil Conservation District Commissioner for Cass County from 1946 to 1952. Gilbert farms 160 acres in Union Township.



FREDERICK BAIER
Assistant Commissioner

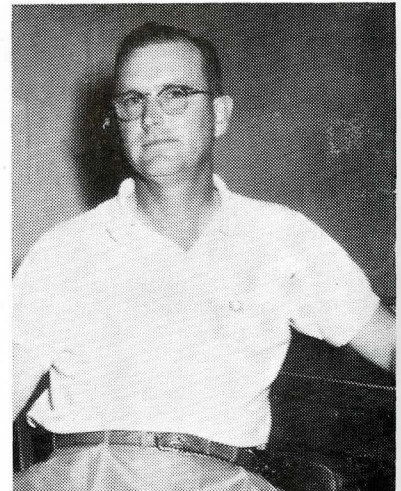
Mr. Baier farms 120 acres in Franklin Township. He has a complete farm plan with terracing, contouring, waterways, etc., in operation. Mr. and Mrs. Baier have a son, Jon, attending college in Maryville, Missouri, and a daughter, Sally, a Junior in the Wiotia High School.

Commissioners. They promote and assist various programs designed to further the cause of Soil and Water Conservation.

SCS or "Soil Conservation Service" stands for the agency which supplies federal assistance to districts in the form of technical personnel. Their program within the state is administered by the State Soil Conservationist and his staff.

These people or agencies, namely the "SCS" State Association and State Committee are the three groups directly connected with the district program.

I trust that this brief discourse will aid and assist some of our newer conservationists to better understand our program.

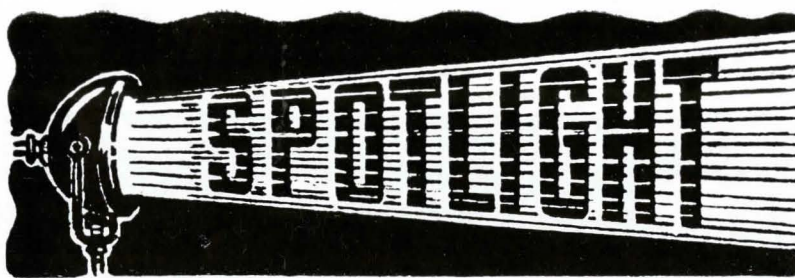


WENDELL C. PELLETT
Assistant Commissioner

Mr. Pellett previously served a six-year term as a Soil Conservation District Commissioner from 1950 to 1956. He is presently serving as an Assistant Commissioner. Assistant Commissioners are appointed by the governing body to serve one year terms. He is also an immediate past Director and Treasurer of the Iowa Association of Soil Conservation District Commissioners. Wendell served in that position for three years.

Wendell and his wife, Haleen have two kiddies, Karen age 11, and Ricky, age 7. He farms 250 acres which are under a conservation farm plan. Some of the first parallel terraces in Cass County were built on his farm. He and his family are members of the Atlantic Methodist Church and Wendell is serving as Chairman of the Board of Trustees at the present time.

Iowa Soil and Water



Editorial

A COMPLETE SOIL AND WATER CONSERVATION PROGRAM FOR YOUR FARM

By Gilbert Wehrman

Work Unit Conservationist

When visiting with cooperators interested in soil conservation work, we commonly find each individual particularly interested in one practice. In a complete, well balanced soil conservation plan each practice should be given it's proper place in the overall plan.

Contouring Gives High Return

Contour planting of row crops is the first practice which should definitely be considered on every farm. Any land planted to row crops, with more than a very slight slope should be contoured planted. Contour planting is an inexpensive practice to apply, and on average hill slopes will cut the soil loss in half. With the reduction in soil loss there is also a reduction in the loss of water and fertilizer. Contour farming involves a very low cost for it's application. The returns in increased crop yield and the reduction in soil and water loss are great in proportion to the small amount of effort necessary to establish contour farming.

Grass Waterways Essential

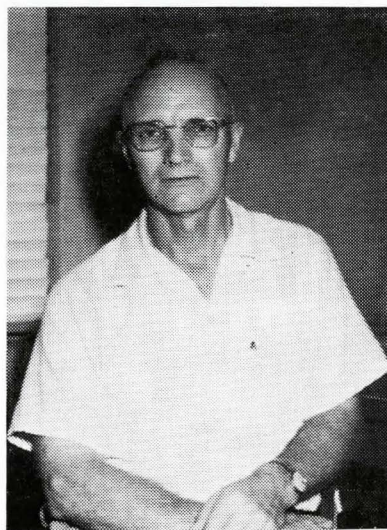
The shaping and seeding of all waterways needing attention is the second important step in the establishment of a conservation plan on a Cass County farm. Well shaped and seeded waterways are essential in a contoured field for convenience in crossing while tilling the crop. Seeded waterways serve to safely carry away excess water from a contoured field. Where terraces are being applied, well sodded waterways are necessary to carry away safely the surplus water from the terrace system.

The systemic improvement of all non-crossable waterways is a very necessary and a very important part of a well rounded soil conservation program on a Cass County farm.

Small waterway jobs can be shaped with the common farm plow and disk but larger jobs require the movement of considerable earth and can best be completed with heavy dozer type of equipment.

The type of seeding for a waterway will vary with the circumstances and the individual

Iowa Soil and Water



CARL KELLER
District Commissioner

Mr. Keller and his wife, Marie, own and operate a 240-acre farm in Benton Township. They are the parents of two sons, Ralph, a Methodist minister at Hartford, Wisconsin, and Robert, with Bankers Life in Des Moines. The farm is under a complete conservation plan and Carl normally feeds 60 head of cattle per year. He and Mrs. Keller are members of the Wiotia Methodist Church and Carl is presently serving on the official board.

desires. In general there are three grasses suited for waterway seeding. Brome grass is widely used on sites which are reasonably fertile and not excessively wet. Reed Canary grass is used in the very rugged waterway and those which are wet. Reed Canary grass furnishes maximum protection and will withstand the most rugged wet condition.

Tall Fescue has proven of value where fertility is low and pasturing is heavy.

Choosing The Land Use

The use should be chosen which will permit each acre to produce the maximum and yet provide for it's protection and improvement. Areas on the farm, which due to type of soil or steepness of slope are not suited to crop land, should be used for pasture or in extreme cases for woodland or wildlife cover.

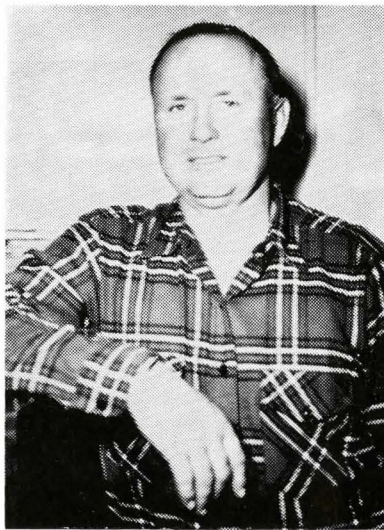
Which Rotation Do We Choose

The goal in each Soil Conservation Plan is to reduce the soil loss to a safe amount which is considered to be about five tons per acre per year. There are two

Meet Iowa Commissioners ---

'Conservation Minded People'

From Cass Soil District

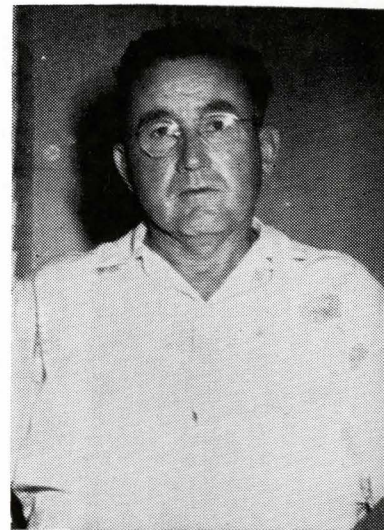


BOYD BAILEY
District Commissioner

Mr. Bailey owns 160 acres and rents 160 acres. He has a wife, Vera, and son, Bruce, 16 years old. They are members of the Atlantic Methodist Church and Boyd is a member of the Official board. He is Secretary of the Boys' 4-H County Committee and Washington Township trustee. He has a complete farm plan on his farm and usually raises 300 hogs and 100 cattle each year.

methods of reaching the goal of a safe soil loss. The first method is to use a high proportion of Meadow in the rotation with some terracing. The other approach is to permit a higher acreage of row crop in the rotation but to off set the added row crop with a much heavier use of terraces. With the first method where the tilled crop is light a four year rotation of corn, oats, meadow, meadow could be used. Where the entire slope is terraced a corn, corn, oats, Meadow rotation can be used on most cropland slopes.

After a choice of rotation has been made, field arrangement should be worked out with consideration given to convenience in contouring, and ease of access when pasturing. The terracing program should be worked out to fit the rotation and the need of the farm. The construction of terraces on a slope is a means of making several short slopes out of one long slope. As the slope length is reduced by terracing the soil loss is materially reduced.



GEORGE HOSFELT
Chairman,
District Commissioner

Mr. Hosfelt operates 700 acres, of which he owns 600 and rents 100. He and his wife, Velma, are the parents of twin sons, Dean and Gene. Dean is a graduate of Simpson College and is a Manager trainee with Kresges at Davenport, Iowa.

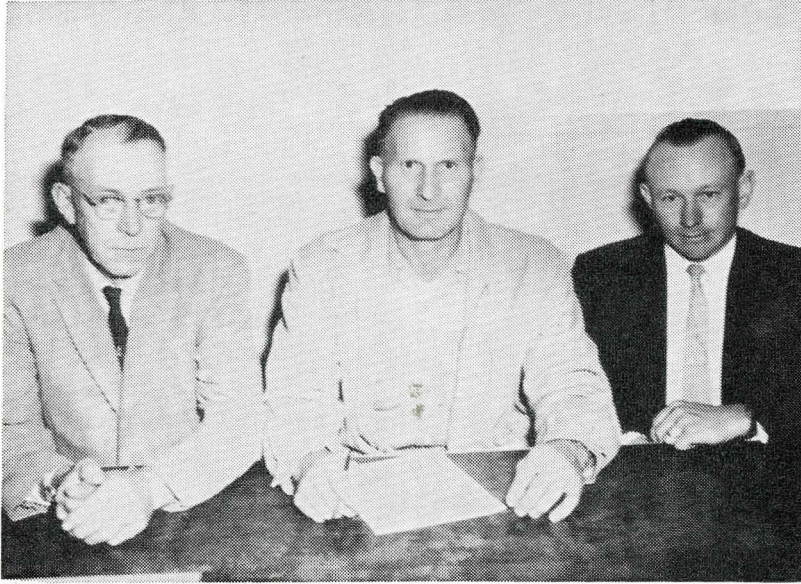
Gene is married and he and his wife, Shirley are the parents of a daughter, Brenda. Gene attended Iowa State University at Ames for one year.

George and Velma are members of the Massena Methodist Church and he is a member of the official board. He is serving his seventh year as a District Commissioner, a Director of the Victoria Farmers Mutual Insurance Co. He has a 50-head ewe flock. He is a former Secretary of the Cass County 4-H Fair association, and is the Director of Iowa Soil Conservation District Commissioners for a three-year term. George's hobby is Soil Conservation work.

**THERE IS
NO FARM IN
CASS DISTRICT
THAT DOESN'T
HAVE A NEED
FOR
CONSERVATION**

Conservation Pays

Cass County A. S. C. Personnel



ASC County Committee, left to right: Lyle L. Neary, Member; Kenneth Jensen, Chairman, and Paul M. Williamson, Vice-Chairman.

U. S. DEPT. OF AGRICULTURE AG STABILIZATION AND CONSERVATION COMMITTEE

By Kenneth Neary, Office Mgr.

Cass County ASC Office

The County ASC Committee have several programs under their jurisdiction which is administered by the office manager plan, through the county office. The committee and office personnel practice soil and water conservation on their farms, and believe when carried out on land where needed, has made for better rural and urban living.

Through the Agricultural Conservation Program (ACP), the farmer may request and receive assistance up to 70% of the total cost in long enduring cases, which with proper care, will last indefinitely. With this assis-

tance we feel conservation is within the reach of everyone, whether a large or small operator. These practices must be designed and approved under the help and guidance of a qualified S. C. S. Technician. On practices of a shorter life span, such as lime and fertilizer the A. S. C. cooperates fully with the local and state extension in securing soil samples. A soil analysis showing a need is necessary on all lime and fertilizer and seeding requests.

In one program year we had 855 farmers receiving cost sharing on these different practices:

Lime	\$31,111.76
Terraces	\$25,187.70
Tile	\$12,694.71
Waterway	\$11,082.14

In addition several other practices received cost share, but in lesser amounts. Although ACP is the one most stressed in our county, we are seldom without funds to assist where a need and practicability are shown.



ASC OFFICE PERSONNEL

Left to right, seated: Betty L. Schuler, ACP Clerk; and Kenneth Neary, Office Manager. Standing, left to right: Nadine Hetrick, Conservation Reserve and Marketing Quota Clerk; Fred Lindeman, Grain Grader; Jackie Oakes, Price Support Clerk; and Marie C. Allen, Administrative and Price Support Clerk.

Our commodity loan and grain storage department carries our heaviest work load, covering the making of loans on farm storage facilities and dryers as well as on all grains. Seven grain storage inspectors are employed to cover the sixteen townships, to determine by measurement the amount of grains to be put under loan, the condition of the structures in which it is stored and reinspections to advise the producers when the commodities stored in the structures needs reconditioning. In 1958 we made 668 loans in the county which covered corn, beans, grain sorghum, oats, wheat and barley.

Participation by the farmers in the resealing programs has been very satisfactory and being

a county with a large number of livestock on feed a great percentage of the loans made are redeemed, to be fed on the farm. Consequently much of our corn never reaches the Commodity Credit Bins or private warehouses.

We have six bin sites in the county that have 214 structures filled with corn and 156 are empty. Two full time employees care for the corn, sites and structures. The corn from these bin sites was nearly all sold in 1951 and 1952 to farmers for livestock feed. If this supply had not been available to them at that time it would have caused considerable hardship and prob-

—Continued on page 30



S. A. Ossian, Farmer ASC
Fieldman, District No. 6

Lyman Locker

Groceries
Custom Butchering
and Processing

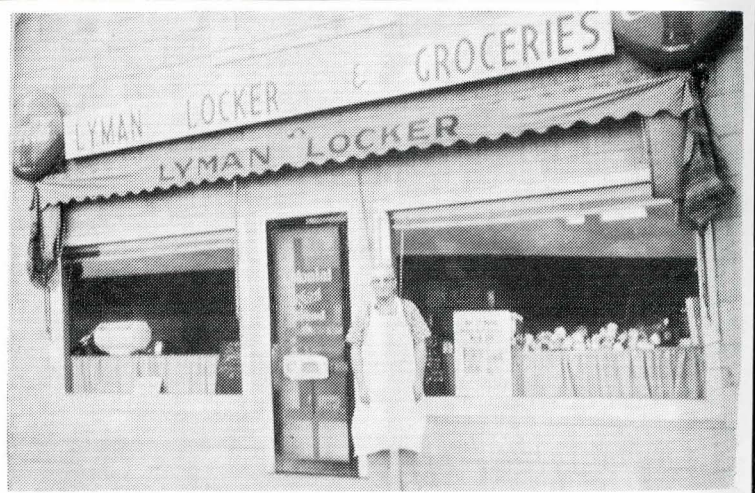
Good Quality Groceries,
Meats and Feeds

RALPH GOTTSCHKE, Prop.

Phone:

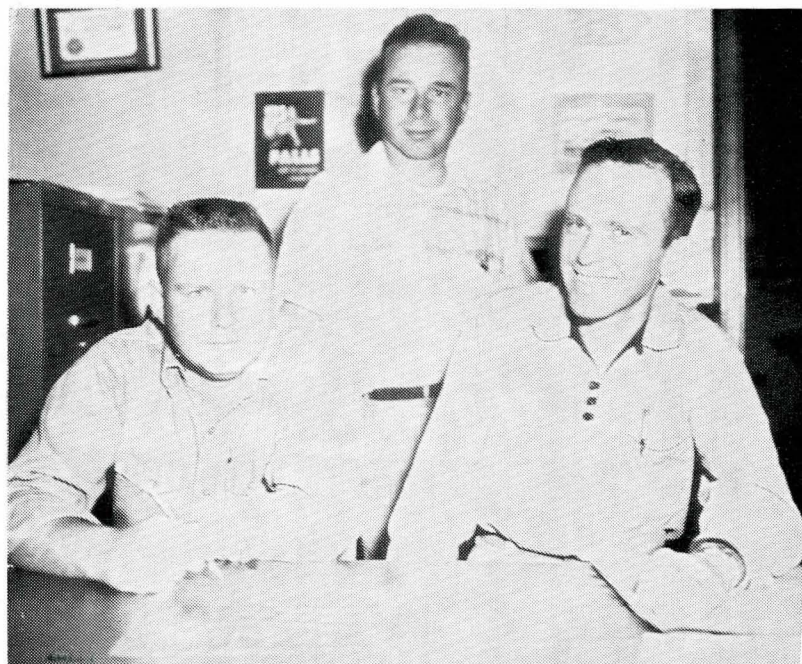
Grant 10 on 34

Cumberland 8R30



SOIL CONSERVATION SERVICE and STATE PERSONNEL IN THE CASS SOIL CONSERVATION DISTRICT

AREA ENGINEERS



Left to right: Don Frevert, Richard Phillips, Area Engineers and Wayne Raasch, Engineering Aid.

WATERSHED ACTIVITY IN AREA 7

By Walter Weiss

Area Conservationist Area 7

Of the 445,526 acres of land involved in organized watershed activities in Area 7, 107,000 are in the Cass County Soil Conservation District. All the watershed activity in the Cass District is organized under Public Law 566 Watershed Protection Program and is just one phase of the well balanced District program carried on by the District Commissioners.

The Area map shows the location of the watershed activity within the eight districts involved. The 445,526 acres constitutes nearly 15% of the total land acres in Area #7.

The status of each watershed is as follows:

Harmony—(Harrison) 3,100 acres: First completed watershed in Iowa under Public Law 566.

Crooked Creek—(Guthrie, Audubon, Cass) 22,556 acres: Ready for construction next spring on Projects 1 and 2.

Big Park—(Crawford) 7,500 acres: Construction will get underway next spring.

Mill-Picavune—(Shelby, Harrison, Crawford) 61,080 acres: Work Plan nearly completed. Two structures built—one by Shelby County Board of Supervisors and the other jointly with Crawford County Board of Supervisors.

Dauids Creek—(Audubon) 39,294 acres: This watershed is in Work Plan stage. Participation by the Town of Exira for water supply has good possibility. Exira felt the blow of the tragic Dauids Creek Flood in July 1958.

Iowa Soil and Water

Indian Creek—(West Pott.) 5,000 acres: Work Plan development stage. This project is a joint effort between Soil Conservation Service and the Corps of Army Engineers.

Pony Creek—(West Pott. and Mills) 1,650 acres, lies within Pottawattamie County with the remainder in Mills. This watershed has just recently been approved for Work Plan Development.

Blue Grass—(Audubon) 16,100 acres: Waiting for approval for Work Plan Development. Flood in this watershed contributed to the tragic loss of lives in the July 1958 flood.

Troublesome—(Audubon, Cass, Adair) 62,000 acres: No Work Plan priority, but potentially a top watershed.

Turkey—(Cass) 84,000 acres: A watershed that must develop on a sub-watershed basis because the railroad and State Highway #6 follow its course quite consistently. No Work Plan priority.

Ryan-Henschall—(West Pott.) 9,300 acres: No Work Plan priority but hope upon hope that there soon will be Work Plan priority.

Bee-Jay—(East Pott.) 17,200 acres: No Work Plan priority. With the upland treatment found in this watershed, it should be in line for Work Plan Development at an early date. Erosion, flooding, drainage, are the three greatest problems in this watershed.

Otter Creek—(Sac, Ida and Crawford) 18,000 acres: Have not as yet petitioned for assistance under Public Law 566, but are concentrating their efforts on upland treatment.

CASS DISTRICT PERSONNEL



Left to right, seated: Gayle Johnson, State Clerk; Gilbert Wehrman, Work Unit Conservationist. Standing: Clarence Ford, Conservationist; Glenn Jones, Conservation Aid and Stanley Bennett, Conservation Aid.

STATE APPROPRIATIONS

By Gayle R. Johnson
State Clerk

Funds were appropriated by the Fifty-third general assembly of the State Legislature for use in employing clerical and technical help in Soil Conservation Districts. Since that time Cass District has been able to have a full time clerical assistant in the office and a part-time technician to assist with field layout work. Having the office open all the time has helped greatly in promoting conservation work in the field. Technicians are relieved of office duty thereby providing more time for technical work in the field, and farmers are provided an avenue through which to reach the technical assistant to obtain his services when needed. The clerical assistant serves as a coordinator between the farmer and the technician.

State funds are provided to Districts on a need basis—with appropriations being allocated by the State Soil Conservation Committee, according to the work load in the District. Past accomplishments, watershed activities and various other phases of the conservation program are considered by the State Committee in determining the allocation made to the District.

The clerical assistant in the District office assists in processing the work load in an orderly and efficient manner, maintains the office so that farmers are able to reach the Commissioners

Mosquito Creek—(Harrison) 21,000 acres: A very energetic watershed organization and board of directors are bringing this watershed into prominence at a rapid pace.

Baby Creek—(East Pott.) 11,000 acres: Have not petitioned for assistance but hope to do so before the snow flies.

Allen Creek—(Harrison) 62,000 acres: Sub-watershed off of Allen Creek, being brought under control through pooling agreements with ASC.

Deer Run—(Shelby) 596 acres: The works of improvement in this small watershed were made possible through cost-sharing with ASC, ACP funds. This project has been completed.

South Magnolia—(Harrison) 2,500 acres: Five structures were constructed in this watershed under cooperative efforts between the County Board of Supervisors, ASC, and the farmers. This project was completed in the fall of 1958.

Sawmill Hollow—(Harrison) 1650 acres: This sub-watershed to the Allen Creek Watershed is being brought under control through cooperative efforts of the farmers involved, ASC, the County Board of Supervisors and the H and P Drainage District. The two major structures involved will be completed this fall.

—o—
**MORE FARMERS NEED
TO BE INTERESTED IN
WATERSHEDS**

—Continued on page 14

CASS COUNTY EXTENSION SERVICE



Extension Personnel, seated from left to right: Shirley Johnson, County Extension Home Economist; Dan Merrick, County Extension Director. Standing, left to right: Mrs. Phil Chinitz, Office Assistant and Duane Feltz, County Extension Assistant.

CASS COUNTY EXTENSION SERVICE

By Dan Merrick
County Extension Director
Management of the soil and

water resources in Cass County has always received high priority in the County Agricultural Extension Education Program, both in the past and in

the projected educational program of the future.

Annual reports retained by the Extension Service show that land use and soil conservation has received major emphasis in the educational program, recognizing that 70% of the net income of the county is derived from the soil.

The Cass County Extension Service, which is the educational arm of the United States Department of Agriculture in the county, is made available to all residents of the county through the cooperation of the Cass County Extension council, the Iowa State University, and the United States Department of Agriculture.

The Extension council, recognizing the multitude of changes taking place on farms within the county, two years ago assumed the responsibility of conducting an intensive study to determine the major problem areas in the county and to develop an educational program to meet the needs of the people, which were indicated by the people within the county. Some term this long range program planning. More than 120 people served on various committees, all of which identified management on the farm and in the home as one of the major problem areas. Certainly, management of the soil and water resources is a part of the total management picture. In the area of soil and water conservation recognition of the land

capabilities and using the land according to the capabilities in addition to the adaptation of mechanical practices for efficient crop production, emphasizes the major area of educational activity forthcoming through the extension educational program.

A series of management meetings were conducted in the county in the fall of 1958 with the second series slated for the fall of 1959 and a new series starting in another section of the county. Plans for the future include the establishment of a management series planned for all parts of the county with the primary objective of showing the different segments of management and how they fit together. An effort is made in the educational program to fit the management of the soil and water resources into the total management program pointing the inter-relationship of land use to the livestock program and to the family living with the ultimate goal of adjusting agriculture to the changing economic conditions.

As in the past when Extension assisted with organizing groups to encourage conservation activities they will continue to work with both groups and individuals to stress the importance of conservation in the total farming program. Extension assumes the responsibility of conducting the educational programs in the areas of soil and water conservation with close working relationship with the soil district, assisting with field days, assisting with watershed development, providing the latest research information, attending regular monthly meetings of the district commissioners of the county as well as district meetings to keep abreast of the latest in conservation.

The Cass County Extension personnel include Dan Merrick, county extension director; Joe Phillips, county extension associate (soils); Shirley Johnson, county extension home economist; and Duane Feltz, county extension assistant, with offices located at 400½ Chestnut in Atlantic.

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FARMERS HOME ADMINISTRATION

By Wayne G. Zeigler

Applications for services and assistance from Farmers Home Administration for Cass County are processed at the FHA Office located in the Farm Credit Building at Atlantic. The office at Atlantic also serves Adair and Pottawattamie Counties.

At present there are 127 loans with farmers in these three counties. Of these 48 are to farm tenants and farm owners in Cass County. Several types of loans are available through the Farmers Home Administration.

Operating loans are made primarily to help farmers make improved use of land and labor resources on family type farms by making needed changes in their farming systems and adopting improved farm practices. Loan funds may be advanced to purchase equipment, livestock, feed, seed, fertilizer and other farm and home operating needs and to refinance chattel debts. Assistance is given in keeping adequate farm and home records. Loans of this type are scheduled for repayment in accordance with the borrower's ability to repay over a period from one to seven years.

Farm ownership loans are made primarily to help farm families to become owners of family type farms. Loans are made to buy land, improve land and buildings and refinance debts. Loans may be made to buy land to enlarge undersize units. A family type farm is one that will produce sufficient income to give a reasonable standard of living, enable you to pay operating expenses and debts and have a reasonable reserve for emergencies. Farm ownership loans are authorized for periods up to forty years and are made only to those who will live on the farm and make it their home.

Farm housing loans are available to farm owners for construction or remodeling and repairing of farm dwellings and service buildings either for himself or his tenant. Water systems may be included. These loans are not made to provide buildings that would cost more than adequate on other farms in the community. The loans are made only on farms that will produce a substantial part of the operators income and must be large enough to be considered a farm rather than a rural residence. Farm housing loans are repayable over a period up to 33 years.

Soil and water conservation loans are available to farm owners to carry out measures for soil and water conservation and to

develop water systems for farm and farmstead use. This loan is made to the farm owner for benefit of himself or his tenant.

Loan funds may be used to pay the cash costs of making improvements directly related to soil conservation; water development; conservation and use; forestation, permanent pasture, drainage of farmland and related measures. This includes such improvements as construction and repair of terraces, dikes, ponds, ditches for drainage and erosion control structures, also pasture improvement, brush removal, basic application of lime fertilizer, fencing and well drilling.

Soil and water conservation loans are made to carry out only the types of soil and water conservation practices that are in accord with recommendations made by the Extension Service and Soil Conservation Service in cooperation with the Agricultural Stabilization and Conservation Service. These loans will not be made for annually recurring costs generally considered as farm operating expenses.

These loans are scheduled for repayment within shortest time consistent with the borrowers ability to repay. No loan will be scheduled over a period exceeding the useful life of the improvement and in no case longer than 20 years.

Some of the main requirements of an applicant to be eligible for a Farmers Home Administration loan are (1) be a citizen of the United States; (2) be unable to obtain adequate credit from a regular source; (3) have adequate farm experience or training; and (4) have adequate land resources sufficient to earn the major part of income from farming.

A committee of three persons, of which at least two are farmers, must certify as to the eligibility of all applicants for FHA



Farmers Home Administration Personnel: Standing left to right are the Cass County Committeemen: Wendell C. Pellett, Chairman; John G. Karstens, Louis H. Eisterhold. Seated: left to right—Wayne G. Zeigler, County Supervisor and Mrs. David Burgess, County Office Clerk.

assistance. They also serve as an advisory committee. The present Cass County Committeemen are Wendell C. Pellett, Atlantic; Louis H. Eisterhold, Atlantic; and John G. Karstens, Massena.

Technical assistance necessary for planning improvements for the various types of loans is obtained by the applicant from Soil Conservation Service and other agencies and private individuals.

Farm and Home Plans will be worked out by the County Supervisor on cooperation with the applicant and borrower to test the soundness of the loan and to incorporate into the operations of the farm recommended and approved practices considered necessary for a successful contribution to agriculture.

GASOLINE ALLEY

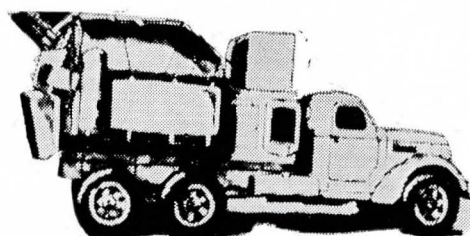
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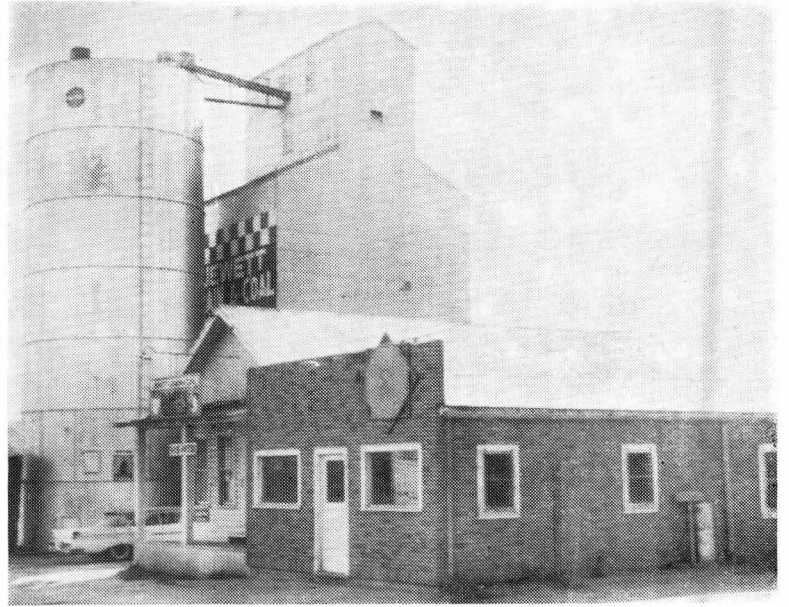
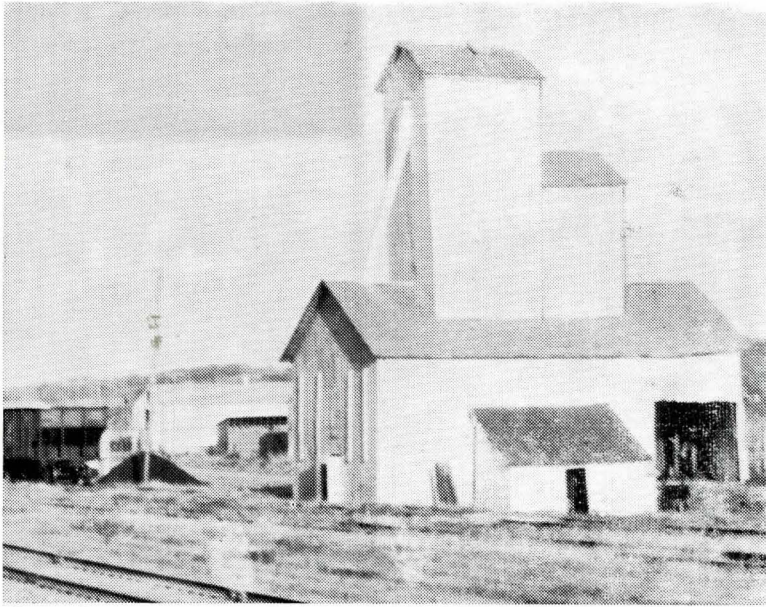
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ANITA, IOWA — PHONE 48



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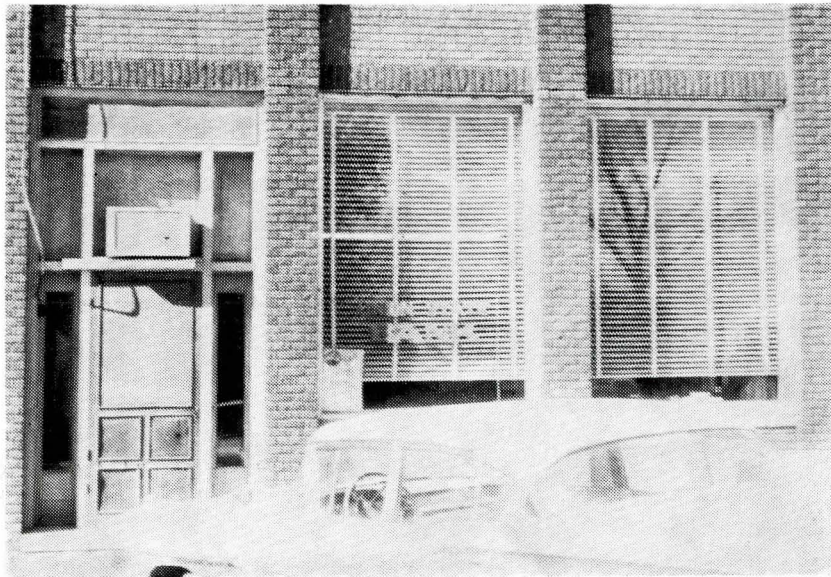
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OUR MOST PRECIOUS
RESOURCE—THE SOIL

By Melvin Andersen
Elk Horn F. F. A. Chapter
Elk Horn, Iowa

The earth is a sphere 8,000 miles in diameter and 25,000 miles in circumference with a surface of approximately 200,000,000 square miles, of which about one-third is land and about two-thirds water.

A relatively thin layer of top-soil, which covers the land at an average plow depth of about seven inches, is the chief support of life. The world's annual production of food and fiber products comes largely from this soil layer. Less than half of the earth's soil is suitable for crop production.

The soil that supports life is created by the forces of nature—the action of the sun, atmosphere and water, along with plant and animal life, on the materials that comprise the earth. Soil is a residue of weathered rocks, minerals, and

Iowa Soil and Water

decaying organic matter. It supplies mechanical support for vegetation and raw materials for plant foods.

Many, many years are required by nature to produce a single inch of topsoil. Yet, all of this good work of nature may be destroyed by man in a relatively few years by careless land management.

It has been said many times that a country is as strong as its soil is fertile. America owes her position as a great nation to her soil and its produce. The power, wealth and vigor of our people are directly due to the marvelous productivity of our land. Our soil is the foundation of our happiness, prosperity and progress. Deeply rooted in the earth are our independence, our safety and the welfare of our people.

If we are going to maintain our freedom as a democracy we need plenty of good food, because a hungry nation is a restless nation. Therefore we need people to work in the field of soil conservation to help conserve and maintain our vast natural resources.

We have fought and won two great wars within thirty years and our victories were due, to a large extent to the food and fiber produced on our farms. During World War II, despite shortages of labor, equipment and supplies, on our farm lands were grown the record-breaking food and fiber crops necessary to meet the demands of our 140,000,000 people and millions in other countries.

Today American farmers are faced with the task of not only feeding adequately and ever increasing population at home, but furnishing large quantities of food for other nations. Our continued world leadership and influence will depend largely upon the stewardship of our soil.

With wise management, our land can be kept productive to meet the needs of our people. There are areas of land in this country which have been cultivated continuously for nearly three hundred years that are still as good or better than ever before.

The soil and water resources of the farm and ranch lands of our nation must be conserved and protected. This is essential in order that farms and ranches will continue to have the capacity to produce sufficient food and other raw materials to meet the future needs of the Nation.

Is it your impression that our soil will keep producing year after year? Do you think that it can keep restoring its badly needed minerals and elements by itself, without any help from us? Does it ever wear out?

Yes, it is definite that our soil does wear out. Our soil can not keep up with the progress we are making and the use we are giving to our soil nowadays. Our

answer is that we must do everything possible to maintain our soil.

How do we lose these different elements, minerals, etc in our soil? We lose them in the following ways:

1. We lose them by leaching. Leaching is the process whereby the sun and water filter out the soil.

2. We lose them by farming our ground too hard, just plainly by taking the sustenance out of the ground by overloading it with one crop after another without proper care.

3. We lose them due to wind, the blowing away of our soil.

4. We lose them through construction. The erecting of buildings and the making and construction of roads and modern highways, plus the use of land as factory sites. These have put many thousands of acres out of production.

5. And finally we lose them to water erosion—the carrying away of our soil. This combined with wind takes twenty-one times as much from the soil as the sustenance used by growing plants.

Every year we lose millions of tons of top black soil due to these very destructive hazards. It must be, and is, our obligation to bring this sort of procedure to a halt.

The most successful job of soil conservation is accomplished when each drop of rainfall is absorbed or held as near where it falls as is possible. How can this be accomplished and how can we help to restore these badly needed elements to the soil? There are infinite ways to do this; Our only trouble is we hardly ever use them. Included as some of these should be the following:

1. Contouring (farming around the hill).

2. Terraces (holding the water from running down the hill and escaping, taking with it the soil).

3. Grassed waterways. (This alone has saved Iowa many thousands of tons of rich top soil every year).

4. The seeding down of creek banks along with strip farming with legumes, which tend to hold the soil because of their long roots.

5. Restoring them directly as a fertilizer.

Why let our soil go down the Missouri and Mississippi Rivers and form deltas at their bottoms? We must remember and keep in mind that there are generations to follow after us and peoples who would like to live off this land in the future, too.

Are we, as American citizens, going to sit idly by and see our land misused due to the lack of proper planning and utilization? Certainly our answer will be "no." You might ask: "How may I as an individual, help to solve



By Dorothy Mark Auxiliary President

It is a distinct honor to be elected State President of the Ladies Auxiliary of the Iowa Association of Soil Conservation District Commissioners. Because I have seen the benefits that can result from good soil stewardship, practiced here on our farm by my husband and our four sons, and by the Mark family before us, I feel it my duty to interest all women in Soil Conservation any way I can. It will be my endeavor to do my best as President, and to report to you the activities of our organization.

Our Main Project is the sponsoring of a Speech Contest—**How Soil and Water Affects My Future**—in every District in Iowa. It is open to all students in Junior High or High School. The contest is under the direct supervi-

a problem so tremendous in scope?" You as a farmer, can do this by cooperating with the governmental conservation agencies in all of their efforts by following on your own farms approved methods of crop rotation and conservation, and by reading the numerous pamphlets, bulletins, and other publications put out by the Soil Conservation Services to acquaint the farmer with the outcome of the experiment stations. And you, as a member of society can do this by supporting all legislation to the end of conservation.

A heritage we are told, is something of value handed down from one generation to another. In our generation and at the present we do not have before us a vast sea of grass, as our pioneers had, that brushed saddle stirrups and often hid the head of a man on foot. But we do have before us the soil which has been so badly robbed of all elements. That alone is an obligation for us to try to restore. Let it not be said by our future generations: "Here's the farm, but where's the soil?" Let us hand down as part of our heritage to those who come after us, land not only unimpaired but enriched.

I hope after hearing the facts I have told you that I have created a new interest in you so that you might strive ahead and find your place in agriculture that we might preserve our most precious resource—the soil.

sion of our Vice-President, Mrs. Donald L. Johnson of Fairfield, Iowa.

We also plan to draw up a set of By-laws governing the Ladies Auxiliary. Prior to this, we have operated solely on a year-to-year basis; depending solely on the minutes of the previous year's business.

To this end, a Committee composed of Mrs. Johnson; Mrs. Cameron Stafford, Sec'y, Blairsburg; Mrs. Bryan Weberg, Kiron; Mrs. Hubert Beasley, Garden Grove; and myself will meet in Des Moines November 2 to draft the first set of by-laws.

And we want also to write the history of the organization from the beginning. We need help on this.—If anyone knows items of history, purpose of establishing the organization, names of officers and the years they served, please send these items to me: Mrs. Wayne C. Mark, Route #3, Cedar Falls, Ia. Compiling of the history is to be my special effort this winter.

God has given us the land only to use.—Women need to be interested and active in Soil Conservation. For the very survival of our civilization may depend upon the way we live up to our obligations using the land wisely, and improving its condition for the succeeding generations. Women's influence will be felt!

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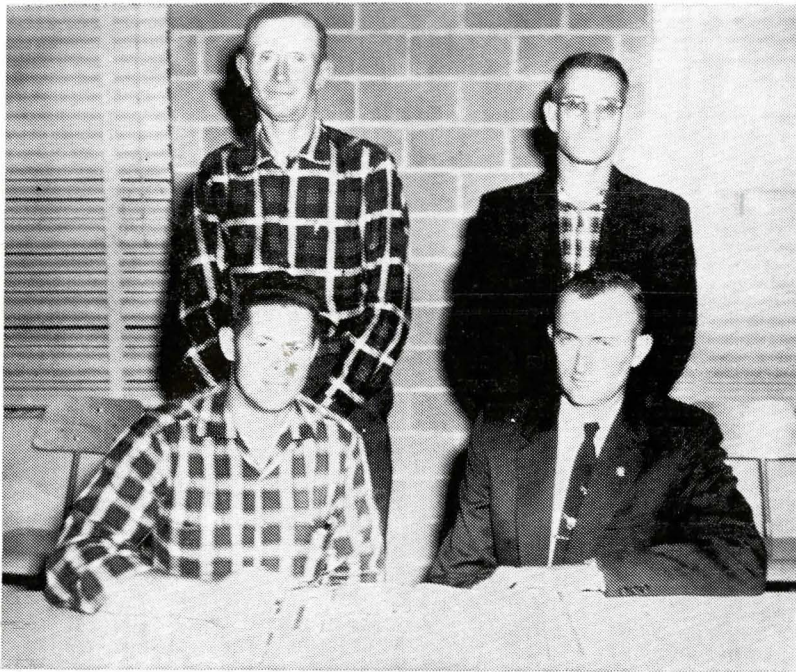
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Wildlife Club



Cass County Game Conservation Club, left to right, seated: Glenn O. Jones, President; and Ivan Brix, Vice-President. Standing: George Tibken, Treasurer, and Max Shafer, Secretary.

Cass County Game Club

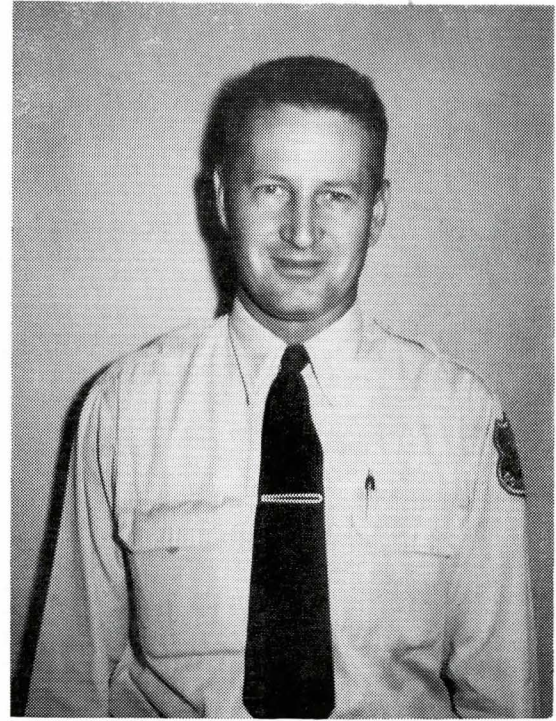
By Glenn Jones
Conservation Aid
President Game Club

Among the many organizations contributing to conservation practices in Cass County is the Cass County Game Conservation Club. Through this Club 500 sportsmen and conservationists cooperate to improve hunting and fishing in Cass County. The club was organized when the county was nearly a biological desert. New roads were being built, fence rows were mowed or burned and creeks were straightened. Generally wildlife habitat became almost a thing of the past. Since white man and the plow had taken over, wildlife nearly ceased to exist.

During the early years the club purchased a tree planting machine, and brooding equipment and pens for raising pheasant and quail chicks. During the following years some 200,000 multiflora rose bushes have been planted on various farms throughout the county. Twenty thousand pheasant and quail chicks, furnished by the State Fish and Game department have been raised and released. By this method of introduction, parent stocks have been established.

In recent years, more attention has been devoted to establishing game cover—Waste or odd areas are set aside by farmer sportsmen to be planted by the club as permanent game cover areas. These areas range in size from

Iowa Conservation Officer



Rex Emerson, State Conservation Officer for Audubon and Cass counties.

one-fourth acre to five acres and are planted with pine trees, honeysuckle, and multiflora rose bushes purchased from the State Conservation Commission Nursery. In Cass County at the present time there are 150 cover areas on private property. Approximately 20 new areas are sponsored and planted each year. As these areas grow, more game becomes available to Cass County sportsmen. The food and cover in these areas also attract many species of song birds and other wildlife beneficial to the agricultural community of Cass County.

Throughout the County some 100 farm ponds have been stocked by the State Conservation Commission with Bass and Bluegills. These ponds furnish recreation for many fishermen.

Much of the credit for the beginning of sound fish and game conservation practices in Cass

County belongs to the State Conservation Commission through their local representatives. At the present time the Conservation Officer is Rex Emerson, who is very active in the promotion of the many phases of conservation in Cass County.

—o—

STATE APPROPRIATIONS—

(Continued from page 9)

and technicians for desired help, assists farmers in making plans for the carrying out of their soil conservation program, takes care of District correspondence, keeps accurate up-to-date records of all activities carried on through the District office, maintains appropriate files for employees and commissioners, assists the Farm Planner in the processing of farm plans, assists technicians and farmers in the scheduling of layout work and helps to speed up the soil conservation program in the District.

The technical assistant assists the technicians with layout, supervision and construction of permanent type soil conservation practices. Soil conservation practices applied on the land are the ultimate goal of the District and is the result of the cooperative effort of both the technical and clerical staff in the District.

—o—

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Iowa Soil and Water



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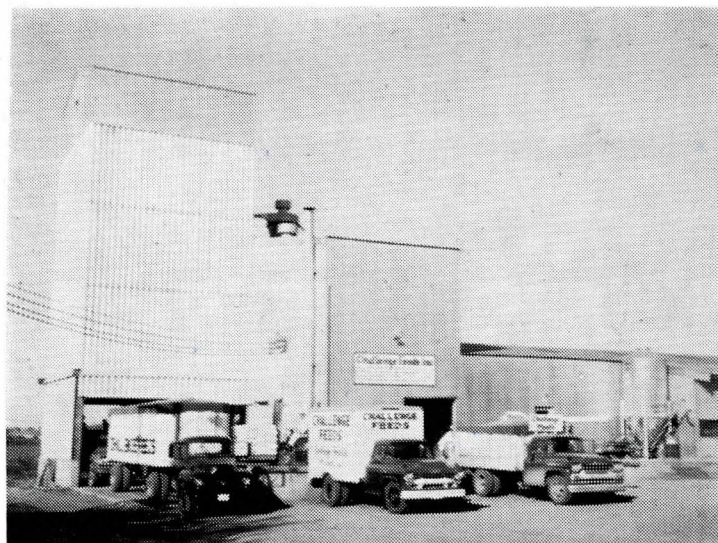
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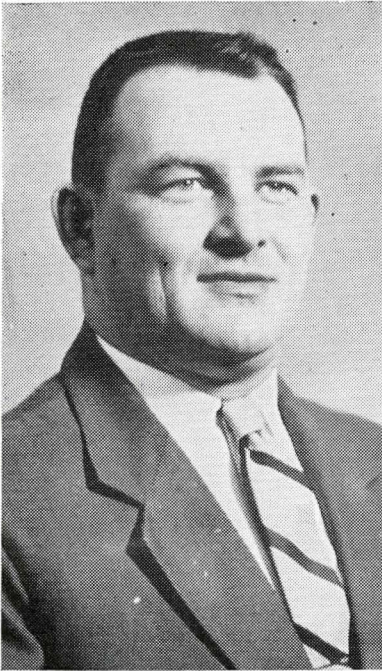
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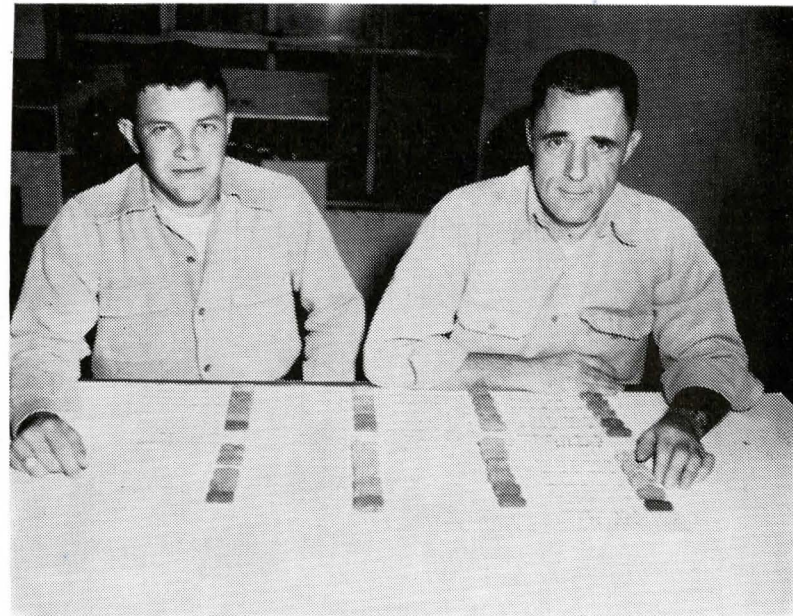
JOSEPH A. PHILLIPS
Extension Associate (Soils)

— o —
YOUR SOIL SURVEY
By Joe Phillips
Assistant Extension Agent
In Soils
Every business man engaged

in a sound business must take periodic inventories in order to determine his progress. Yet many persons living on a farm may spend an entire lifetime on that farm and not have any inventory of their land. Today farming is big business and like every other big business manager farmers must take inventory of their land in order to better apply the newest methods and techniques to their farm. What Is a Soil Survey?

The Soil Survey is the best inventory of land yet devised. Here the soil is broken down into soil types, slope, and the amount of erosion that has taken place. In addition to this information all the streams, roads, and farmsteads are mapped and shown in their proper perspective. With this information a farmer is able to measure out just how much of each particular soil type he has as well as the lay of the land and how much erosion has taken place. This information can be obtained from your local Soil Conservation Office in any county in which the Soil Survey has been completed.

Once a person has obtained this information the next problem is how to use it. In counties



Area 7 Soil Scientists are left to right: Ival Persinger, Soil Scientist and Wilbur Jury, Area Soil Scientist, with their miniature soil profiles of the major soils in Cass County in the foreground.

where the Soil Survey has been completed a Soil Survey Report has been published. In this report there is much information such as the limitations and capabilities of each soil type, crops adaptability to various soil, ex-

pected yield, and much other pertinent information that can be used for the interpretation of the best economical use of various soil.

Use of Soil Survey of Cass County

In Cass and Adams County, Iowa, the Extension Service in close cooperation with the Soil Conservation district is conducting an educational program in the use of the Soil Survey and how farmers in this area can obtain the maximum use from such a soil inventory. The approach to the program in Cass County has been to work with farmers in each township the fall and the winter following the completion of the survey for their township. Through meetings with interested groups the basic concepts of soil formation has been discussed as well as the capabilities and limitations of each soil type in respect to the major crops grown in this area. General soil management, fertilization, conservation needs, and individual farm problems are studied and this enables each individual farmer to interpret the soil map of his farm and make management decisions that will give him the greatest economic return from his farm.

Mapping Program in Cass County

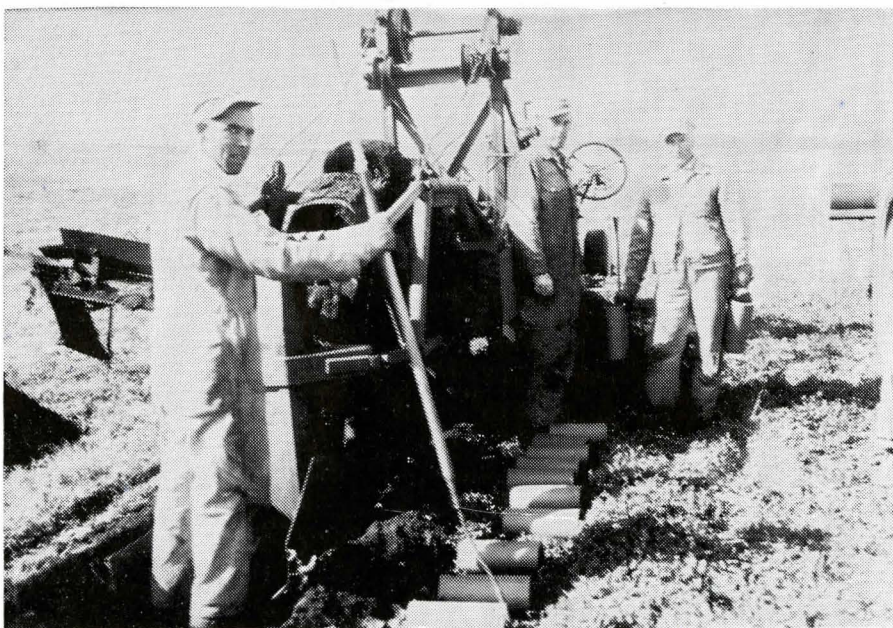
One township was mapped in 1958 and the series of educational meetings were held the following winter for this township. During the 1959 mapping season five more townships have been

—Continued on page 33

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SOIL STEWARDSHIP



"THE EARTH IS THE LORDS"

By Rev. Donald Bissinger
First Methodist Church
Atlantic, Iowa

For many centuries, man has lifted up his eyes unto the hills from which comes his help; his help comes from the Lord who made heaven and earth. It was the Psalmist who first expressed this realization. It was also the Psalmist, in the 24th Psalm, who ascribed ownership to the Lord when he said: "The earth is the Lord's, and the fullness thereof, the world and those who dwell therein." The earth tells a wonderful story of the past. Hidden in its folds is the story of man and animal from the beginning. When we contemplate the fact that it takes a thousand years for the processes of nature to lay down one inch of top-soil, and that it is here that the productivity of food originates, the retention of this wondrous gift of God must cause us great concern.

Never are we so aware of the value of water as when no rains fall, the pump fails, the main breaks or the source is contaminated so that the water is unfit for consumption. Not many years ago at one period during the summer, our soil was dry without any moisture in the first five feet of soil. Adequate soil practices and contouring may not cause the rains to fall nor the sun to shine, but they will help to conserve what moisture does fall, and prevent the erosion of that precious topsoil during heavy rains.

As I write, our farmers are beginning the harvest of what is Iowa Soil and Water

probably the largest yield of corn in Iowa history. This is a result of the discovery of many of the secrets of nature, and man's co-operation with them—fertilizers, crop rotations, contour and strip

farming, methods of planting and cultivation, the development of new types of seeds, and sufficient moisture at the needed time. It is the result of our learning to work in harmony with God in His world.

A few years ago, during World War II, I was in North Africa. At one time this territory was most fertile and productive. Now there are miles and miles of blowing sands and semi-barren desolation. Whether this resulted totally from lack of knowledge of proper soil conservation methods or partially from other climatic changes, thousands of acres of land have been lost from man's use.

We are merely stewards of the soil, co-workers with God in His world. If we are to work for the best interests of our children, to leave for them land that will feed, clothe, and shelter them, we must crusade constantly for the best possible care of this earth.

In the summer of 1958, Cass county suffered from not one, but two tragic floods. Probably no amount of planning could have contained the deluge, but wise use of the land would have less-

ened the damage, and retained some of the thousands of tons of soil that left us for parts unknown. This experience should cause us to intensify our efforts to persuade everyone to salvage and conserve soil, water and labor wherever and whenever possible, not only for the benefit of man, but for the glory of the God whose land it is.

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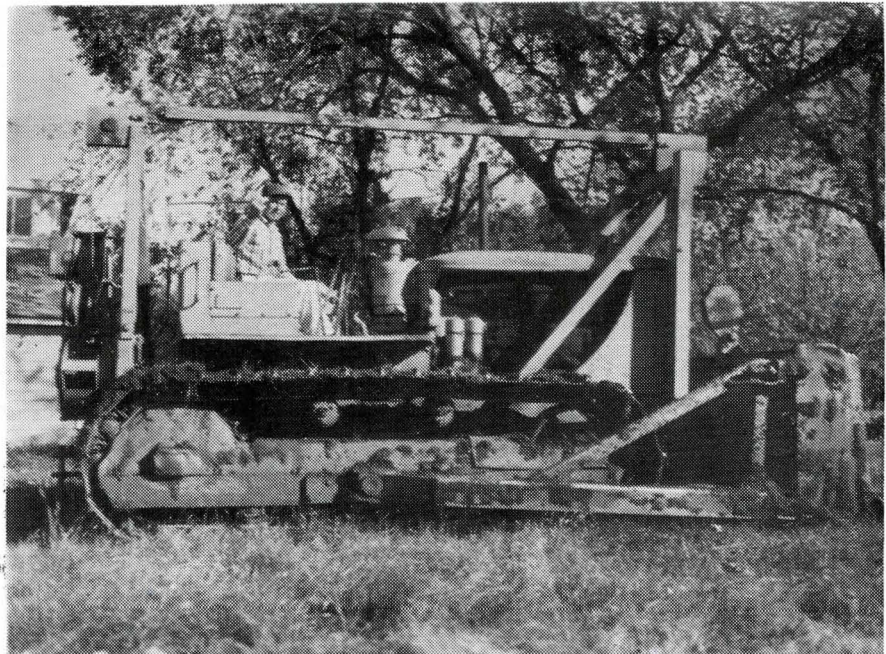
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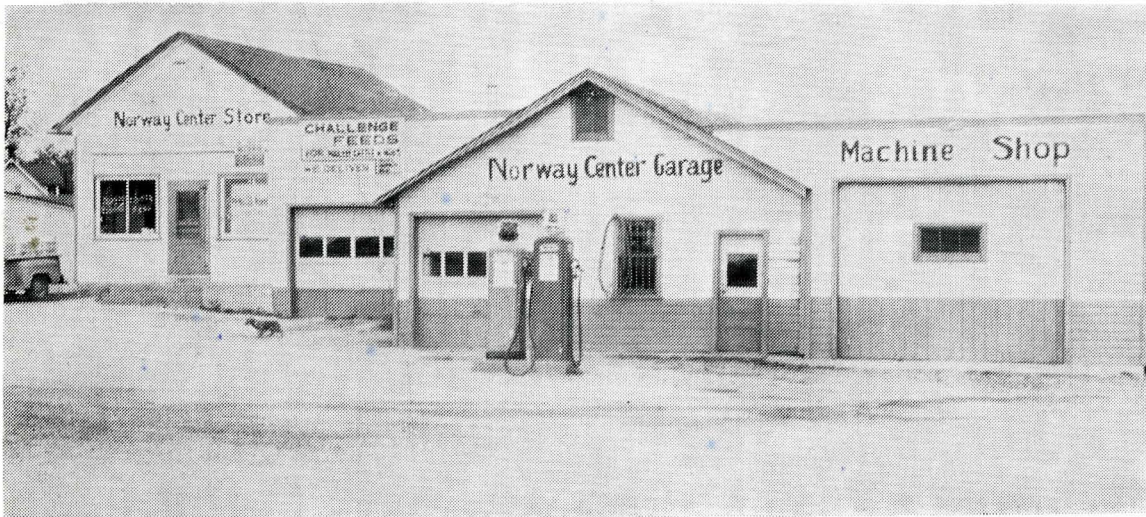
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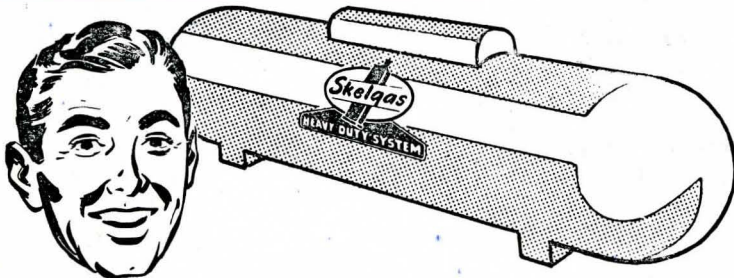
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PRESIDENT'S CORNER—

(Continued from page 5)

I wish to officially thank the retiring officers of The Iowa Association of Soil Conservation District Commissioners for their untiring devotion to the furthering of the Association's program of activities. Gilbert Fridley, your retiring president, has such a record of achievement it will be difficult for me to follow him. However, he has promised to assist the board of directors in every way possible. His council will be appreciated. Wendell Pellett of Atlantic, Cass County and Maurice Goode of Clio, Wayne County have represented their regions with credit. We will miss them and their contributions to the board. We know they will continue to work for the principles of conservation in Iowa and their districts.

The first meeting of the new board was held in Des Moines, at the State House, October 5th. The new members of the board were present. It was a pleasure to greet Joseph O'Hara of Shenandoah, Page County the new vice-president; George Hosfeldt of Massena, Cass County; Cecil Gillespie of Winterset, Madison County, the new directors and the re-elected director, Ed Kadera of Iowa City, Johnson County. They are a fine group of conservationists and it will be a privilege to work with them.

Donald L. Johnson of Fairfield was elected Secretary and Everett Rice of Storm Lake, R.F.D., Treasurer.

The annual meeting was well attended and the program was well received. The committees all did an outstanding job. The committee reports will be mimeographed and distributed to the districts at a later date. Probably, at the time of the regional meetings. By the way, plan to attend the meeting in your region, take part in the discussions. We wish to be kept informed of your district activities.

The fiscal year of your association ended at the time of the annual meeting. 1960 dues are now due. Your Treasurer Everett Rice, R.F.D., Storm Lake, Iowa will be glad to receive them. The annual dues are \$100.00, we will try to use the money wisely that conservation of soil and water will be furthered in Iowa.

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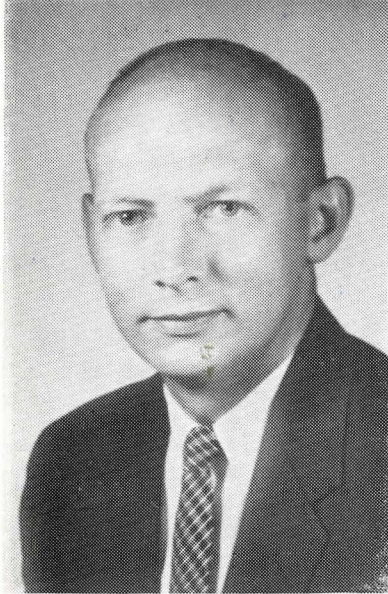
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Future Farmers of America



Norman Vandehaar
Voc. Ag. Instructor

CONSERVATION ACTIVITIES By Norman Vandehaar

The conservation of soil and water is a major area of study in the Atlantic Vocational Agriculture course. The farms in the area surrounding Atlantic offer many opportunities for students to view first hand the rewards received by farm operators practicing good conservation measures.

In the course of study, major emphasis on this area is given in the second year of vocational agriculture. The students have then reached the age where they

realize the close relationship between their home farms and practices learned in the classroom and on field trips. After a year of vo-ag, parents are more receptive to sharing ideas with their sons and they see the need for on-farm accomplishments that fit in with a student's broadening education.

Evidence of application is apparent when a survey revealed 62% of the student's home farms are farmed on the contour. Other conservation measures are equally in evidence.

The Atlantic F.F.A. Chapter salutes what we consider the hardest working soil conservation staff in Iowa, the Cass County Soil Conservation Service. Without their help and influence, the home farms of our students would never reveal the good conservation programs that was noted in the survey.

Specific FFA activities in soil and water conservation have varied over the years. For several years the county SCS presented awards at their annual banquet to FFA members who practiced outstanding conservation measures with their own farming crop projects. As most boys went to a full conservation program on their own crops, the award winners became difficult to select. At the present time, the FFA Foundation Soil and Water Management award is being stressed as a measure of the total home farm picture. Several boys are now aiming for this contest.

Each year the chapter makes every effort to attend the county



Charley Vanderbur
F.F.A.
By Charley Vanderbur
Voc. Ag. Instructor
Griswold, Iowa

For the most part, adults do not seem to get excited about

field day and recently viewed the construction of parallel terraces. County SCS men were on hand to answer questions on this new practice and other questions on conservation measures being demonstrated at the field day.

We believe that if America is to continue as the world's best fed nation, future farmers of tomorrow must make even greater strides in the conservation of our most productive resources, soil and water.

Soil Conservation. Perhaps soil depletion is a too gradual thing to create great excitement in most people. There appears to be a general lack of responsibility in such long term processes and counter processes. The apathy evident in many who have direct control over our greatest resource is commonly agreed to be a bad thing, yet these persons **do** have control of much of our farm land and they **are** disinterested.

What, then, is being done to correct this situation? Certainly, the ASC and other special agencies are making an effective attempt to disseminate information and to give aid to adults. Many good things have come of these programs.

Equally important would seem to be the work being done with young people. We in the schools feel that our instruction in soil conservation acts as preventive rather than curative work.

Naturally, this instruction is an important part of vocational agriculture training. Voc-ag, though, is not a subject set apart from the rest of the school; it is a specialized credit but is closely tied in with the other departments of the system. In Griswold's school system, through our integrated science program, soil conservation study, as such, begins in the fourth grade—study of life in the soil even before that. Children are exposed to conservation principles during each year for the balance of their primary education.

Younger children have simple units of instruction in plant development, seed planting, grass, and weather using such topic titles as "out-of-doors" and "muddy water." At the fourth grade level, topics such as "hard water," "actions of water and air and humus in soil," "what soil is made of," and "animals in soil," are discussed. Specific units concerned with "saving the soil" are offered at sixth, seventh and eighth grade levels.

High school boys in voc-ag work into the more factual units of work and into units of applied skills in land use, of course, but we feel that the proper attitude toward soil conservation is most important. We agree that development of this proper attitude must start far down in the grades. At all levels, stress is made on the youngster gaining a respect for the soil and the care of it. Attainment of this develops an individual with a receptive ear when the refinements of soil use are presented in our voc-ag classes. It is our hope here that the majority of our students will develop into conservation minded adults—partly due to our influence in this area.

Iowa Soil and Water



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GRISWOLD, IOWA

Wildlife Management

MANAGING FARMLAND TO PRODUCE MORE PHEASANTS

By Syllvan T. Runkel
Soil Conservationist
Ottumwa, Iowa

The pheasant has become an important game bird in Iowa. He is well suited for living in the farm lands of this agricultural state.

He is oftentimes seen in the open fields—but yet he needs grass and woody cover if he is to increase to the optimum numbers that the land could and should carry.

A good land use pattern for pheasants might be:

1. About 72% of land in cultivated crops (corn, solbeans, wheat)
2. About 20% in hay or rotation pasture
3. About 5% in brush and woods
4. About 3% in shrubby fence-rows, multiflora rose hedge, honeysuckle hedge, odd areas, and permanently protected herbaceous cover, etc.

From research studies on the pheasant, it has been found that when more than 87% of the land is in cultivation—the pheasant population begins to go down.

The pheasant's greatest need in most places is for undisturbed nesting cover and good winter cover near food supplies.

Some of the things that farmers can do to increase or improve living conditions for pheasants are:

1. Establish and maintain grasses or grass-legume stands on drainage ditch banks, field borders (This includes headlands on the sloping ends of crop fields), grassed waterways, roadways, odd areas, pond areas, and snow trap areas near farm buildings, along roads, next to windbreaks, etc.
2. Establish farmstead windbreaks with snow traps.
3. Establish farm field shelterbelts for protecting farmlands from wind erosion and soil moisture loss.
4. Maintain waterways in good grass cover and mow waterways after oat harvest time. (This allows nesting birds to bring off their broods before mowing.)
5. Establish or maintain woody cover in hedgerows, (multiflora rose and honeysuckle), odd areas, and pond areas.

Generally the daily range of a pheasant does not exceed one-half mile. During the entire season the range does not usually exceed one mile. Food and cover should be within the daily range. In the winter pheasants will seldom go more than one-fourth of a mile from the cover they are using to find food.

Egg laying usually starts during April. If the first nest is lost, the hen will try to re-nest until she is successful in hatching a clutch of eggs. Nesting losses are generally very high, running

Iowa Soil and Water

close to 60%. Oftentimes this is due to the fact that many pheasants have nested in meadow and alfalfa fields which are mowed before the first nesting has hatched. The fall population of pheasants seems to depend mainly upon the number of nests hatching.

About eighty per cent of the nests are found in the outer 100 feet of a hay field. Other nesting cover might be weedy fields, small grain, roadside grass, field border headlands, drainage ditch banks, grassed waterways, and fencerows. A very few nests are found in pastures, roads, or tilled fields. From 65-90% of all nesting losses are due to mowing machines. It is, therefore, very important that protected grass nesting cover be provided for a good population of pheasants.

In northern and central Iowa winter cover is probably the next most essential requirement. Almost every winter blizzard, accompanied by windblown soil from fall-plowed fields kills some pheasants where cover is scarce or lacking. Grassy marshes and farmstead windbreaks are found to be most useful for winter cover. Farmstead windbreaks, particularly those with snow catches or snow traps, are especially desirable because they are usually

close to a source of food—the farmyard and grain bins.

The snow catch area around a windbreak, if kept in grass and not mowed until late summer, also serves as good nesting cover. For the farmer who is more than casually interested, three or four rows of corn or sunflowers around the outside of a windbreak serves as an ideal food

source and attracts many pheasants.

As a general thing, food for pheasants is not much of a problem, except in winters when the ground is covered with a deep snow. In some research studies, it has been found that cultivated grains make up about 81% of the

—Continued on page 30



The thoughtful hunter assists the farmer in harvesting his wildlife crop. Here they share the results at a mutually helpful and enjoyable hunt.

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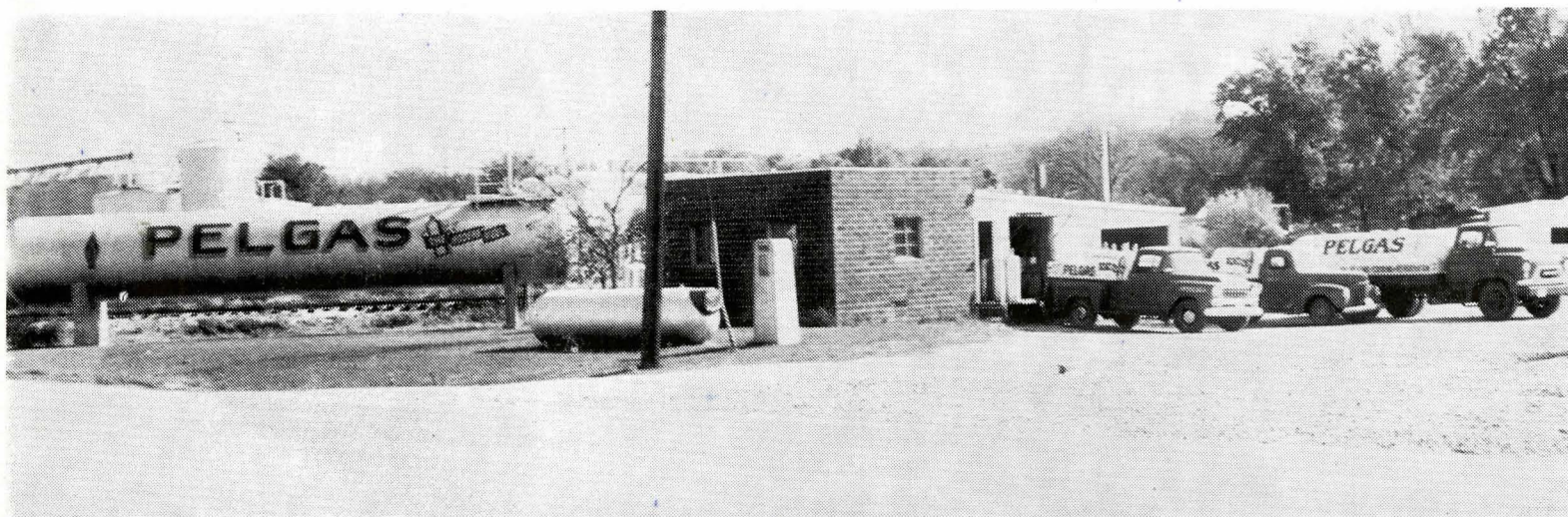
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Crop rotation, contour cultivation for erosion control, and similar modern methods of promoting farm prosperity are very important. This bank is strongly in favor of making safe loans, giving advice, or doing anything that contributes to the permanent welfare of our farmer friends.

Atlantic, Iowa

Phone 451



CROOKED CREEK WATERSHED



Crooked Creek Watershed Directors, left to right, seated: George Lund, Dallas Hansen, Chairman; George W. Nelsen. Standing: Clarence H. Ford, SCS technician.

CROOKED CREEK WATERSHED

By Clarence Ford
Conservationist

The name watershed is not new in soil conservation circles, yet the workings of a watershed program (P. L. 566) needs lots of explaining.

The results of this is better community cooperation and that is progress. This can be progress for any soil conservation district, in that people see the importance of land treatment practices on the land.

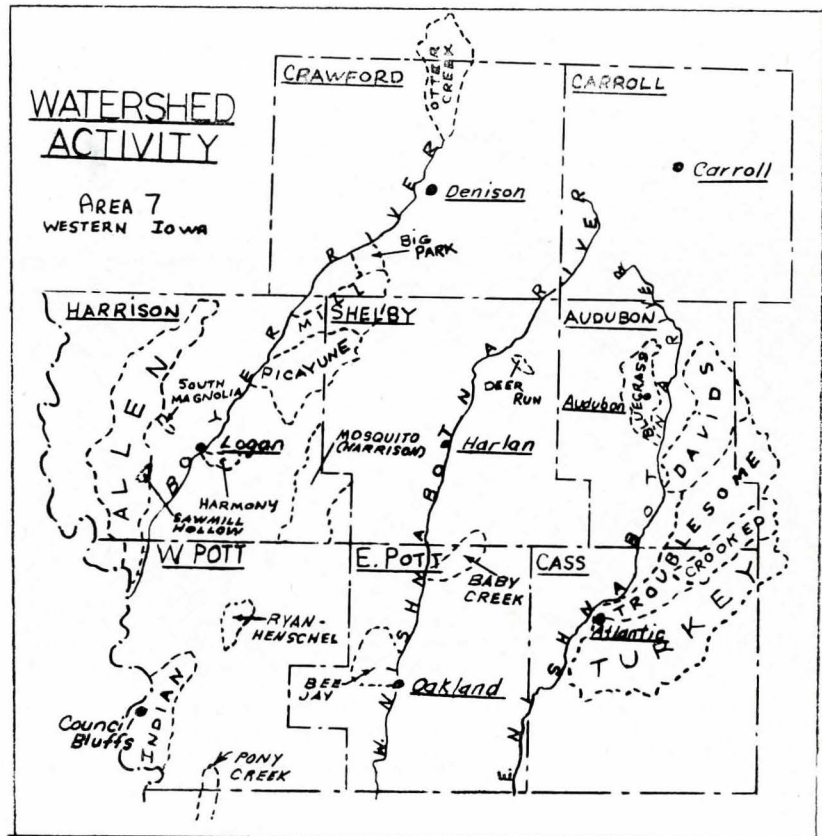
To accomplish this end there needs to be first, the election of officers who are enthusiastic leaders. There must be a definite planned schedule of group meetings and a news letter is a big aid in keeping people within a watershed well informed of progress and benefits.

People within a Watershed must ask for the help available under P. L. 566 Watershed program. People within the watershed must know what they want—Flood prevention, gully control or erosion control or the combination of these.

Watersheds must stand on their own merits. I am sure the people within the Crooked Creek watershed will agree with the above statement. The Turkey Creek Watershed directors are boning up to this fact right now. Everyone in the Cass District lives within a watershed, whether it be three acres or 82,000 acres within the Turkey

Iowa Soil and Water

Map Showing Watershed Activities In Area Seven, Which Includes Cass Soil District



Creek watershed.
I said earlier, you must have

—Continued on page 33

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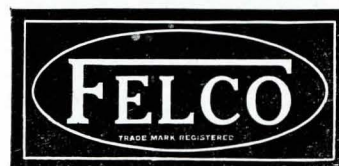
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Another good Multiflora Rose fence is located on the farm of Boyd Bailey, present member of the Cass County Soil Conservation District Commissioners. Multiflora Rose will serve as a permanent fence on contoured field divisions, and will be beneficial to wildlife by serving as a travel lane for birds in moving from one area to another.



The Multiflora Rose hedge with the owner, Fred Lindeman, has a three-year growth and should provide considerable cover for wildlife and will shortly serve as a cattle-tight fence. This hedge encloses a pond which is stocked with fish and used for recreational purposes.

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ATLANTIC, IOWA

Conserving Soil & Water With Terraces



One of the early parallel terrace systems constructed in Cass County was on the Wendell Pellett farm, northwest of Atlantic. Where slopes vary considerably, portions of the terrace system can be made parallel but it is necessary to have corrections to allow for the unevenness of slopes.



A view of several farms in the Anita Lake watershed showing conservation practices applied.



Standard terraces constructed on the Randall Baier farm in Noble Township. Fall 1959.



Terraces constructed on the Ernest Burke farm, northeast of Wiota, clearly show the grassed waterways established where excess water from the open end terraces flow.

WATERSHEDS

By Clarence Ford
Soil Conservationist

The role of watershed programs in soil conservation and water management—

1. What is a Watershed?

Technically, it is the total land area, regardless of size, that lies above a given point on a stream or waterway, that contributes run-off water to the flow at that point. All the land and water
Iowa Soil and Water

within a natural drainage area.

Objectives:

1. Soil Erosion Control.
2. Water management problems.
3. Gully control.
4. Flood prevention.

The backbone of any watershed program is the conservation land treatment for soil erosion and water management. We must be mindful of the fact that 75% of our damages from floods occur above the flood plain.

The Watershed Act passed by Congress in 1954 is known as Public Law 566, later in 1956 this was amended by P. L. 1018, which broadened the measures within the act. Also state legislation passed by the 56th General Assembly of Iowa, March 24, 1956 assisted in organizing watersheds.

Watershed programs are not Federal and State Dam building projects, but rather local organ-

izations of the people assisted by Federal and State legislation in development of watersheds.

The application gave pertinent facts showing cause and effect. With at least 50% of the land under cooperative agreement—that is—signed agreements for conservation plan. What is that cooperative agreement? The farmer is interested in conserv-

—Continued on page 29

Turkey Creek Watershed

TURKEY CREEK WATERSHED

Turkey Creek Watershed, the major portion of which lies in Cass County, consists of 80,000 acres and is divided into 600 farm units. The headwaters of Turkey Creek start near the town of Adair. The stream runs parallel to No. 6 Highway through Anita and Wiota and empties into the Nishna just north of Lewis. The watershed is 25 miles long and has a width of 15 miles at its widest point. The drainage on the south side of Turkey Creek is divided into six main tributaries ranging in size from 2,500 acres to 12,000 acres. The ridge line on the north side is much closer to the stream and does not have the large tributaries.

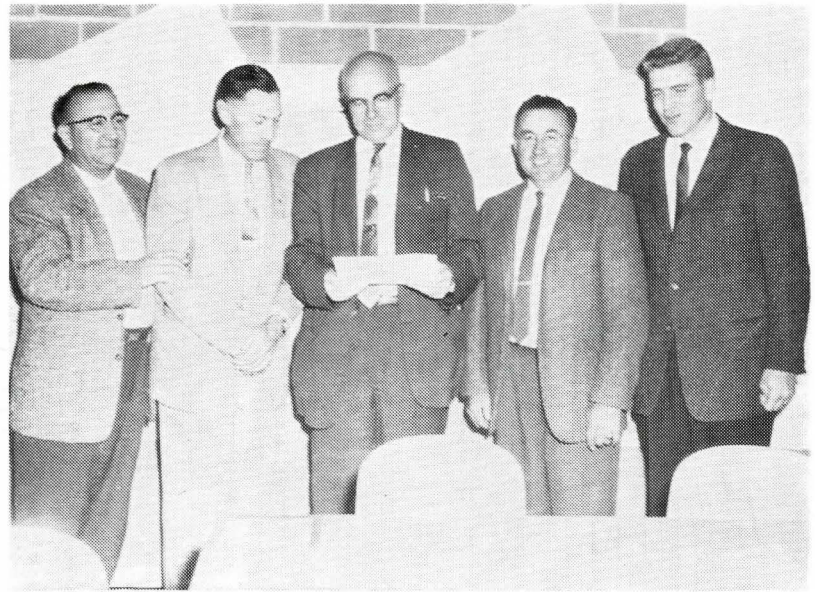
Damage from heavy rains occurs in the upland due to gully and sheet erosion. Damage occurs on the flood plain to farm crops due to high water and deposition of soil, to county roads from current cutting, to the Rock Island Railroad due to destruction of grade and loss of service, to the

State Highway from overflow, and to urban dwellings from high water.

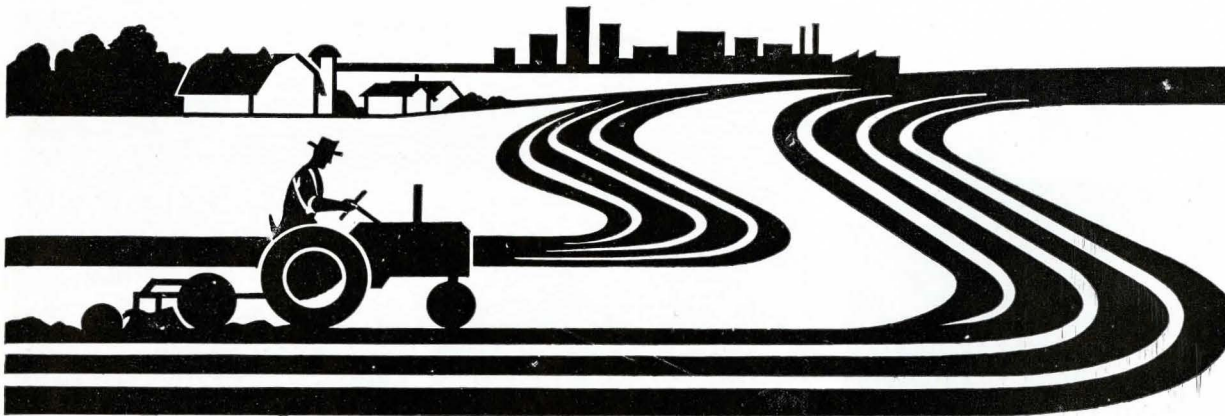
In the spring of 1957 the Turkey Creek Watershed Board made application to the State Soil Conservation Committee for approval of Turkey Creek as a watershed for development under Public Law 566. This approval was granted and the group has since been busy applying the desired upland practices in preparation for the development of a plan for the entire watershed.

The Small Watershed Program is a nationwide movement in which local communities are organizing to combat their soil and water problems. In each of these local programs, rural and urban people work together to prevent floods and save soil by bringing an entire valley's water under control.

Practices and structures are established to hold more of the rainfall in upland soils and in stock ponds and reservoirs—while releasing run off at a safe rate. In general, they are making



Group of interested personnel who attended the Turkey Creek Watershed meeting held at Anita Elementary School, October first are: left to right—Walter Weiss, Area Conservationist; Bryan Weberg, member of state committee; Frank Mendell, State Conservationist; George Hosfelt, Chairman of Cass District Commissioners; and Dick Presemon, Administrative Assistant Soil Conservation Committee.



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Atlantic, Iowa

C. L. BUTLER, Secretary

C. L. FRY, Ass't Secretary

running water walk—so that more and better water is made available for constructive use. People downstream benefit from flood prevention and from more dependable water supplies.

The land treatment part of the Small Watershed Program is carried on by individual farm operators. Included are contour farming, crop rotations, strip cropping, pasture improvement, grassed waterway maintenance, and good woodland management.

Not only are these measures essential to the success of a small watershed project, they also spell profit to the individual farmer. Economic studies made by agricultural colleges have proved many times that farmers who practice soil conservation realize more income per acre than farmers on similar land who do not.

The Watershed protection and flood prevention act provides for a division of costs according to the purpose of the work.

The Federal Government pays all the construction costs (including engineering) of improvement for flood prevention purposes.

The local organization shares with the Government the cost of installing works of improvement for irrigation, drainage, and other agricultural water management, and for wildlife conservation.

In general, the local organization pays the cost of improvements for other than flood prevention or agricultural water management. An outstanding example is municipal and industrial water supplies.

Where a work is to serve more than one purpose an allocation of costs is agreed upon.

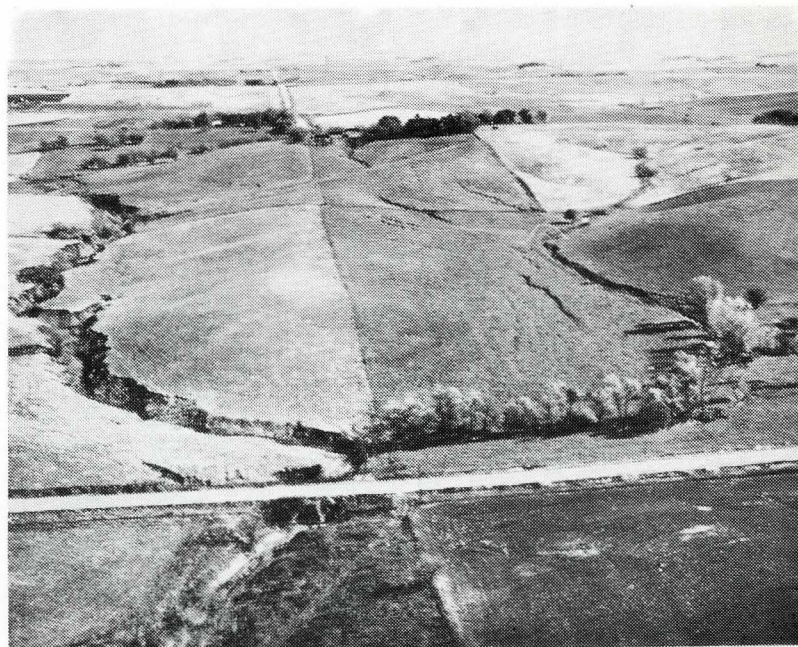
Iowa Soil and Water

Flood & Gully

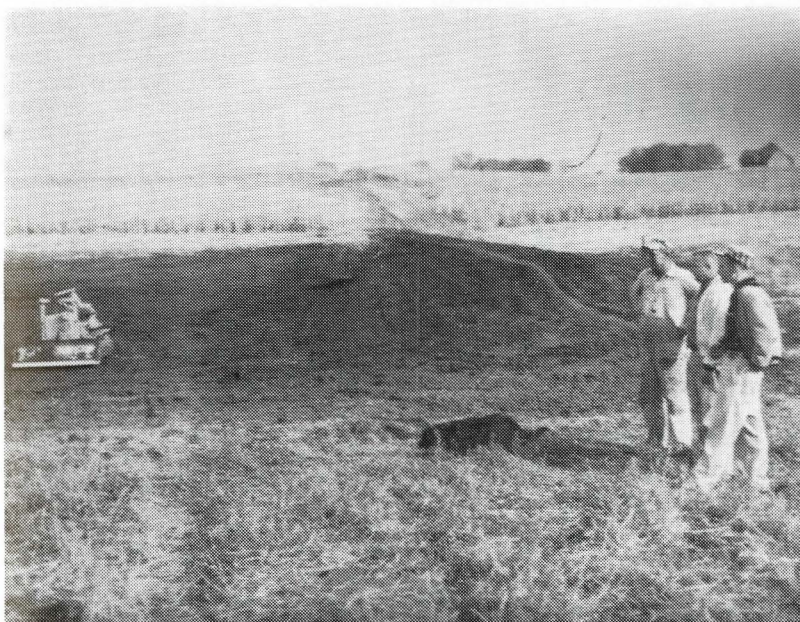
CONTROL STRUCTURES



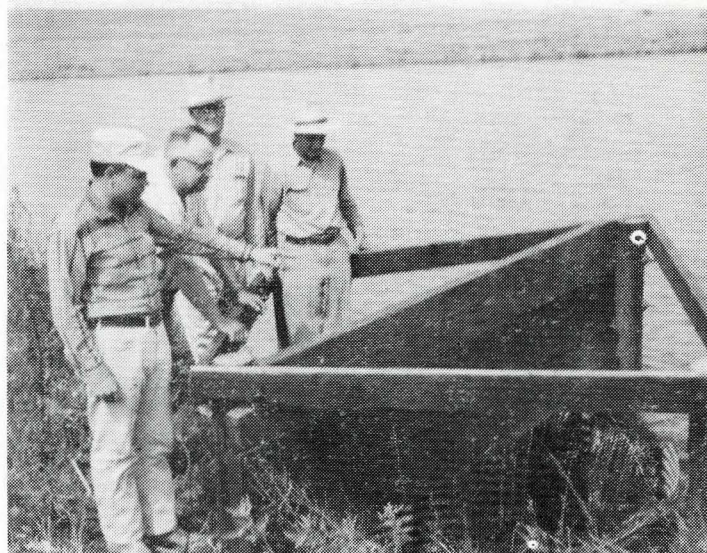
One of the outstanding recreational spots in Cass County where a two-acre pond was established by the installation of an earth fill with a drop inlet. The Conservation Commission has assisted with the development of this area for wildlife protection and recreation.



This is the location near the property line of the Wohlleber and Mikkelsen farms, north of Anita on the Highland road where a concrete riser will be built on an existing county road culvert. The gullies above this structure will be shaped and seeded to establish grass waterways. This work in the Crooked Creek Watershed will be done under the Federal Watershed P. L. 566 program and is the first work of this type to be done in Cass County.



Erosion control structure on the Joe Podalak farm with Don Frevert, Area Engineer; Wayne Raasch, Engineering Aid and Joe Podalak, the farmer in the foreground and the hooded inlet type structure in the background.



Fred Saemisch, Cass County Engineer, points out the details of a county road structure recently constructed, to three members of the Board of Supervisors, Harry Koehrsen, Harlan Gittins and Ernest Osler. This drop inlet tube with an earth fill replaced an old bridge in this location. This structure is located four miles south of Atlantic on the Olive street road and serves not only as a good road but aids in gully control above the road and has recreational value during the life of the pond.

Land Capability

I think we need some definitions of terms. What is the Soil Conservation Service?

Soil Conservation Service is the technical arm of the United States Department of Agriculture, assisting farmers in soil and water conservation. SCS

Iowa Soil and Water

was established by Congress in 1935.

What is the Objective?

To have each acre of land under plan within its capability and treated in accordance with its need for protection and improvement.

Purpose: Is to aid in bringing about adjustments of land and water use that will better human welfare, establish a permanent balanced Agriculture and reduce hazards of floods and sedimentation.

Soil Conservation Districts. What are they?

The first District in Iowa was established in 1940. The county lines form the boundary for the 100 soil Districts in Iowa.

Cooperators: The farmer who

has signed an agreement with the District for a conservation plan, which shows his willingness to accept soil saving practices and this is known as an Initial Agreement.

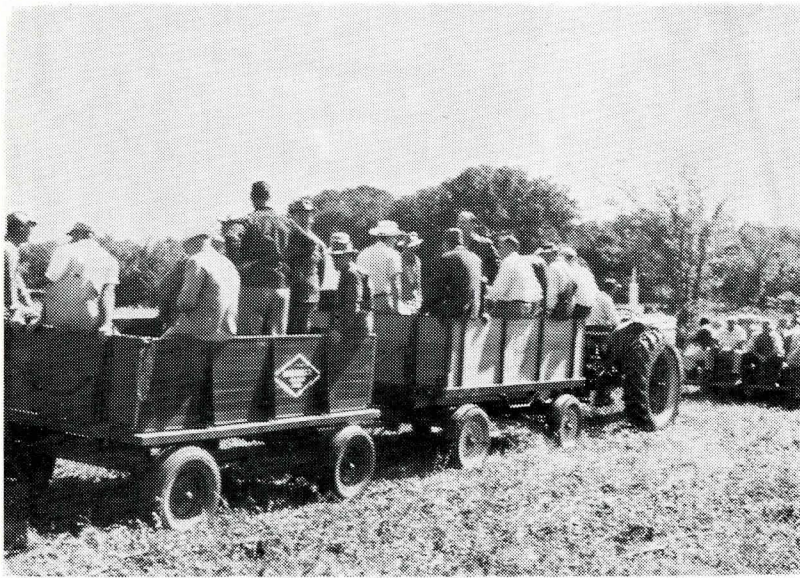
What is the Farm Plan?

A plan on his own land developed by the farmer, with the assistance of the Service, complete with maps, field arrangements, cropping system etc.

Why have a farm plan?

—Continued on page 28

CASS SOIL DISTRICT FIELD DAY



This wagon train was used to transport the crowd which attended the Cass County Fall Field Day in 1958. The Anita Chamber of Commerce was responsible for providing the wagon train which carried the people to the various projects on the farm during the Field Day.

Land Capability—

(Continued from Page 27)
For a more productive unit.
(Balance of income).

What's in this farm plan:

1. Crop rotations.
2. Supporting conservation practices.
3. Soil treatment.
4. Field Arrangements.

It means:

1. Contour farming.
2. Agreed land use. (Farm the land within its capabilities, using conservation practices that are effective and practical).
3. Terracing.

In developing a farm plan we try to analyze the farmers problem, whether it is erosion, drainage, fertility, soil structure or organic matter. It is a very grave "sin" to use our natural resources without giving any consideration to saving the soil and water for future generations.

We need to know the soils. Soil origin, how they are layed down, whether by wind, water or glacier. The soil scientist determines this for us thereby we obtain the soil map for the particular farm.

Crop rotations effect the soils: Rotations have an effect on the structure and tilth of the soil. Soil in good tilth is open and porous. Rotations should include grasses and legume crops.

Farm practices as they effect land capabilities:

Intensive cultivation (such as, short rotations, over-grazing and working the soil when wet) destroys:

1. Soil aggregation.
2. Content of organic matter.
3. Amount and size of soil pores.

How do we get more water into the soil? By the use of proper tillage and cropping practices. I would suggest you study the new tillage methods now being advocated, such as the plow-plant method. We need to use a rotation on the cropland which fits the soil type and topography.

Research shows: If you contour the land instead of the old up and down hill method you can expect to increase yields by seven bushels per acre. Then, when you apply terraces you can increase yields another five bushels per acre. Research at Clarinda has shown that in using continuous corn over a period of 12 years, the yield stayed about the same, **50 bushels** per acre per year, while a corn-oats-meadow rotation produced a yield up to 80 bushels per acre. Then where they put another years meadow in the rotation (plus good management) yields went up to 108 bushels per acre.

Some statistics about terraces: A mile of terrace will hold approximately 500,000 gallons of water. The water tower in Atlantic holds 500,000 gallons. The average farm pond will hold the same as a mile of terrace. If you spread this an inch deep over the land it would cover 10 to 12 acres.

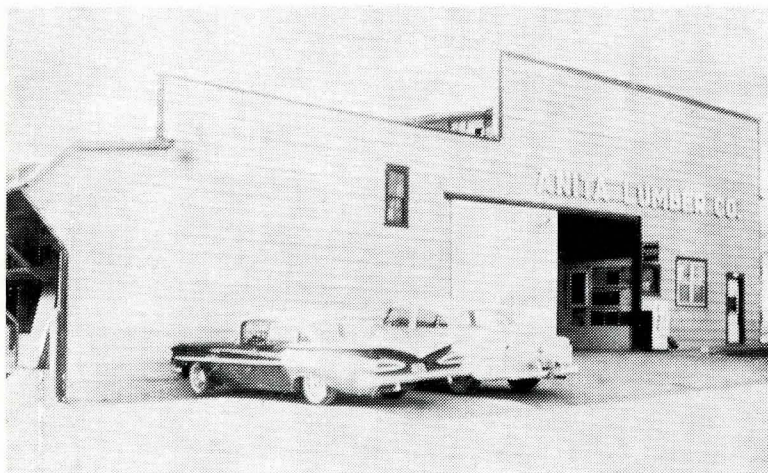
Runoff: We receive, in this area, on the average of 31 inches of rain per year.

What happens to it? Eighteen per cent or approximately six inches runs off. Eight per cent or two and one-half inches percolates into the soil, 74% or 22.5 inches evaporates or transpires from plant growth. When you contour you reduce this runoff by 50% and when you terrace the land you can expect to reduce the run-off another 40% or nearly double the reduction of run-off. Each foot of top soil will store two inches of water, or 10 inches in the top five feet of top soil.

The statement that intensive cropping and the addition of commercial fertilizer has caused fewer earthworms, is not necessarily true. It is more likely due to lack of a good crop cover at the critical season and also due to the non-use of inorganic fertilizers. What do earthworms promote in the soils? Soil granulation and good tilth.

Lets use the land within it's capabilities and treat it according to it's need!

Iowa Soil and Water



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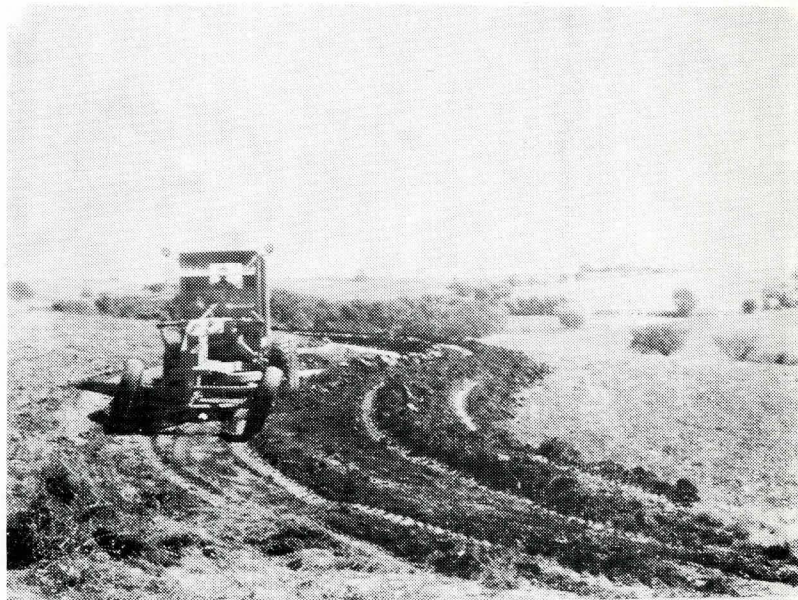
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Atlantic, Iowa

Farmable Terraces



This is the first parallel terrace constructed in Cass County, on the Tom Burns farm. Field Day, fall of 1958. Picture shows caterpillar constructing long farmable slope on the terrace. This terrace is designed for the use of four-row equipment.



Another method of building terraces is the road patrol shown above.

WATERSHEDS—

(Continued from page 25)

ing the soil and water on his farm. The Farm Plan means—

Change in field arrangements.

Contour farming.

Rotations—according to land capabilities.

Recommended terraces and waterways to save the soil and control gullies.

WHY? To maintain fertility and increase production for better living through better farming.

The Work Plan—must show a cost benefit ratio—that is—cost shall be less than primary benefits. Example \$10,000 dam, \$12,000 benefits derived below on the flood plain. Stabilization structure benefits above, and before work can begin on these structures, 75% of the planned needs must be applied to the land or at least evidence that it will be applied. The government picks up the check for the larger structures and the local groups carry on the maintenance cost.

The future success of watershed programs rests entirely with local farmers. If they are willing to do their share, put the needed conservation practices on the land, arrange for easements and provide plans to maintain the structures, there has never been a more opportune time to get the job done.

Easements, Right of Ways, are simply getting signed agreements from privately owned land-owners for ingress and egress. That is for—Building of the structure, Inspection of the structures and Maintenance of the structures.

Any costs in obtaining land, easements or right-of-ways will Iowa Soil and Water

be borne by local organizations.

Watershed Maintenance:

By the time the project has been completed the farmer, the County, the State and Federal Government will have a considerable investment in the Watershed protection and flood prevention structures.

Proper management, operation and maintenance are necessary to protect this investment.

The Soil Conservation District as project sponsors is responsible for providing a method of operation and maintenance.

HOW? The Iowa Law provides three methods of organization to provide necessary funds.

Three Ways of Forming Districts

1. Sub-Districts (Watershed) Not Sub-Watershed

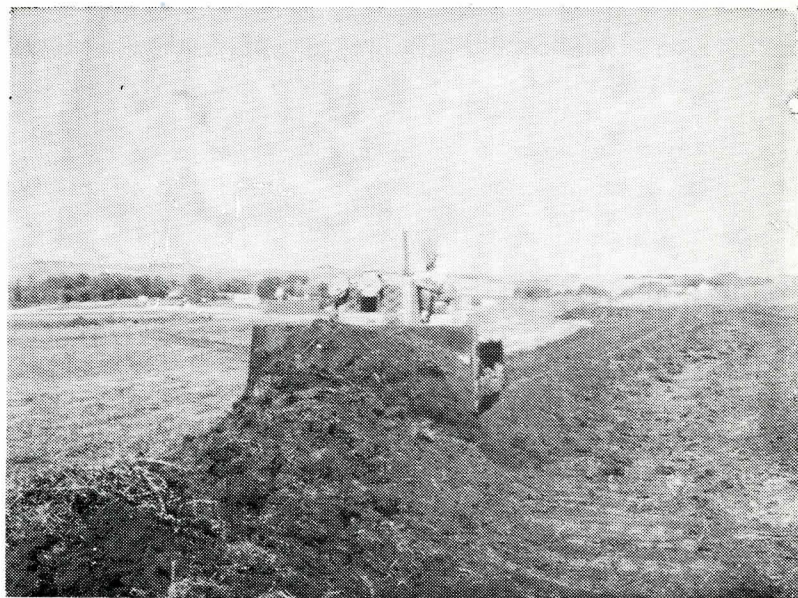
Iowa Law has authorized land owners in a watershed to request formation of Sub-District within the Soil Conservation District, providing for a special tax on all real estate within the boundaries of the watershed but in no case shall the levy exceed four mills.

II. Watershed Conservancy District:

Iowa Law authorizes land owners in a watershed to request formation of a watershed Conservancy District, providing for annual tax levy on each parcel of land on the basis of the value of the benefits occurring to the landowner in proportion to the total benefits. As approved, the Board shall levy initial assessments as fixed by the Commissioners.

III. Flood and Erosion Control Maintenance By County Levy:

When the Federal Government



This is a terrace being built by a bulldozer on the Tom Burns Farm southwest of Anita, at the Field Day, fall of 1958.

engages in flood and erosion control projects in any watershed and as a condition require local maintenance, the Board of Supervisors of any County may cooperate and the cost may be assumed by the County. Here the limit to County levy of tax will not exceed $\frac{1}{4}$ mill on all agricultural lands in the County.

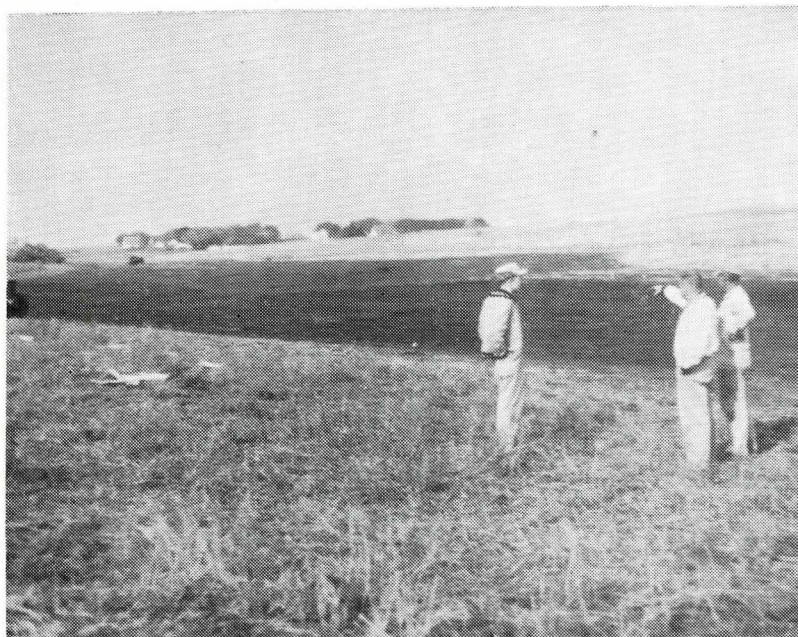
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OUR PRODUCTIVE SOIL

STRUCTURAL WATERWAYS



Don Frevert, Area Engineer; Wayne Raasch, Engineering Aid and Joe Podalak, farmer, with the structural waterway in the background.

GULLY PROBLEM SOLVED BY PERMANENT STRUCTURE AND WATERWAY

By Don Frevert
Area Engineer

Joe Podalak, six miles South of Atlantic, has recently completed a grassed waterway and an erosion control dam. Joe and the Soil Conservation Service Technician plan to convert a raw gully into a productive strip of meadow.

"I just couldn't have one without the other," Joe replied when asked about the erosion control structure. "The Waterway needed a good foundation."

The purpose of the structure was to take about 10 feet of depth out of a gully 13 feet deep. This allows Joe to begin a waterway and hold it.

Wayne Brown, the neighbor below Joe, also has an interest in

the structure since it is being constructed on the property line. Joe and Wayne plan to construct the new fence over the fill. It looks like water gap repair days are over.

Joe began his major conservation practices several years ago by installing terraces. "I feel the terraces are protecting my structure and my waterways," stated Joe. "They help keep the water and the soil on the land rather than in the new waterway and structure."

A. S. C.—

(Continued from Page 8)

ably liquidation of their herds and flocks in many cases.

We hope the need will never be so great again, but feel the expense of the storage and loan program is justified as a reserve when we need it.

A program for wool was adopted under the National Wool Act of 1954. This program is called the Wool Payment Program and provides for payments on shorn and unshorn lambs.

Payments on the shorn wool during the 1958 marketing year were made on a percentage basis, by applying to the net sales proceeds received by a producer, a percentage which is based on the difference between the national average price received by producers during the marketing year and the incentive price of \$.62

Payments under the 1958 pulled wool program were made for wool on lambs and yearlings in accordance with the National Wool Act of 1954 and were a flat rate per hundredweight of live animals, the payments are based on the average weight of wool per hundredweight of animal (five pounds) times 80% of the difference between national average price received by producers for shorn wool and the incentive price of \$.62 per pound of shorn wool.

During the 1958 marketing year 214 shorn wool applications were honored for incentive payments, and 114 unshorn lamb applications were honored for incentive payments. A total of \$26,883.84 was paid producers on both programs.

In very close relation to the Soil and Water Conservation is the Conservation reserve of the Soil Bank Program, which retires land from agriculture production for three to 10 years and must have suitable cover to prevent wind and water erosion for the term of the contract.

We have 30, 1959 and 1958 contracts at a payment of \$11.00 per acre and 128, 1959 contracts at an average county rate per acre of \$18.50. Of these, 130 are total farms, which means all the eligible cropland on the farm is retired from agricultural production for at least five years. Considerable interest is shown in the 1960 Conservation Program with 115 requests for a rate to be established for their farm.

Our county is not considered as one of the heavy wheat producers but of 2,116 farms, 200 have a wheat allotment or harvest within the 15 acre limit allowed. There farms must be visited annually by an ASC reporter to check compliance to determine that the farms have not exceeded their permitted acreage to be eligible for price support, or to receive a marketing card, which is necessary to sell the wheat.

Wildlife Management—

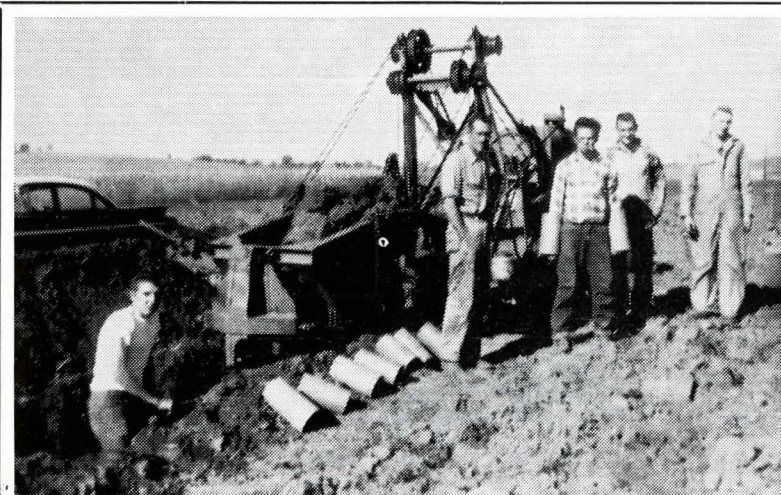
(Continued from Page 21)

total annual food taken by the pheasants. Nearly one-half of the grain consumed was corn. Common weed seeds included foxtail, ragweed, wild buckwheat. Other food species which were important to the pheasants in this study included wheat, barley, oats, rosehips, dogwood berries, wild cherry, nannyberry, and high bush cranberry. During the first seven weeks of a pheasant's life, however, one-half of the food he eats in animal material with grasshoppers being preferred. The average adult pheasant apparently eats about one and one-fourth pounds of corn per bird per week.

Medium to heavy hunting of the cock pheasants is, in fact, a good management tool for keeping up a continuing high production of pheasants on the average pheasant range. The reasons why this is so are generally as follows:

The cock pheasant always stakes out a certain area which he claims as his own. He will stay on this area and defend it from all other cock birds; if there are relatively few cock pheasants, each cock bird will pick out an area with plenty of good and well-protected nesting cover. This means that if there are only a few cock birds, each one will have more hen pheasants and the hen pheasants in turn, will have better nesting to bring off their clutches. This results in a much higher percentage of nests being successful. On the other hand, if there happens to be a lot of cock birds at the beginning of the breeding season, many of the cock birds must of necessity pick out areas which are not too desirable from a nesting standpoint, and yet each cock bird will usually have one or more hen pheasants in his territory. With more hen pheasants in undesirable nesting cover, there will be more failures. Hence, fewer pheasants

Iowa Soil and Water



CHARLES FRITCH

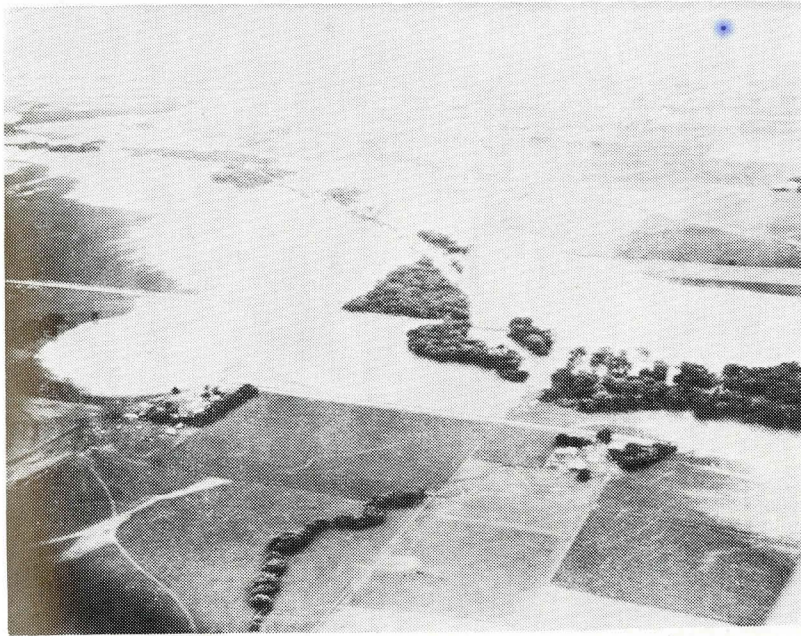
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UPLAND CONSERVATION COULD HAVE GREATLY REDUCED THIS DAMAGE



General view of the East Nishnabotna on Highway 71 north of Atlantic.



View of Highway 83 at the west edge of Atlantic showing inundation caused by the flood.

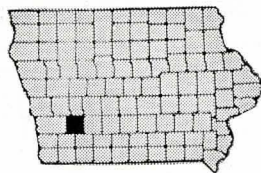
According to the Governor's report, the following damage occurred in the July 2, 1958 flood in Cass County. Bridges \$650,000; Roads and culverts \$100,000; Farm land flooded 21,000 acres and \$840,000 loss; Livestock lost \$300,000; Houses and buildings \$490,000; Private business \$400,000; Municipal and county property \$200,000, a total of \$2,980,000. The estimate of the entire financial loss in the Nishnabotna watershed which includes parts of Cass, Guthrie, Shelby, Fremont, Montgomery, Page and Pottawattamie counties was a total of 15 million dollars. The financial loss was heavy but probably the greatest loss was the loss of 19 lives. The 11-inch rain which occurred is very unusual but with all upland conservation measures when established in the entire watershed, it is believed that enough production in flood damage could be secured to materially reduce the loss of life and property.

will hatch and grow to maturity.

For further assistance in planning your farm as a better habitat for pheasants and wildlife in general, see your local Soil Conservation Service farm planner or your Conservation Officer. He can also assist you in locating places where grasses, trees, and shrubs for improved wildlife habitat can be obtained.

Improving the farm for wildlife is not alone making a better place to enjoy hunting, but it is making the farm a place where a more complete and full life is available.

LOCATION IN IOWA



View looking west at the north edge of Atlantic during the height of the July 2, 1958 flood.

—o—
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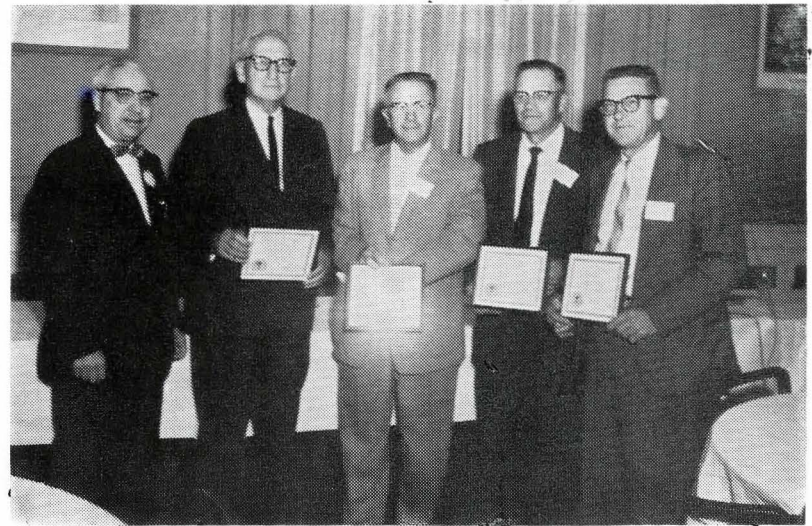
Cass County Board of Supervisors, seated, left to right: Harlan Gittens, Chairman; Fred Saemisch, Co. Engineer. Standing: Harry Koehrsen, Otto Schwartz, Norman Smith and Ernest Osler.

Winning Plowmen From Warren and Franklin Districts

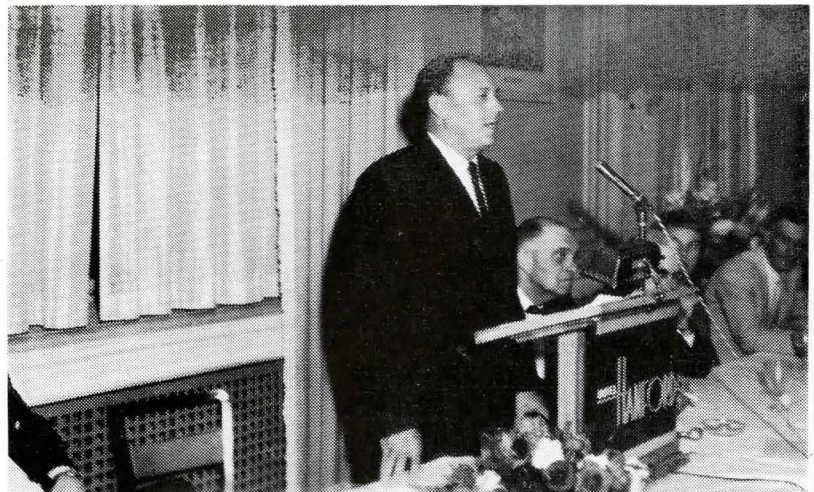


All happy but Keith who was a tired old man at the windup of the field day and plowing matches the 25th of September in Woodbury County. Left to right are: Keith Kirkpatrick, farm news department of WHO, who were co-sponsors of the event; Richard Davitt, winner of the level land match, Prole, Iowa; Miss Janice Radabaugh, Ames, Iowa, Iowa's "Queen of the Furrow;" Arthur Raisch, winner of the contour plowing event, and tired but smiling Herb Plambeck, WHO Farm News director. Plaques and cash awards were presented to contestants by Radio and TV Station WHO.

Annual Conference Highlights



Lifetime membership awards in the State Association of Soil Conservation District Commissioners were presented by the association to five men for their outstanding work in Soil and Water Conservation. Pictured above are, left to right—Gilbert Fridley, former president, presenting awards to Don Berry, newspaper publisher at Indianola, Ia., Dewey Cornell, A.S.C. Des Moines Office; Bill Mitchell, former Director of the Association, Grundy Center, and A. J. Marken, former Director from Hampton, Ia. Not present for picture was Dick Wilcox, Deputy State Conservationist, Soil Conservation Service, Des Moines Office.



Bill Richards, President of the National Association of Soil Conservation Districts as he addressed the commissioners, their wives and other interested Soil Conservation people at the 1959 Annual Conference in Mason City in September.



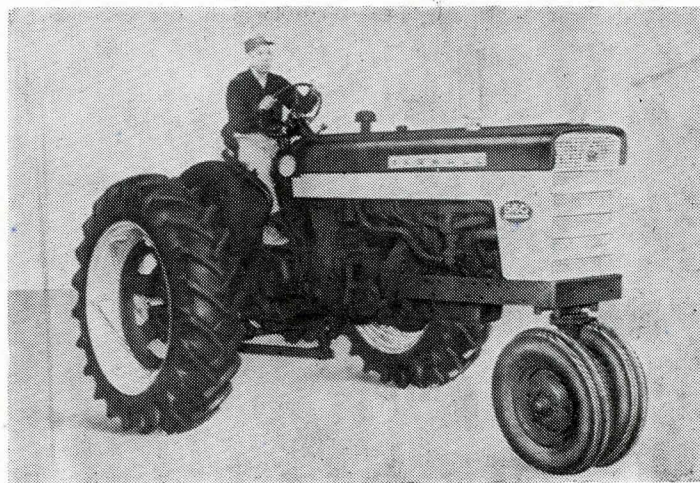
Donald Slater, Webster Soil District on the left and Harvey Sorenson, Audubon District on the right, Chairmen of the winning Soil Conservation Districts in the Goodyear Contest receiving the plaques for their districts, by a representative of the Goodyear Tire and Rubber Co.

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SOIL SURVEY—

(Continued from page 16)
completed and plans for the winter educational program are well under way. This type of Extension program is a pilot project with the objective of getting each acre in the county to be used to its maximum capability and yet conserve and build this precious natural resource.

CROOKED CREEK—

(Continued from page 23)
enthusiastic leaders. In the Cass portion of the Crooked Creek Iowa Soil and Water

Watershed, we have three men who ably meet these standards. George W. Nelsen, George Lund and Dallas Hansen, men who aren't selfish in their own right, but are interested in seeing land treatment practices put on the land that will be beneficial to future generations.

An interesting fact story. A father of one of the men in the Crooked Creek area told his son he had ruined the field by putting on those cursed terraces, but after the storms of 1958 his

comment was he believed he would get some terracing on his own farm.

In the portion of Crooked Creek watershed boundaries in the Cass District there are 8,500 acres owned by 67 different landowners. We now have 56 of these with a basic farm plan. In the past four years 46.8 miles of terracing has been applied to the land.

There are many hurdles that need to be ironed out in developing a watershed program. That

is, a need to simplify the workings of administering the development of a watershed. When you come to the legal angles, such as easements for right of way, impoundment of water above a structure, petition for maintenance, the people naturally begin to question and these things require a lot of someone's time.

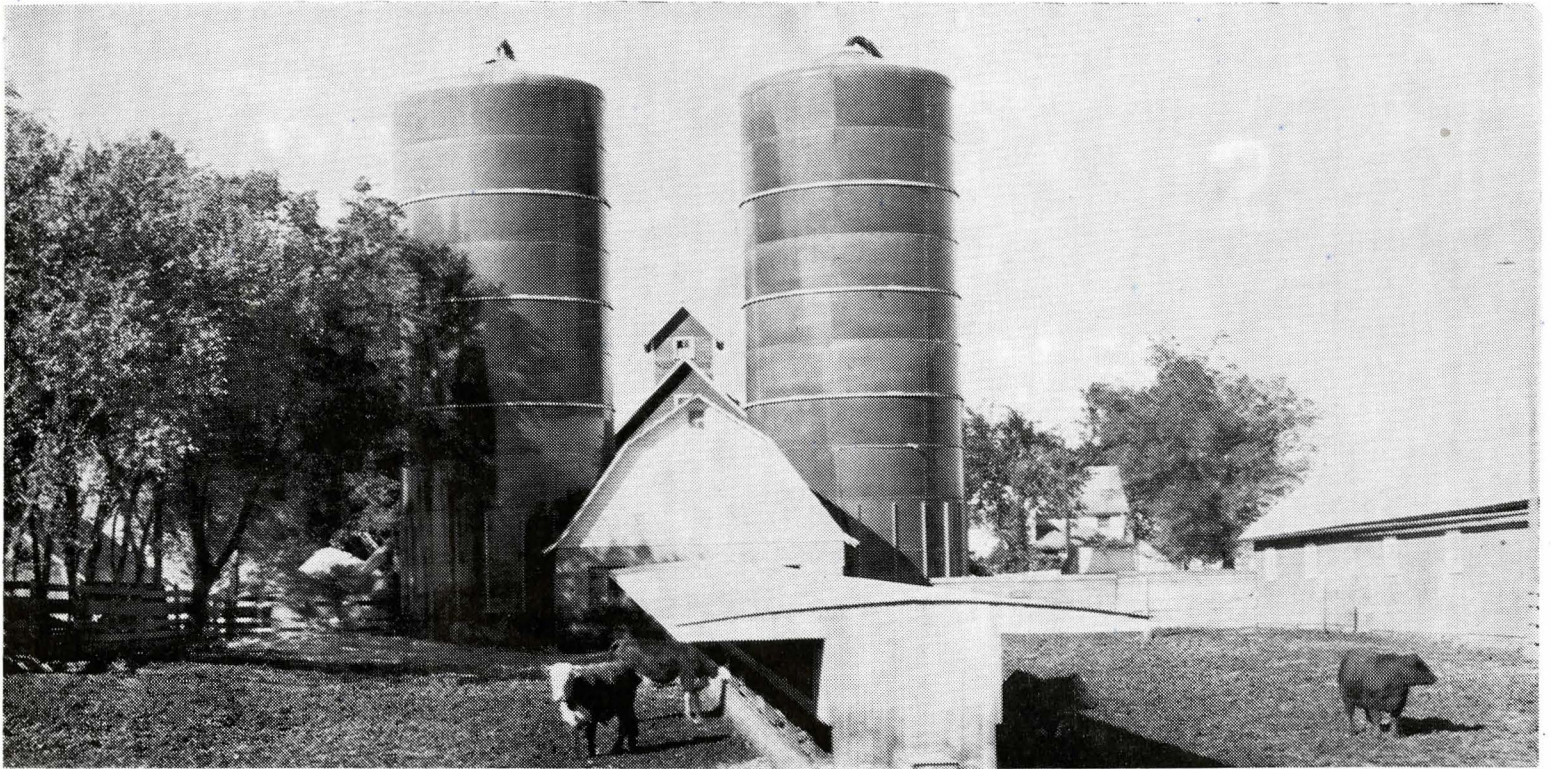
Yet, if people are sold a sound program on **benefits** to be had by prevention of erosion and flood damages, a lot of good can come from a watershed program.

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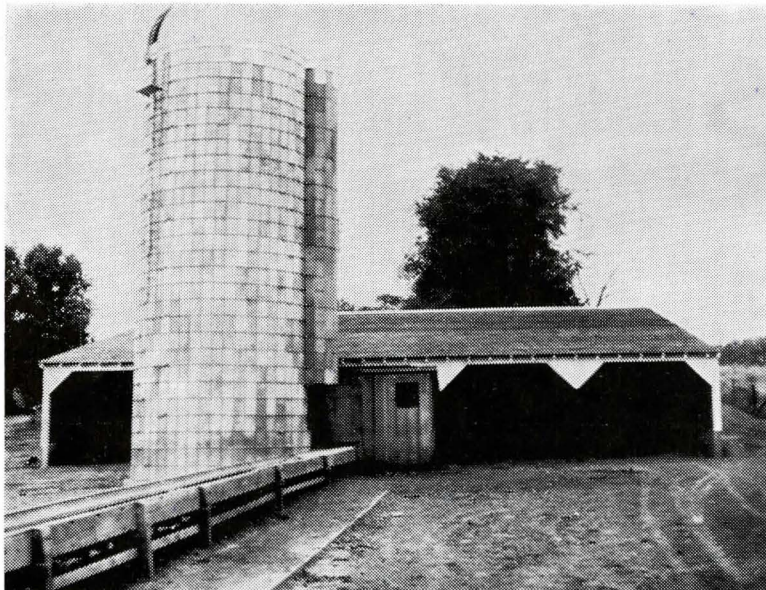
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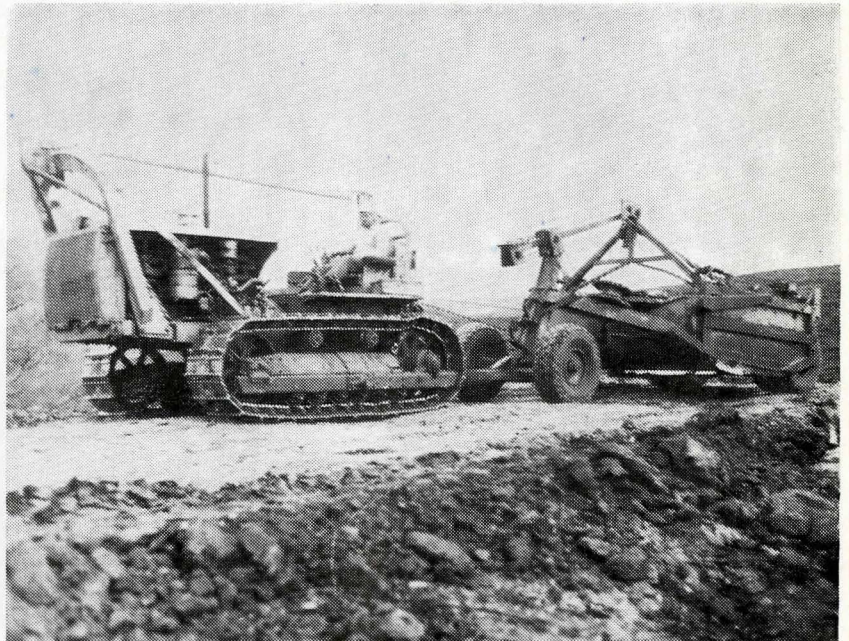
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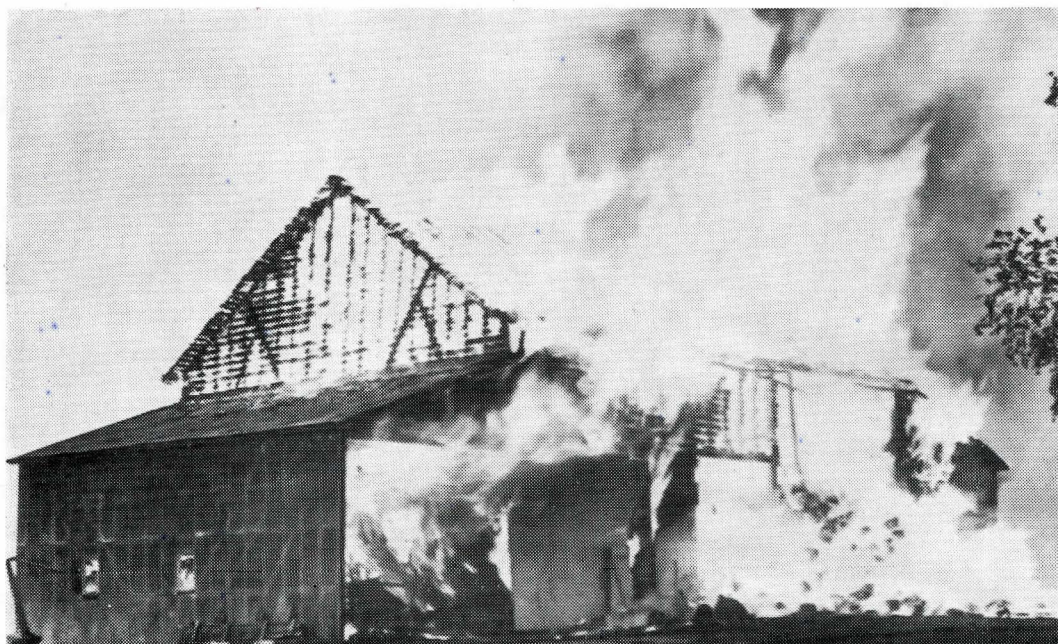
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