

Soil Conservation Service Assessing Water Practices

WORLD-HERALD BUREAU

Lincoln — The Soil Conservation Service this month started evaluating the various soil and water conservation practices to determine if the government is getting the best buy for the dollars invested.

"This nationwide assessment will examine the effects of conservation on erosion rates, long-term soil productivity, water use, energy use, and volume of surface runoff. We want to know if the long-range economic effects are giving us a good return on the dollar invested," said Benny Martin, SCS state conservationist.

"The data we collect for this assessment will be useful in the Soil and Water Resources Conservation Act of 1977. This act directed the SCS and all U.S. Department of Agriculture agencies to evaluate the conservation programs and needs for the future through public involvement. The assessment now getting started will give us the cost and benefit information needed to evaluate the conservation tools like terraces for example, as part of needed programs," said Martin.

"We have not previously had

this cost and benefit information available. We have historically reported to Congress, for example, that in Nebraska last year there were 2,000 miles of terraces built. To congressional leaders and many other people this figure doesn't really mean much.

"But if you can determine that those 2,000 miles of terraces protected one-half million acres of farm land and kept 5 million tons of soil from eroding, then you can compare costs and benefits of the money invested," said Martin.

"Some of the data we will be collecting will be the erosion rates before and after installation of a conservation practice, irrigation water applied with or without a conservation practice, sediment-reduction estimates, energy savings due to improved irrigation and the total number of acres benefited by the conservation," said Martin.

In Nebraska, the 25 counties that will be taking part in the assessment are:

Box Butte, Dawes, Banner, Scotts Bluff, Keya Paha, Blaine, Boyd, Sherman, Greeley, Grant, Knox, Wayne, Colfax, Franklin, Hitchcock, Clay, Thayer, Buffalo, Nuckolls, Nemaha, Sarpy, Garden, Douglas, Cass, and Red Willow.

Bluffs Man Outstanding SCS Leader

Eldon Dale Ravlin, 62, was named outstanding district commissioner of Iowa Soil Conservation at the 23rd Annual Confer-



Eldon D.
Ravlin

ence for district commissioners in Des Moines.

Ravlin, 1222 Harrison St., heads the West Pottawattamie County district.

Ravlin has been here 10 years and was instrumental in starting five watershed programs.

He is also chairman of the Ryan - Henschel Watershed Board, contracting officer in Indian Creek Watershed, and assistant contracting officer in Ryan - Henschel Watershed.

Lloyd V. Brokman

Lloyd V. Brokman, 77, 631 Simms, died Saturday at a local hospital following a one-month illness.

Brokman was a lifelong resident of Hardin Township where he farmed until he moved to Council Bluffs a year ago.

He was past president of the Pottawattamie County Farm Bureau and a past master of Amber Lodge 569 in Quick. He was a member of the West Pottawattamie Soil Commission and a member of Grace United Presbyterian Church.

Survivors include his wife, Mertie; daughter, Nancy Dose, Underwood; son, Daniel Brokman, Council Bluffs; brothers, Perce of Underwood and Howard of Council Bluffs; sister, Grace Wild, Council Bluffs; and five grandsons.

Services will be 11 a.m. Tuesday at Woodring Funeral Home. The Rev. William Brewer, pastor of Grace United Presbyterian Church, will officiate.

There will be a Masonic service 7 p.m. Monday at the funeral home. Burial will be in Hardin Township Cemetery.

Memorials may be made to Grace United Presbyterian Church or to Amber Lodge 569.

Conservation official dies

Calvin C. Cox, 57, 438 S. Sierra Drive, district Soil Conservationist for the U.S. government, was pronounced dead soon after arrival at a local hospital Wednesday noon.

Dr. Arthur Sciortino, who performed an autopsy, said death was due to suffocation



Calvin
C. Cox

from food caught in his throat. He was taken to the hospital by ambulance from the Federal Building.

He was born at Adell and served in the Air Force during World War II. After returning from the service he attended the University of Iowa at Ames and taught vocational agriculture at Bayard and Ventura. He left his teaching profession and began work as a soil conservationist at Pocahontas, moving from there to Council Bluffs 14 years ago.

Cox was a member of Broadway United Methodist Church, Cobia Lodge 631, AF&AM, was a member of the Downtown Kiwanis Club and past president of the Pocahontas Kiwanis Club, and a member of the Soil Conservation society of America.

Survivors include his wife, Lucille; son, Charles of Bridgeport, Conn.; two daughters, Gloria Cox of Fort Wayne, Ind., and Julie Cox, a student at the University of Iowa at Ames; his mother, Ida M. Cox of Dexter; two brothers, Robert Cox of Tustin, Calif., and Keith Cox of Tempe, Ariz.; three sisters, Mrs. Bob (Marcia) DeHoet of Sioux City, Mrs. Eldon (Virginia) Mangels of Fontanelle, and Mrs. Jerry (Connie) Sloan of Ames.

Services will be at 11 a.m. Saturday at Meyer Funeral Home. The Rev. Dale J. Williams, pastor of Broadway Church, will officiate. Interment will be at Greenfield Township Cemetery at Greenfield at 3:30 p.m. Saturday.

Visitation with the family will be from 7 to 8 p.m. Friday at Meyer's. Cobia Lodge will conduct a Masonic rite at the mortuary at 7 p.m. Friday. Memorials are suggested to the Heart Association.

Conservation Workshops Established

Three conservation education workshops will be offered for Iowa teachers this October.

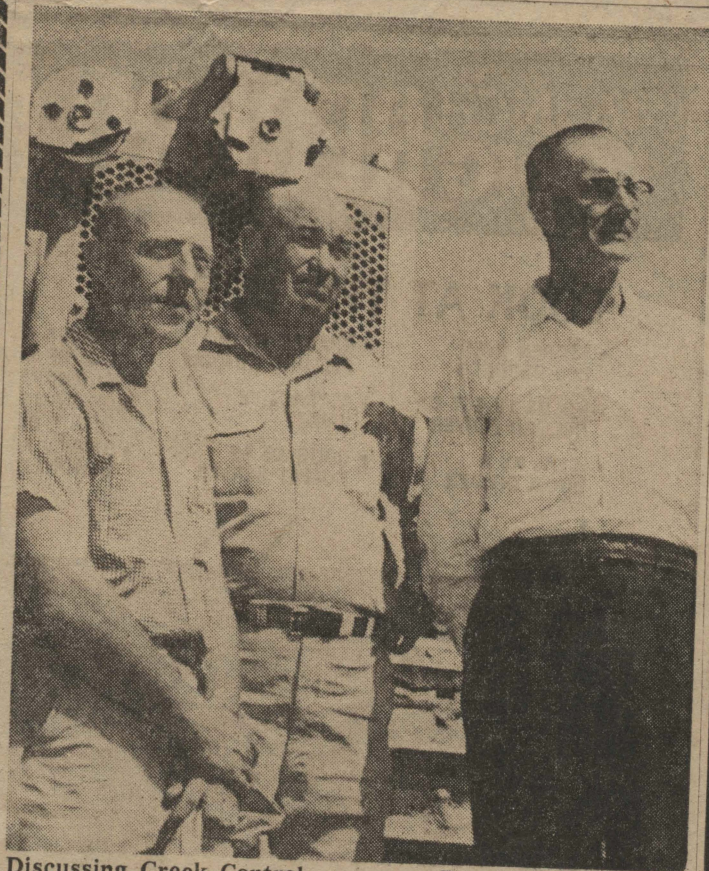
The workshop for the Council Bluffs area will be held at Camp Hitchcock, about 15 miles north of Council Bluffs, Oct. 12 and 13.

The other two will be held at Camp Ewalu near Strawberry Point Oct. 5 and 6 and at the State 4-H Camp near Luther on Oct. 12 and 13.

The two-day sessions are intended to give teachers first-hand learning experiences in environmental studies.

Teachers interested in attending should contact the West Pottawattamie Soil Conservation District office, 238 Federal Building, Council Bluffs, for reservation forms or more information.

The sessions are sponsored by the Iowa Conservation Education Council, the Iowa Association of Soil Conservation District Commissioners, the Department of Public Instruction, Iowa Department of Soil Conservation and the Iowa Conservation Commission.



Discussing Creek Control . . . are Pony Creek leaders Dale Lincoln and Dennis Downing, with visitor Eldon Ravlin, Underwood, chairman of Ryan-Henschel Watershed.

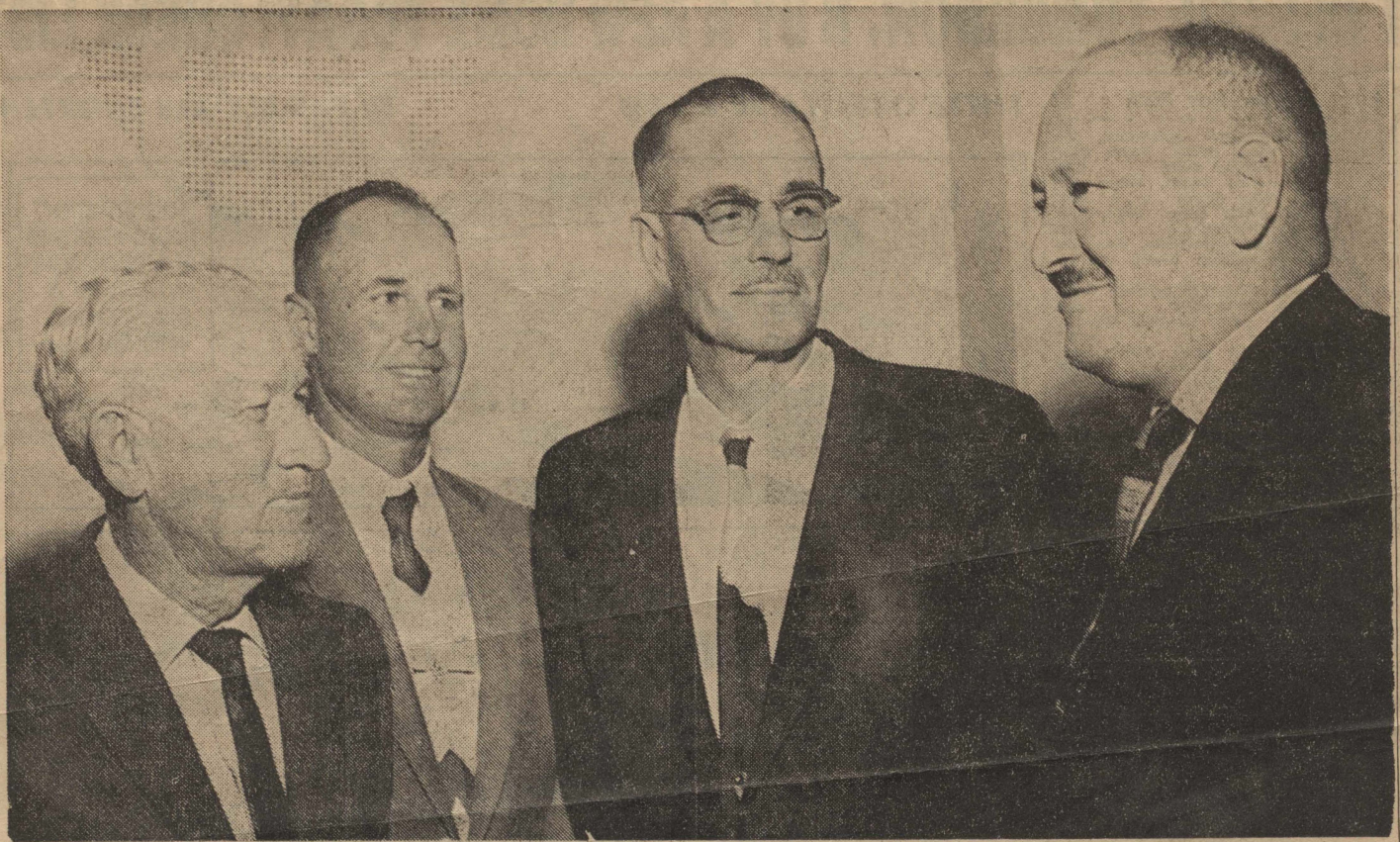
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Talking Agriculture . . . are Bruce Russell, soil district commissioners Eldon Ravlin and Don Bladt, and Maj. Svi Ossren.—Nonpareil Photo.

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Russell Compares Ag Production . . .

Efficient Farmers? You Bet; Three Cited For Soil Efforts

By Warren T. Francke

(Nonpareil Staff Writer)

A speech in praise of the U. S. farmer and awards for three of them topped the menu at the Soil Conservation Awards Banquet Monday.

More than 140 cooperators in the West Pottawattamie Soil District and sponsoring Kiwanis Club members hear Bruce Russell, president of the Farmers National Company, at Hotel Chieftain.

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Discussing "Agriculture in the National Economy", he reminded that "40 per cent of our working force is in agriculture or related businesses."

But, Russell added, it takes only a little more than

seven million farmers to produce more than enough food for the nation.

"Efficient? Each of these men is producing enough food for himself and 28 others," he said, "compared food for only eight others in 1920."

Russell compared U. S. farm efficiency to the agricultural situation in Russia, where 48 per cent of the working force is directly engaged in farming.

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Don Hartman presented awards from the Kiwanis Club to three farmers for their soil conservation practices. They are:

—Floyd Fischer, Route 2, who has 6½ miles of level terraces and 4½ acres of shaped and seeded waterways on his farm. He contours row crops and uses grass headlands in place of end rows.

—Erich Geise, Underwood, whose entire farm is in the Ryan - Henschel Watershed.

In the past 14 years, Geise has built eight miles of level terraces and has shaped and seeded six acres of waterways. He works crop residue back into the soil and practices soil - conserving crop rotations.

—Alvin Schutt, Minden, who practices soil conservation on his own farm and another farm he operates for Jerome Hayes. The techniques employed by Schutt include terracing, waterways, contour plowing and crop rotation.

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Don Bladt, soil district chairman, outlined the importance of efforts made by the three farmers.

Also speaking on the banquet program was Maj. Svi Ossren, a visitor from the agriculture department of Israel. C. W. McManamy was master of ceremonies.

Guest Nods

Erosion control won't be required

Erosion controls that were required for another subdivision will not be required for the fourth addition of the McPherson Hills subdivision.

The Planning Commission Tuesday decided not to amend its original decision to approve the subdivision's final plat. The commission gave the go-ahead on the project at its Sept. 18 meeting.

Comprehensive Planner George Garcia asked the commission Tuesday to reconsider its approval and have the developer, Jerry Duggan, work with the planning and public works departments in setting up erosion controls.

A similar agreement was made with the developers of the Timbercrest subdivision.

Under that agreement, the developer is to control erosion on a lot-by-lot basis by ensuring there is adequate ground cover and by using terraces.

Duggan said there have been no extraordinary erosion problems during the first three phases of building at McPherson Hills and that additional controls are an unnecessary restriction.

Garcia and planning department officials want to tie more restrictive erosion controls to approval of plats for subdivisions and other building projects.

Eight SWI counties to form conservation area

10-28-76

By GLEN FAHRENKRUG
Nonpareil Staff Writer

MACEDONIA — Eighteen months of planning has resulted in the initial formation of a Resource Conservation and Development (RC&D) area covering eight Southwest Iowa counties.

"We're in the process of putting together an application at the present time. We hope to have that done by the first of the year," said Clifford Stille of Macedonia, who has been elected chairman of what will be called the Golden Hills RC&D, covering nine soil conservation districts in the eight counties.

KEN OLIN, area conservationist for the U.S. Soil Conservation Service (SCS), said if the RC&D is approved, it can begin applying for federal funds for projects that are "primarily to the public's benefit. There could be parks built or provide protection from erosion and siltation into existing lakes or parks or even erosion control structures on roads to replace bridges."

There are four RC&D areas in Iowa and another forming besides Golden Hills. All have or will go through the same steps for federal recognition: approval by the state department of soil conservation and the governor's office, then to the Washington SCS office. It could be a year before Golden Hills RC&D becomes a formal organization.

In the meantime, the RC&D members will begin looking at various projects which they feel could benefit from federal funding. For example, erosion control and siltation protection along a tributary into Prairie Rose Lake in Shelby County has been tossed out as a number one priority.

Each county has formed a local RC&D board which is looking at priority projects in its area. The respective boards of supervisors are also being asked for input.

"The RC&D boards should have their projects ready for our next meeting. I feel it will appear better if we have specific ideas in mind," Stille said.

Unlike other federally-funded projects, Olin said the local people "decide what they want to do. The better the local participation and support, the better chance we have for approval."

IF APPROVED, an RC&D office will be set up within the area to coordinate projects and apply for funding. The SCS will also become involved from an engineering standpoint.

Other officers of Golden Hills RC&D are Wayne Hansen of Walnut as vice chairman, representing Shelby County; and G. M. Baier of Atlantic as secretary - treasurer, representing Cass County.

Representatives from other counties on the executive board are Walter Wear of Persia (Harrison County), Marvin Hillman of Essex (Page County), Robert Smith of Sidney (Fremont County), Lloyd Brokman of McClelland (West Pottawattamie County), A.M. Kirkberg of Stanton (Montgomery County), and Dave Snow of Glenwood (Mills County).



Terracing Work . . . on the Clifford Stille farm near Macedonia is viewed by Stille and Ken Olin, U.S. Soil Conservation Service area conservationist. Stille will use his years of background in soil conservation to head the formation of the Golden Hills Recreation Conservation and Development (RC&D) program in an eight-county Southwest Iowa area. — Nonpareil Photo.

In soil conservation job Hammitt likes the diversity

By CINDI KEITHLEY
Nonpareil Staff Writer

Sure, you know that the Soil Conservation Service is concerned with farm erosion—but did you know also it works on urban erosion?

Bill Hammitt, recently appointed district conservationist for West Pottawattamie County SCS, said that although the major portion of the work the service does is with farm conservation.

"It isn't just the farmers. We have a wide variety of things going on," he said.

HAMMITT SAID the SCS also works with city and county agencies to prevent or correct urban erosion problems.

"We're now working with the county on silting problems at Arrowhead Lake near Neola," he said. "We also can be called in when new subdivisions are being planned, to prevent sediment from new developments from going into developed areas, and help with

drainage problems."

Hammitt likes the variety of his job. He found especially interesting the discovery of 15 acres of native prairie just southeast of CB this week, during a preliminary examination of land likely to be included in the planned Twin Ponies watershed project.

Twin Ponies will provide flood control for the urban area just southeast of Council Bluffs by controlling Pony Creek, he said. Included in plans for the project, which Hammitt estimates will take 10 years to complete, is an 80-acre recreational lake. The lake will be located about eight miles east of Council Bluffs near Highway 92.

Watershed projects are a large part of Hammitt's job. Right now he's working on the North Pigeon watershed project, which will drain 4,510 acres just northeast of Crescent.

"NORTH PIGEON is concerned with grade stabilization

for the area, to fill up some steep existing ditches with water and prevent more erosion," he said. The North Pigeon project is about half-finished with most smaller dams in the project completed and only the final major dams left.

The SCS has also started work on Simon Run watershed which will drain 4,150 acres just east of Crescent. "It's only started, with three structures built. We need to get the upland treatment finished before we can build some of the remaining dams," Hammitt said. He explained that 75 percent of the drainage area served by a watershed project must be in pasture or prepared by conservation methods such as terraces to prevent silting before dams can be built.

Hammitt is enthusiastic about the West Pottawattamie office which he joined June 16. "I think we have a good staff here. We also have a pretty

good allocation of state cost-sharing funds that just became available," he said. He estimates that most of this year's \$80,000 allocation will be spent on terraces. Last year, 60 miles of terraces were constructed in the area, though he doesn't believe they will match that figure this year.

"Costs have gone up so much that we just won't be able to build as much," Hammitt said. Crops prices also affect how willing farmers are to take part in the cost-share program. "If farmers make any money, they usually put it back into the land with tiling, terraces and so forth, but when they don't make much money or have to borrow just to keep going, it really hurts conservation efforts."

HAMMITT KNOWS about that—he's a farmer himself, working about 80 acres in Harrison County near Woodbine. He is a native of Harrison County, although he's been

away for the past 10 years. First there was college at Iowa State University in Ames, where he graduated in 1973 with a degree in Fisheries and Wildlife. Then he began work with the Department of Agriculture in Nebraska and Minnesota. He came back to Iowa last January to accept a post at the Atlantic field office.

"I took a cut in pay to get back to Iowa," he said. "When this opening came up, I had the chance to come back home and start doing some farming with my father, so I took it. I was planning on being in Atlantic for a long time, but then this opening came up and here I am."

Hammitt and his wife, Rita, are looking for a place about halfway between the farm he works and Council Bluffs, to cut down the commuting time. He also wants to find a permanent home for his children, Becky, 4 and Wes, 18 months. "They'll be in school soon, so I guess it's time to settle down," he said.



Checking Over . . . a map and listings of watershed projects is Bill Hammitt, district conservationist for the Soil Conservation

Service. Hammitt was recently assigned to the office in Council Bluffs succeeding Cal Cox, who died earlier this year. —Nonpareil photo.

IN SHORT

SCO plans sports benefit

The Shelby Commercial Organization's annual athletic event will be held this year on Friday, March 22 at 7:30 p.m. in the Shelby-Tennant gymnasium.

Featured this year will be elementary basketball skills, elementary wrestling skills and a basketball game between area farmers and a team composed of teachers and business men and women.

The benefit event will help provide funds for emergency backup lights for the school gym. Admission to the event is \$1 for adults and 50 cents for students and children.

Take off studded snows

March 31 is the last day Iowa motorists may legally use studded snow tires this winter, according to the Iowa Department of Transportation.

Studded snow tires are legal in Iowa from November 1 to midnight, March 31.

Round-up at Tri-Center

It's kindergarten round-up time for Tri-Center Elementary School. Orientation day will be April 12th and testing will be done on April 17th and April 18th.

Parents or guardians of children who will be eligible for kindergarten and plan to attend Tri-Center are asked to notify the school if they have not already done so. The telephone number is 485-2271.

Kindergarten students for the 1985-86 school year must be 5 years of age on or before September 15, 1985.

PCTA meets Tuesday

The Pottawattamie County Taxpayers Association (PCTA) will meet at the Legion Hall in Treynor on Tuesday, March 26 at 7:30 p.m.

A panel consisting of Gregg Forristall, Macedonia; Robert Soloth, McClelland; and Charles Smith and Terry Mauer of Council Bluffs will discuss the pros and cons of the local option tax proposal at this public meeting. John Hartgod, PCTA President, will serve as moderator.

Soloth is president of the West Pottawattamie County Farm Bureau; Forristall is the group's legislative chairman; Smith is immediate past mayor of Council Bluffs; and Mauer is assistant finance director.

Get sprayers calibrated

Farmers have an opportunity to have their sprayers checked and calibrated at the Ken Strohbehn farm south of Treynor on March 28.

Carroll Olsen, West Pottawattamie County Extension Director says that research shows that 2 out of three sprayers don't apply chemicals properly. Only one of ten Iowa sprayers tested in 1984 were deemed to be within 10 percent accuracy. Over application cost extra dollars and under-application doesn't give control.

Olsen says that most sprayers are calibrated accurately as to output per acre but that individual nozzle output usually varies.

Farmers are asked to bring their sprayers and specialists from Iowa State University will check pressure gauges, tip output, ground speed and general overall application.

The clinic will start at 9:30 a.m. with a formal presentation by Mark Hanna, Iowa State University engineer, and the calibration of one or two sprayers.

The afternoon will be devoted to checking sprayers brought by individuals.

Beef lice, fly control

New publications about controlling lice and flies on beef cattle are now available, according to Duane Feltz, County Extension Director.

The publications tell about the life cycle of these pests and give recommendations on how to control lice on beef cattle, and face and horn flies on pastured beef cattle.

Can you identify these "monsters"?



The Tri-Center Golden Girls were first threatened and then befriended by a motley crew of monsters in "Human Touch", the group's 1985 show at the Iowa State Girls High School Basketball Tournament. Try

guessing who's who—then see the special section saluting the troupe on pages 9-12 to check the correct answers!—Gazette photo

For today's farmer, the answer could be:

Managing costs of crop production

Prepared by Stanley Murdock,
Creston Extension Area Crop
Production Specialist.
Adapted for Southwest Iowa
by Marco C. Busky,
Council Bluffs Extension Area Crop
Production Specialist

Although farming is still a way of life for most farmers, a farm must be operated as an agribusiness, just like a main street business, if the farmer intends to survive in our present day world.

Management is the key. Those farmers who survive will do the right things at the right time. They will plant as close to on-time as possible; use extra care in selecting high-yielding, well-adapted varieties; fertilize at near the economic maximum rate; scout their fields on a regular basis and know what they are looking for; control those insects causing economic damage; control weeds by the use of herbicides selected for their specific weed problem and/or by timely cultivation; and harvest when crops are ready with a minimum of field loss.

In some situations, a farmer can reduce cash inputs and not reduce his net profits. In other situations, capital limitations require cutbacks in some inputs that will reduce net profits. The trick is to try to be selective in where cutbacks are made so as to minimize the reduction in net profits. The rest of this paper talks about ways of controlling costs without reducing net profit or ways of allocating resources in order to minimize the effect on net profit.

Rotations

Growing corn after corn has generally been more profitable in the past than other types of cropping systems. Due to higher prices for fuel, fertilizer and other chemicals, and mounting evidence of higher corn yields when corn is grown following some other kind of rotation.

Research in the cornbelt has shown an increase of around 6% to 10%, or around 10 bushels per acre, when corn is grown after soybeans. This is another plus in the favor of rotations. The comparative price of corn and soybeans will determine the profitability of rotations in a given year.

A good legume crop (alfalfa, red clover, sweet clover) will provide around 140 pounds of nitrogen to a following crop (see next section). Other advantages of rotations include

reductions and/or changes in weed pressure, insect and disease problems. Inclusion of a hay or pasture crop will also reduce erosion, maintain or increase soil organic matter and generally have a beneficial effect on soil structure.

Fertilizer

Fertilizer is nearly always the most expensive cash input in growing a grain crop, but when properly used it can be one of the most profitable inputs. It is essential to have a good soil test in order to know the most profitable rates of phosphorus, potassium, and lime. Fields should be tested every 3 to 4 years. When money is short, it is essential to not put on more fertilizer than needed or to reduce your profit by using too little.

Corn

Is the most important plant nutrient. The effect of nitrogen on increasing corn yields is well illustrated in the following table from a long-term crop rotation study conducted at the Clarion-Webster Research Center in north central Iowa. See table 2, 3, 4, and 5.

Recommended nitrogen rates for a high level of management vary in southwest Iowa by soil association, yield goal and whether or not irrigation is available. Recommended rates for the Marshall and Monona-Lda-Hamburg soil associations are 1.1 times the yield goal. Rates for the Shelby-Sharpsburg-Mackburg, Luton-Onawa-Salix soil associations and irrigated land in all areas are determined by multiplying the yield goal by 1.2 for yield goals up to 150 bushels per acre. Nitrogen rates for yield goals 150 to 180 bushels per acre are determined by the formulae: 180 + ((Yield Goal - 150) x 1.3). This assumes third-year corn or more (see Table 6). For first- or second year corn, adjust amounts of nitrogen down for any carryover legume nitrogen or manure applications.

Research has not shown any advantage to any particular source of nitrogen (gas, liquid or dry) when properly applied. There may be situations where good management may dictate a specific form (combining operations, low cost "hired" man, burn down operations, etc.).

If optimum nitrogen rates must be reduced for any reason, it is important to distribute the nitrogen you apply so that each corn acre has the same reduction per acre. The optimum amount of nitrogen per acre should be figured for each field, then that amount would be reduced by whatever is necessary to achieve the lower total amount of nitrogen that can be applied. A separate handout is available from county extension offices, "How To Use Nitrogen Fertilizer on Corn", that goes into detail on how to allocate less than optimum amounts of nitrogen fertilizer.

Phosphorus potassium

Let soil test levels guide you. A good soil test is one that has been

taken by proper soil sampling techniques and sent to a responsible soil testing lab. Some soil testing labs are recommending uneconomically high rates.

Some ballpark suggestions: If you do not have a recent soil test, a good guess is that you will need phosphorus (P) more than potassium (K). A minimum rate of P and K would be at least as much as the previous crop removed. That would be 38 pounds of P and 30 pounds of K for 100 bushel corn. Be sure to give credit for any manure applied before deciding on fertilizer P and K rates. See table 7.

With a good, recent soil test: On low or very low soil test soils, apply soil test recommended amounts if at all possible. On medium soil test soils, apply recommended rates or at least the amounts that the crop will remove (maintenance rates). On high or very high test soils, do not apply P and K if money is limiting. It is more profitable to apply limited amounts of P and K on low and very low testing soils than on medium to high testing soils.

If applying reduced amounts of P and K because of limited money, apply as a starter fertilizer at planting (up to a total of 200#/A of product). Plant response will be greater to a limited amount of fertilizer used as a starter than when broadcast. Either liquid or dry starter fertilizers should give equal response if equal rates of plant nutrients are applied.

It is important to remember that maintenance rates or low starter rates of fertilizer on medium, low or very low testing soils will result in soil tests becoming even lower in coming years, which will result in even lower yields.

Other plant nutrients

A soil pH that is 6.0 or higher is adequate for good corn and soybean production. If crop yields are expected to be lower than normal because of limited inputs of fertilizer, reduced plant population, low soil moisture or other factors, then a pH of 5.5 or higher is adequate. When lime is added, try to bring pH up to 6.5 for corn and soybeans, and 6.9 for alfalfa.

Research has not demonstrated any yield response to other nutrients (zinc, sulfur, etc.) except in isolated situations.

Soybeans

Nitrogen is not required for soybean production and should not be applied. Let soil test levels guide you in meeting P and K needs. Although not as responsive as corn, soybean yields can be increased by applying P and K when soil test levels are low or very low. At medium or higher levels, soybean needs can be met by applying maintenance levels (for soybeans) in addition to the P and K requirements for corn, when fertilizing corn every other year in a corn-soybean rotation.

Hay crops

Legumes or legume-grass mixtures require no additional nitrogen. Unless the hay is a cash crop for you, or your soil test levels are low or very low, or if you need every ton possible to meet

March to Shelby Days are here!

The Shelby Commercial Organization is saluting the citizens of Shelby and promoting their business community this week with March to Shelby Days, starting today and continuing through Thursday, March 28, 1985.

A special section of the Gazette (pages 21-28) includes a hearty welcome to the owners of new businesses, or the new owners of existing businesses, who have joined the Shelby Commercial Organization during the past year.

The section also includes advertising that not only reminds area residents of the many fine products and services available in Shelby, but in many cases reveals special offers or sales during March to Shelby Days.

The SCO has worked hard since it was first organized to promote not only business, but a community that is healthy and thriving in every way. March to Shelby Days is a great time to show that the group's efforts are appreciated by shopping in Shelby.

SOIL CONSERVATION:

The annual report of the West Pottawattamie Soil Conservation District, including pictures of this year's elementary school poster and essay contest, may be found on pages 13-18.

Continued on next page.



TABLE 1: ADVANTAGE OF A CORN-SOYBEAN ROTATION

10% yield advantage - 10 bu. x \$2.50 per bushel	\$25.00
30-35# of nitrogen x 15-25¢ per pound	\$4.50-\$8.75
Rootworm insecticide saved	\$12.00
Less tillage	\$2.50-\$5.00
Total	\$44.00-\$50.75

TABLE 2: 1971-78 AVERAGE CORN YIELDS IN BUSHELS PER ACRE

Cropping System	0	60	120	180
Continuous corn	49	92	113	118
Corn after soybeans	104	118	128	130
Corn after 1 year of alfalfa	132	128	132	129

Nitrogen rates on corn need to be adjusted for any carryover nitrogen from legumes or from added manure.

TABLE 3: POUNDS OF N TO BE SUBTRACTED FOR CORN FOLLOWING LEGUME

Kind of Legume	1st year corn	2nd year corn	3rd year corn
50-100% stand	140	30	0
20-50% stand	100	0	0
Legume green manure	100	0	0
Soybeans	30-40*	0	0

*1 pound N for each bushel of soybeans produced

TABLE 4: SUGGESTED AVERAGE N, P, AND K CONTENT FOR MANURE

Kind of Manure	N	P	K
Cattle or hog, barnyard	5	5	10
Sheep, barnyard	10	10	20
Poultry, barnyard	20	45	12
Beef, liquid in pit	26	19	30
Swine, liquid in pit	55	27	34
Beef, open lot runoff	1.8	0.6	2.7

The optimum amount of nitrogen that should be made available to a corn crop will vary depending on a realistic yield goal. This, in turn, is affected by management ability of the farmer, weather (including soil moisture reserves), past cropping history, and soil type. The following table shows how some of these factors interact.

TABLE 5: CONTINUOUS CORN YIELDS AS INFLUENCED BY NITROGEN RATES AND PLANT POPULATION IN DIFFERENT YIELD ENVIRONMENTS AT THE RESEARCH CENTER IN NORTHWEST IOWA

Time Span	Harvest Population	0	50	100	150
1956-76	12,000	70	83	79	84
	20,000	59	80	87	82
1977-79	12,000	69	97	105	107
	20,000	70	109	125	125
1972	12,000	76	108	121	116
	20,000	80	125	143	154

TABLE 6: RECOMMENDED NITROGEN RATES FOR DIFFERENT YIELD GOALS AND SOIL ASSOCIATIONS

Yield Goal (Bu./A)	Soil Association				
	Shelby	Marshall	Monona	Luton	Irrigated
100	120	110	110	120	120
110	130	120	120	130	130
120	145	130	130	145	145
130	160	140	140	160	160
140	170	155	155	170	170
150	180	165	165	180	180
160	195	175	175	195	195

TABLE 7: MAINTENANCE RATES OF PHOSPHORUS AND POTASSIUM RECOMMENDED TO REPLACE THOSE REMOVED IN A GROWING CROP

Crop	Unit of yield	Pounds of P & K per unit of yield	
		P	K
Corn	bu.	.375	.30
Corn silage	bu. equiv.	.55	1.25
Soybeans	bu.	.80	1.50
Oats + straw	bu.	.40	1.00
Wheat	bu.	.60	.30
Alfalfa & legume grass	ton	12.5	50.0

TABLE 8: VARIABLE COSTS PER ACRE OF OPERATING VARIOUS TILLAGE EQUIPMENT

	Rotary hoe	Cultivator
6 row	\$.82	\$1.51
8 row	.74	1.35
12 row	.58	1.11

Maureen R. Olsen.....editor and publisher
Judy Thiel.....advertising
Linda Minahan.....typesetting, darkroom
Karl Wedel.....typesetting, subscriptions
Linnea Brooke.....bookkeeping
Van Olsen.....printing, darkroom

DEADLINES: Local news items—10 a.m. Mondays.
Other news/sports—5 p.m. Mondays.
Advertising/classified ads—5 p.m. Mondays.

A weekly newspaper published every Thursday at 107 Fourth Street, Neola, Iowa 51559.
Entered in the Post Office in Neola, Iowa 51559 as Second Class Mail Matter under Act of Congress of March 3, 1979.

SUBSCRIPTION RATES per year in advance:
\$10.50 in Iowa, \$12.50 outside Iowa, \$11.50 snowbirds (part of the year out-of-state)
Advertising rates upon request.

piece of mind

by Maureen Olsen

I traveled to Des Moines Saturday to catch the Golden Girls in action for this week's salute (see pages 9-12) and was then faced with the burning question: "How do you kill time in Des Moines for six or seven hours between rehearsal and performance?"

There's an easy answer if you have money for shopping (I didn't) or if you've never toured the Capitol, State Historical Building, Art Center, Science Center, Botanical Center, Salisbury House, Terrace Hill, etc. (I have—in some cases several times.)

Besides, it was a nice warm day and I didn't want to spend it indoors.

I solved my problem by leaving town.

I headed north in the general direction of Ledges State Park to see how it was recovering from last year's flooding, but I got sidetracked.

(If you can't stand diversions, never travel with me. I brake for historical markers and interesting signs.)

First, I checked out Big Creek State Park, where it was particularly interesting to see the ice breaking up and washing like liquid crystal toward the shore.

Next, I saw a sign for the Iowa Arboretum. I've seen the occasional news release or article on the place from time to time, so I decided this was an ideal time to investigate.

For those of you now muttering under your breath, "The Iowa what?", an arboretum is defined in Webster's New Collegiate Dictionary as "a place where trees, shrubs and herbaceous

plants are cultivated for scientific and educational purposes."

Sounds dull? It may not be Adventureland, but I thoroughly enjoyed a walk along clearly marked trails through woods to a meandering stream and a beaver pond.

I was enjoying the part of the arboretum in which native plants of Iowa are "displayed" growing in their natural setting. Booklets describe various trees, shrubs and plants along the way, or you can just enjoy the views and the birdsong.

A second part of the arboretum, comprising about 40 of the 340 acres included in the arboretum, is what Director Peter J. van der Linden describes as "our library of living plants."

The area includes cultivated trees, shrubs and flowering plants, all labeled, which can help visitors learn which would be most useful for their own needs in lawn, garden, orchard, etc.

Programs and tours may focus on either or both areas. Visitors are welcome from sunrise to sunset, although the arboretum is generally staffed only 9 a.m.-5 p.m. on weekdays. Weekend staffing can be arranged for special groups.

The Iowa Arboretum evolved over a period of years, starting with the purchase of land and early planting in the late 1960's. The arboretum is located 2½ miles west and 2 miles south of Luther, just before you get to the State 4-H Camping Center.

Staff and facilities essentially began in 1980.

When I got back to my desk on Monday, I found a news release from van der Linden, informing me of two new series of adult education programs at the Iowa Arboretum.

Admission is free for the Nature and Gardening Series, which will focus on a different topic each month. All programs begin at 2 p.m. unless otherwise noted: Spring Wildflowers, April 26; Planning and Planting Your Flower Garden, May 4; Gardening with Herbs, June 1; Pruning Trees and Shrubs, July 6; Iowa Butterflies, August 3 (10:30 a.m.); Fall Wildflowers, September 7; and Autumn Leaves, October 5.

Participants in the Arboretum's Plant Identification Course will learn how to recognize common Iowa trees, shrubs, and flowering plants. Each course will consist of three 3-hour workshops. Spring Flora will be studied in Course 1 on April 13, May 11, and June 8; Summer and Fall Flora will be investigated in Course 2 on July 13, August 10, and September 14. Pre-registration is required, and there is a charge of \$25 per course.

According to van der Linden, all programs will be held outdoors and most will involve some walking. In the event of inclement weather, a program will be moved indoors.

If you're heading north to Minnesota this summer, or if you're looking for a way to vary the trip to ISU, or if you just enjoy checking out what Iowa has to offer, you might enjoy a stop at the Iowa Arboretum.

One of the trails I took was quite steep and would be difficult for someone who has trouble negotiating stairs; the other was fairly wide and level and an easy walk. The printed trail guide was excellent.

If you'd like more information, you can call the arboretum office at (515) 795-3216.

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Crime Stoppers will pay up to \$1,000 for information leading to the arrest of the individual(s) responsible for the burglary of the garage at 2120 Avenue J, Council Bluffs, occurring after 8:00 p.m., March 3rd.

Taken were a bench grinder, timing light, wheel mounted 225 amp battery charger, Craftsman ½" drill, Craftsman sander/polisher, and a fully equipped Craftsman toolbox. Also taken was a Johnson nine horsepower outboard motor.

Continued from page 1.

Seed Soybeans

The average seed cost in 1984 was about \$12/A. Planting a few less seed would have no yield reduction effect for many farmers. Dropping 12 seed/ft. in 40-inch rows, 9/ft. in 30-inch rows, 6/ft. in 20-inch rows, and 4/ft. in 10-inch rows should be plenty for most situations.

Using home-grown soybean seed may be a consideration. If the seed is the variety you want, was handled carefully (few splits, not harvested too dry), is cleaned and has 90% plus germination, then performance should be good and may reduce seed costs \$5 or more per acre. Do not use seed from fields planted to blends or bin-run seed of unknown quality.

Iowa State University's yield test report (Ag 18-4) is a good reference to help select a high yielding variety for your maturity zone. Look at 2 and 3 year average yields because a variety that does well in a single year may not yield that well in other years with different growing conditions. Some varieties cost more, but some lower cost varieties may yield as well or better. Higher cost varieties, if higher yielding, will generally pay the extra cost with a one bushel per acre extra yield.

Corn

The average seed corn cost in 1984 was about \$20/A. Be careful when trying to cut costs by reducing planting rates. Plant populations between 19,000 to 23,000 are generally necessary to produce maximum optimum yields, depending on realistic yield goals, soil type, subsoil moisture, fertilizer rates, and the particular hybrid you are planting. Calibrate and plant carefully to get the adequate, uniform stand you are aiming for. Drop 10% to 15% more seed than you final population goal.

If factors other than plant population (reduced fertility, poor weed control, expected moisture stress, etc.) are expected to reduce yields, then plant population may be reduced. One rule of thumb is to drop plant population about 1000 for each reduction of 10 pounds of nitrogen below the recommended rate for an optimum yield goal. In any event, do not reduce population below about 15-16,000 plants per acre.

Tillage

The kind of tillage method selected will not have a big effect on the cost of production, although it may have a significant effect on soil erosion.

One reason for this is that machinery costs are divided into fixed and variable costs. The largest costs associated with machinery to do tillage are the fixed costs or the ownership costs (depreciation, interest, etc.) These costs go on whether the machinery is used or not. The variable costs (fuel, repairs, etc.) are incurred only if the machinery is actually used.

Although the variable costs are not a large portion of the total costs of growing a crop, some savings may be expected by reducing the amount of tillage performed. Ask yourself, "Is this trip really necessary?" Using a disk or field cultivator for first tillage on soybean stubble can save about \$2.50 of variable costs per acre when compared with moldboard plowing. One less disking or field cultivation can save \$1 per acre. If weeds are not a problem, one less cultivation can save \$1 to \$1.50 per acre.

One of the most important savings associated with reduced tillage or no-tillage is the time saved. This can amount to an hour per acre. That can translate into getting more of the crop planted on time which could result in significant yield increases. In 1984, this could have meant the difference between an average soybean crop and no crop and at all in some situations. Not only can reduced tillage help to get more of your crop planted on time, if the saved labor is used effectively in other farm enterprises, there is the potential to increase net profit in those areas.

In recent years, we have thought primarily of herbicides when designing weed control programs. Herbicides have become more sophisticated and some are very expensive, so when trying to save money do not lose sight of cultural weed control methods. A timely rotary hoeing is an excellent weed control method. Most farmers already own rotary hoes and cultivators, so the only costs are the "variable" costs and the time to operate the machinery. See table 8.

When selecting hybrids, check out the 2 and 3 year average yields in the ISU corn yield test report. When comparing similar yielding hybrids,

compare moisture content, lodging and cost per 1000 kernels. While buying from a friend or neighbor may be socially acceptable, it may not be the most acceptable economic practice.

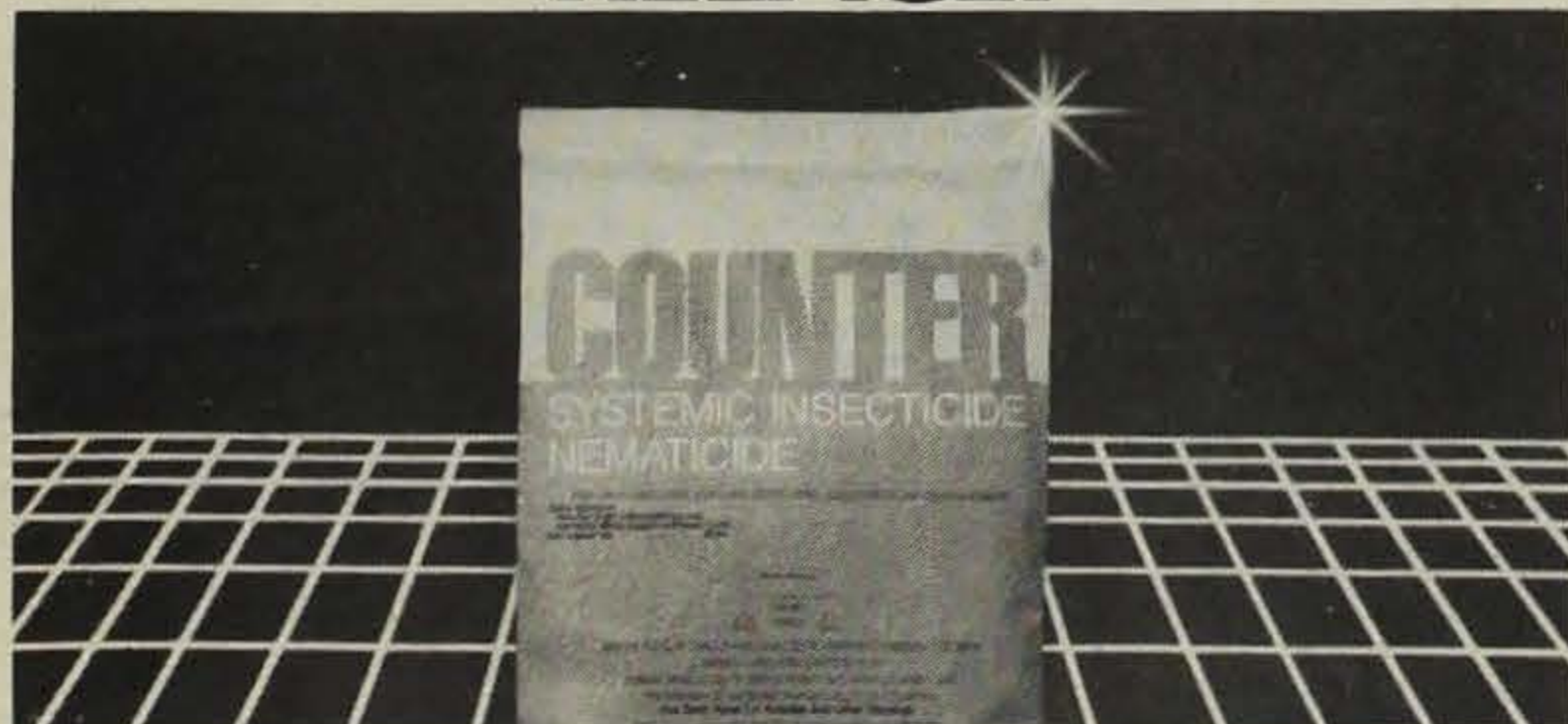
Earlier or faster drying hybrids can save some drying costs. Typical drying costs range from 1.5¢ per point for on-farm drying (fuel and electricity costs) to more than 3¢ per point for commercial drying. With 150 bushels yields, a hybrid that is 1% dryer at harvest will mean from \$2.25 to over \$4.50 less cost per acre. If a hybrid differs by 3%, that is \$13.50 or more per acre if the corn is commercially dried.

Some farmers should consider utilizing custom application of herbicides. This is an obvious cash expense, but unless you are equipped to do a good job, have the proper skills, and are not pushed for time, a custom job may be a good use of limited money. Doing a good job of weed control is a profitable management practice and may be the difference between a profit or a loss for the year.

Carefully consider your weed problems and then select the herbicide, or combination of herbicides, to fit those problems. Match herbicides to soil organic matter, pH and texture if necessary. You can pick and choose among some herbicides as far as price is concerned and still get equal control, if you know what your weed problems are.

If you have a situation where your major weed problem is grass and there are only a few broadleaf weeds, consider using only a grass control herbicide at or before planting and then control the broadleaf weeds with a post-emergence herbicide or cultivation, if necessary. More risks can be taken on a field with a history of minor weed problems, so consider use of a band herbicide or of cultivation only, with the option of a rescue post-emergence herbicide application. A band application of a herbicide can reduce your herbicide cost by half or more, unless in narrow rows. Cultivation is usually necessary when using a banded herbicide, but this is still a very effective method of weed control and can also buy some time early in the growing season. It is very important to have weeds controlled by 3 to 4 weeks after planting in order to prevent yield loss from weed competition.

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Popular tillage program to be repeated this year

Thirty farmers who attended a farm machinery workshop sponsored by the extension services of Pottawattamie County have voted 100 percent to have the extension service and the Soil Conservation Service coordinate demonstration fields this summer.

The expression of opinion followed a discussion of experiences with the 1977 project.

Cooperators who spoke included: Don Casson, Clint Goos, Bernard Schnoor, Harry Schultz, Roger Sealock, Ralph Spomer and Bill Vorthmann.

These farmers, along with Kenneth Christensen, Jack Hester, and Marvin Larson, have used for a number of years a variety of tillage methods such as chisel plowing, heavy disks, disk-chisel, no till, and buffalo till planters.

These systems are, of course, in contrast to the use of the traditional moldboard plan.

CAL COX, DISTRICT conservationist, initiated the idea of the project which featured self-guided tours of the fields.

All of the fields were identified with large signs made for the district by Warren Vorthmann and Kevin Holcombe.

The Council Bluffs Nonpareil located a box at each field from which interested individuals could obtain a brochure and a map telling the location of the other fields.

Cooperators reported seeing a number of Sunday afternoon tourists checking the fields.

This was particularly true in June when it was possible to observe the residue from the previous crop on the top of the soil

THIS RESIDUE THAT protects the soil against soil and water erosion is one of the primary advantages of conservation tillage farming practices.

Residues from each field were scientifically measured shortly after the corn or



soybeans were planted. After planting, residues of the ten fields averaged 2,456 pounds. The range was from 1,150 to 3,850 pounds.

Other advantages include an estimated \$10 to \$20 per acre of lower production costs, less labor, and the conservation of moisture which may increase yields in periods of drought stress.

THROUGHOUT THE summer, Iowa State Extension Agronomist Jay West and Soil Management Specialist Mark

Hanna along with myself evaluated the fields. A total of 87 percent of the annual and broadleaf weeds were effectively controlled. The estimated corn yield was 109.7 bushels of 15.5 percent corn.

Various types of minimum tillage practices have been a part of the farming scene in Pottawattamie County over the past ten years.

Most of the demonstration fields hadn't been plowed for several years. The yields and observations of the summer of 1977 indicate that land can be consistently farmed with conservation tillage practices for several years.

We look forward to working with all cooperators as they become interested in changing their tillage practices and, yes, we appreciated the endorsement of those who attended the machinery management meeting.

East Pottawattamie Gets W-H Soil Award

By a World-Herald Staff Writer

Oakland, Iowa — The East Pottawattamie County Soil Conservation District received the 1978 World-Herald Soil Conservation Award here Tuesday night.

A plaque was presented to the district, in addition to certificates to each of the district's five commissioners, during the district's annual banquet.

The district competed for the award with other southwest Iowa soil conservation districts.

It was judged the best for its soil conservation efforts in the areas of terrace construction, conservation tillage implementation, construction of windbreaks and other conservation practices.

During the last three years, the district has constructed nearly 400 miles of terraces.

Last year, 190 miles were completed.

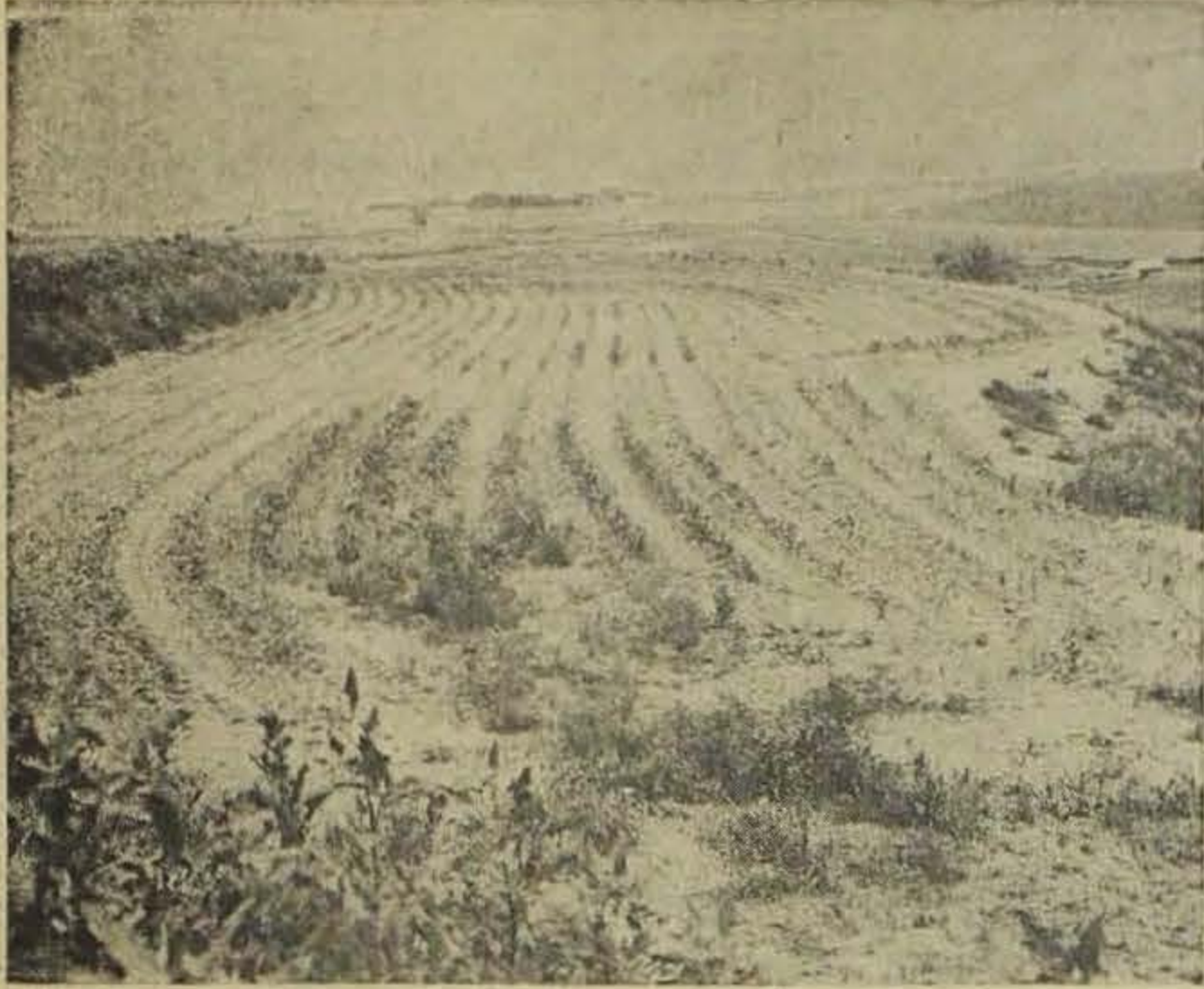
"What we have accomplished is controlled erosion on 8,000 acres in the last three years," said Charles E. Shirley, district conservationist.

Dick Gooby of Des Moines, assistant state conservationist, recently said the district is the only one in the state that is applying terraces fast enough to control erosion adequately. There are 100 districts in Iowa.

Commissioners of the district during 1978 included: Robert Bingham of Oakland, chairman; Clifford Stille of Macedonia; Ervin Koos of Shelby; Kenneth Fredrechs of Walnut; and Phillip Bane of Oakland.

The West Pottawattamie Soil Conservation District took second place in last year's competition.

The World-Herald Soil Conservation Awards program has been in existence for more than 30 years.



New Type Bench Terrace . . . on the Harley Nihsen farm east of Persia was constructed by special equipment developed in Kansas. This is the first such terrace in Iowa and is being observed for results by Soil Conservation engineers. It is considerably wider than the conventional terrace and can be easily farmed.

Soil Conservation District Chairman:

'Protecting Natural Resources Concerns Rural, Urban Alike'

By Donald K. Patton
Something more than 200,000 acres of West Pottawattamie County cropland is losing from 30 to 50 tons of soil per acre per year from erosion.

This, points out Soil Conservation District chairman Donald Bladt, means loss of applied fertilizer, organic matter, soil moisture and eventual loss in fertility and crop production.

Soil Conservation Week, which started Sunday, is a good time to take a look at the problem as it affects both rural and urban residents, Bladt continued.

"Although our conservation-minded farmers in the county have made substantial progress in conserving soil on over 208,241 acres in the District, it can be seen we have a long way to go," he pointed out.

Water control is an important part of our conservation program, the chairman noted.

Effective
"We know that contour farming and terracing can reduce soil losses to only a few tons per acre," he said. "Our new modern terrace systems are the most effective conservation practices we have in controlling water, soil losses and erosion."

"These new terrace designs are not only effective in erosion control, they also permit utilization of modern, multi-row, high speed equipment and an actual reduction in slope."

Seeded backslope or bench terraces work well in Pottawattamie County because of the deep loess soil, noted Work Unit Conservationist Leon Foderberg of Council Bluffs.

The conventional system of building terraces uses earth from the top side of the slope for construction, he explained. This system has the effect of increasing existing slopes by about four per cent. And on land over 10 per cent slope, this would make difficult farming even more difficult.

Level Bench
But with the level bench

design terrace, which is built from the bottom side, erosion and cultural practices eventually create a nearly level bench of land. The steep downhill slopes between the level areas are seeded to permanent vegetation.

Foderberg suggests that farmers will find they can work the level benches more easily with less wear on equipment. Terraces also will reduce the amount of crops being destroyed by downhill sliding of equipment.

Spacings are adjusted so that the multiple of rows will fit four - row equipment as the bench of the land is formed.

The terraces are built parallel so nearly all point rows can be eliminated. As the bench becomes level, the soil moisture held spreads evenly over the leveled area with most of the runoff water being stored in the soil after a rain.

Increased Income
Foderberg said it is possible to realize a rise from an annual income of \$10 per unit terraced acre to over \$23 when the bench terraces are developed.

While terraces are considered the most common soil erosion weapon, they are only part of the overall battle.

Grassed waterways, small control structures upland and larger structures or dams at the lower areas which hold back several acres of runoff water are also major armaments in the fight to save the soil, Foderberg added.

"These are all practices the farmer has at his disposal through his Soil Conservation District," he explained.

Watershed Projects
On a larger scale are the watershed projects, most of which in Iowa are located in western and southern counties and receive federal assistance.

They have gotten under way since the enactment of Public Law 566 in 1954.

Three such watersheds in West Pottawattamie are Ryan - Henschel, Indian Creek and Pony Creek upon which 55 to 65 per cent of

the upland practices are completed.

The federal government pays all structural features related to flood prevention. Measures such as water supplies, wildlife areas and public recreational development are cost - shared with the local organization.

"Take A Drive"
Bladt invited urbanites to "take a drive through the country this week and look over the practices" farmers are employing to save the land.

"Urban citizens can no longer assume that conservation of land and water resources is of interest only to farmers and ranchers," he said. "Protecting our natural resources concerns everyone and is an important factor to maintaining America's prosperity."

Must Stand Trial

CUNEO, Italy (AP) — Three Italian youths must stand trial on charges of stealing some \$20,000 worth of jewelry from the wreckage of King Saud's private jet plane after it crashed in the Alps in March 1963.

Volume of the Pacific Ocean is 170 million cubic miles, according to the Encyclopaedia Britannica.



Norm Kinney 322-0043

YOUR Real Estate Problems

Question:

I'm interested in buying an older home and have a very good friend who is a carpenter. Is it a good idea to take him through the house and inspect it to see if I'm getting a good deal?

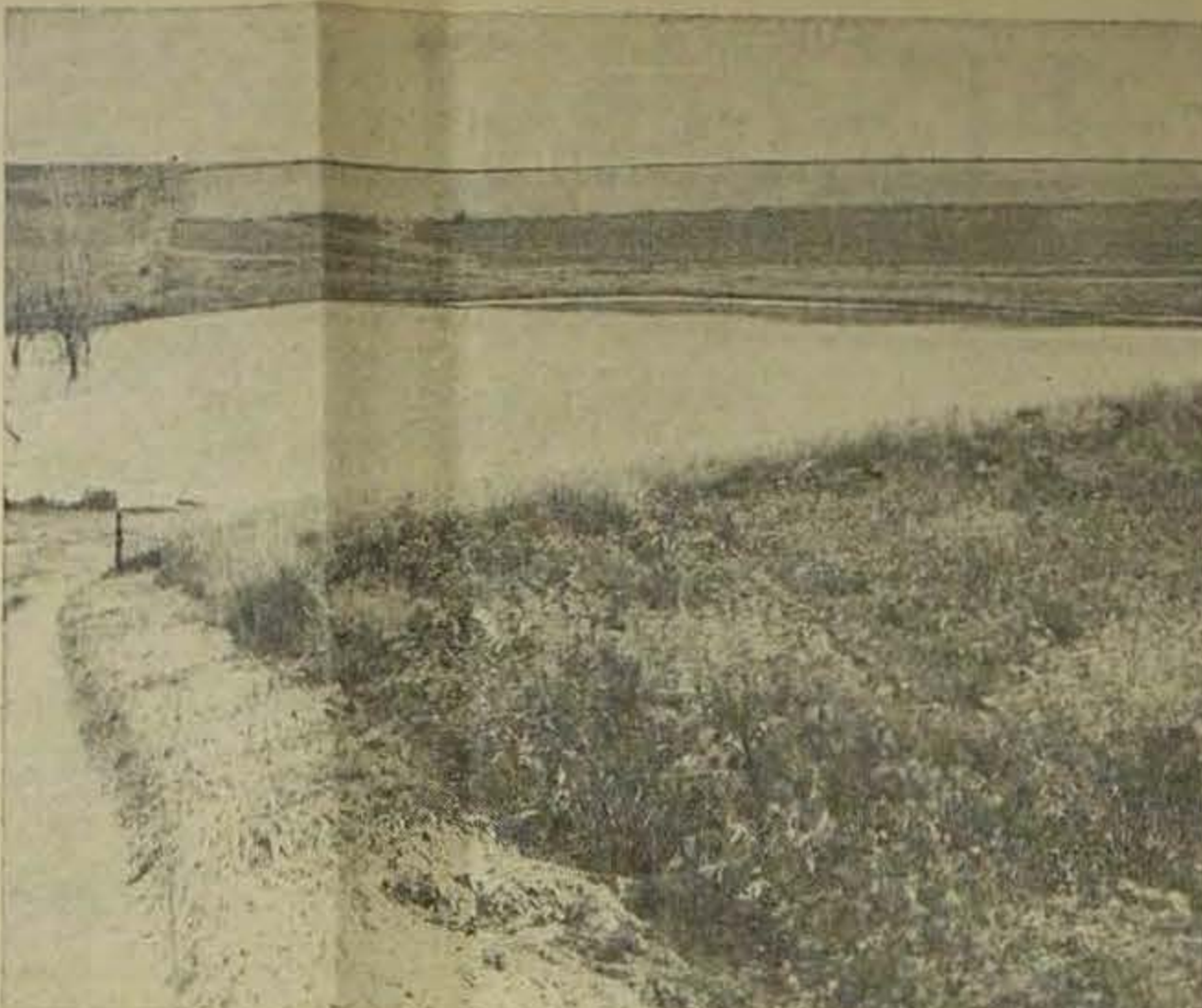
Mr. B. J.

Answer:

90% of all the gray hairs on a real estate man's head are caused by buyer's aid such as you mention above. Your friend often has the idea that since you asked him he's bound to find something wrong, and doesn't realize that he's not the person that's going to be living there. How much better it would be to spend a little extra money and hire a professional appraiser to make a careful analysis of the property and give you an objective view of what the property is worth. The cost of this service is surprisingly low and certainly would remove all doubt from your mind as to what the value is.

For Answers to Your Particular Problem on Real Estate, Call us

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First Major Structure . . . in Ryan-Henschel Watershed was this dam on the Howard Jensen farm northwest of Underwood. Dam holds back about eight acres of water, is stocked with fish and serves as a recreation area as well as preventing downland water damage from heavy runoff from the hills to the north, east and west.

Southwestern Iowa Obituaries

Mrs. Roland Leasley

RED OAK — Services for Mrs. Roland W. Leasley, 82, were Tuesday afternoon at Nelson Chapel here. Interment was in Evergreen Cemetery.

She died Friday of injuries suffered in a fall at her home.

Survivors include her husband; a daughter, Mrs. Vernon Baker of Hastings; a son Leon Johnson of Orangeville, Calif.; a brother, Ben Barker of Los Angeles; six grandchildren and four great-grandchildren.

Mrs. Hans Martens

SHELBY — Services for Mrs. Hans Martens, 78, will be 2 p.m. Wednesday at Shelby Lutheran Church with the Rev. Harold Andersen officiating. Interment will be in Shelby Cemetery.

She died Monday at a Harlan hospital.

Survivors include her husband; daughters, Mrs. Ernest Wolff, Miss Velma Martens and Miss Elsie Martens, all of Omaha, Mrs. J. A. Kapfer of Denison, Mrs. Melvin Blumer and Mrs. Alvin Steenbock, both of Persia; a son, Alvin of Minden; brothers, August Dohrman of Omaha and Rudolph Dohrman of Gruber, Calif.; 16

grandchildren and 6 great-grandchildren.

Infant Clark

RED OAK — Services for Ronald Dean Clark, infant son of Mr. and Mrs. Ronald Clark, were Monday at the Sellsgrun Funeral home here with the Rev. Asa C. Popp officiating.

He was born here last Thursday and died the following day. Burial was in Evergreen cemetery.

Ben Strittmatter

ATLANTIC — Services for Ben Strittmatter, 82, retired Atlantic farmer, were Tuesday afternoon at the Zion Lutheran church and burial was in the Atlantic Cemetery. He died Saturday at a Council Bluffs hospital.

Surviving are his widow Edith; two sons, Glenn of Atlantic and Maurice of Lake Forest, Ill.; five grandchildren; a brother, Frank of Chicago, and a sister, Mrs. Sarah Collatz of Davenport.

Joseph Witt

MISSOURI VALLEY — Services for Joseph Witt, 94, a former resident here, will be 2 p.m. Friday at Hardy-Walker Funeral Home with the Rev. Robert Leise officiating.

Interment will be in Rose Hill Memorial Gardens. He died Sunday at his home in Denver.

Survivors include a son, Chester of Denver.

Henry Hansen

MODALE — Services for Henry Hansen, 75, former Modale mayor, will be 2 p.m. Wednesday at the Methodist Church here with the Rev. Herbert R. Gould officiating. Interment will be in Calhoun Cemetery.

He died in a Missouri Valley hospital as a result of injuries suffered June 11 in a one - car accident north of Missouri Valley.

Survivors include a daughter, Mrs. Bernard Baroch of Omaha; sisters, Mrs. James Middleton of Webster City, Mrs. Lloyd Wilhelm of West Covina, Calif. and Mrs. Harry Lee of Modale; brothers, Glen of Cedar Bluff, Neb., Arthur of Aitkin, Minn., Albert of Modale and George of Missouri Valley; two grandchildren and eight great-grandchildren.

Killed At Cresco

CRESO — A car went off Highway 9 and crashed into a ditch about seven miles west of here Monday, killing the driver, Robert J. Langman, 18, of near Elma.

Allen-Steer Project Okayed

Allen - Steer Creek watershed in Harrison and West Pottawattamie Counties has been approved for assistance under the Watershed Protection and Flood Prevention Act, Public Law 566.

The watershed is now

eligible for federal assistance in planning and construction of a complete soil and water conservation program.

This 63,406 acre area has severe sheet and gully erosion on the uplands as well as flooding and siltation on of bottomlands as its major problems, the Soil Conservation Service reports.

The watershed, one of the largest in Iowa, contains all or part of 366 farms, 214 of which are under cooperative agreement with the Harrison and West Pottawattamie Soil Conservation Districts. Basic farm plans have been developed on 113 farms.

Legal sponsors of the watershed are the Harrison County Soil Conservation District, Harrison County Board of Supervisors, West Pottawattamie County Soil Conservation District, Pottawattamie County Board of Supervisors, and the Harrison and Pottawattamie Drainage District.

Troublesome Creek Dike Is Planned

Special To The Nonpareil

ATLANTIC — Money has been appropriated for the preliminary preparation program for the building of a protective dike around the Atlantic Municipal Utilities power plant here.

Congressman John R. Hansen D - Manning, the Army Engineers will begin the preparatory plan as soon as their work schedule permits.

During the last few years, Troublesome Creek has caused flood trouble at the power plant and has gradually eaten away the bank near the plant.



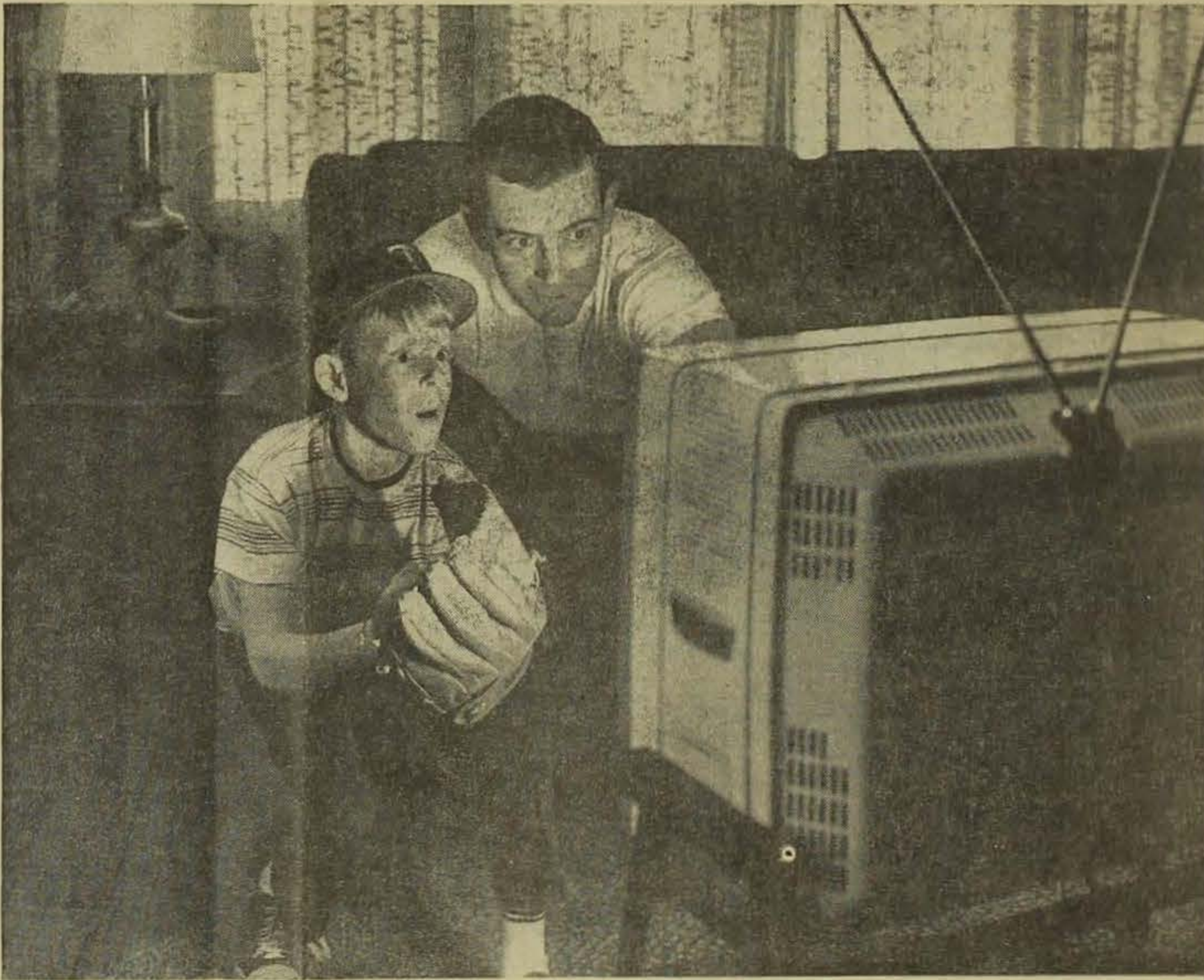
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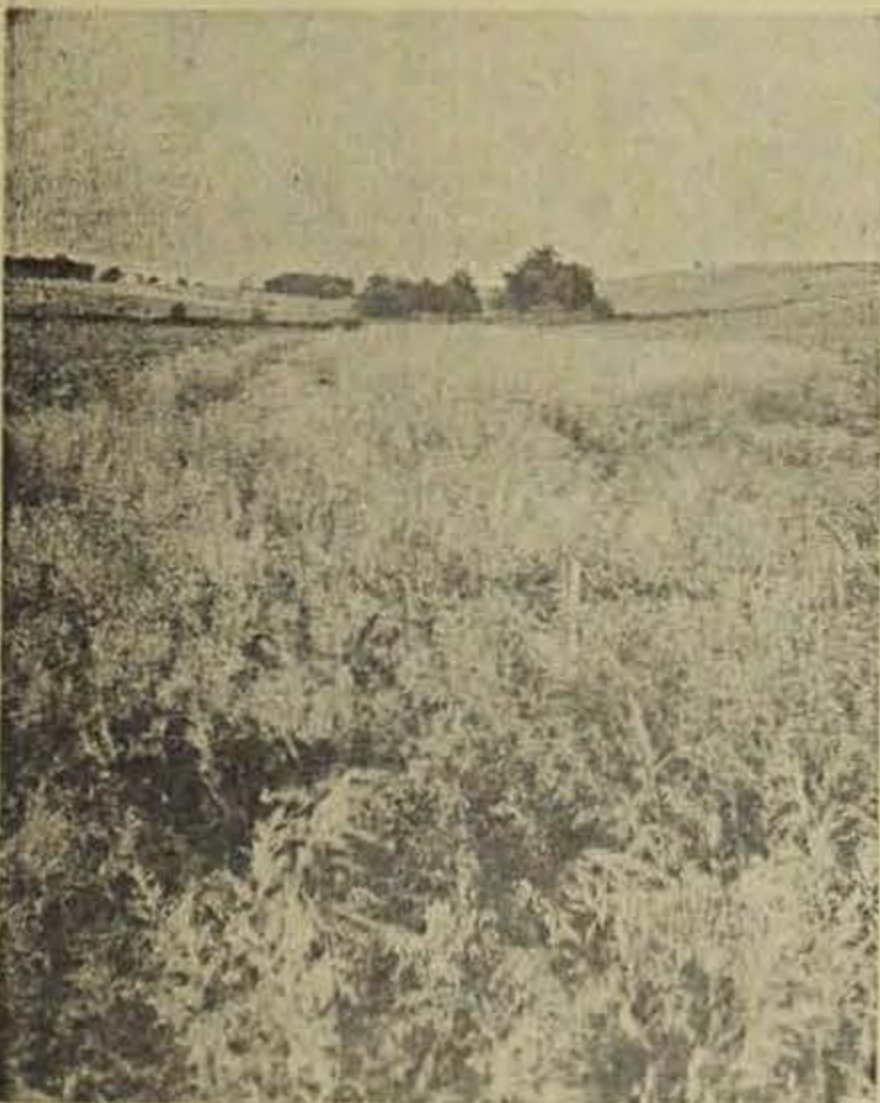
What is electricity? A HOME RUN IN THE 9TH

Electricity is the excitement of a televised baseball game. It's an ice-cold drink to sip while watching. It's an automatic barbecue grill on the patio. Electricity is probably 30 to 40 household servants in and around your home . . . five or six times as many as you had just a generation ago. With electricity doing so many useful things for you, it stands to reason that your bill is higher today. But the actual cost per kilowatt-hour of electricity is a full 30% lower than it was a generation ago.

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Grassed Waterway . . . on Kirkwood Estate farm west of Weston slows hill water runoff and stops erosion. Bromegrass covers the waterway which is flanked on either side by corn.—Nonpareil Photos.

Funds Urged To Protect Iowa's Soil

By A.J. McClanahan

World-Herald Staff Writer

Crescent, Iowa.— Expressing fear that farmers are "mining" their soil by overusing it and not installing adequate soil conservation practices, several witnesses at a congressional hearing here Saturday urged more federal financing for conservation.

Speaking at a hearing of the House Subcommittee on Conservation and Credit, they said that, despite about 40 years of federal conservation programs, problems are worsening.

The 13 witnesses blamed a variety of problems, such as current federal programs that they said encourage farmers to abuse land, the increase in absentee landowners, a change from pastures and beef production to row crops and too little financing for cost-share programs.

Dust Bowl Days

"The soil-loss problem is approaching proportions of the Dust Bowl days, and so should the solution," said Wayne Towers, president of the Iowa Land Improvement Contractors Association.

The association was described by Towers as the "implementing arm" of the federal Agricultural Conservation and Great Plains Conservation Programs and others.

Among soil erosion problems listed by Towers were:

—Conservation programs address only 1 percent of recognized needs.

—Iowa's average rate of soil loss is 9.9 tons per acre, compared to 4.3 tons allowable to maintain productivity.

—At the rate of 10 tons an acre, Iowa's topsoil in many areas will be depleted in the next 100 years, and crop production will fall sooner.

—According to the U.S. Department of Agriculture, 9 percent of 2.1 million acres of southern Iowa farmland is already severely eroded and by the year 2020, the figure will be 40 percent.

Donations

Among recommendations by Towers was that a national endowment for public conservation be created. An individual or a company could give a tax-exempt donation for soil conservation programs, he said.

Representing the House subcommittee at the hearing were Rep. Tom Harkin, D-Iowa, and subcommittee chairman Rep. Ed Jones, D-Tenn.

Both discussed a bill introduced by Jones — the Special

Fake Rain Helps in Iowa Soil Erosion Study

By Jim Carlton

World-Herald Staff Writer

Treynor, Iowa — The sun was shining brightly Thursday on a U.S. Department of Agriculture research farm near here.

But it rained the equivalent of 2½ inches an hour for a period.

The rain was so hard that it began to wash away valuable topsoil and cut gulleys into the landscape.

But the erosion was all right with USDA researchers Ralph Spomer of Council Bluffs, John Lafflen of Ames, Iowa and Bob Piest of Columbia, Mo.

They were obtaining valuable information on soil erosion that would be added to continuing research.

The rainfall was simulated by a machine developed by Norris Swanson, a USDA scientist at Lincoln.

The device was designed to duplicate rainfall as closely as possible, including the size of raindrops and their velocity. It can be adjusted so that it simulates rain from a storm that drops as much as to five inches an hour.

Lafflen, who has charge of the machine, said it has traveled 2,000 miles in Iowa this year performing similar research.

In addition to soil erosion, scientists can use the machine to study the erosion of chemicals and fertilizers.

By creating erosion under a controlled situation, Lafflen said scientists can better determine how much topsoil is lost with certain soil types and different farming practices.

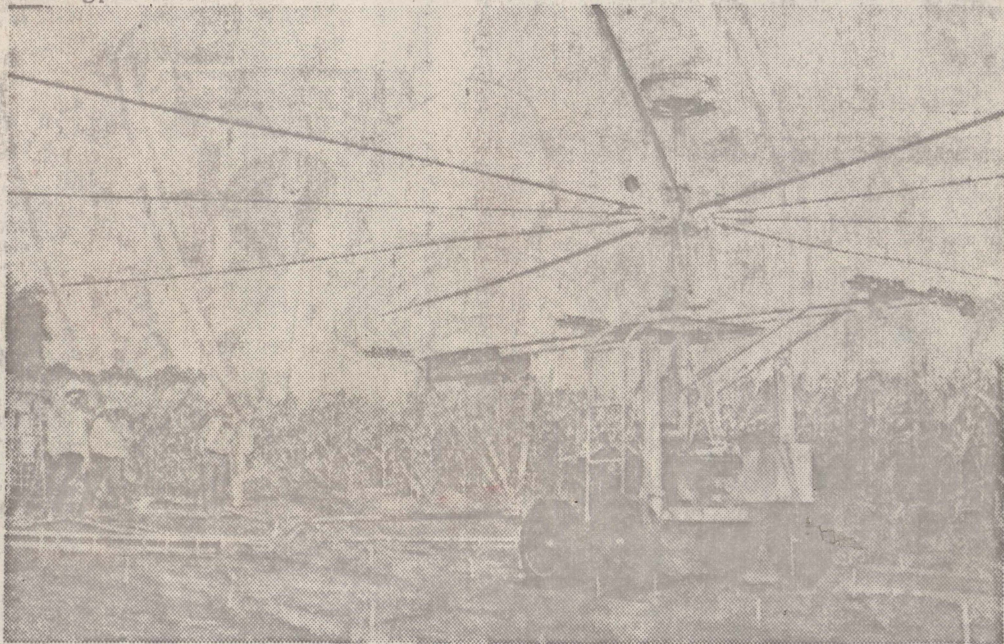
Soil erosion research at the farm near Treynor began in 1964, said Spomer.

Five watersheds in the area have been studied to determine the effects of conservation and cultural practices on hydrology, gully erosion and sheet erosion, he said.

Results of the research thus

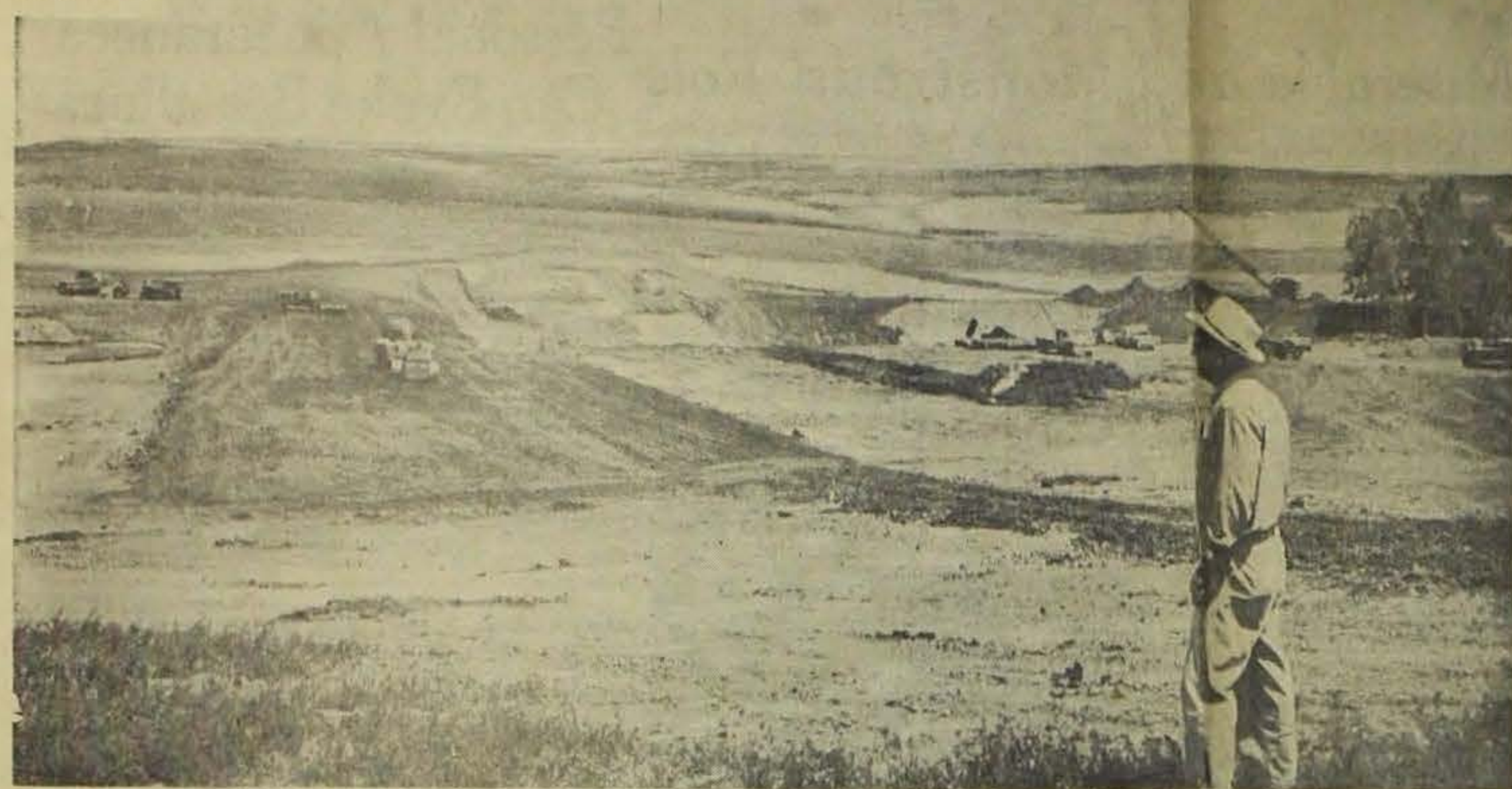
far show a direct relationship to land use and tillage practices and the amount of soil erosion, according to Spomer.

Research with the rain simulator, which drew a West German and a Romanian scientist to the Treynor farm Thursday to observe it, took four days. It was completed Thursday.



Rainfall simulator . . . cuts ditches for observers.

World-Herald



Foderberg views operation from point even with eventual top of dam . . . "They are at the berm level now."

Ravlin Farm Is Operating Room for Soil Conservationists

By Dale Ohrman

World-Herald Farm Editor
Underwood, Ia.—Surgeons are at work on the Eldon Ravlin farm near here.

Their operation: a face-lifting for the farm, surgery which will enable a deep and ever-worsening scar to heal itself.

Their scalpels: the blunt-edged, heavy blades of bulldozers and earth-moving scrapers.

The scar to be healed is a gully 28 feet deep. And, as in plastic surgery, the gapping crevice is being filled with tissue (soil) from adjacent areas.

A large, earthen dam—scientifically designed—is being carefully patched across the deep cut in the field. As years pass, silt carried by runoff will settle behind the dam, gradually filling the sore.

The surgeons will help the process by sloping the sharp banks and clearing trees. Terraces and grassed waterways upstream from the structure were constructed before the big earth-moving job began so the healing could take place in an orderly manner without danger of a relapse caused by flooding from a heavy downpour of rain.

Leon Foderberg, work unit conservationist with the Government's Soil Conservation Service, explained that a permanent pool with a surface area of about six acres will be maintained behind the dam.

"They are up to the berm now," he said as a big, crawler-type tractor towing a scraper filled with soil lumbered past us.

"The permanent pool level will be here. A hooded inlet (opening through which water can flow) will be installed at this level."

The berm is a plateau-like ledge on the water side of the dam. The structure is being built up several more feet from this point and an emergency spillway will be fashioned around

one end to handle a rain which climatologists figure can be expected only once in 50 years.

A steel tube—24 inches in diameter and coated with two layers of tar—will carry the flow of normal rains from the hooded inlet to the bottom of the old channel beyond the dam. This controlled flow should not cause any further erosion in that area, Mr. Foderberg said.

But, if it does, another dam can be installed below the first without necessitating changes in this structure, Gene Becker, Soil Conservation Service inspector, said, pointing to large slots in the lower end of the flume.

"If the channel fills with either soil or water, the normal flow will not be interrupted because it can come out these," Mr. Becker said.

"The slots will not be

covered. They also incorporate air with the water as it comes down so the flow is freer. A special device at the inlet also mixes air with the water to keep the flow uniform."

Mr. Foderberg commented that "I see they are starting to squeeze the juice out of her" when he noted a stream of water trickling from a smaller tube which empties into the flume.

He explained the little tube is the outlet for "toe drains," perforated tubing buried in the downstream side of the dam to collect excess soil moisture and carry it away.

The toe drains were installed slightly below the berm level on the opposite side of the dam. They are wrapped in a fine, nylon mesh and centered in a four-foot-square core of sand.

As fresh soil was dumped on top of the core, the heavy equipment squeezed

the moisture from it and water drained out through the tubes—proving their workability long before the structure is completed.

The main purpose of the toe drains is to keep moisture from building up in the dam and thereby causing a sluffing-off of the structure's surface soil.

"In a few days, we'll be getting nice, cool drinks from this," Mr. Foderberg said.

"Once this nylon mesh is covered with soil, there is no deterioration. The steel tubes themselves are designed to last at least 25 years and with the tar covering, they should last indefinitely."

"The permanent pool area is engineered so it shouldn't fill with silt in less than 50 years. Most soil conservation structures are built with a 50-year life span or longer."

This structure is only one of 11 which will have pools behind them when the Ryan-Henschall Watershed—which covers 94 hundred acres between here and Council Bluffs—is completed.

Listed as E-2 on the watershed work plan, the structure on the Ravlin farm is the first of three to be built this summer. The other two will be "dry structures." They won't have pools of water behind them.

Upstream from the Ravlin pond, West Pottawattamie County officials are replacing a road bridge, which has a span of about 30 feet, over a gully of approximately the same depth, with a 24-inch drop inlet.

The inlet will be a box-like affair made from concrete. Stream flow will be dropped several feet in the erosion-proof structure—stopping the carrying off of any more soil. The flow will be carried under the road in a 24-inch tube.

The road structure is less

than one mile from the Ravlin pond, but the run-off from 651 acres is collected between the two points.

Another drop inlet will be installed on the Don Jensen farm this summer. This will connect to an existing inlet by way of a grassed waterway one-fourth of a mile in length.

"We plan to let contracts on four other structures later this summer," Mr. Foderberg said, adding that the locally elected officials who make up the watershed board of directors serve as contracting authorities in such transactions.

"The next four structures will be located on the farms of John Hiller, Ervin Larsen, George Kalstrup and Edwin Kloppe, all of whom have Underwood addresses."

"About 80 per cent of the upland treatment on this watershed has been completed. This treatment includes terracing of fields which drain into the channels, contouring of cropland and grassed waterways."

"These practices are the most difficult to get installed in a watershed development and they get the least attention. But they're the most important."

"Our plan calls for 196 miles of terracing; we now have 135 miles. We have 7,947 acres of cropland farmed on the contour out of the total 9,410 acres in the project. Sixty-six of the 76 acres to be seeded to grassed waterways are completed and four of the 23 structures are completed."

The Ryan-Henschall Watershed is one of two developments under way in West Pottawattamie. Indian Creek is the other active one. Applications for three more have been submitted.

Upland treatment in the southern part of the county serves the Pony Creek Watershed—the major part of which is located in Mills County.



Becker . . . Toe drains insure stability.



Slotted flume slopes upward . . . Channel filling won't alter flow.

Next-to-Last Phase Here

Iowa Cholera Plans Are Moving Ahead

The World-Herald's News Service.

Ames, Ia. — Iowa swine producers are preparing steps to move the state's hog cholera eradication program into phase three, the last step before final eradication of the disease.

Dr. Maynard Spear, extension veterinarian at Iowa State University, said about half of the states, including Iowa, need additional legislation to establish the phase-three program described by the Federal Agricultural Research Service.

Proper vaccination, Dr. Spear said, is essential in establishing Iowa and other major swine-producing states in the third phase of the program. The use of modified live virus vaccine without anti-hog cholera serum is a major problem in the eradication program.

Georgia has already ordered that the modified live virus should not be used without hog cholera serum under any circumstances.

The third phase of the nationwide, anti-cholera program emphasizes regulatory essentials for the final phase of total eradication, Dr. Spear said.

Plans are being developed whereby the Iowa Veterinary Diagnostic Laboratory will be using a newly developed hog cholera diagnostic test before the end of this year.

The new technique provides diagnosis of hog cholera within 24 hours after cholera is suspected in a herd. It will save several days necessary under the older diagnostic method.

Box Butte Station Field Day Is Set

The World-Herald's News Service.

Alliance, Neb.—The annual field day at the University of Nebraska's Box Butte Experiment Station will be held here June 25, according to Paul Ehlers, superintendent.

The program will open with a conducted tour of the station, he said. There will be six stops on the tour with a scientist handling the discussion at each stop.

After a free lunch—furnished by the Agricultural Committee of the Alliance Chamber of Commerce—the program will be devoted to discussions and demonstrations of dryland and irrigation farming.

"IT'S A GOOD FEELING TO GIVE TO EDUCATION"

The Duchesne Festival
—Sunday, June 14

1 to 8 P.M. Rain or shine
Games, Rides, Prizes
Admission Free

Cows Consumed More Last Year

The World-Herald's News Service.

Washington—The nation's dairy cows ate better last year, according to a report from the Crop Reporting Board.

The cows consumed an average of 2,646 pounds of feed—four per cent more than received the previous year.

Total consumption for the entire dairy cow population was nearly 22 million tons of grain and other concentrates.

Potato Pest Is Reported

The World-Herald's News Service.

Scottsbluff, Neb.—The psyllid population is high and increasing, according to Lloyd Andersen, potato specialist at the experiment station here.

Psyllids like damp weather so that of the past few days was good for further build-up.

These little pests are carriers of psyllid yellows—commonly called purple top—and only one is needed for plant infection. Potato growers should watch their crop closely, Mr. Anderson said.

Tomatoes can also be infected by psyllids. Home gardeners should treat their tomato plants with captan and malathion. These two chemicals will control psyllids and also will act as a preventive for blight and other disease-producing fungus organisms.

Feeder Group Elects Rankin

The World-Herald's News Service.

St. Joseph, Mo.—Robert A. Rankin, Tarkio, Mo., was elected president of the newly formed Missouri Livestock Feeders Association at the group's organizational meeting here last week.

Carl Halferty, Plattsburg, was named first vice-president, was elected secretary-treasurer.

Water Study Is Promising

Colorado Test Plots Were Irrigated

The World-Herald's News Service.

Akron, Colo.—Diverting run-off water onto leveled cropland is a promising way of supplying the moisture needed for feed and forage production in the semi-arid Central High Plains, the Department of Agriculture reports.

Its Agricultural Research Service, co-operating with the Colorado Agricultural Experiment Station, developed this moisture conservation practice which should be of particular value to farmers and ranchers in Eastern Colorado, Southeastern Wyoming and the western parts of Kansas and Nebraska.

Rainfall available for plant growth in this area from May through August usually averages more than five inches. Following usually is required to meet the moisture needs of most crops.

In experiments at the Central Great Plains Field Station here, spreading and retaining rainfall and run-off on level areas provided 1.6 inches more moisture than was available to crops grown on fallow land and 5½ inches more than plots producing crops annually.

Agricultural Engineer Rome H. Mickelson leveled and diked five areas or "pans" of 2.5 to 6.6 acres. The pans lie in a broad natural drainage way five hundred to one thousand feet wide with slopes ranging from nearly level to three per cent. Each pan receives run-off from an area that is five to 55 times its size.

At seeding time, both the pans and fallowed plots averaged eight inches of stored soil moisture, while plots planted annually to grain sorghum had only four inches.

The pans were more efficient because they stored as much moisture in seven months as the fallowed area did in 19 months. Scientists estimate that fallow soil retains only 15 to 25 per cent of the moisture it receives.

Algae Taste Not So Good

Improvement Made; Testing Continues

World-Herald Lincoln Bureau, 501 Federal Securities Building.

The space age has brought problems that nutritionists here are trying to solve; they want a food for both astronauts and an earth-bound population that is exploding in size.

Richard Dam, assistant professor of biochemistry and nutrition, and Hazel Fox, professor of food and nutrition at the University of Nebraska, are conducting studies at the university on algae as a food.

Algae is an efficient protein producer.

An article in the spring issue of the Nebraska Experiment Station Quarterly tells of an experiment at the Nebraska State Penitentiary to determine the value of algae as a protein source for human subjects.

The researchers had hoped to show that algae was suitable for humans, at least for short periods, but first responses were disappointing. The responses ranged from mild nausea to severe vomiting.

New tests at the College of Agriculture and Home Economics with other subjects, concentrating the algae and eliminating the bad taste, were more successful.

'Acres of Wheat Don't Cast Ballots'

Washington (AP)—Farmers' reaction to the Administration's controversial new wheat stabilization program has evoked conflicting views among farm officials and leaders that could have a powerful influence on future farm legislation.

The Administration—which backed the new wheat plan with the help of some farm organizations—expressed satisfaction with the sign-up of farmers to participate in the wheat plan for 1964.

But critics found much in the sign-up, they said, to justify the unsuccessful fight they made against the plan in Congress.

Perhaps no accurate judgment can be made until after the November Congressional and Presidential elections.

The new plan dropped price supports for wheat from \$1.82 to \$1.30 a bushel. Supports will be available only to those farmers who harvest within their Federal planting allotments, which were 10 per cent smaller last year.

In addition, participating farmers will get marketing certificates worth an average of 47.5 cents a bushel on the normal production of their allotments, plus land diversion payments. Non-co-operators will be limited to whatever price they can get on the market.

The Agriculture Department reported that 76 per cent of the national wheat planting allotment of 53 million acres is enrolled in the new program.

Some officials hoped for a higher percentage. It did run high in the big commercial wheat states in the Great Plains and Western States.

But—from a political standpoint—this enrollment of acres may be far less significant than the fact that only 611,728 of the 1,729,000 farms which the department said have wheat allotments were enrolled. The sign-up covered only about 37 per cent of the farms.

Acres do not vote in general elections but farm operators do.

It is this fact that has given foes of the wheat program encouragement that they will be able to defeat it when it comes up in Congress next year for extension beyond 1965.

A somewhat similar program was defeated by wheat growers by a sizable majority last year.

The Administration discounts the low percentage of enrolled farms on the ground that most of those remaining outside the program produce small quantities of wheat and do not depend on it for any appreciable part of their income. It says that undoubtedly some of the small farmers did not even plant wheat this year and hence were not in a position to sign.

The Administration claims heavy sign-up in these states show wheat growers favor the program. They say that some Republican Congressmen from these states who voted against the plan missed

the boat and will be in trouble at election time.

But critics of the plan take an entirely different view. They say heavy sign-up in the big wheat states does not reflect farmer feeling. Rather, they contend, many farmers who dislike the plan enrolled because of the "economic compulsion" inherent in it. There is likely to be quite a difference between returns participating growers get for their wheat and those of non-co-operators.

Too, they say, many farmers whose crops look poor signed up, not because they like the program, but to cash in on crop insurance phases of the program. Co-operating growers will get marketing certificates even if they have a crop failure.

Grower reaction to the wheat plan may well be influenced to a considerable degree by what happens to market prices after the 1964 crop starts to market in volume. Some farm leaders believe that market prices would average considerably above the new \$1.30 support if the Administration permits them to do so.

The Agriculture Department has authority to market surplus wheat to hold down prices. This it appears committed to do because the Administration has promised that there would be no increase in bread prices that could be charged to the new program. But such dumping could leave a bad taste with wheat growers.

Grain Barge Traffic Rising

Advantage in Rates Among Causes

The World-Herald's News Service.

Washington—Eight co-operatives in the Midlands moved more than 100 million bushels of grain on inland waterways last year, the Agriculture Department said.

For some of the eight co-ops, this was a 30 per cent increase over the past year. And prospects for further increases this year are considered good, the report said.

Improved navigation, low rates, higher demand for export grain and increased barge equipment and facilities have accelerated the growth in such shipments, the report added.

The Mississippi River is now navigable from Minneapolis-St. Paul, Minn., to the Gulf of Mexico. The Missouri, Ohio, Tennessee and Illinois Rivers also are navigable over much of their courses.

And the Illinois system provides direct access to the Great Lakes and the St. Lawrence Seaway.

Grain barge rates are exempt by the Interstate Commerce Commission so most of the grain moves under contracts, according to the report.

When you build a house beyond city water mains, be sure you get a quality water system.



R.F.D.: Two Western Iowa Watershed Projects Will Be Launched to Check Erosion, Water Loss

Work Calls for 34 Dams

50 Miles of Terracing Already Done on One

By Dale Ohrtman

World-Herald Farm Editor
Council Bluffs.

Rain and snow falling on more than 18 thousand acres of land in West Potawattamie County will be harnessed by two projects launched this year.

The projects are watersheds—Indian Creek north-east of the city and Ryan-Henshal in the rural Underwood area.

The work won't be completed until 1967, according to Leon Foderberg, work unit conservationist of the Soil Conservation Service.

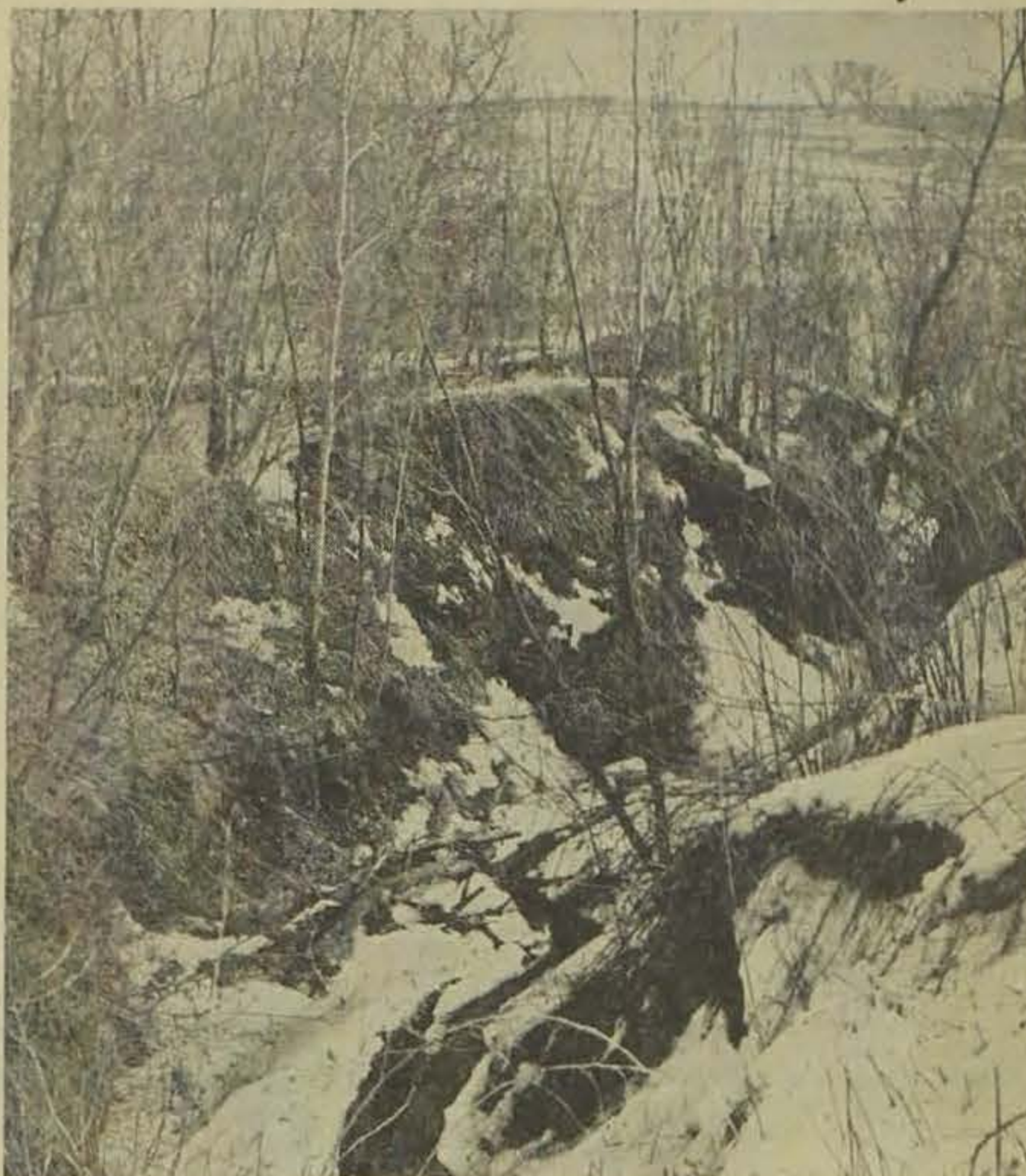
The two watersheds received Congressional approval last September. Surveying of locations for structures was started shortly after the first of the year.

Indian Creek Watershed covers more than nine thousand acres, over half of which is located within the city limits of Council Bluffs. The channel for excess moisture from the watershed runs through the heart of the city. It flows under business places, streets and alleys in a concrete conduit and on to the Missouri River in a concrete-lined ditch, making its exit west of Lake Manawa.

When the Indian Creek project is completed, a total of 80 miles of terracing, 15 dams and 92 acres of grassed waterways will have been constructed to prevent erosion of soil and loss of moisture through rapid run-off.

Part of the work already has been accomplished through individual efforts of farmers in the area. The project will unite this work with that still needed to give more complete control of the moisture.

Fifty of the 80 miles of terracing have been completed. Farmers will build 80 acres of the grassed wa-



Gully on Fell farm . . . Farm pond will cover ruins in a year.

terways in Indian Creek Watershed. The other 12 acres will be done under a contract let by the directors. All of the dams will be built under contract with the watershed directors.

Twenty miles of the terracing will be basin-type, like that already constructed on the Frederick Schlott farm. The large terraces hold the water where it falls, even on steep hillsides. The soil structure in the area is quite porous and moisture will soak in before the basins overflow.

Nearly all of the 94 hundred acres in the Ryan-Henshal Watershed is farm land. That project will include approximately two hundred miles of terracing, more than half of which

has been done. The plan calls for 19 dams, two of which were built before the watershed was formed. Ninety acres of grassed waterways are planned with half of the work to be done on a watershed contract.

A tour of the watershed areas showed the need for the work. The porous soil also erodes rapidly and many gullies have been cut by uncontrolled heavy rains and quick spring thaws.

One of the first dams in the Indian Creek Watershed will be built on the A. P. Fell farm where a gully approximately 35 feet deep and as much as 80 feet across has formed in the past eight years.

A surveying team was setting guide stakes for the

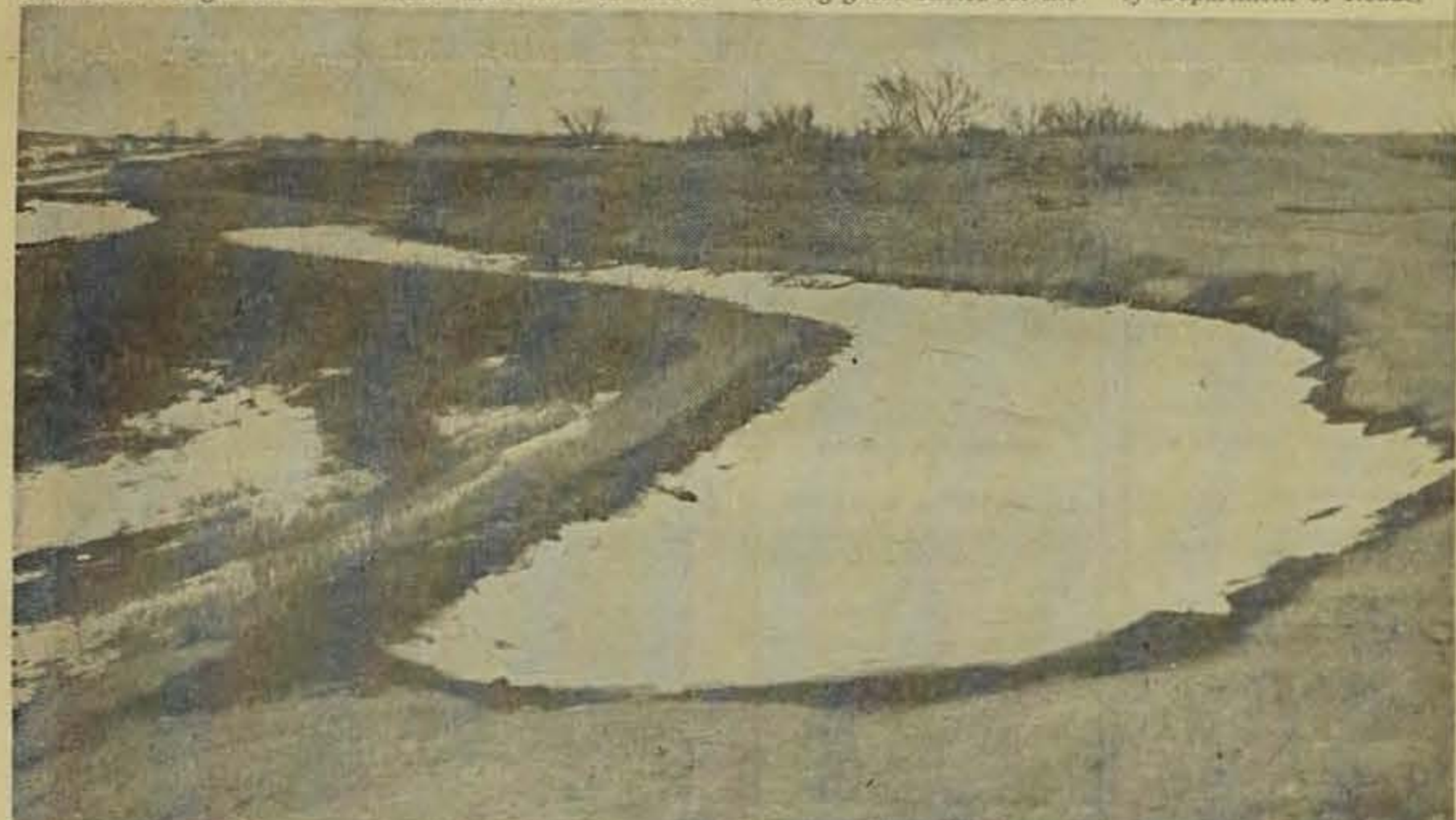
structure when I visited the area with Perry Thomas, SCS conservation aid.

Mr. Thomas pointed out the location of another structure in the Indian Creek Watershed. It will cross a large ravine on the Schlott farm.

In the Ryan-Henshal Watershed, one of the first structures will replace a county road bridge between the Eldon Ravlin and Emmett Ryan farms near Underwood.

Water has cut away the stream bed under the bridge and threatens to undermine the supports of the wooden structure.

The two watersheds are sponsored by the West Potawattamie Soil Conservation District and the County Department of Roads.



Basin terraces on Schlott farm . . . Porous soil will absorb all moisture where it falls.

2 Trial Plots Are Planned

Whiting, Ia., Site for Vegetable Studies

The World-Herald's News Service.

Whiting, Ia.—Vegetable trial plots for growing vegetables on a commercial basis will be conducted on the Ralph Marsh and Jewell Waugh farms near Whiting.

John E. Rydel, Monona County extension director, said Saturday the plots will include various varieties of potatoes, onions, muskmelon, cucumbers, watermelon, carrots, sweet potatoes, tomatoes, beans, squash, peas and corn.

Iowa State University will furnish the seed, plant the plots and harvest each crop to determine yields on a per-acre basis.

The banks and co-op elevators in Onawa, Blencoe and Whiting are providing funds to pay for the cost of cultivation and insect and disease control.

Hartington Manager

The World-Herald's News Service.

Hartington, Neb.—Donald Utoft has assumed his duties as Federal Land Bank Association manager here, replacing Vernon Nelson, who died after a heart attack in December. Mr. Utoft formerly was assistant manager at Mitchell.

Many Farmers Don't Know If Their Seed Will Sprout

The World-Herald's News Service.

Ames, Ia.—Many farmers don't know whether seed they plant will grow, according to findings in Iowa county surveys during the past three years.

Botanist Don F. Grabe sums up the survey results in the February issue of Iowa Farm Science, monthly publication of Iowa State University.

The surveys show, he said, that most farm operators plant seed of an adapted variety, plant their own seed saved from the previous crop, use an end-gate seeder and seed three to four bushels of oats per acre and invest an average of 23 dollars per acre in producing an oat crop, excluding land cost. Many, however, don't know whether the seed they plant is dead or alive.

Results of a survey last spring in Warren County showed that nearly a fifth of the farmers unknowingly were preparing to plant seed with less than 70 per cent germination. Nearly a fourth were planning to use seed of less than 80 per cent germination. Some were getting ready to plant seed germinating as low as one per cent.

To demonstrate the effect of low germination on yield, seed lots with varying germinations were planted on a Warren

County farm under typical conditions. The best lot of Cherokee seed yielded 25½ bushels an acre more than the lot of lowest germination. The greatest Minhafer yield was 51 bushels an acre more than the lowest.

The tests indicate that you can't get top yields by planting seed of less than 70 per cent germination. Mr. Grabe says it is doubtful that you will get top yields by planting seed lower than 80 per cent germination.

He gives the following tips for selecting good oat seed:

—Always plant seed of varieties adapted to your location. Don't gamble with or guess about the germination ability. Use seed that germinates 90 per cent or more and is at least 99 per cent pure.

—If you plant home-grown seed, have it tested so you will know what you are planting.

—Seed bought from a dealer is required by law to have no primary noxious weed seeds and not more than a few secondary noxious weed seeds.

—Certified seed will be of a known variety, contain no primary noxious weed seeds, can contain only a few secondary or common weed seeds and is required to have high germination and purity.

Iowan to Give Fremont Talk

Artificial Breeders to Gather on Thursday

The World-Herald's News Service.

Fremont, Neb.—Dr. George Raps, manager of the Iowa Breeders Co-operative, will be the featured speaker at the annual meeting of the Nebraska Artificial Breeders Association here Thursday.

Dr. Raps, veterinary graduate of Iowa State College, was selected to organize artificial breeding centers in Cuba starting during the Batista regime and completed after Castro came into power.

Last summer he was the United States delegate to the International Convention for Artificial Breeding in Europe. Open house will be held at the NABA quarters in the morning, followed by a business meeting at the City Auditorium.

Awards will be made in the afternoon to technicians who have qualified for the 10 Thousand Cow Club. Two county extension agents will be honored for community service.

Crops Day at Ames

The World-Herald's News Service.

Ames, Ia.—Carl Hamilton, head of the Department of Technical Journalism at Iowa State University, will be guest speaker at the Iowa Crop Improvement Day luncheon Tuesday at Memorial Union.

Exeter Plans Feeders Day

21st Event Expected to Draw 600 Persons

The World-Herald's News Service.

Exeter, Neb.—The twenty-first annual Exeter Feeders and Breeders Association Day is expected to draw more than six hundred persons here Thursday.

The program will open with doughnuts and coffee at Legion Hall, with visitors the guests of the Chamber of Commerce.

A panel discussion is scheduled at 10 a. m. on silage preparation and feeding.

Methodist women will serve lunch at noon at the Methodist Church.

In the afternoon visits will be made to the farms of Kenneth Jorgensen, Orville Hoffschneider and Steven Klemm, with discussions of feeding and equipment at each stop.

Don Magdanz, secretary-treasurer of the National Livestock Feeders Association will be the banquet toastmaster and Warren Cook, director of customer relations for the Livestock Industry Markets Association, will be the speaker.

Meeting Is Slated for Well Drillers

World-Herald Lincoln Bureau, 501 Federal Securities Building.

A short course for members of the Nebraska Well Drillers Association will be held February 22-23 in the University of Nebraska Center for Continuing Education.

Those attending will discuss progress in the groundwater survey, tax assessments and license fees for drilling rigs and equipment, wage laws, 1961 water quality survey, corrosion and incrustation, performance tests on irrigation turbines, and declining water levels as a result of groundwater withdrawals.

N. U.'s Nibler Picked for National Director

World-Herald Lincoln Bureau, 501 Federal Securities Building.

A University of Nebraska extension dairyman, C. W. Nibler, has been elected to a three-year term on the board of directors of the American Dairy Science Association.

Mr. Nibler along with Raymond Albrechtsen of Cornell University, Ithaca, N. Y., will represent extension dairymen over the nation.

The Nebraskan will take part in the winter board meeting at Washington, D. C., February 26-27 to make final plans for the association's fifty-seventh annual meeting at the University of Maryland, College Park, Md., June 18-21.

Iowa Lamb Producer Nominations Arrive

The World-Herald's News Service.

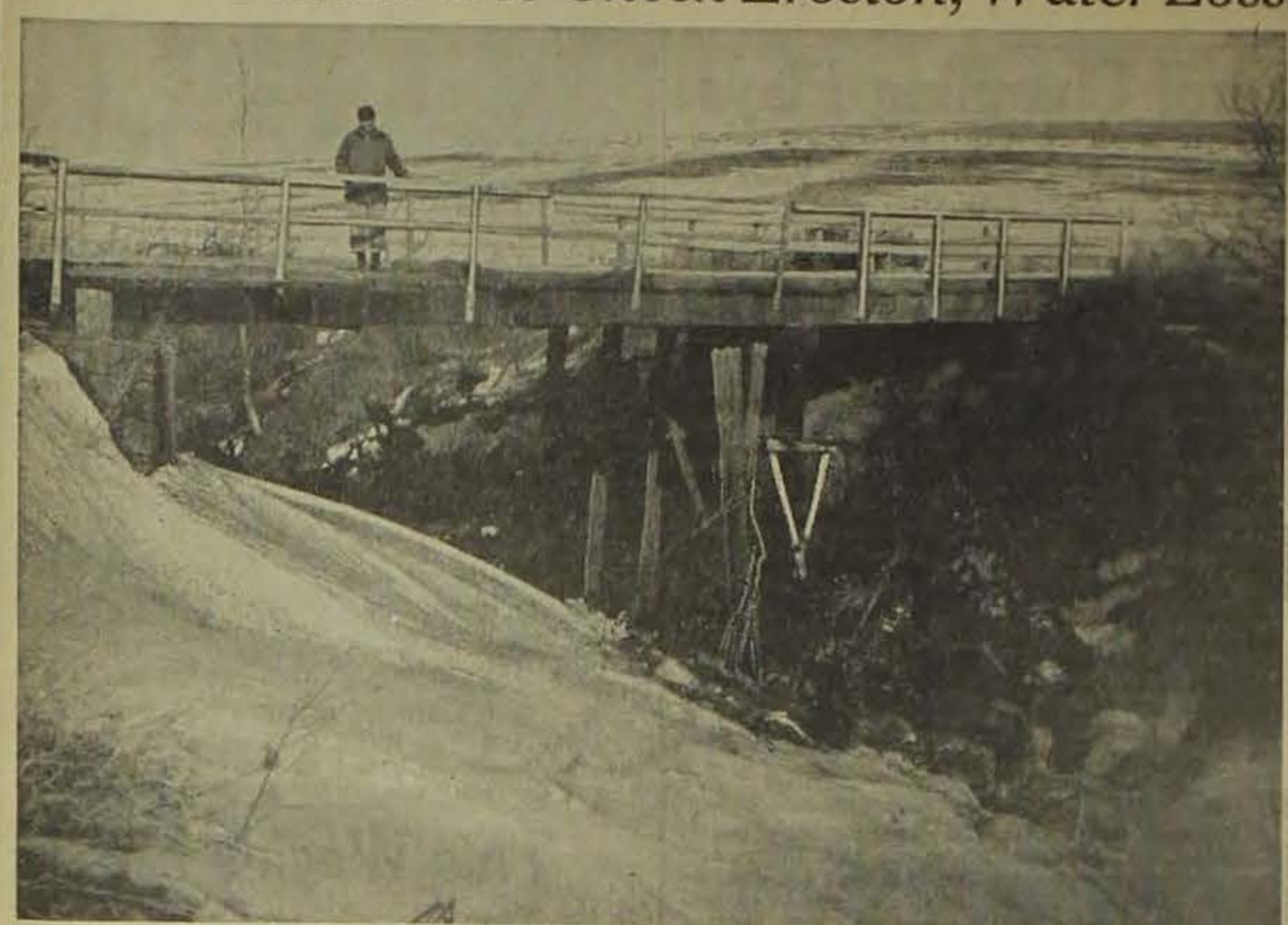
Ames, Ia.—Nominations are coming in for 1962 Iowa Master Lamb Producer, according to Extension Animal Husbandman Tom Wickersham at Iowa State University.

Nominees must be lamb producers who keep production and marketing records of their flocks.

Superior Host

The World-Herald's News Service.

Superior, Neb.—The annual Nuckolls County Irrigation Association meeting will be held Wednesday at the Hotel Dudley.



Thomas . . . Old bridge will be replaced by a dam.



MR. EDDIE KALINA

EDDIE SAYS "THIS IS IT"

NOW THAT I AM FREE TO REALLY DEAL, I AM ABLE TO BRING YOU THE BARGAINS I HAVE DREAMED ABOUT FOR YEARS. STOP IN AND PROVE IT TO YOURSELF!

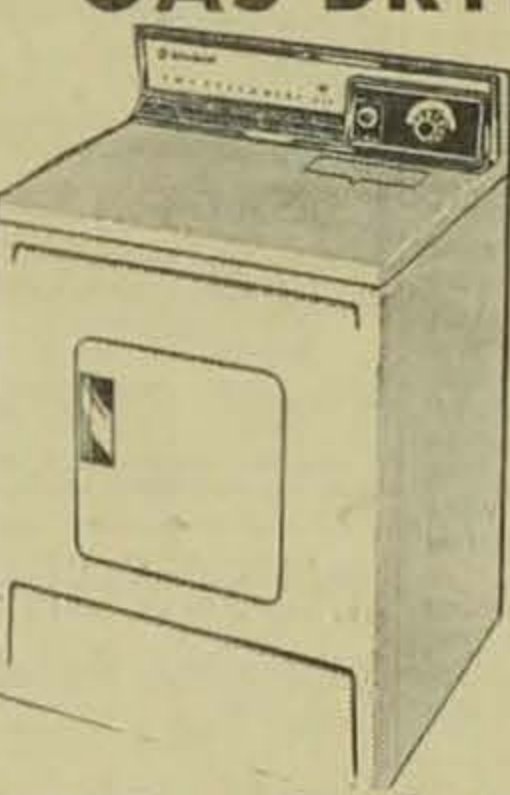


"THIS IS IT"

2-Piece Living Room Suite

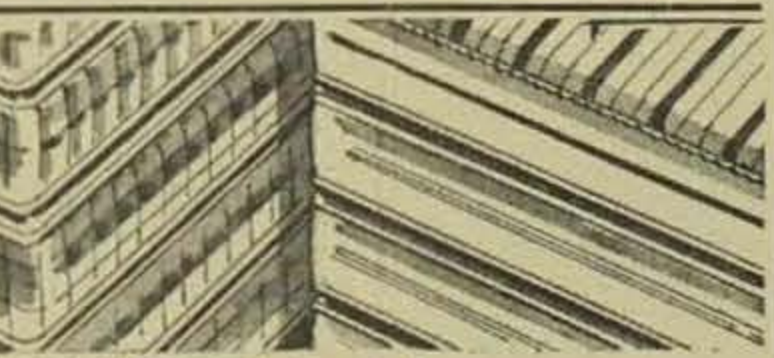
This striking two-piece living room features innerspring construction, button tufted arms and generous styling. Priced so unbelievably low that it defies competition! YES, IT'S ALL FOAM, TOO! **\$88**

RCA-Whirlpool GAS DRYERS



4 HEAT SPEED
SAFETY OFF SWITCH
ALL FABRIC DRYER
COMPARE AT \$300.00

EDDIE'S "THIS IS IT" PRICE **\$158**



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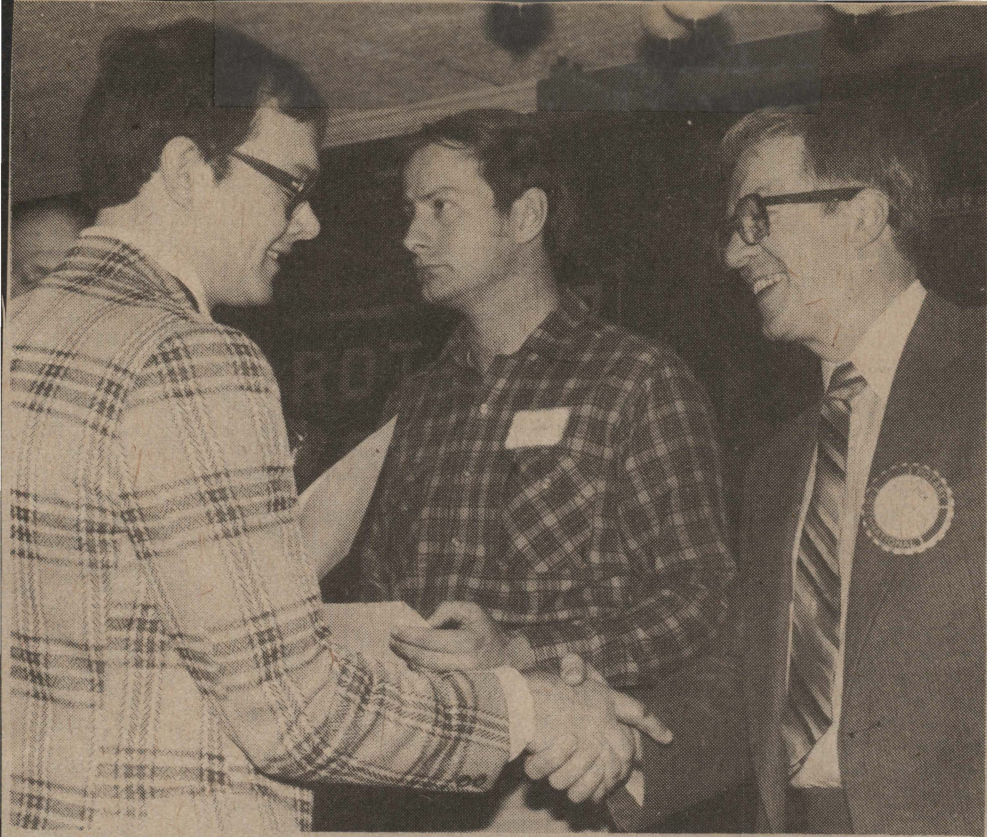
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Household FURNITURE

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Soybean Production Winner . . . Bill Orr Jr. of Crescent, left, receives congratulations from Rotary president Dick Spetman, right, at Rotary's Rural-Urban Day Thursday. Bill

Hammitt of the West Pottawattamie County Soil Conservation Service, middle, presented the 1983 awards. — Nonpareil photo

Annual Rural-Urban Day hosted by Rotary group

By **AMY DOERR**
Nonpareil Staff Writer

Two separate, but continuously interacting worlds met at Club 64 Thursday, when Rotary Club members and about 35 Southwest Iowa farmers participated in the annual Rural-Urban Day. The event was a kick-off for national Agriculture Week, which began Friday.

Awards for the 1983 Iowa Master Corn and Soybean Growers contests for Pottawattamie County were presented. Clifford Johnson of Crescent received the corn award for raising 143.58 bushels per acre and Bill Orr Jr. of Council Bluffs was honored for the highest soybean production among the entries, at 57.94 bushels.

Guest speaker Steve Daugherty, public affairs director of the Iowa Corn Growers Association, introduced farming "Images and Perceptions." He spoke in place of Evan G. Stadlman, executive director of the Iowa Corn Promotion Board, who

could not attend.

Daugherty said he is concerned about perceptions non-farmers have about agriculture, and farmers' ideas about themselves. Through a recording taped by actor Jonathan Winters acting as "Elwood P. Suggins, farmer," Daugherty pointed out the difference between the ideals and realities of farming.

The humorous dialogue between Suggins and a reporter gives a false impression of what farmers are really like, Daugherty said.

He spoke of a "land-gap," or a separation of people from the land. "It's widening every year. Fewer people are leaving the farm voluntarily — of those who leave, most are forced off by high interest rates."

Daugherty warned farmers and businessmen not to judge ideas or programs as "crazy just because you don't understand them. Both sides should work together to form policies that we can all live by."

With the 1983 payment-in-kind set aside acres program and the drought, Daugherty said corn production was down last year. A surplus this year means the ag industry needs to develop new ways to utilize corn products.

He outlined six ways the ICGA wants to boost corn use in other areas of industry: corn gluten for animal feed (by-products left from other processes), higher red meat consumption, increased usage of ethanol, corn starch and fructose, and the manufacture of more chemicals from carbohydrates, or manufacturing products using corn instead of oil energy.

Daugherty reminded people that agriculture is the only national business that operates with a positive trade balance. "Twenty percent of our gross national product is generated by agriculture, and one-fourth of all the employment in the U.S. is ag-related," he said. "That makes this an important industry we need to support."

Ryan-Henschal Watershed Work Nearly Finish

A \$72,000 construction project has been completed in the Ryan-Henschal Watershed eight miles northeast of Council Bluffs.

Eldon Ravlin, chairman of West Pottawattamie County Soil Conservation District, said Saturday the five dams completed under the contract to Ohl construction Company of Dow City brings to 17 the total number of structures in the project.

The watershed is composed of five tributaries outletting into Mosquito Creek. Total drainage area of the watershed is 9,410 acres.

Ravlin said the project was designed to reduce upland and sheet erosion in the watershed. He said two more structures remain to be completed in the watershed in cooperation with the Pottawattamie County Board of Supervisors.

Shelby is soil district winner

The Shelby County Soil Conservation District has been named the first place winner among conservation districts in the southern half of the state by the Goodyear Tire & Rubber Co. in its annual soil conservation contest.

Michael T. Leinen of Portsmouth and one board member will receive expense-paid trips to Wigwam resort and Goodyear Farms in Litchfield Park, Ariz., in December as a prize.

Leinen was the Shelby County outstanding cooperator.

Runner-up in southern Iowa was the East Pottawattamie County Soil Conservation District.

Page and West Pottawattamie counties were named honor districts. Neither was eligible for the first prize since they had been first place winners within the last five years.

Allamakee County was named the first place winner in northern Iowa.

Arrowhead Park near Neola became an outdoor classroom for 119 sixth graders Friday afternoon.

The occasion was the sixth annual Environmental Field Day, sponsored by the West Pottawattamie County Soil Conservation District, and planned by a conservation education committee comprised of conservation officials and teachers.

Sixth Graders Head for the Park During Environmental Field Day

Students who participated were from Tri-Center and St. Joseph Schools in Neola and from Underwood Elementary School.

This year's field day departed from a previous tradition in which former sixth grade classes camped out at the park. Explaining the change, Pottawattamie County Conservation Board

Executive Director Harold Borwick of Council Bluffs said that the campout was difficult to provide for, to find willing chaperons for, and always involved the uncertainty of the weather.

"We found that we were spending more time preparing for the campout than we were spending in preparing for the day's program of activities, and that just wasn't serving the intended purpose of the field day," Borwick explained.

A great deal of time had obviously been spent on planning Friday's activities, and the weather was a willing participant in the field day.

The field day experience involved rotating youngsters through a series of seven learning stations during the course of a 9 a.m. to 7 p.m. outing at the park.

The learning stations included a "Food Web", where youngsters learned how man and nature become delicately interdependent upon one another for food sources, a fisheries station, a soils station, a

"Blind Walk", an archery range, a compass station and a station known as the "Five Senses" station.

The "Blind Walk", for which youngsters were blindfolded and led through parts of the park, allowed children to learn something of how a person would manage without the important sense of sight and to sharpen their other senses at the same time.

One of the "Blind Walk" activities involved placing each student beside some object in the park—a tree, a stump, a bush, or some other object—and allowing him to investigate the object without the aid of sight.

Students then were to return to a central point, following the sound of the instructor's clapping hands. Once reunited with the group, their blindfolds were removed and students were given a chance to try to find and identify the object they had been placed beside.

Some students found it an easy task to retrace their steps and find the object, while others found that their sense of direction was confused when they were blindfolded and they found it difficult or impossible to retrace their steps.

The Five Senses station similarly stressed sharpening each of the five senses, as students paired off and talked about all of the sounds they heard at the park, and all of the smells, sights and impressions made by things they could feel or taste.

Planning for this year's Environmental Field Day was the work of a conservation education committee, whose members include West Pottawattamie County Soil Conservation Commissioner Eldon Ravlin, commission staff member Brian Pillsbury, State Conservation Commission Officer Duane King, and sixth grade teachers Gale Brown and Gussie Stamp from Underwood and Jane Pille and Loretta Jensen from Tri-Center. The committee has been meeting monthly since December to plan a successful field day.

Those who were instrumental in this year's Environmental Field Day, however, credit much of the success of the day to the late Cal Cox, district Soil Conservationist, who died April 23. Cox is credited with helping originate the field day and camping program in this area, and served on the planning sessions and in the teaching of the field day activities every year up to the time of his death.



Orientation to natural surroundings was what the Environmental Field Day was all about for 119 sixth graders from Tri-Center, St. Joseph and Underwood elementary schools Friday at Arrowhead Park. Seven learning centers were set up, giving the students a chance to try their hands at archery, to sharpen their senses in the natural surroundings and to learn about soils, fishes, the delicate balance of nature and survival skills.—Gazette-Reporter & News/Soil Conservation Commission Photos.

"AT THE RATE we're going it'll take us 100 years to get it done," Cox said. He said society will have to make soil conservation a major priority in order for the pace to quicken. Watersheds in this section of the county are being established at a slow, methodical pace. Cox said it took from 1958 to 1976 for the Indian Creek watershed north of Council Bluffs to be completed. It's establishment ended a century-old problem of flooding in the

Agriculture is 5 tons or less per acre. The goal set by the United States Department of Agriculture is 10 tons or less per acre. Cox said most of the land in western Pottawattamie County suffers erosion of up to 25 tons per acre. He said that the erosion is not made to curb runoff, Cox said. He cited two cases in Council Bluffs: The Mercy Hospital and Kirm High School projects. He said "not too many pains were taken" to keep runoff at an acceptable level.

THE STUDY concludes: "In other words, where severely eroded land now makes up 9 percent of the 2.1 million acres of cropland needing treatment, in 2020 it will make up 40 percent of the area." Agriculture Department report released this year said 1.97 billion tons of soil "were washed from the nation's cropland from the year 1974 to 1979. Released this year, the study said 683,000 acres of that land were moderately eroded and 195,000 acres were severely eroded.

AS SOIL conservation week nears its close, consider these facts: According to a state with some of the best soil in the world, a study of 2.1 million acres of land in southern Iowa not now protected in watersheds concluded that 826,000 acres of

in the next 30 years e lost all of its prime est soil in the world, a state with some of the best soil in the world, a study of 2.1 million acres of land in southern Iowa not now protected in watersheds concluded that 826,000 acres of

Smile, the USDA is photographing Iowa

By DON MUHM

Register Farm Editor

When is taking pictures from the air not "aerial photography?" Why, when the federal government does it, of course.

This summer the U. S. Department of Agriculture plans to fly over every Iowa farm, taking 35mm color slides. But the government says this is "aerial observation," not aerial photography. The distinction, it seems, has to do with the height of the airplane and other bureaucratic considerations.

The aim of the USDA's photographic effort is to help monitor compliance with this year's federal farm programs.

For years the aerial photograph has been used to determine acreage planted by farmers. Traditionally, the film has been in black and white. Now, though, the farms will be photographed in color, and seasonally to make the film record more significant.

And usually only a few counties, not the whole state, are photographed in any one year.

The new aerial photography effort in Iowa is scheduled to begin this week, after the Monday deadline for certifying acreages planted by farmers enrolled in the 1979 Feed Grain Set-Aside Program, and its wheat counterpart.

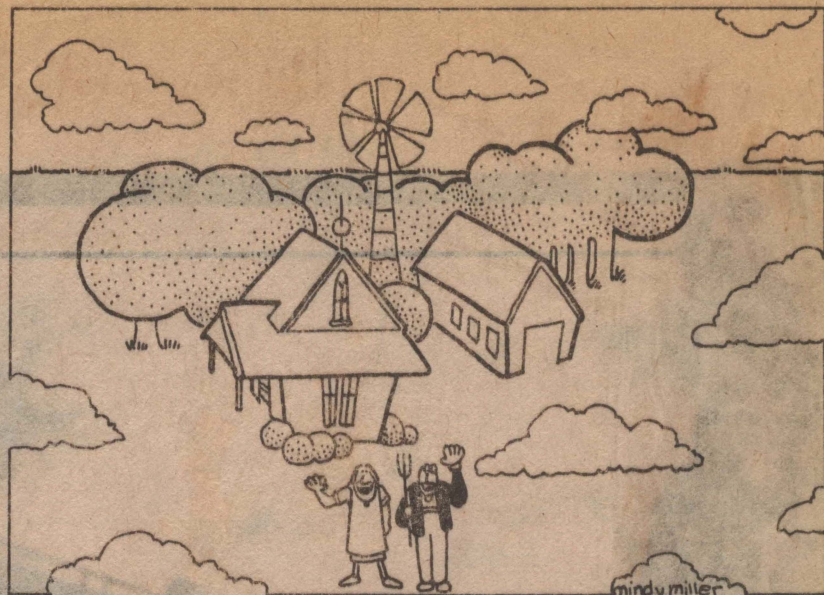
Certification of planted acreage must be made at the local Agricultural Stabilization and Conservation Service (ASCS) offices no later than Monday. Farmers who are in the program obtain price support and related benefits, including disaster payments if needed.

Nine crews will canvass the state, with two USDA workers in each single engine Cessna aircraft. Each plane has been equipped with special bubble-type camera mounts.

Marvin Smith of the Iowa Agricultural Stabilization and Conservation Service (ASCS) office in Des Moines said the program is "aerial observation," explaining that the slides will be superimposed on official black and white aerial photos already used by the USDA for federal farm program purposes, and cannot accurately be called USDA aerial photographs.

The cost of the airplane-pilot combination runs from \$29 to \$37 an hour, Smith said. The typical 16-township Iowa county (24 miles by 24 miles) would require eight hours of total flying time if everything is perking perfectly, Smith added.

The color slides will be exposed at an altitude of 7,500 feet, as contrasted with the official USDA photography which requires exposures from 20,000 feet.



There is no special reason for the introduction of the new technique in checking farm program compliance this year, Smith said. Ordinarily, new photographs are taken of each county on the average of every seven or eight years, he said, because of farm consolidation, changing fencelines, boundaries, the use of larger farm machinery and other factors.

Such aerial photography has been used to check on farmers almost from the time federal farm programs were introduced in the 1930s. There are certain specifications as to just how a "legal" aerial photograph can be taken so that acreage portrayals are accurate. In the official USDA photography, for example, a single exposure at 20,000 feet photographed 36 square miles.

This 36-square-mile area then was broken down into sections, about four square miles. Each exposure in the new system will cover about one square mile.

At the same time the new aerial effort begins in Iowa, the USDA will start tests to develop a ratio between the two photography systems which could be used to reduce the work involved in the color slide/black-and-white photo comparison as well as the time it takes to check the field measurements.

Smith said that until such techniques are perfected, the USDA still plans to rely on its old system of high-level aerial photography to check on crop acreages and farm program compliance.



Highlighting Future Work . . . in Soil Conservation Service watershed programs is Kendell Olin, district conservationist for counties in Southwest Iowa. One of those projects, the Twin Ponies Watershed, will help alleviate gully erosion on cropland and urban

land, floodwater damage to bottomland, and sediment deposition in the outlet channels that cross the Missouri River flood plain. Olin said gully erosion damages almost 34 acres each year in the area. —Nonpareil Photo.

11-27-77

More soil is being saved

Nature and unthinking man often team up to allow tons of rich farmland to erode in Southwest Iowa.

But the Soil Conservation Service has finished five terrace and dam projects and started six other projects to help combat soil loss.

Kendell Olin, area conservationist for eleven county district, said over \$3 million in contracts has been awarded this fall for watershed programs in Southwest Iowa.

Among these:

— A contract was awarded to McAninch Corporation of Norwalk for nine structures near Brayton in Audubon County, Olin said work has already started on the \$463,051 project.

— Anderson Construction of Mapleton was awarded a \$491,984 contract in the Mill-Picayune watershed near Dunlap. Work on the eight structures will begin soon.

— Anderson Construction also received a \$73,572 contract for a road structure in the Dane Ridge project which will be started shortly in cooperation with Crawford County.

— Jensen Preben Construction of Woodbine has received a notice to proceed on a \$230,342 project near Persia

in the Mosquito Creek Watershed. Five sites are involved.

— A \$42,532 project near Anita in the Turkey Creek Watershed was awarded to Saxton Construction, Winterset. This road structure will be done in cooperation with Cass County.

— Finally, a five-site project near Mapleton in the Leech Hollow Watershed was awarded to Godbersen-Smith Construction Co. of Ida Grove for \$352,163.

Olin said bid opening will take place Dec. 16 for a seven-site project north of Council Bluffs in the North Pigeon Watershed and later this winter for a 12-site project near Dow City in the Dane Ridge area.

The five watershed programs already completed include: Two sites near Oakland in the Bee Jay Watershed; two sites north of Council Bluffs in the Simon Run Watershed; a multi-purpose site near Exira which includes public recreation areas and a 70-acre lake now about two-thirds filled and stocked in the Troublesome D-47 Watershed; five sites near Brayton in the Troublesome Watershed and 11 sites near Exira in the Davids Creek Watershed.

Olin said the P1 566 program, which is a public law covering all of these watershed projects, is administered by the SCS and sponsored by local conservation districts and county boards of supervisors.

"The purpose is to accomplish needed land treatment," Olin said. "These are attempts to stabilize and stop gullies, prevent floods and create recreation and wildlife areas."

The projects just getting started, for which contracts were recently awarded, range in size from 4,000 to 9,000 acres.

"Ten of them are in the operation stage and detailed work plans have been completed," Olin said, noting that some of the projects have been awaiting construction for up to 15 years.

"As the sites become ready, contracts are prepared and put out for bids to start construction," Olin said. The projects normally include five to 12 dams.

Olin described the implementation of an SCS program for an area as a five-phase process.

First, the people in the particular area must request SCS assistance and then, in the second phase of the process,

the area must be shown to be part of a natural watershed to a stream or a series of streams to qualify for SCS assistance.

The third phase of SCS assistance is probably the most time-consuming, Olin said, since it involves seeking approval by the state SCS agency and the governor.

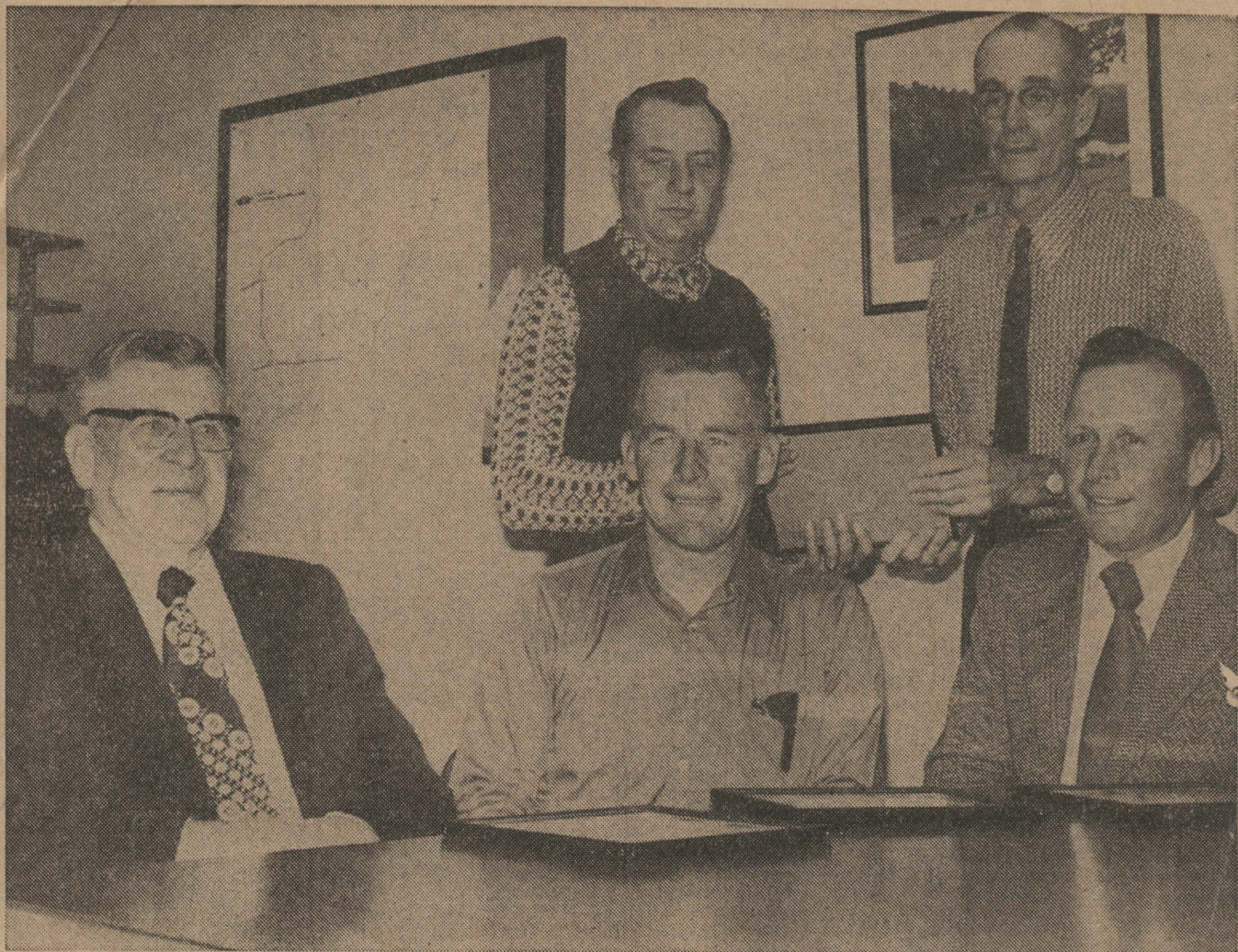
Olin said a big backlog of requests is currently under consideration for approval and waiting periods stretching into several years are not uncommon.

The Twin Ponies Watershed program just outside the Council Bluffs city limits along the Southwest corner of the city is currently in this waiting and planning period.

After a program has passed through the third phase, it moves to the district level of the SCS for more planning. This fourth phase emphasizes preliminary and final detailed planning.

The fifth and final phase of the project is the construction phase.

"It's all very painstaking and detailed work," Olin said. "That's why it sometimes takes so many years to get a project into the construction phase."



Soil District Awards

Gerald Forristall of Macedonia receives the West Pottawattamie County Soil Conservation District's new cooperator award Wednesday from Eldon Ravlin, soil district chairman. Seated are other award winners: Harry and Loren Nusser, both of Council Bluffs, landlord-tenant award; and Harvey Moss of Macedonia, owner-operator award.—Nonpareil Photo.

Soil problems discussed

Water quality, erosion and urban sprawl were the main concerns of persons attending a public hearing held by the West Pottawattamie Soil Conservation District Wednesday night.

The meeting, attended by 18 people, was to obtain input into planning and implementation of conservation programs for the area.

Cal Cox, district director, said persons attending were asked to fill out a questionnaire. He said those will be tabulated at a later date.

Cox said one of the major concerns voiced at the meeting was increaseing residential developments in mainly rural areas away from cities. Many called for better land use planning which would discourage such development in rural areas and encourage it on the fringe areas of cities.

Survey of soil yields many facts

Landowners in much of Southwest Iowa will soon receive information telling them their soil types, the maximum crop yields possible or types of buildings the land will support.

The Standard Soil Survey, in the works for several years, has been completed along all the Missouri River bottomland. Some entire counties have been surveyed.

"The reports will give any landowner a guide on how that land can be used," said Cal Cox, U.S. Soil Conservation Service (SCS) district conservationist.

A CREW OF three people, headed by John Nixon of Malvern, spent two years walking over virtually every bottomland acre in Pottawattamie County. In each acre, a probe was pushed into the ground and a soil sample taken. The soil was analyzed for type and then recorded.

Cox and Don Untiedt, West Pottawattamie County extension director, said accompanying aerial photos were taken and each soil type given a code number which was stamped on the photos. By viewing the photos, landowners could find their plots and the code number for soil types.

Cox said a booklet has been published telling what the soil type is, what it can conceivably produce in crop yields, how long it can support grazing livestock, or whether it is suitable for a housing development.

"The soil map gives a basic inventory of what is there and what is needed for both agriculture and non-agriculture uses," said Cox.

POINTING TO A specific area on the aerial photo of a spot south of Council Bluffs, Cox noted the code number, turned to the soil booklet and read the number of bushels of corn the site could produce, how many pasture grazing days it would sustain, or what problems could be encountered in the installation of a septic tank system.

Cox said the advance report covers all of Council Bluffs, especially areas which might be studied for later planning use, and stretches to Interstate Highway 80 to the east.

"The report shows the soil

type, the ground slope and even the amount of erosion. It's just a world of information," said Cox.

ALTHOUGH THE report shows how the land will respond to specific purposes, in almost all cases there are ways of overcoming major problems, especially in the sandy soils of Council Bluffs.

For instance, Cox said, soils found in the city have difficulty supporting more than a two-story frame home. But in the case of high-rise structures, pilings driven to the sub-surface bedrock can overcome that problem.

Cox said county assessors can also use the survey for valuing land on what it will produce, not what it has produced previously since different farming methods can produce different results.

Some Southwest Iowa counties have already been completely surveyed, including Cass, Fremont and Shelby. Finishing touches are being put on survey work in Mills County, and the survey crew will return to Pottawattamie County a year from now, finishing up in 1982.

FARMERS IN Harrison County will be receiving copies of the survey report early in March.

Meetings are set for March 3 from 9:30 a.m. to noon at the Modale Legion Building, and 1:30 to 3:30 p.m. at the Woodbine Legion building; March 4 from 9:30 a.m. to noon at the Missouri Valley Happy Chef and 1:30 to 3:30 p.m. at Dunlap City Hall; March 8 from 9:30 a.m. to noon at the Logan Community Building and 1:30 to 3:30 p.m. at the Persia PIC Hall; and March 9 from 9:30 a.m. to noon at the Little Sioux Community Building-Gymnasium.

Gary Guge, Harrison County extension director, said farmers will receive copies of the report and instructions on how to use it.

Cox said affected farmers and landowners in Pottawattamie County will receive their reports during a 1:30 to 3:30 p.m. meeting March 16 at the West Pottawattamie County Extension Office.

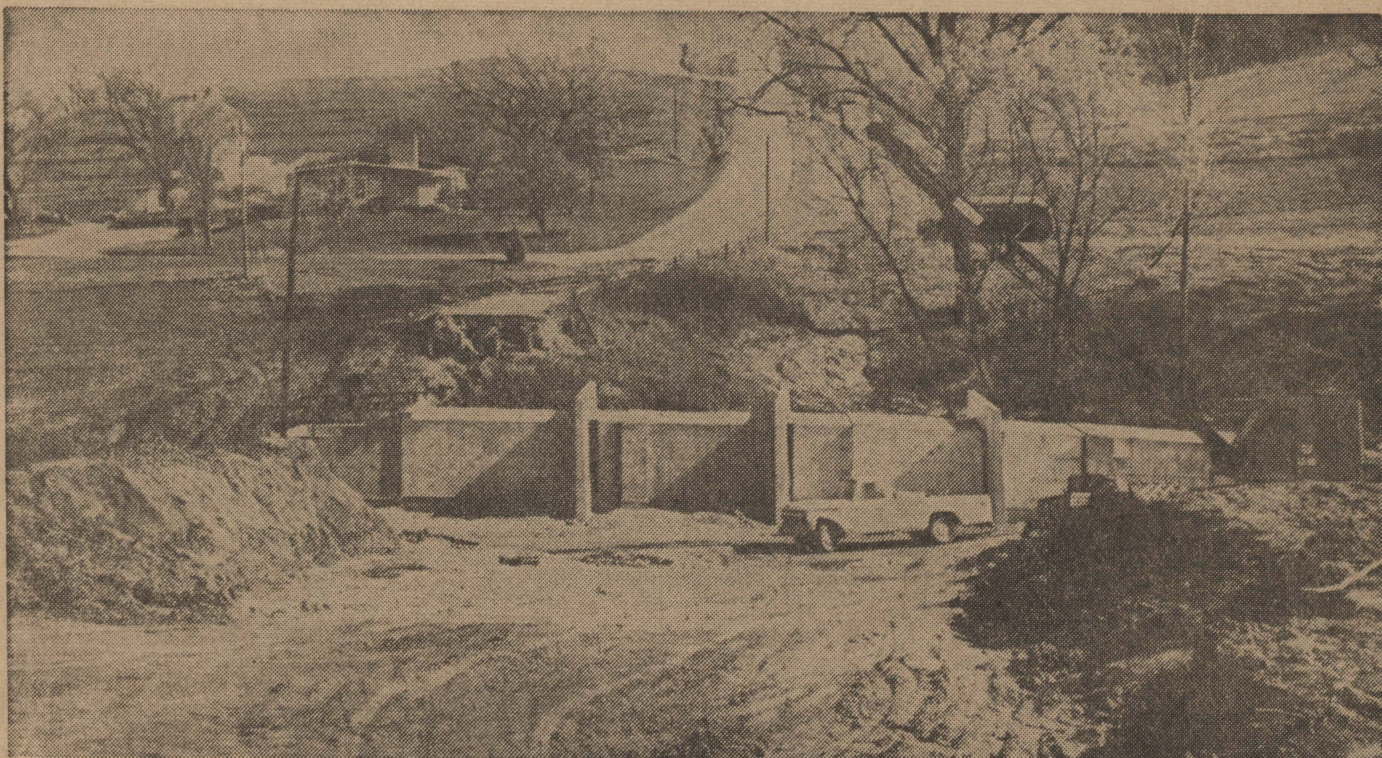
The surveys are funded by the SCS, Iowa State University and the county boards of adjustment.



Ready To Distribute . . . soil survey results to landowners in Western Pottawattamie County are Don Untiedt, West Pottawattamie County extension director, and Cal Cox, district conservationist for the Soil Conservation Service.

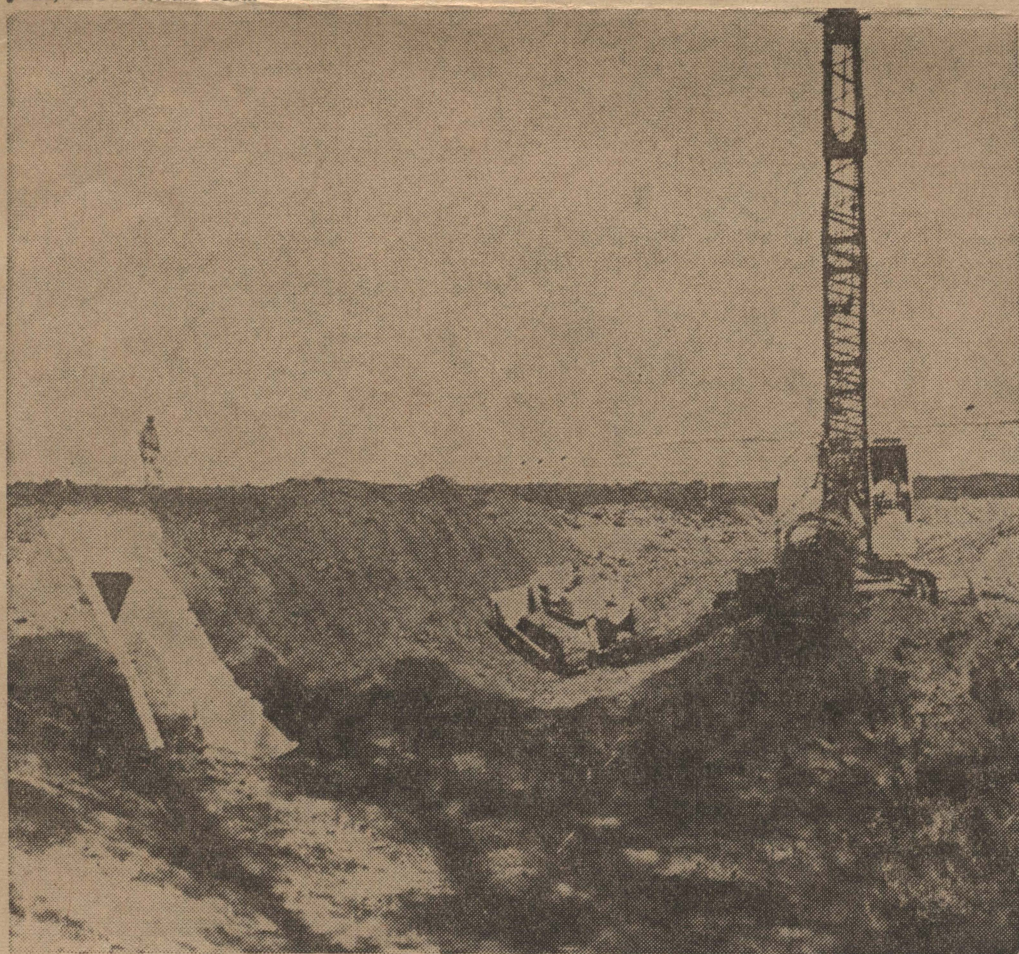
The report covers all of Council Bluffs and the area stretching east two miles. The survey indicates a wide variety of soil types in the region. — Nonpareil Photo.

West Pottawattamie Environmental Education Council of the Soil Conservation Service (SCS). Ed Flannery, science coordinator of the Council Bluffs School District and one of the geology and

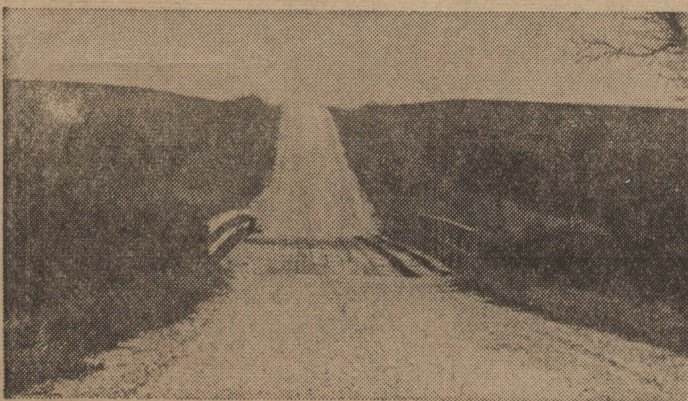


Taming Indian Creek

Soil Conservation Service engineers believe continued placement of structures on Indian Creek, such as this one near the Ed Spelman Jr. farm (in background) on Mud Hollow Road, will reduce the danger of flooding in downtown Council Bluffs. Two larger flood control projects have been completed north of this work in Indian Creek Watershed. This structure will handle a drainage area of 1,408 acres and will form a three-acre lake. Moving of some 20,000 cubic yards of dirt was involved and there were 247 cubic yards of concrete used in forming the structure. Three additional structures will be constructed on the west branch of Indian Creek next year, SCS officials said.



Concrete Culverts . . . with flow control such as this on a county road southwest of Underwood near the Leo Ryan farm are reducing maintenance costs for Pottawattamie County. A bridge (similar to the one pictured below) was replaced by the structure. Some 252 acres will be drained into the backwater. About 6,500 cubic yards of dirt were moved and 77 cubic yards of concrete went into the structure. Still other structures in the Ryan-Henschel Watershed include projects on the Francis Bell farm and the Scott Estate farm. The two latter projects will involve 6,600 cubic yards of earth fill, 205 cubic yards of concrete and 32,265 pounds of steel. — Nonpareil Photos.



AFS Students Will Be Feted

Special To The Nonpareil

GRISWOLD—Fourteen American Field Service students and their host parents will be guests at the annual bazaar and supper Nov. 4 at the Griswold Methodist Church.

The event is planned by the Woman's Society of Christian Service. A Japanese tea room is planned in the afternoon, followed by the supper and bazaar in the evening.

"Everything's Coming Up Roses," is the theme of the event.

Throughout the U.S.

Topsoil loss is nearing a crisis

MIKE HENDRICKS
Herald Staff Writer

flows downstream in rivulets to larger and lakes, leaving in the scarred, eroded

loss of topsoil in the states is approaching a crisis, according to experts. It has been said a, a state with some of the best soil in the world, has lost all of its prime in the next 30 years

unless the current trend is reversed.

The threat of foreign domination of American farmland is miniscule compared to those posed by erosion and uncontrolled urban development.

AS SOIL conservation week nears its close, consider these facts:

—A study of 2.1 million acres of land in southern Iowa not now protected in watersheds concluded that 826,000 acres of

that land will be severely eroded by the year 2020 if no measures are taken to reverse the trend.

Released this year, the study said 683,000 acres of that land was slightly eroded in 1974. More than one million acres were moderately eroded and 195,000 acres were severely eroded.

THE STUDY concludes: "In other words, where severely eroded land now makes up 9 percent of the 2.1 million acres of cropland needing treatment, in 2020 it will make up 40 percent of the area."

—Another U.S. Agriculture Department report released this year said 1.97 billion tons of soil "were washed from the nation's cropland in 1977, enough to cover the entire state of Rhode Island to a depth of about 1.3 inches."

—The average amount of soil lost to water erosion across the country every year amounts to 4.8 tons an acre.

—In West Pottawattamie County that amount ranges as high as 25 tons an acre, according to Cal Cox of the U.S. Soil Conservation Service field office in Council Bluffs.

SOIL EROSION is the single largest cause of water pollution in the United States.

Though conservation practices are becoming widely accepted by farmers and developers, the resources are too few.

Work on building terraces and structures in West Pottawattamie County has been going on since 1944.

At the present rate, Cox said, it will take a century before erosion is controlled to an acceptable level. That may be too late.

"WE'VE GOT TO start doing something about it and not just give it lip service," Cox said.

The loess soil in Southwest Iowa was deposited here 30,000 to 40,000 years ago. It is rich soil but lacks adequate amounts of some necessary nutrients.

Its quality is fairly consistent from as far down as 125 feet in some places, Cox said.

In this area, topsoil loss is not bemoaned so much for the fear of losing the best soil. Erosion does, however, cause concern for what it is doing to the water.

SOIL PARTICLES are removed from the land as excess water runs over it. It ends up in irrigation ditches which wash into small streams and lakes.

Because of the high level of chemical dependence among farmers, this soil carries with it any number of herbicides, pesticides and fertilizers, chemicals that end up in the water we swim in, bathe in, the water we drink.

Water treatment plants have in the last few decades had more and more of a burden in making our water fit to drink.

HEARINGS HAVE been held

in the past year on the Rural Clean Water Act which will go into effect sometime in the 1980s. It will attempt to stop pollution from feedlots and silt runoff.

Cox said most of the land in western Pottawattamie County suffers erosion of up to 25 tons per acre. The goal set by the United States Department of Agriculture is 5 tons or less per acre.

Silt also poses a problem from construction sites where controls are not made to curb runoff, Cox said. He cited two cases in Council Bluffs: The Mercy Hospital and Kirm High School projects.

He said "not too many pains were taken" to keep runoff at an acceptable level.

IN MANY CASES, the fault lies in the fact that contractors are not told to take steps to curb erosion during construction.

"A developer is not going to pay any attention to anything that costs him any more money unless it is in the plans," he said.

Farmers have been extremely cooperative in helping to stop erosion, Cox said.

In practice, the Soil Conservation Service encourages farmers to have terraces built on their land to curb runoff.

STATE AND FEDERAL cost-sharing funds are available. The soil conservation service will even plan a farmer's terrace system if asked. Private contractors then do the work.

However, the problem lies in the funding mechanism, Cox said.

"We've got farmer acceptance for terraces," Cox said. "But we've got farmers waiting in line."

In fiscal 1979, the state of Iowa provided \$65,000 in cost sharing funds. The federal government provided \$45,983 to West Pottawattamie County.

There is none left.

FIFTY MILES of terraces were added in this area this year, Cox said. Last year it was 90 miles. The problem was money.

Farmers will not build terraces on their own, for the most part, when they have the promise of federal matching funds on the horizon.

The Soil Conservation Service here will not be able to help build terraces this fall,

Cox said, because cost-sharing money will not be available until Jan. 1.

"AT THE RATE we're going it'll take us 100 years to get it done," Cox said.

He said society will have to make soil conservation a major priority in order for the pace to quicken.

Watersheds in this section of the county are being established at a slow, methodical pace.

Cox said it took from 1958 to 1976 for the Indian Creek watershed north of Council Bluffs to be completed. It's establishment ended a century-old problem of flooding in the area.

The Ryan-Henschel Watershed has also been completed.

FIVE STRUCTURES remain to be built in the North Pigeon Watershed which stretches from Crescent to Beebeetown. A dozen have already been completed.

Three structures have been finished in the Simon Run Watershed. However, Cox said more terraces will have to be completed before more work can be done on the project.

The same is true for the Twin Ponies project southeast of Council Bluffs.

Cox said no structures will be built in watersheds in West Pottawattamie County next year since more terraces will have to be built.

Under the federally-funded program, farmers are persuaded to donate land on which structures for stopping erosion are built.

WHEN STRUCTURES are completed, they serve as dams to keep runoff from continuing down through the system. The land is taken out of production. Farm lakes are spread through a watershed. Though government funds are used to form them, they remain private, to be used as the landowner sees fit.

Erosion may be seen as a farm problem. Efforts to curb it seen as a benefit to individual farmers.

But Cox said it is a societal problem. By stopping erosion, the society benefits, economically and environmentally.

"It's a good public expenditure," he said.

Walnut vo-ag department shines

Special to The Nonpareil

WALNUT — The two teams the Walnut Community School Vocational Agriculture Department sent to a soil judging contest took first and second places.

The contest, held at Arrowhead Park near Neola, attracted 25 teams from southwest Iowa, including Greenfield, Atlantic, Tri-Center, Harlan, Shelby, Hamburg, Shenandoah, and Corning.

Walnut's first-place team consisted of Jeff Stuart, Mike Woltmann and Greg Mertz. The second-place team was comprised of Brad Suhr, Curtis Osborn and Lelyn Holtz.

Individual honors were won by Stuart, Mertz, Woltmann and Osborn, who placed first through fourth respectively, among the 75 contestants.

The event was sponsored by the West Pottawattamie Soil Conservation Service. Vo-Ag instructor Neale Smith accompanied the contestants.

To Be Opened Aug. 27

Watershed Bids Are Called

WESTON — Bid invitations will be mailed Tuesday for four watershed structures and a waterway in the Ryan - Henschal Watershed. Bids will be open Aug. 27, said Cal Cox, district conservationist for the Soil Conservation Service.

The four full-flow structures will be located north of Weston for the purpose of stabilizing grade in ditches. The structures and the waterway should be completed this fall, Cox said. A road is slated for construction next year, he added, which will complete the watershed.

About 80 farms are in the watershed which now includes 150 miles of level and basin terraces, four miles of diversion terraces and 170 acres of waterway development.

Plans include 18 grade stabilization structures and accompanying waterways. Currently 12 have been installed by the county and farmers.

Gene Payne Calls Rodeo At Sidney



Directors Of The Ryan-Henschal Watershed Project . . . Eldon Ravelin and M. J. Ryan are presented with a sign by Roy Floerschinger, president of the Underwood Commercial Club.

Watershed bids awarded

MISSOURI VALLEY — The apparent low bidder on a construction contract for seven North Pigeon Watershed dams south of here is Ed Miller and Sons Construction Co. of Omaha.

The company submitted a bid of \$842,841. Bids were opened at the Council Bluffs office of the West Pottawattamie Soil Conservation District, which administers the North Pigeon project for the U. S. Soil Conservation Service.

Four North Pigeon Watershed dams were constructed in 1971 by O. E. Moody Construction of Hamburg.

Watershed meet set for May 7

Specialists from three federal and one state agency will hold an environmental review of the proposed Twin Ponies Watershed project at a meeting May 7.

Representatives from the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, the U.S. Department of Agriculture's Soil Conservation Service and the Iowa Conservation Commission will attend.

The proposed project includes some 21,000 acres southeast of Council Bluffs. The meeting begins at 1 p.m. in room B-14 of the Federal Building, Sixth Street and Broadway.